

Developments in Marketing Science:  
Proceedings of the Academy of Marketing Science

Elizabeth J. Wilson  
William C. Black *Editors*

# Proceedings of the 1994 Academy of Marketing Science (AMS) Annual Conference



 Springer

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# Proceedings of the 1994 Academy of Marketing Science (AMS) Annual Conference



**Nashville, Tennessee**

**June 1 - 4, 1994**

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Reprint from Original edition

Developments in Marketing Science, Volume XVII edited by Elizabeth J. Wilson and William C. Black  
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ISBN 978-3-319-13161-0 ISBN 978-3-319-13162-7 (eBook)  
DOI 10.1007/978-3-319-13162-7  
Springer Cham Heidelberg New York Dordrecht London

Library of Congress Control Number: 2014956718

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## Acknowledgements

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## Foreword

This 17th volume of *Developments in Marketing Science* contains articles and abstracts of presentations made at the 1994 Annual Conference of the Academy of Marketing Science, held June 1-4, 1994, at the Loews Vanderbilt Plaza Hotel, Nashville, Tennessee.

Thanks are due to many people who helped produce this proceedings. Of course, there would be no proceedings without the contributors; we thank each author that submitted either a manuscript or abstract. Authors are to be commended for revising their papers according to reviewers comments and according to our 5-page limit. This was no easy task for some, based on phone conversations we had! As well as the authors, we thank the track chairs and reviewers that participated in judging competitive papers. Members of each group are identified on subsequent pages of this volume.

We thank Ms. Cindy Capello, word processing specialist in the Marketing Department at Louisiana State University, for her work in being an instrumental member of our "team." From the beginning of the process, her knowledge, skill, and insight was a valuable resource. Her development of the *Guidelines to Authors* allowed each paper to be prepared by its author for submission to the proceedings on a disk (no more oversized sheets in this high tech world!), and allowed Cindy to further format all papers for a uniform appearance throughout Volume 17. Her diligent and thorough work for the better part of two months made this Volume possible.

Dealing with the large volume of mail associated with organizing an AMS conference was made easier with the assistance of Mary Jennings of the Marketing Department and her cadre of student workers. We are grateful for all their help. In addition, we thank the officers and governing board of the Academy of Marketing Science for making the conference possible. We appreciate the support of the AMS staff at the University of Miami for their assistance in producing this volume.

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## Preface

The Academy of Marketing Science was founded in 1971, held its first Annual Conference in 1977, and has grown and prospered ever since. The relevancy of the Academy's mission and activities to our chosen target market of the marketing professorate has been a key factor in attracting the discipline's best and brightest from all over the world.

The Revised Articles of Association of the Academy, approved by the Board of Governors in the spring of 1984, and by the general membership in the fall of that year, define the mission of the Academy as follows:

1. Provide leadership in exploring the normative boundaries of marketing, while simultaneously seeking new ways of bringing theory and practice into practicable conjunction.
2. Further the science of marketing throughout the world by promoting the conduct of research and the dissemination of research results.
3. Provide a forum for the study and improvement of marketing as an economic, ethical, and social and political force and process.
4. Furnish, as appropriate and available, material and other resources for the solution of marketing problems which confront particular firms and industries, on the one hand, and society at large on the other.
5. Provide publishing media and facilities for Fellows of the Academy and reviewer assistance on Fellows' scholarly activities.
6. Sponsor one or more annual conferences to enable the Fellows of the Academy to present research results; to learn by listening to other presentations and through interaction with other Fellows and guests; to avail themselves of the placement process; to conduct discussions with book editors; and to exchange other relevant information.
7. Assist Fellows in the better utilization of their professional marketing talents through redirection, reassignment, and relocation.
8. Provide educator Fellows with insights and such resources as may be available to aid them in the development of improved teaching methods, materials, devices, and directions.
9. Seek means for establishing student scholarships and professional university chairs in the field of marketing.
10. Offer Fellow of the Academy status to business and institutional executives and organizations.
11. Modify the Academy's purpose and direction as the influence of time and appropriate constructive forces may dictate.



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*Illinois State University*

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*Louisiana State University*



# Table of Contents

## Enhancing Learning in Advanced Marketing Courses

|                                                                                                                            |    |
|----------------------------------------------------------------------------------------------------------------------------|----|
| <i>An Empirical Assessment of Educator and Practitioner Perceptions:<br/>Implications for Marketing Research Education</i> |    |
| Ralph W. Giacobbe, Southern Illinois University at Edwardsville                                                            |    |
| Madhav N. Segal, Southern Illinois University at Edwardsville . . . . .                                                    | 1  |
| <i>An Experiential Approach: A Mentoring Program to<br/>Promote Hands-On Experience in Professional Selling</i>            |    |
| Mary Ann Lederhaus, John B. Stetson University                                                                             |    |
| Sally A. Coltrin, University of North Florida . . . . .                                                                    | 6  |
| <i>The Use of Journaling As a Learning Technique<br/>In Consumer Behavior Education</i>                                    |    |
| Nancy T. Frontczak, Metropolitan State College of Denver . . . . .                                                         | 7  |
| <i>Teaching Promotion and Integrated Marketing Communications</i>                                                          |    |
| Kerri Acheson, Moorhead State University                                                                                   |    |
| Clyde Vollmers, Moorhead State University . . . . .                                                                        | 13 |

## Current Issues in Salesforce Management

|                                                                                                                |    |
|----------------------------------------------------------------------------------------------------------------|----|
| <i>Perceptions of the Contribution of Femininity to the<br/>Performance of Traditionally Masculine Selling</i> |    |
| Lucette B. Comer, Florida International University . . . . .                                                   | 14 |
| <i>The Impact of Family Constellation Upon<br/>Salesperson-Customer Interaction: A Theoretical Approach</i>    |    |
| David R. Rink, Indiana University Kokomo . . . . .                                                             | 15 |
| <i>Sales Ethics: Are There Gender-Related Differences<br/>In the Ranks of Potential Salespeople?</i>           |    |
| Thomas H. Stevenson, University of North Carolina at Charlotte                                                 |    |
| Charles D. Bodkin, University of North Carolina at Charlotte . . . . .                                         | 20 |

## Consumer Information Processing: Display, Visual Stimuli, and Perceived Quality

|                                                                                   |    |
|-----------------------------------------------------------------------------------|----|
| <i>Characteristic Effects of Display Difficulty<br/>On Information Processing</i> |    |
| Eloise Coupey, University of Illinois at Urbana-Champaign . . . . .               | 25 |
| <i>Effects of Involvement, Visual Stimuli, and<br/>Verbal Imagery on Recall</i>   |    |
| John R. Henley, University of Alabama                                             |    |
| Lawrence B. Crowson, University of Alabama . . . . .                              | 31 |

|                                                                                                                                  |    |
|----------------------------------------------------------------------------------------------------------------------------------|----|
| <i>Perceived Quality for a Symbolic Product:<br/>An Empirical Investigation</i>                                                  |    |
| Linda S. Showers, Illinois State University                                                                                      |    |
| Frederic F. Brunel, University of Washington                                                                                     |    |
| Vince E. Showers, Bradley University . . . . .                                                                                   | 32 |
| <br><b>Methods and Logic of Theory Building and Assessment</b>                                                                   |    |
| <i>Theory Building From the Quantitative<br/>Analysis of Qualitative Information</i>                                             |    |
| William J. McDonald, Hofstra University . . . . .                                                                                | 40 |
| <br><i>Fuzzy Logic and Marketing: A Simple Introduction</i>                                                                      |    |
| James Beckman, University of Redlands and California State University . . . . .                                                  | 47 |
| <br><i>Logical Empiricism: Assumptions, Language, Activities,<br/>Products, Goal, and Theory Creation</i>                        |    |
| G. Tomas M. Hult, University of Memphis . . . . .                                                                                | 51 |
| <br><b>Marketing/Promoting Services: What Is It That Customers Seek?</b>                                                         |    |
| <i>Marketing Educational Services to Returning Adults</i>                                                                        |    |
| Oswald A.J. Mascarenhas, University of Detroit Mercy                                                                             |    |
| Mary A. Higby, University of Detroit Mercy                                                                                       |    |
| Ann Gale, University of Detroit Mercy . . . . .                                                                                  | 56 |
| <br><i>Why Do Spectators Go to the Game?</i>                                                                                     |    |
| Kirk L. Wakefield, University of Mississippi                                                                                     |    |
| George W. Stone, Ole Miss . . . . .                                                                                              | 61 |
| <br><i>Relationship Marketing and Services Advertising</i>                                                                       |    |
| Donna J. Hill, Bradley University                                                                                                |    |
| Nimish Gandhi, Bradley University . . . . .                                                                                      | 62 |
| <br><b>Retail Shopping Behavior and Other Issues</b>                                                                             |    |
| <i>Evaluating Shrinkage in the Retail Environment:<br/>Examples of Current Prescriptive Control Methods By Leading Retailers</i> |    |
| Robert H. Luke, Southwest Missouri State University . . . . .                                                                    | 68 |
| <br><i>The Influence of Consumer Religiosity and<br/>Religious Affiliation on Sunday Shopping</i>                                |    |
| Judy A. Siguaw, University of North Carolina at Wilmington . . . . .                                                             | 72 |
| <br><i>The Effects of Perceived Time Pressure on<br/>Relative Shopping Time and Expenditures</i>                                 |    |
| J. Duncan Herrington, Radford University                                                                                         |    |
| Louis M. Capella, Mississippi State University . . . . .                                                                         | 73 |
| <br><i>Atmospheric Research: Past, Present, and Future Directions</i>                                                            |    |
| L.W. Turley, Western Kentucky University                                                                                         |    |
| Ronald E. Milliman, Western Kentucky University . . . . .                                                                        | 79 |

## **Comparative Marketing Studies**

### *A Comparison of TV Ads Aimed At the General U.S. Market, The U.S. Hispanic Market, and the Mexican Market*

H. Stanley Hart, Old Dominion University

Scott D. Roberts, Old Dominion University

Francisco Valderrey, Tecnológico de Monterrey - México . . . . . 88

### *Comparing Consumer Preferences in Two European Countries:*

#### *A Partially Individualized Conjoint Analysis*

Adamantios Diamantopoulos, University of Wales-Swansea

Bodo B. Schlegelmilch, Thunderbird - AGSIM

Johann P. DuPreez, University of Wales-Swansea . . . . . 92

### *Ethical Perceptions and Customer-Orientation of Taiwanese Automobile Sales Companies*

Earl D. Honeycutt, Jr., Old Dominion University

John B. Ford, Old Dominion University

C.P. Rao, Old Dominion University . . . . . 93

### *Consumer Preferences of Fast-Food Outlets in the U.S. and Canada: A Comparative Study*

Ali Kara, Pennsylvania State University at York

Erdener Kaynak, Pennsylvania State University at Harrisburg

Orsay Kucukemiroglu, Pennsylvania State University at York . . . . . 97

## **Issues in Marketing Planning and Strategy**

### *An Evaluation of Alternative Segmentation Strategies in Standard Industrial Products Markets*

C.P. Rao, Old Dominion University

Zhengyuan Wang, University of Arkansas

A. Ben Oumlil, University of Dayton . . . . . 102

### *The Marketing Planning and Implementation*

#### *Interface: Some Empirical Evidence*

Hemant C. Sashittal, St. John Fisher College

Clint Tankersley, Syracuse University . . . . . 103

### *Economics, Intuition and Budgets:*

#### *The Theory of Constraints Alternative*

Paul Merenski, University of Dayton . . . . . 109

## **Issues in Curriculum, Student Choice and Perception**

### *Strategic and Tactical Curriculum Assessment:*

#### *A Case Study in Development*

Charles R. Duke, Clemson University

Richard M. Reese, Clemson University . . . . . 118



|                                                                                                                                                             |     |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|
| <i>Awareness, Timing and Reasons for Choosing Marketing<br/>As a College Major</i>                                                                          |     |
| Charlene Pleger Bebko, Indiana University of Pennsylvania . . . . .                                                                                         | 123 |
| <i>An Exploratory Investigation of Students' Perceptions of<br/>Psychological Climate and Trust in Higher Education</i>                                     |     |
| Lou E. Pelton, University of North Texas                                                                                                                    |     |
| David Strutton, University of Southwestern Louisiana                                                                                                        |     |
| Sheb L. True, Loyola-Marymount University                                                                                                                   |     |
| R. Keith Tudor, Kennesaw State College . . . . .                                                                                                            | 128 |
| <b>Exploring Models and Methods in Consumer Behavior</b>                                                                                                    |     |
| <i>Finding TIMES in Household Technologies</i>                                                                                                              |     |
| Paul M. Lane, Western Michigan University                                                                                                                   |     |
| Carol Felker Kaufman, Rutgers University . . . . .                                                                                                          | 129 |
| <i>Toward an Explanatory Model of Retail Crowding</i>                                                                                                       |     |
| J. Duncan Herrington, Radford University                                                                                                                    |     |
| Louis M. Capella, Mississippi State University . . . . .                                                                                                    | 133 |
| <i>Market Segmentation By Contextual Meaning:<br/>An Application to the Market Supporting Physical Activity</i>                                             |     |
| Jason Grey-Lee, University of Utah                                                                                                                          |     |
| Kent L. Granzin, University of Utah                                                                                                                         |     |
| Janeen E. Olsen, Louisiana State University . . . . .                                                                                                       | 139 |
| <i>The Business of Entertainment Marketing Research:<br/>Predicting Composite Audience Profiles and<br/>Consumer Perceptions of Major Recording Artists</i> |     |
| Larry E. Wacholtz, Belmont University . . . . .                                                                                                             | 144 |
| <b>Competitive Challenges in Global Markets</b>                                                                                                             |     |
| <i>Perceptions of Ethical Problems Among Advertising<br/>Executives in Chile: A Replication of a U.S. Study</i>                                             |     |
| Mladen Koljatic, Pontificia Universidad Católica de Chile                                                                                                   |     |
| Francisca Rosene, Pontificia Universidad Católica de Chile . . . . .                                                                                        | 148 |
| <i>Manufacturing Executives' Views of Competitive<br/>Challenges That Affect International Trade</i>                                                        |     |
| Kimball P. Marshall, Jackson State University . . . . .                                                                                                     | 149 |
| <i>Competition in Executive Education:<br/>A Global Marketing Perspective</i>                                                                               |     |
| Michael R. Czinkota, Georgetown University                                                                                                                  |     |
| Johny K. Johansson, Georgetown University . . . . .                                                                                                         | 154 |

## **Improving Quality and Relationships in Service Delivery**

### *Business Performance Outcomes of Service Quality:*

#### *A Conceptual Model*

Dayle Thorpe, University of Tennessee - Knoxville . . . . . 159

### *Kaisen: Development and Managerial Use of A Multiple-Item Measure of Employee Perceptions of Quality Improvement Efforts*

Dennis L. Pedrick, University of Memphis

Emin Babakus, University of Memphis

Wayne C. Shannon, Dobbs International Services, Inc.

William R. Bowers, Dobbs International Services, Inc. . . . . 164

### *An Exploratory Analysis of the Role of Gender in the Development of Buyer-Seller Relationships*

David Bejou, University of North Carolina at Wilmington

Adrian Palmer, De Montfort University - UK . . . . . 165

## **Global Issues in Promotion Management**

### *Effects of Acculturation on Immigrant Consumers' Perceptions of Advertisements*

Durriya Z. Khairullah, Saint Bonaventure University

Frances Gaither Tucker, Syracuse University

Clint B. Tankersley, Syracuse University . . . . . 166

### *The Role of Public Relations Managers in Consumer Products Companies in Great Britain, Ireland, France and Greece: A Comparison Study of Demographic Individual Characteristics and Job-Related Attitudes*

George G. Panigyrakis, Athens University of Economics and Business - Greece 167

### *The Role of Women in Television Advertising in Great Britain: A Content Analysis*

Jeff Bickel, Miami University

Ronald K. Taylor, Shippensburg University . . . . . 174

## **Retailing Environment and Strategy**

### *Another Look at Retail Diversification: Some Evidence and Some Contradictions*

William W. Keep, University of Kentucky

Stanley C. Hollander, Michigan State University

Roger J. Calantone, Michigan State University . . . . . 175

### *Generalization and Application of a Reduced Indsales Scale To the Retail Environment: A Structural Equation Modeling Approach*

James Reardon, University of North Texas

Sanjay S. Mehta, University of North Texas . . . . . 176

### *Effects of Realistic Job Information and Interviewer Affect on Retail Employee Turnover*

B. Ramaseshan, Curtin University of Technology - Perth (Western Australia) . . 181

***Total Quality Management and the Sales Organization:***

***Integrating the New Business Philosophies***

- Stephen J. Miller, Oklahoma State University - Co-Chair  
Greg W. Marshall, University of South Florida - Co-Chair  
Jerry R. Goolsby, University of South Florida  
Raymond W. LaForge, University of Louisville  
Michael R. Williams, Illinois State University . . . . . 182

**Customer Retention in Service Industries**

***Differentiating HMOs Through Customer Retention Strategy:***

***An Empirical Examination***

- Naveen Donthu, Georgia State University  
R. Edward Sibley, Georgia State University . . . . . 183

***Customer Satisfaction and Customer Retention:***

***An Examination of Small Businesses and Their Banks in the UK***

- Christine T. Ennew, University of Nottingham - UK  
Martin R. Binks, University of Nottingham - UK  
Brian Chiplin, University of Nottingham - UK . . . . . 188

***Restaurant Service Failure and Recovery Analysis***

- K. Douglas Hoffman, University of North Carolina at Wilmington  
Scott W. Kelley, University of Kentucky at Lexington  
Holly M. Rotalsky, University of North Carolina at Wilmington . . . . . 193

**Applied Research Methods**

***Automobile Recall Data Treatment:***

***Trend Analysis and Purchase Impact***

- Timothy L. Wilson, Clarion University of Pennsylvania  
Albert L. Page, University of Illinois - Chicago . . . . . 194

***Turnover Intentions of Marketing Managers***

- James B. DeConinck, University of Dayton  
C. Dean Stilwell, University of Dayton . . . . . 201

***Using a Marketing Approach to Improve Congregational Worship***

- Sanjay S. Mehta, University of North Texas  
Gurinderjit B. Mehta, University of North Texas . . . . . 205

***Third Party Endorsement Via Evaluative Certification As a Method***

***For Increasing Mail Survey Response Rates: A Field Experiment***

- Eldon Little, Indiana University Southeast  
Raymond Hubbard, Drake University . . . . . 206

**Teaching Marketing Management Using the Theory of Competitive Rationality (Part 1)**

***Where, When, and How to Teach Integrated Marketing Communications***

- Kerri Acheson, Moorhead State University . . . . . 207

## **New Challenges in Industrial Marketing**

### *Comparing Forecasting Behavior Between Industrial-Product Firms and Consumer-Product Firms*

- Paul A. Herbig, Jacksonville State University  
John Milewicz, Jacksonville State University  
Ken Day, Jacksonville State University  
James E. Golden, Jacksonville State University . . . . . 208

### *Personal Stake As a Causal Determinant of Influence Tactics in Industrial Buying*

- Daniel H. McQuiston, Butler University  
Ronald D. Anderson, Indiana University . . . . . 212

### *The Influence of Business Concentration on Movement Away From Declining Markets: A Study of Ohio-Based Defense Firms*

- J.B. Arbaugh, Ohio State University  
Michael H. Morris, University of the Pacific  
Donald L. Sexton, Ohio State University . . . . . 216

## **Methodological Issues and Advances in International Marketing**

### *The NATID Scale: Construction of a National Identity Scale for Application in International Marketing Research*

- Bruce Keillor, University of Memphis  
G. Tomas M. Hult, University of Memphis  
Emin Babakus, University of Memphis . . . . . 220

### *Country-of-Origin and Technology Level Effects on Product Preferences: A Pilot Response Surface Investigation*

- Michael S. Minor, University of Texas - Pan American  
DeWayne Hodges, University of Texas - Pan American . . . . . 225

### *A Methodological Assessment of Empirical Studies in Cross-Cultural Advertising*

- Insik Jeong, University of South Carolina - Columbia  
Saeed Samiee, University of Tulsa . . . . . 230

## **Marketing Channels: Structural and Behavioral Dimensions**

### *Social Control in Marketing Channel Systems*

- Bruce Wrenn, Indiana University South Bend . . . . . 232

### *The Activation Process of Theory of Power: An Integrative Framework for Power in the Channels Setting*

- Kenneth W. H. Day, Jacksonville State University . . . . . 238

### *Incentives and Welfare Implications of Recycling In the Reverse Channel of Distribution*

- Khalid M. Dubas, New Jersey Institute of Technology  
Alok Chakrabarti, New Jersey Institute of Technology . . . . . 243

## **Building Student Competencies**

### *Enhancing Team Building and Presentation Skills:*

#### *A Team Case Presentation Approach*

Fred Hebein, California State University - San Bernardino . . . . . 244

### *Recruitment Without Responsibility:*

#### *The Problem of Sojourner Adaptation*

Mary L. Joyce, Emerson College

Kathleen A. Krentler, San Diego State University

David R. Lambert, Suffolk University . . . . . 245

## **The Influence of Peripheral Cues in Advertising**

### *Grammatical Errors in Ad Copy:*

#### *Effect on Attitude Towards the Ad and Recall*

Helen Wesley, Petro-Canada - Calgary, Alberta

Ellen R. Foxman, Bentley College . . . . . 250

### *Popular Music in Advertising: Does Popular Music*

#### *In Advertising Influence Consumption Choices?*

Kenneth D. Bahn, James Madison University . . . . . 255

### *A Preliminary Study of the Promotional Implications*

#### *Associated With the Influence of Divergent Probability and*

#### *Consequence Levels on Risky Consumer Decisions*

David Strutton, University of Southwestern Louisiana

Lou E. Pelton, University of North Texas

Mohammed Y. A. Rawwas, University of Northern Iowa . . . . . 261

## **Individual Differences and Consumer Attitudes and Behaviors**

### *The Moderating Effects of Belief Strength, Involvement, and*

### *Self-Monitoring on the Role of Anticipatory Self-Evaluation in*

### *Consumer Purchase Motivation*

Robert Underwood, Virginia Polytechnic Institute and State University

M. Joseph Sirgy, Virginia Polytechnic Institute and State University

J.S. Johar, California State University - San Bernardino . . . . . 267

### *Hispanics at the High Arts:*

#### *In Search of a Culturally Relevant Attendance Experience*

Lucette B. Comer, Florida International University

J.A.F. Nicholls, Florida International University . . . . . 272

## **Methods of Analysis of Marketing Data**

### *A Hybrid Conjoint Model With Iterative Response Scale Adjustment*

Paul E. Green, University of Pennsylvania

Abba M. Krieger, University of Pennsylvania . . . . . 273

|                                                                                |     |
|--------------------------------------------------------------------------------|-----|
| <i>Number of Factors Obtained By Chance: A Simulation Study</i>                |     |
| James H. Barnes, University of Mississippi                                     |     |
| Audesh K. Paswan, University of South Dakota                                   |     |
| Faye W. Gilbert, University of Mississippi . . . . .                           | 280 |
| <i>Developing and Calibrating Logit Models for Large, Imbalanced Data:</i>     |     |
| <i>An Energy Conservation Program Targeting Application</i>                    |     |
| M. Sami Khawaja, Barakat & Chamberlin, Inc. - Portland, Oregon                 |     |
| Jamshid C. Hosseini, Marquette University                                      |     |
| Scott R. Robinson, PacifiCorp - Portland, Oregon . . . . .                     | 286 |
| <b>Euromarketing: Research in Progress and Present Issues</b>                  |     |
| <i>In the Shoes of the Customer</i>                                            |     |
| Jack van Minden, Psycom/Henley Management College - The Netherlands . . .      | 291 |
| <i>Barriers to Entry Into Central and Eastern Europe</i>                       |     |
| Ted Postma, Henley Management College - The Netherlands . . . . .              | 292 |
| <b>Country-of-Origin Studies</b>                                               |     |
| <i>An Extended Conceptualization of Country-of-Origin Effects</i>              |     |
| Swinder Janda, University of Arkansas                                          |     |
| C.P. Rao, Old Dominion University . . . . .                                    | 293 |
| <i>The Effect of Brand Prestige and Country of Manufacture on</i>              |     |
| <i>Consumers' Brand Evaluation and Purchase Intention</i>                      |     |
| Dong-Jin Lee, Virginia Polytechnic Institute and State University              |     |
| M. Joseph Sirgy, Virginia Polytechnic Institute and State University . . . . . | 294 |
| <i>A Study of Country-of-Origin Effects in Africa</i>                          |     |
| Sadrudin A. Ahmed, University of Ottawa                                        |     |
| Alain d'Astous, University of Sherbrooke                                       |     |
| Cyrille d'Alméida, University of Sherbrooke . . . . .                          | 299 |
| <b>Product and Price Management</b>                                            |     |
| <i>Post-Sale Field Service: Options, Costs, and A New Option</i>               |     |
| Robert S. Owen, Bloomsburg University                                          |     |
| Md. Abdul Mobin, Bloomsburg University                                         |     |
| John R. Grabner, Ohio State University . . . . .                               | 305 |
| <i>Americans' Choice of Domestic Over Foreign Products:</i>                    |     |
| <i>A Replication and Extension</i>                                             |     |
| Kent L. Granzin, University of Utah                                            |     |
| Janeen E. Olsen, Louisiana State University . . . . .                          | 310 |
| <i>An Exploration of Environmental Influences on</i>                           |     |
| <i>Pricing Behaviour in South African Firms</i>                                |     |
| Michael H. Morris, University of the Pacific - USA                             |     |
| Derek Bromfield, University of Cape Town - South Africa . . . . .              | 312 |

## **Conceptual Marketing Issues and Some Applications in Europe**

### *Excellence, Market Orientation, Some Aspects of Service Quality and Their Effect on Performance in Service Companies: Propositions and a Model*

Albert Caruana, University of Malta

Leyland F. Pitt, Henley Management College - UK . . . . . 317

### *A Managerial Approach to Mission Analysis*

Nigel F. Piercy, Texas Christian University

Neil A. Morgan, Cardiff Business School - UK . . . . . 319

### *The Internal Status and Organisation of Marketing in Hungary and Poland*

David Shipley, Trinity College Dublin - Ireland

Graham Hooley, Aston Business School - United Kingdom

Jozsef Beracs, Budapest University of Economic Sciences - Hungary

Krsysztof Fonfara, Wielkopolska Business School - Poland

Krisztina Kolos, Budapest University of Economic Sciences - Hungary

Tony Cox, Aston Business School - United Kingdom . . . . . 320

## **Developing and Assessing Marketing Measures**

### *The Perceived Role of Ethics and*

### *Social Responsibility: A Scale Development*

Anusorn Singhapakdi, Old Dominion University

Kumar C. Rallapalli, University of Mississippi

Kenneth L. Kraft, University of Tampa

Scott J. Vitell, University of Mississippi . . . . . 328

### *Development of a Multi-Attribute Scale for*

### *Assessing Marketing Effectiveness*

Douglas W. Vorhies, University of Wisconsin Oshkosh

C.P. Rao, Old Dominion University . . . . . 329

### *Research Design Effects on the Reliability of Rating Scales in*

### *Marketing: An Update on Churchill and Peter*

Elizabeth J. Wilson, Louisiana State University . . . . . 330

## **Green Marketing and Other External Influences to Marketing Strategy**

### *Eco-Marketing: A Waste Management Perspective*

Donald A. Fuller, University of Central Florida

Daniel D. Butler, Auburn University . . . . . 331

### *Linking Environmentalism and Marketing Strategy:*

### *A Key to Sustainable Success*

Héctor R. Lozada, Binghamton University (SUNY)

Alma Mintu-Wimsatt, East Texas State University . . . . . 332

|                                                                                     |     |
|-------------------------------------------------------------------------------------|-----|
| <i>Do External Factors Play an Antecedent Role To Market Orientation?</i>           |     |
| Susan Dobscha, Virginia Polytechnic Institute and State University                  |     |
| John T. Mentzer, Virginia Polytechnic Institute and State University                |     |
| James E. Littlefield, Virginia Polytechnic Institute and State University . . . . . | 333 |

## **Issues in International Retailing**

|                                                                                  |     |
|----------------------------------------------------------------------------------|-----|
| <i>Ethnicity as a Promotional Tool: Retailing to Emerging Consumer Societies</i> |     |
| Barry J. Babin, University of Southern Mississippi                               |     |
| William R. Darden, Louisiana State University . . . . .                          | 338 |

## **NAFTA: Issues and Problems II**

|                                                                                                                                       |     |
|---------------------------------------------------------------------------------------------------------------------------------------|-----|
| <i>An Examination of Influences on Support for Free Trade and NAFTA By Managers in the Environmental Services/Technology Industry</i> |     |
| Elizabeth V. Reed, Louisiana State University                                                                                         |     |
| Janeen E. Olsen, Louisiana State University                                                                                           |     |
| Kent L. Granzin, University of Utah . . . . .                                                                                         | 343 |

|                                                                                       |     |
|---------------------------------------------------------------------------------------|-----|
| <i>The Emergence of Global Trading Blocks:<br/>Will It Lead to Global Free Trade?</i> |     |
| A. Ben Oumlil, University of Dayton . . . . .                                         | 348 |

|                                                                                |     |
|--------------------------------------------------------------------------------|-----|
| <i>North American Free Trade Agreement (NAFTA):<br/>A Canadian Perspective</i> |     |
| A. Tansu Barker, Brock University . . . . .                                    | 349 |

## **Methods and Systems for Efficiency and Effectiveness in Marketing**

|                                                         |     |
|---------------------------------------------------------|-----|
| <i>30 Years of Perceived Risk: Some Research Issues</i> |     |
| V.-W. Mitchell, UMIST - Manchester, England . . . . .   | 350 |

|                                                                      |     |
|----------------------------------------------------------------------|-----|
| <i>Solving Optimisation Problems in Marketing Using Tabu Search</i>  |     |
| Nelson Stephens, University of Wales College of Cardiff - UK         |     |
| Steve Hurley, University of Wales College of Cardiff - UK            |     |
| Luiz Moutinho, University of Wales College of Cardiff - UK . . . . . | 356 |

|                                                                                 |     |
|---------------------------------------------------------------------------------|-----|
| <i>Hotel Reservation Systems - An Evaluation of Practices in British Hotels</i> |     |
| Arthur Meidan, University of Sheffield - UK                                     |     |
| Hui-Lin Chiu, University of Sheffield - UK . . . . .                            | 357 |

## **Perspectives in the Evaluation of Marketing Performance**

|                                                                                      |     |
|--------------------------------------------------------------------------------------|-----|
| <i>Information Intensity and Marketing Effectiveness:<br/>A Conceptual Framework</i> |     |
| Stephen W. Miller, Saint Louis University                                            |     |
| Paul D. Boughton, Saint Louis University                                             |     |
| Ping Yu, Saint Louis University . . . . .                                            | 362 |

|                                                                                                                      |     |
|----------------------------------------------------------------------------------------------------------------------|-----|
| <i>The Impact of Environmental Heterogeneity on the Creation and Implementation of Distribution Channel Strategy</i> |     |
| Darin W. White, University of Alabama . . . . .                                                                      | 367 |



|                                                                                                                                    |     |
|------------------------------------------------------------------------------------------------------------------------------------|-----|
| <i>A Cross Functional Analysis of Performance Measures in Business Research</i>                                                    |     |
| Carol C. Bienstock, Virginia Polytechnic Institute and State University . . . . .                                                  | 371 |
| <b>Gender, Ethics, and Advertising Effectiveness</b>                                                                               |     |
| <i>The Ethical Judgment of an Advertisement and Its Effects</i>                                                                    |     |
| Penny M. Simpson, Northwestern State University                                                                                    |     |
| Gene Brown, Louisiana Tech University                                                                                              |     |
| Robert E. Widing II, Bond University - Queensland, Australia . . . . .                                                             | 376 |
| <i>Gender and Ad Effectiveness: The Role of Social Risk</i>                                                                        |     |
| Kevin Celuch, Illinois State University                                                                                            |     |
| Rodger Singley, Illinois State University                                                                                          |     |
| Mark Slama, Illinois State University . . . . .                                                                                    | 377 |
| <i>Women's Role Stereotypes in Magazine Ads: A 25-Year Perspective - From Suburbia Through the Feminine Mystique to Liberation</i> |     |
| Jay D. Lindquist, Western Michigan University                                                                                      |     |
| Kimberly A. Steinfeldt, Western Michigan University                                                                                |     |
| Joseph J. Belonax, Jr., Western Michigan University . . . . .                                                                      | 382 |
| <b>Nature of Services: Strategic Implications</b>                                                                                  |     |
| <i>A Systematic Classification of Services to Gain Strategic Marketing Insights</i>                                                |     |
| Myra Mabel Perez-Rivera, Florida International University . . . . .                                                                | 386 |
| <i>The Effects of Service Attributes on Perceived Risk Components: A Structural Model</i>                                          |     |
| Carol W. DeMoranville, Virginia Polytechnic Institute and State University . . . .                                                 | 390 |
| <i>Bias in Consumer Expectations of Services: Implications for Customer Satisfaction Measures</i>                                  |     |
| Kenneth E. Clow, Pittsburg State University                                                                                        |     |
| Srivatsa Seshadri, University of Nebraska . . . . .                                                                                | 391 |
| <b>Marketing Channels Relationships</b>                                                                                            |     |
| <i>The Quality Lens Model: A Marketing Tool for Improving Channel Relationships</i>                                                |     |
| Dennis N. Bristow, Oklahoma State University                                                                                       |     |
| John C. Mowen, Oklahoma State University                                                                                           |     |
| Ruth H. Krieger, Oklahoma State University . . . . .                                                                               | 397 |
| <i>Relational Exchanges: A Theoretical Model of Negotiation</i>                                                                    |     |
| Christine Page, University of Colorado . . . . .                                                                                   | 402 |
| <i>Analytical Models of Competition and Coordination in Marketing Channels: A Qualitative Review</i>                               |     |
| Kevin L. Webb, University of North Carolina at Chapel Hill . . . . .                                                               | 408 |

## Marketing Education Potpourri

- Total Quality Management: A New Paradigm  
That Should Enhance Marketing Education*  
Kevin M. Elliott, Mankato State University . . . . . 413

- Perceptions of Marketing Faculty Publication  
Outlets: Preliminary Findings*  
JoAnne S. Hopper, Western Carolina University  
Thomas J. Lipscomb, Southeastern Louisiana University  
Michael Cudd, Southeastern Louisiana University . . . . . 417

## Consumer Choice Processes and Consumership

- Changing Values and Lifestyle to  
Accommodate a Symbiotic View of Consumer Choice*  
Sandra Beckett, University of Texas at Arlington  
Toni McNutt, University of Texas at Arlington  
Kenneth D. Bahn, James Madison University . . . . . 418

- The Effect of Consumership on Financial Satisfaction:  
Are "Good" Consumers More Satisfied?*  
Ronald D. Anderson, Indiana University  
Donald H. Granbois, Indiana University  
Dennis L. Rosen, Kansas University . . . . . 427

- Effects of Product Involvement and Choice Context on  
The Use of Attitude-Based and Attribute-Based Decision Strategies*  
Gregory A. Rich, Indiana University . . . . . 432

- Toward a Taxonomy of Varied Purchasing Behavior*  
Young I. Yang, Florida Atlantic University  
Allen E. Smith, Florida Atlantic University . . . . . 437

## Issues in Salesforce Motivation and Control

- Sales Control Systems: An Exploratory Study*  
Frank G. Bingham, Jr., Bryant College  
Charles J. Quigley, Jr., Bryant College . . . . . 442

- The Influence of Salesperson Motivation and  
Role Perception: An Empirical Analysis*  
Keun S. Lee, Hofstra University . . . . . 446

- Replication of Sujan's Attributional Analysis of  
Salespeople's Motivation to Work Smarter Versus Harder*  
Harry A. Harmon, Central Missouri State University  
Gene Brown, Louisiana Tech University  
Kevin L. Hammond, University of Tennessee - Martin . . . . . 452

- Index of Authors* . . . . . 453

# **AN EMPIRICAL ASSESSMENT OF EDUCATOR AND PRACTITIONER PERCEPTIONS: IMPLICATIONS FOR MARKETING RESEARCH EDUCATION**

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## **ABSTRACT**

Thirty marketing-related topic areas were evaluated by marketing research (MR) educators and practitioners to determine their perceived importance in preparing graduate students interested in MR careers. The results

within and between groups suggested that several traditional subject areas are perceived as most important from the perspectives of both educators and practitioners; other topics were rated lower than expected.

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## **INTRODUCTION**

In 1980 the first Master of Marketing Research program was launched to "satisfy the needs of business for skilled marketing research (MR) professionals" (Reynolds 1981). Since that time, a few other universities have developed similar programs, and there are at least three reasons that suggest a proliferation of such programs in the future. First, the demand for qualified MR professionals has grown over the past 20 years and continues to grow (Honomichl 1990; Hupp and Redington 1990). Recent projections show no expected dampening of this growth trend (White 1989; Occupational Outlook Handbook 1992-93, p 109). Second, professional MR certification has emerged as a "hot" topic within the past few years, suggesting that a sizeable market may soon emerge that needs to acquire training/education to maintain/augment its professional status (Stern and Crawford 1986). Together with the AMA, MR practitioners and educators have begun groundwork for certification (Schlossberg 1991; Steinberg 1992). Third, an apparent oversupply of entry level management generalists may cause many graduate schools to "gravitate toward market niches, producing specialists to meet specific customers' needs" (Linden et. al. 1992).

A major concern for administrators of existing specialized MR programs and for the initiators of new programs is curriculum design. Current administrators of successful programs need to monitor program effectiveness within a very dynamic environment. New program developers

must design an educational offering that will have the best chance of successfully meeting the needs of the practitioner marketplace, the student, and the educational institution. In either case, information from practitioners, students (past, current, or prospective) and faculty can be quite valuable in the design or re-design of such curricula.

Most studies that have addressed needs satisfaction in the context of graduate MR education approach the issue exclusively from the practitioner's perspective (c.f., Bellenger et.al. 1990; John and Needel 1989; Reynolds 1981; Segal 1987. There are two exceptions, both of which obtained practitioner and educator input: Miller (1967) where the focus was quite broad (The study examined students' need to take courses in categories such as Business, Mathematics, and Sociology) and Anderson (1982) where the scope was limited (respondents prioritized "text book chapter topics" regarding data collection and analysis techniques).

The existing literature provides little guidance to assess the differences of perspectives of any of the three stakeholders (i.e., students, practitioners, and educators) regarding subject matter or topic importance. Certainly, one could perform static comparisons of the results from separate studies, however, observed differences could be an artifact of design variation, topic selection, temporal factors, and so forth. The objective of this study was to address some of these shortcomings. Specifically, the purposes were to . . .

- Determine the importance of such course topics in satisfying the needs of graduate students who desire a career in MR *from the perspective of MR educators*.
- Determine the importance of such course topics in satisfying the needs of graduate students who desire a career in MR *from the perspective of MR practitioners*.
- Compare perceived importance of the course topics ratings between *practitioners and educators*.
- Interpret the findings and assess implications regarding curriculum design.

## THE STUDY

Two separate random samples were chosen. A sample of 467 marketing faculty and chairpersons with a self-reported interest in MR was chosen from a sampling frame developed by coordinating a list of AACSB accredited business schools and American Marketing Association directory. The AMA directory provided information on marketing faculty, their titles, their university affiliation, and their specific area of interest (e.g. marketing research). A sample of 1,000 MR practitioners was also randomly selected. The latter sample consisted of 500 MR professionals who were employed by a marketing research supplier and 500 MR professionals employed by firms with in-house MR departments. The number of usable questionnaires was 191 and 297 from the educator and practitioner samples, respectively.

## RESULTS

### Sample Characteristics

Seventy-eight percent of the educator-respondents represented public institutions, 22% private schools. On average, respondents had over 12 years of teaching and 11 years of practical marketing research experience. A typical respondent had also published over four marketing research-related articles in the past five years. A large majority (71%) of respondents indicated marketing research as their primary area of teaching interest, thus assuring that they were knowledgeable about the field of inquiry. The sample of practitioners was equally represented by in-house staff professionals (52%) and external supplier or consulting professionals (49%). Fifty seven percent were male, 43% female. Educationally, twelve percent of the respondents held a Ph.D. degree,

57% a masters degree, 30% possessed only a four-year degree. Of those who had earned a masters degree 68% indicated it to be an MBA. Respondents averaged 14.1 years of experience in the MR industry. Forty eight percent of the sample reported being in top/upper management, 34%, middle management, 15% research analysts and lower management.

### Importance of Marketing Research Topics - Educators

Five topics received average importance ratings of above 6.0 (7-point scale): Marketing Research (6.6); MR Design and Data Collection (6.4); MR Project (6.4); MR Data Analysis and Reporting (6.2); and Multivariate Data Analysis (6.1). Thus, it appears that from an academic perspective, any graduate program in MR should, at the bare minimum, cover these five areas. Six other topics received mean importance ratings of 5.5 and greater: Measurement of Marketing Effectiveness (5.7); Practical Experience/Internship (5.7); Sample Survey (5.6); Field Research (5.6); Experimental Designs (5.5); and Analysis of Commercial Databases (5.5). It is clear from these evaluations that marketing academicians view these topics as important for MR graduate students. Given the nature of these topics and their mean importance ratings one can infer that these subject areas should be required of students pursuing an advanced degree to prepare them for a professional career in MR. It is interesting to note that academicians attach such high importance to practical experience/internship programs. Furthermore, the high importance given to the subject area of Commercial Databases is indicative of its practical usefulness to the research industry and its recent discussion in academic literature. Topics which received moderate importance ratings between 5.0 and 5.4 might be considered as electives for marketing research students in an advanced degree program. These topics include: Consumer Behavior (5.4); Creative Problem Solving (5.4); Categorical Data Analysis (5.4); Non-parametric Statistics (5.4); Strategic Marketing (5.2); Quantitative Forecasting Models (5.1); and Syndicated Research (5.0).

### Importance of Marketing Research Topics - Practitioners

Seven topics received average importance ratings of approximately 6.0 and greater: MR

Data Analysis and Reporting (6.5); MR Design and Data Collection (6.4); Marketing Research (6.4); MR Project (6.4); Practical Experience/ Internship (6.3); Creative Problem Solving (6.0); and Consumer Behavior (6.0). From practitioners' perspective, these topics constitute the most essential part of a graduate program in making research. Four topics received mean importance ratings of 5.5 and greater: Measurement of Marketing Effectiveness (5.7); Multivariate Data Analysis (5.7); Sample Surveys (5.7); and Strategic Marketing (5.5). From the practitioners' perspective these subject areas are considered critical for graduate education in marketing research. This may be an indication of how role of marketing research in the 1990s has become an integral part of strategic planning and marketing management for many business organizations. Topics that received moderate importance ratings (between 5.0 and 5.4) from practitioners were: Product Management (5.4); Experimental Design (5.3); Categorical Data Analysis (5.3); Field Research (5.1); Quantitative Forecasting Models (5.0); Syndicated Research (5.0); Commercial Database Analysis (5.0); and Computer-Information Systems (5.0). As with the educators' group, many traditional marketing topics (e.g., promotion, distribution) did not receive high ratings from practitioners. A clear exception was product management.

### **Comparative Analysis**

There was much similarity between educators' and practitioners' importance ratings for most marketing research topics. However, some individual items reflected marked differences. Practitioners attach far greater importance to the following MR topics: Product Management, Practical Experience/Internship, Consumer Behavior, and Creative Problem Solving. These differences are not totally unexpected. Professional researchers recognize that a great deal of MR is conducted when developing new offerings and managing existing ones. Similarly, practitioners would be expected to assign a greater importance to internship/practical experience aspects of a graduate program in MR. However, that such topics as consumer behavior and creative problem solving received relatively higher ratings from practitioners is a bit surprising. Perhaps, this reflects a prevailing background deficiency in these areas among entry level MR professionals. On the other hand, compared to practitioners, MR educators attach far greater importance

to the MR topics of: Commercial Database Analysis, Nonparametric Statistics, and Field Research. This may indicate areas where educators feel their students are ill-prepared, while practitioners envision such areas as being developed "on the job" through experience. Overall, however, there appears to be a far more consistency in the evaluative ratings of MR educators and practitioners than there are differences.

### **DISCUSSION AND IMPLICATIONS**

Both practitioners and educators placed emphasis on the importance of all seven "traditional" MR topics. Five of these topic areas are among those typically addressed in most MR courses/textbooks (i.e., MR, MR Design and Data Collection, MR Data Analysis and Reporting, Sample Surveys, and Field Research). That three of these areas received very high mean ratings from both groups suggests that graduate MR programs include each as a topic for a separate required course. For example, the program could require a three course sequence beginning with a general MR course, followed by an in-depth research design/data collection procedures course, and then by a course on analysis and communicating results. However, an academic treatment of MR subject matter should be practice driven. The remain two topics, "practical experience/internship" and "marketing project" received high ratings from both groups, suggesting that such curricula should ensure that students get strong exposure to active learning and other practical applications of their developing skills. There are several alternatives to consider to achieve such an objective. Students can be required to design research proposals with "real world" participants in several or all required MR related courses. For at least one proposal, an entire study including data collection, analysis and presentation must be performed. This paper may be incorporated as a type of "graduate program thesis" for which the student assembles a committee of faculty members and/or practitioners to oversee the project. In addition, practical experience through internship should be strongly considered as part of such curricula. Collectively, this will ensure that students are exposed to the core body of MR knowledge and enhance their ability to apply it.

Clearly MR students must be exposed to the core body of knowledge in the field, but such

knowledge must be linked to the managerial/strategic aspects of marketing in general. This view was reflected by both groups of respondents as revealed within the set of 'general marketing' topics. While four of these topic areas obtained modest mean ratings (i.e., distribution, promotion, international, and marketing policies) four others were rated much more strongly, especially by practitioners (i.e., Consumer Behavior, Strategic Marketing, Creative Problem Solving, Product Management). As such, consideration should be given to requiring a graduate Consumer Behavior course in a graduate MR program, since the topic is not likely covered effectively in other courses. A similar argument can be made for a course in Strategic Marketing and in Creative Problem Solving, although for the latter, such a topic might be effectively integrated into other courses by performing case analysis, actual marketing audits, or marketing plan projects. Interestingly, "Product Management" was perceived as being more essential by practitioners than by educators and may be explained by the fact that much commercial MR is product/service driven. And, while this linkage is obvious to the practitioner, it may be less so to academicians. Accordingly, a separate course in Product/Service Management (including exposure to the development of new offerings) should be seriously considered as an integral part of any graduate MR curriculum. Relatively low mean ratings associated with distribution, promotion, international marketing, and marketing policies, signal that such topics may only be useful for students who do not have undergraduate marketing backgrounds, unless they have interest in a specific application area for their MR degree. Further, in light of the growing trends toward business globalization coupled with increases in international MR activities, greater emphasis on "international" type courses might be justified in the very near future.

Both practitioners and educators expressed the importance of topics that foster the development of an MR student's "quantitative and statistical" skills. Areas deemed most important by both groups were: Multivariate Data Analysis, Experimental Design, Categorical Data Analysis, Quantitative Forecasting Models, and Non-Parametric Statistics. Given the specifically high ratings for the Multivariate Analysis topic, such a course should be offered as a core course in graduate MR curriculum, while the others warrant strong consideration as areas that should

be covered and integrated into the curriculum. Finally, of the remaining topics, three received relatively strong mean ratings (Syndicated Research, Commercial Databases Analysis, and Measuring Marketing Effectiveness). Two key trends within the MR industry offer validity to this finding. First, there has been a growing widespread usage of secondary data by marketing researchers, spurred primarily by advances in computer and telecommunication technology. Second, one of the fastest growing applications of research services has been in the area of customer satisfaction and quality measurement. Two potential recommendations surface. One, respondents may be suggesting that "in general" graduate MR students should be exposed to contemporary "specialized applied" areas. If this is the case, it seems to argue for a type of seminar series or a type of "special topics" course consisting of, perhaps, three selected topics that may vary from one course offering to the next. Two, respondents may be specifically suggesting that the three topics, Measuring Market Effectiveness, Commercial Data Bases, and Syndicated Research be formally addressed in the program. If so, it seems conceivable that a single course could be developed to focus on the latter two topics and may be broadened to include other secondary data sources. The topic on measuring market effectiveness seems quite narrow to consider as separate course offering and may need to be addressed as a major component of some other course.

## REFERENCES

- Akaah, Ishmael P. and Edward A. Riodan (1989), "Judgments of Marketing Professionals About Ethical Issues in Marketing Research: A Replication and Extension," Journal of Marketing Research, (February), 112-120.
- Anderson, Patricia M. (1982), "Comparing Texts and Faculty/Practitioner Priorities for MBA Marketing Research Course Content," Journal of Marketing Education, (Spring), 35-41.
- Bellenger, Danny N., R. D. Howell, J. Wilcox, and B. A. Greenberg (1990), "The Diffusion of Marketing Research Techniques in Business: Implications for Marketing Education," Journal of Marketing Education, (Spring), 24-29.

Honomichl, Jack (1990), "Professional Staff Needs Detailed," Advertising Age, (October 26), S-34.

Hupp, Gregg and Mike Redington (1990), "Marketing Research: What Degree?" Marketing News, (Collegiate Edition), 24 (February 19), 24.

John, Joby and Mark Needel (1989), "Entry-Level Marketing Research Recruits: What Do Recruiters Need?" Journal of Marketing Education, (Spring), 68-73.

Linden, Dana Wechsler, J. Brennan, and R. Lane (1992), "Another Boom Ends," Forbes, (January 20), 76-80.

Occupational Outlook Handbook 1992-93 ed., (1992), U.S. Department of Labor, Bureau of Labor Statistics, Bulletin 2400 (May) 1992.

Reynolds, Fred D. (1981), "How to Make a Marketing Research Professional," Journal of Advertising Research, 21 (April), 19-21.

Schlossberg, Howard (1991), "Researchers Want to Improve Image, But Disagree on How," Marketing News, Vol. 25.23, (November, 11), 14.

Segal, Madhav N. (1987), "Graduate Program of Instruction in Marketing Research: A Need Assessment," Journal of Marketing Education, (Spring), 3-11.

Stern, Bruce L. and Terry Crawford (1986) "It's Time to Consider Certification of Researchers," Marketing News, Vol. 20.18, (September, 12), 20-21.

Steinberg, Margery S. (1992), "The Professionalization of Marketing," Marketing Research, (June) p. 56.

White, Martha (1989) "To Market, to Market: Job Opportunities in Marketing," Occupational Outlook Quarterly, U.S. Department of Labor, Bureau of Labor Statistics (Spring) p 3.

# **AN EXPERIENTIAL APPROACH: A MENTORING PROGRAM TO PROMOTE HANDS-ON EXPERIENCE IN PROFESSIONAL SELLING**

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## **ABSTRACT**

A concern of business executives is the lack of practical experience among today's college graduates. A number of pedagogical approaches such as role play exercises, discussion of current events, and in-class sales presentations introduce realism into the classroom, but these are only simulations of real-world experiences. The Sales Mentorship approach summarized below however, provides actual real-world experience. This is especially useful at institutions where many undergraduates have not had business experience.

The primary objective of the Sales Mentorship Program in a professional selling course is to involve students in the day-to-day operations of sales-related businesses. Ancillary objectives include: fostering on-the-job skills and competency, enhancing understanding of professional selling, encouraging individual development, and promoting a career outlet.

The implementation plan initially entails obtaining administrative commitment for the program. The following then must be done for the students: (1) introduce the program, (2) provide letters of introduction, (3) demonstrate the advantages of the program, (4) present

salespersons' job descriptions, (5) identify the potential on-the-job problems and liabilities which might be encountered, (6) explain the time commitment the program entails, (7) discuss the written and oral requirements of the program, and (8) describe the closing appreciation plan for the program.

Problems may arise during initial program implementation under certain circumstances. They might include the inability of students to find a mentor on their own, the lack of time to fully develop the program at schools on a short semester or quarter system, and varying levels of student involvement and interest in the program. Possible solutions can be developed in subsequent program offerings. Since these and other problems may arise, a sound assessment plan is critical to program effectiveness. Assessment involves careful monitoring and quick action. Ongoing evaluations, continuous scanning throughout the term such as a phone call to a mentor or discussing an activity report with students, and gathering positive and negative points about the program from mentors and students are helpful to ensure program success and fine-tune future program offerings.



# THE USE OF JOURNALING AS A LEARNING TECHNIQUE IN CONSUMER BEHAVIOR EDUCATION

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## ABSTRACT

This study empirically analyzed Kolb's experiential learning process through the technique of journaling. Undergraduate students enrolled in consumer behavior were asked to respond to four areas of inquiry for a purchase experience

according to Kolb's model. Results indicate that the technique of journaling is an effective method of learning for consumer behavior students. This new experiential learning technique may also be useful for other marketing courses.

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## INTRODUCTION

The trend in marketing education in the 1990s continues to move from a traditional, theoretical approach to a practical, experiential approach (Gaidis and Andrews 1990). Marketing professors use a variety of "hand-on" approaches to assist student learning, such as computer simulations, client-centered group projects, and even field trips to corporations. The overall effectiveness of and student preference for these learning techniques varies (Karns 1993). One predominant reason for offering students a variety of learning devices relates to the number of students with different learning styles in any classroom (Ronchetto, Buckles, Barath and Perry 1992). Most marketing educators are well aware that not all students learn best from the traditional lecture approach. Therefore, new experiential learning devices are important for faculty consideration.

This study considers an alternative learning technique, "journaling," for use in consumer behavior courses. Although the technique would be appropriate for other marketing classes, it is especially relevant for consumer behavior. The type of journaling used in this empirical study is based on Kolb's experiential learning cycle (Kolb 1984).

Specifically this paper presents:

- 1) A summary of relevant literature on the effectiveness of various marketing education learning techniques.
- 2) A summary of Kolb's model of learning.
- 3) Methodology of an empirical study on the use of journaling in consumer behavior.
- 4) Results and direction for future research efforts.

## Effectiveness of Marketing Education Learning Techniques

Discussions of experiential learning techniques abound in the marketing literature. Numerous studies have considered the effectiveness of group projects (Daly and Worrell 1993; Williams, Beard and Rymer 1991; Haas and Wotruba 1990; Malhotra, Tashchian and Jain 1989; Ramocki 1987; Dommeyer 1986; de los Santos and Jensen 1985; and Goretsky 1984). The general consensus from these studies is that students prefer group projects over the individual format and that group projects significantly benefit the student learning process.

Other educational learning techniques have also been analyzed. Henke, Locander, Mentzer, and Nastas (1988) considered the benefits of guest speakers, field trips to corporations, video tapes, films, and cases. Karns (1989) found that marketing students preferred guest speakers, class discussions, simulations, and client projects, while the least preferred learning activity was multiple choice tests.

These studies of the effectiveness of alternative approaches to learning and student preference for various learning activities have not considered the actual process of learning involved in each technique. Journaling allows students to go through a process which aids in their learning.

## Kolb's Model of Learning

David A. Kolb developed an experiential learning model which suggests that learning occurs through a process called an experiential

learning cycle (Kolb 1984; Kolb, Rubin, and McIntyre 1984). This process begins with a "concrete experience," which leads to "reflective observation" about the experience. "Abstract conceptualization" follows where concepts, theories, models or strategies are applied to the experience. "Active experimentation" completes the learning cycle as the concepts are put into practice generating new learning goals. According to Kolb, to be an effective learner, a person needs to be skilled in all four aspects of the process.

To learn from any experience a person must be able to describe the experience, then step back and reflect on it, analyze it according to theory, and finally use that knowledge in new situations (Coglan 1993). Most individuals need practice in this process of learning from their own experiences. The process of active

learning described here can be applied to most consumer purchase experiences. This study will consider the use of Kolb's learning process as it applies to consumer behavior experiences.

## Methodology

This paper presents a preliminary analysis of the use of Kolb's experiential learning cycle for the study of consumer behavior. The technique of "journaling" is used as a means to obtain data on Kolb's learning process. Information in [Table 1](#) suggests that most experiential learning techniques used by marketing educators do not allow students to experience all four stages of learning, each important for effective learning. Journaling as described by Coglan (1993) allows completion of all four stages of the cycle.

**TABLE 1**  
**Experiential Learning Techniques As They Relate to Kolb's Four Stages of Learning**

| Experiential Learning Techniques | Concrete Experience | Reflection | Conceptualization | Experimentation |
|----------------------------------|---------------------|------------|-------------------|-----------------|
| Case Studies                     | X                   |            | X                 | X               |
| Field Trips                      | X                   |            |                   |                 |
| Client Group Projects            |                     |            | X                 | X               |
| Guest Speakers                   | X                   |            |                   |                 |
| Simulation/ Computer Games       | X                   |            | X                 | X               |
| Traditional Lecture              | X                   |            | X                 |                 |
| Essay Exams                      | X                   |            | X                 |                 |
| Video Tapes/ Films               | X                   |            |                   |                 |
| Class Discussions                | X                   | X          | X                 |                 |
| Journaling                       | X                   | X          | X                 | X               |

Students in two undergraduate consumer behavior courses were asked to utilize the journaling procedure for one recent purchase experience. In particular, they were asked to respond to the four areas of inquiry corresponding to Kolb's stages in their journal. (See Appendix A for specific assignment.) Each wrote about their purchase experience, including (1) Concrete experience, (2) Reflection, (3) Conceptualization, and (4) Experimentation. Since this is an exploratory study to determine the feasibility of this learning technique, a convenience sample of 45 undergraduate

marketing students in two consumer behavior courses was obtained. Also, since this empirical study is not quantitative in nature, a content analysis of the findings is presented according to Berelson's (1952) method.

## Results

Overall, the students found this assignment to be a thoroughly enjoyable learning experience. Students learned both about their own personal consumer behavior process and gained further understanding of the theories and

concepts taught in a consumer behavior course. In presenting the findings, summary results from each of the four stages of Kolb's experiential learning cycle will be discussed.

**Concrete Experience:** In providing an objective description of a particular purchase or consumer behavior event, students in the sample selected a variety of purchase experiences. The predominant purchase, selected by 40% of the sample, was a car. 18% of the students selected some type of clothing. Other items selected for their purchase experience were products such as skis, mountain bike, television, computer, furniture, vacation, aquarium, and roller blades. Of course, these items are fairly typical purchases for college students. Students were able to describe the purchase in great detail for Part 1, yet many found it difficult to disregard any emotion attached to the purchase. The purchase in this part was meant

to be discussed only as a "news item." Though this section provided the main "information" from the experiential learning activity, it was the least intriguing in terms of analysis since it was just an objective description of a purchase.

**Reflection:** In Part 2 of the activity, students were asked to discuss their feelings, reactions, and emotions related to this particular purchase. Here the students described a wide range of emotions, both positive and negative. A list of the emotions is summarized in [Table 2](#). These feelings mentioned in [Table 2](#) represent the actual words and language used by the students. Interestingly, the negative emotions often outweighed the positive. The students were easily able to put their feelings into words. Perhaps the students enjoyed expressing their feelings, since as [Table 1](#) pointed out, rarely do students have an opportunity in experiential learning to express their emotions.

**TABLE 2**  
**Reflection: Feelings and Emotions Stimulated by the Purchase**

| Negative                |               | Positive   |              |
|-------------------------|---------------|------------|--------------|
| anxious                 | depressed     | enthusiasm | pleasure     |
| intimidation            | nervous       | relief     | satisfaction |
| obsessed                | uncertain     | good       | excitement   |
| stressed                | irrational    | feeling    | proud        |
| frustration             | disgust       | confident  |              |
| anticipation            | fear          | happy      |              |
| anger                   | irresponsible |            |              |
| "feeling like an idiot" |               |            |              |

**Conceptualization:** The students were next asked to relate their purchase to relevant concepts and theories learned in the consumer behavior course, which they were enrolled in. Their journals included many comments related to the fact that they did not realize the importance of all the variables and concepts discussed in consumer behavior before taking the class. As they thought about their own purchase experience, they discussed the relevance of many consumer behavior variables. A listing

of variables mentioned by students is presented in [Table 3](#). All students discussed at least five of the concepts listed in [Table 3](#). They were able to apply the concepts studied in consumer behavior in a very thoughtful, insightful manner. Analysis of data related to this stage of Kolb's learning process was the most rewarding for the author, since it was apparent that students had clearly learned and understood the concepts from class, even surprising themselves by all they knew in this phase of journaling.

**TABLE 3**  
**Consumer Behavior Variables Mentioned in Conceptualization**

|                  |                           |                      |
|------------------|---------------------------|----------------------|
| Family           | Personal Influence        | Cognitive Dissonance |
| Culture          | Lifestyle                 | Evoked Set           |
| Values           | Involvement               | Attitudes            |
| Reference Groups | Learning                  | Motives              |
| Social Class     | Demographics              | Self-Concept         |
| Opinion Leaders  | Stages of Decision Making |                      |

**Experimentation:** In the final phase of Kolb's experiential learning cycle, students were asked to explain what they had learned from this experience and how they could apply this knowledge to future purchase experiences. Overall, the students learned a great deal from this journaling procedure that they could apply to future purchases. Many students seemed surprised by how much they had learned. They had definite opinions on what they would do the next time in a new purchase situation.

### Conclusions/Direction for Future Research

In conclusion, the process of journaling forced the students to analyze a purchase in depth and, in the end, they all agreed that this learning experience was both worthwhile and fun. Both students and marketing educators can benefit from this experiential learning technique. Based on the students' journals and comments in class following the assignment, several points were evident:

- Students learned from the experience.
- The journaling experience made them think about a purchase and all that is involved, which they had not realized that much influenced their purchase experiences before the course.
- The students really had fun and honestly liked the assignment.
- This experiential learning technique made abstract theories, concepts, and research studies "come alive" for the students. They saw the relevance of such concepts.
- This experience gave students an opportunity to express their feelings and emotions, which are often ignored or suppressed in a traditional academic setting. (See [Table 1](#) for evidence of this.)

Benefits of this experiential exercise are also offered to marketing faculty:

- This activity allows a faculty member to learn more about individual students than would typically occur in a regular consumer behavior course.
- Educators learn about students' interests, thinking style, ability to write, motivations, and even deep concerns.
- Reading these journals is an enjoyable, positive experience, compared to reading more mundane literature review papers, consumer research plans, or other non-emotional papers.

- This technique offers a rewarding method of knowing that students have actually understood the course material.
- As evidenced by [Table 1](#), faculty rarely ask students to express feelings and emotions, so given this opportunity, the students are grateful. Reading the varied emotional responses is often quite touching.

If one goal of a consumer behavior course is to have the students really understand the concepts and be able to apply their knowledge, then journaling through the use of Kolb's experiential learning cycle is a useful technique. This exercise stimulates learning and allows the student to have fun doing it.

Future research using journaling could be expanded to marketing courses other than consumer behavior. For example, advertising and promotional strategy courses would be appropriate for such a learning exercise. Students could be asked to describe an advertisement or campaign, explain their feelings toward it, relate advertising principles and concepts such as positioning to the ad, and finally discuss what they learned about analyzing the ad or campaign. Similar experiential exercises could be assigned in other courses as well, such as services marketing or international marketing. A research study could be designed to consider the relationship between Kolb's experiential learning process and level of involvement in the purchase. Again, journaling could be the vehicle used to study this relationship.

In conclusion, journaling is an experiential technique which allows the student to experience the full range of learning according to Kolb's experiential learning cycle. Few other assignments in marketing allow the student to do this. Students need to understand all four aspects of the learning process.

### REFERENCES

- Berelson, Bernard. Content Analysis in Communication Research. Glencoe, Illinois: Free Press, 1952.
- Coglan, David (1993), "Learning From Emotions Through Journaling," Journal of Management Education 17, 1: 90-94.
- Daly, Joseph P. and Dan L. Worrell (1993), "Structuring Group Projects As Miniature Organizations," Journal of Management Education 17, 2 (May): 236-242.

- de los Santos, Gilberto and Thomas D. Jensen (1985), "Client-Sponsored Projects: Bridging the Gap Between Theory and Practice," Journal of Marketing Education 7 (Summer): 45-50.
- Dommeyer, Curt J. (1986), "A Comparison of the Individual Proposal and the Team Project in the Marketing Research Course," Journal of Marketing Education 8 (Spring): 30-38.
- Gaidis, William C. and J. Craig Andrews (1990), "Management of Experiential Learning Projects in Marketing Coursework," Journal of Marketing Education 12 (Summer): 49-60.
- Goretsky, Edward M. (1984), "Class Projects as a Form of Instruction," Journal of Marketing Education 6 (Fall): 33-37.
- Haas, Robert W., and Thomas R. Wotruba (1990), "The Project Approach to Teaching the Capstone Marketing Course," Journal of Marketing Education 12 (Summer): 37-48.
- Henke, Jr., John W., William B. Locander, John T. Mentzer, and George Nastas III (1988), "Teaching Techniques for the New Marketing Instructor: Bringing the Business World Into the Classroom," Journal of Marketing Education 10 (Spring): 1-10.
- Karns, Gary L. (1989), "Perceptions of Classroom Learning Activities Among Advanced Marketing Students," Western Marketing Educators' Association 1989 Conference Proceedings.
- Karns, Gary L. (1993), "Marketing Student Perceptions of Learning Activities: Structure, Preferences and Effectiveness," Journal of Marketing Education 15 (Spring): 3-10.
- Kolb, David A., I. Rubin, and J. McIntyre. Organizational Psychology: An Experiential Approach to Organizational Behavior. Englewood Cliffs, NJ: Prentice Hall, 1984.
- Kolb, David A. Experiential Learning. Englewood Cliffs, NJ: Prentice Hall, 1984.
- Malhotra, Naresh K., Armen Tashchian and Arun K. Jain (1989), "The Project Method: An Integrated Teaching Tool in Marketing Research." Journal of Marketing Education 11 (2): 32-40.
- Ramocki, Stephen P. (1987), "Measured Effectiveness of Client-Sponsored Consulting Projects in the Marketing Research Course," Journal of Marketing Education 9 (Spring): 24-30.
- Ronchetto, John R., Tom A. Buckles, Robert M. Barath, and James Perry (1992), "Multimedia Delivery Systems: A Bridge Between Teaching Methods and Learning Styles," Journal of Marketing Education (Spring): 12-21.
- Williams, David L., John D. Beard, and Jone Rymer (1991), "Team Projects: Achieving Their Full Potential," Journal of Marketing Education 13 (Summer): 45-53.

**APPENDIX A**  
**Consumer Behavior Assignment**

Please respond to the following 4 areas with specific, detailed (not general) comments. Paper must be typed, double spaced, well-organized, and well-written. (Maximum page limitation is 4 pages.)

1. Concrete Experience: Describe a concrete event in your purchasing behavior (behavior as a consumer). The purchase experience must have occurred within the past year.
  - What happened.
  - What you did.
  - What process led up to the event (or purchase).
  - Consequences of what happened.(This section should be written like a "news item," neutral, without evaluation.)
2. Reflection: Describe your feelings, reactions, questions, observations, and judgments with regard to the experience.
  - Explain your behaviors, reactions, emotions.
  - What triggered these feelings.
  - How you view this behavior.
3. Conceptualization: Relate relevant concepts, theories, or information from this class to the above experience.
  - Formulate tentative hypothesis, conclusions, generalizations based on class information or assignments from the text.
4. Experimentation: Suggest action implications for applying, testing or extending what you have reflected on.
  - Include behavioral goals for similar future situations.
  - Do not include "general resolutions," but specific learning goals resulting from your experience, reflection, and conceptualization above.

# TEACHING PROMOTION AND INTEGRATED MARKETING COMMUNICATIONS

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## ABSTRACT

A study of faculty in both marketing and communications departments who teach a basic, first course in advertising was conducted to assess approaches being taken to this important subject. Both groups responded equally, affording an opportunity to compare opinions within the same university, at times. AACSB accredited marketing programs and AEJMC communications programs comprised the initial lists.

As anticipated, the number of marketing majors in the responding programs was considerably greater than the number of advertising majors in communications/journalism/mass communications departments. Over 90% of marketing programs had more than 100 majors, while only 25% of advertising programs numbered over 100 majors. This, however, may be a function of the sample.

Respondents were directed to answer questions about the first course taught in their department in which advertising was the primary topic. The marketing departments were more likely to call their first course in which advertising was covered *Promotion* (60%), while communications departments referred to it as *Principles of Advertising* or something very similar (100%). In communications, this particular course was required for Advertising majors 90% of the time. In marketing, the first course in advertising was only required by 55% of programs.

The most interesting findings were about the content of these courses taught in two different departments by faculty with backgrounds in marketing or communications. They equally emphasized advertising ethics (100%), advertising careers (95%), creativity (65%), sales promotion (60%), point of purchase (58%), research (55%), and art/advertising production (52%). There was very low interest and coverage of sports marketing and interactive media.

Marketing placed more emphasis on integrated marketing communications (80% to 50% respectively, marketing to communications), corporate advertising, media, events, sales management, personal selling, and package design). Communications' advertising courses place more emphasis on direct marketing (90% to 60%), copywriting and interactive technology (35% over 15%).

Respondents were also asked to define integrated marketing communications and state their opinion on its importance. Definitions were quite consistent, but considerable disagreement exists about its importance. To our surprise, there was no more disagreement between the fields than there was within each field. Some saw it as very important, others saw it as a fad, while many (especially marketers) said that it was nothing new at all.

Recommendations for course development as well as future research are offered.



# PERCEPTIONS OF THE CONTRIBUTION OF FEMININITY TO THE PERFORMANCE OF TRADITIONALLY MASCULINE SELLING

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## ABSTRACT

The many women currently entering traditionally male sales forces have reportedly brought many strengths that impact upon their performance of the job (e.g., listening ability, service orientation, understanding others). These strengths are consistent with the female gender role which involves nurturing others and caring for the psycho-social needs of families. Feminine qualities such as sympathy, sensitivity to the needs of others, eagerness to soothe hurt feelings, and gentleness, are likely to have desirable behavioral correlates on the sales job. This paper, therefore, focuses on the feminine qualities of saleswomen. It examines the way sales managers believe they relate to effective performance in traditionally masculine types of selling.

Two research questions are addressed: (1) do sales managers perceive that saleswomen's feminine traits contribute to their selling effectiveness? and (2) do managers in two contrasting types of jobs differ in their perceptions of the relationship between femininity and selling effectiveness? The sales jobs of interest, direct sales and trade sales, represent two ends of a performance continuum. In direct sales, salespersons typically interact with many customers on a relatively short-term basis and have minimal contact with them after the sale. In trade sales, salespersons deal with fewer customers, strive for repeat business, and foster long-term customer relationships.

A convenience sample of 29 sales managers in trade sales and 26 sales managers in direct sales described 66 and 62 subordinate saleswomen, respectively, on a short form of the Bem Sex Role Inventory (BSRI), also rating their performance. An analysis was performed separately for each selling situation with the managers' ratings of quality of performance of five functions of selling and non-selling activities as

dependent variables. The analysis was conducted: (1) with femininity alone as a predictor, and (2) including masculinity as a covariate. Analysis by multivariate regression suggested that the managers perceived a relationship between femininity and selling effectiveness in both type jobs. Managers in direct sales, however, saw a relationship only when masculinity was present. Overall, the managers in trade selling perceived a greater contribution by femininity to effectiveness than did their counterparts in direct selling.

There was a dramatic contrast in the way the two sets of managers perceived feminine traits to relate to selling performance. Managers in direct selling saw a relationship only when femininity was accompanied by masculinity and associated it exclusively with "stimulating desire" (giving sales presentations). Managers in trade selling associated feminine qualities with the functions of "contacting," "probing for needs," and "retaining." This was true whether or not masculine traits were present. There was agreement between managers about the way femininity related to performance of only two activities: "closing" and "non-selling activities." Managers did not associate femininity with closing in either situation, but did see a relationship between femininity and the performance of non-selling activities.

While feminine qualities did not always relate to quality of performance, they also never emerged as negatives, suggesting that saleswomen need not suppress them in situations where they don't directly contribute to effective performance (e.g., when closing). On the basis of these findings, it appears that the sensitive, nurturing tendencies that are ingrained in saleswomen by their sex-role socialization, will be perceived by their managers as assets, not as liabilities on the job.



# THE IMPACT OF FAMILY CONSTELLATION UPON SALESPERSON-CUSTOMER INTERACTION: A THEORETICAL APPLICATION

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## ABSTRACT

This paper presents a composite variable (called family constellation) and a model from the social sciences that when extended will iso-

late the determinants of successful salesperson-customer interactions, thereby permitting more sophisticated analysis of this dyad.

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## INTRODUCTION

Salesperson selection studies have traditionally concentrated on forecasting performance in terms of the salesperson's personality attributes (Scheibelhot and Albaum 1973), socioeconomic and demographic characteristics (Tanofsky, Shepps, and O'Neil 1969), and interest and ability factors (Cotham 1970). Several scholars have noted such research fails "to take explicit account of who the (salesperson) interacts with in attempting to make a sale" (Cotham 1968; Davis and Silk 1971). Acknowledgement of this theoretical gap has propelled recent researchers in the direction of investigating the salesperson-customer interaction (Capon, Holbrook, and Hulbert 1977).

Although several conceptualizations of salesperson-customer association exist (Bearden 1969), all share three commonalities that differentiate them from the traditional approach. First, sales outcomes--positive or negative--are a function of the dyadic interaction of a customer and salesperson, not of the individual qualities of either alone (Evans 1963). Second, the nature and attributes of the interaction as well as the roles portrayed by salesperson and customer are examined. Finally, more complex variables and relations are employed to discriminate the determinants of successful interactions (Engel, Kollat, and Blackwell 1973).

Several marketing researchers have empirically examined transaction characteristics, interaction determinants of transaction outcomes, salesperson-customer interaction, and salesperson-customer similarity. Engel et al (1973) and Capon et al (1977) review research conducted in these areas. This paper will concentrate on the latter two areas--interaction and

similarity between salesperson and customer. Of the intervening variables that influence customer and salesperson characteristics, family will be the locus of attention.

The purpose of this paper is to present another complex variable that will be useful in isolating the determinants of successful salesperson-customer relationships. This composite variable will also permit more sophisticated investigation of the roles portrayed by the salesperson and customer in a dyadic exchange. The variable is labelled family constellation, and it incorporates family size, birth order, sex, and spacing of children. Instead of concentrating on either similarity or dissimilarity of personality characteristics between dyad participants, a model that incorporates both viewpoints will be presented.

## SELECTED LITERATURE REVIEW

The phenomenon of interpersonal (or dyadic) relations has been extensively investigated by social scientists at both the theoretical and empirical levels. A question commonly addressed by these researchers concerns what determines a successful association between individuals. One school of inquiry maintains a successful association is partially a function of how "similar" the participants are in terms of opinions, values, etc. Several researchers have found empirical support for this notion (Brock 1965; Evans 1963). However, another philosophy, which is substantiated by some research (Ktsanes 1955), purports "dissimilarity" between individuals tends to result in a favorable interaction. Only a few marketing studies have substantiated the "dissimilarity" (or complementary) hypothesis (Stafford and Greer 1965).

Individuals tend to perceive new situations

in terms of historically similar instances. Their experiences and attitudes are generalized from the past to present situations. "Since family contexts are among an individual's oldest, ... longest-lasting contexts stemming from the individual's earliest years, ... generalizations and transferences from them to new social situations are likely to have ... influenced the perception and ... shaping of contemporary life contexts more strongly than those life contexts ... experienced only later in ... life" (Toman 1976, p. 77) (underlining added). Hence, the types of individuals one has lived with most closely and longest will partially dictate the types of individuals selected as future friends, companions, etc. New associations, therefore, tend to duplicate old ones. In general, "the more complete the duplication, the greater the chance that the relationships will last and be happy" (Toman 1970, p. 45). By duplication, Toman means the degree of "dissimilarity" (or complementarity) between individuals' personality characteristics.

One way for ascertaining when a new relationship is similar to an earlier relationship is to examine the position that each partner in the association had in his/her original family. This position can be characterized by the individual's age rank among his/her siblings and by the sex distribution among them. Toman maintains it is possible to describe a person's major personality characteristics and those of his/her friends, the likelihood of stability in marriage, what he/she is like at work, and his/her philosophy on the basis of only two facts: sex and age rankings of siblings in the person's family. Systematic research of more than 3,000 families has not only confirmed this predictive ability but has also lead to the development of 10 portraits of basic sex and sibling positions (Toman 1970 and 1976).

By cross-tabulating these sibling positions according to sex and age ranks, Toman arrived at 16 types of parental couples ([Table 1](#)). The expected degree of favorability of each relationship is a function of possible age rank and/or sex conflicts between the participants. In an age rank conflict, "the partners ... have had similar or identical age ranks in their respective original families." Since neither individual is used to the age rank of the other, they will demand that age rank for themselves in their association. With a sex conflict, "a partner has had no siblings of the opposite sex in his

original family." Such an individual will have difficulty getting used to a partner of the opposite sex in any interaction. "Rank conflicts as well as sex conflicts are examples of non-complementary relationships" (Toman 1976, p. 85).

### SALESPERSON-CUSTOMER DYADS BY SEX AND AGE RANKS

Most retail selling involves a single salesperson-customer encounter. Toman's model would probably not apply to such brief, one-time exchanges. Industrial selling, on the other hand, is "developmental in nature, requiring a period of months or even years to culminate in a firm order" (Capon et al 1977, p. 329). Where a relatively long-term relationship similar to marriage is maintained, the major aspects of Toman's theory would most likely generalize to industrial selling. Like marriage, industrial selling requires commitment and hard work from both parties if the relationship is to endure. Compromise is the rule rather than the exception. A lot of time and patience are required if the relationship is to grow.

Before applying Toman's model, two adjustments are necessary. First, salespersons can be either female or male. Therefore, sibling positions corresponding to the "female" and "male" categories in [Table 1](#) must be aggregated to form one salesperson dimension. Second, customers can be either female or male. Hence, the sibling positions corresponding to salespersons are duplicated for customers. The end result is a 8 x 8 matrix that cross-classifies customer sibling positions with salesperson-sibling positions ([Table 2](#)).

As in Toman's model ([Table 1](#)), there are three different degrees of favorability of salesperson-customer interaction in the author's extended model ([Table 2](#)): favorable, moderately favorable, and unfavorable. Favorable associations are characterized by no sex and no rank conflicts as well as partial sex conflicts. Moderately favorable relationships consist of either a rank or sex conflict, not both. In terms of their psychological significance, favorable and moderately favorable interactions may be perceived as complementary relationships. Unfavorable interactions, on the other hand, are symbolized either by a rank and partial sex conflict or by both rank and sex conflicts. Hence, these associations may be viewed as noncomplementary (or similar) (Toman 1976).

## LIMITATIONS

Several limitations of Toman's theory and the author's extension merit attention. First, it is questionable whether an industrial selling relationship between salesperson and customer approximates a marriage association. Most industrial selling situations are not likely to exist as two individuals living day-to-day in close physical proximity. Nor is the commitment explicitly written down in the form of a marriage certificate. The expected duration of any selling relationship is probably a function of the selling task required and the technical sophistication of the product involved (Dodge 1973). Given an extensive selling task and a highly technical product, it is likely that a "close" relationship would evolve between salesperson and customer. Second, the 10 portraits developed by Toman are most applicable to highly industrialized nations, urban populations, and societies where the family represents the primary early educational medium. Also, it is presumed that one parent financially supports the family while the other stays home and takes care of the children, and no unusual circumstances arise (e.g., divorce, etc.) (Toman 1976). A change in one of these variables is likely to have a significant impact on the model. Third, the 16 types of parental couples as well as the 10 portraits were derived from extensive research of over 3,000 German families. Although Germany and the U.S. are highly industrialized countries, the fact that the two cultures differ may hamper generalization of Toman's theory to American families. The portraits do not distinguish between an individual who has several siblings of the same sex and an individual who has only one sibling of that sex. Finally, Toman's model concentrates on only age rank and sex distribution of the family. While several variables are addressed implicitly (e.g., family size and age spacing of children), family constellation researchers generally ignore such important confounding variables as socioeconomic status, education level attained, religion, nationality, geography, climate, and sibling positions of parents.

## MARKETING IMPLICATIONS

Regardless if the firm embraces the "similarity" or "dissimilarity" hypothesis, it can apply this notion to market segmentation, thereby leading to more effective salesperson selection (Engel et al 1973). The firm will first measure various characteristics (including family constel-

lation) of its target customers. After determining which attributes best segregate its market into homogeneous groupings (and assuming family constellation is one of these characteristics), the firm can then ascertain the sibling position that represents the majority of its target customers. Finally, depending on which theory is followed, the firm can use [Table 2](#) as a guideline for selecting the most appropriate salesperson type to recruit. Some degree of latitude exists in this process, because each possible customer sibling position corresponds to at least four suggested salesperson types. For example, under the "complementarity" theory, if the customer is an OSS, [Table 2](#) recommends that one of these four salespersons be recruited: YBB, YBS, YSB, or YSS.

The initial allocation of salespersons will adhere closely to the market segmentation scheme formulated in the previous paragraph. However, continual feedback concerning customer changes is required if favorability is to be maintained within the salesperson-customer relationship. That is, if an OBB customer replaces a YBB customer, then the proper adjustment for the firm that is employing the "complementarity" theory is to substitute the "older" sibling salesperson (e.g., OBB, OBS, OSB, or OSS) with a "younger" sibling (e.g., YBB, YBS, YSB, or YSS) salesperson. In this way, the firm will avert sex and/or age rank conflicts that characterize interactions involving two "older" or "younger" children.

## REFERENCES

- Bearden, J. (1969), "Decision Processes in Personal Selling," Southern Journal of Business, 4 (April) 189-199.
- Brock, T. (1965), "Communicator-Recipient Similarity and Decision Change," Journal of Personality and Social Psychology, 1 (June) 650-654.
- Capon, N., M. Holbrook, and J. Hulbert (1977), "Selling Processes and Buyer Behavior: Theoretical Implications of Recent Research," in Consumer and Industrial Buying Behavior, A. Woodside et al, eds., New York: Elsevier North-Holland, Inc.
- Cotham, J. (1968), "Job Attitudes and Sales Performance of Major Appliance Salesmen," Journal of Marketing Research, 5 (November), 370-375.

- \_\_\_\_ (1970), "Selecting Salesmen: Approaches and Problems," MSU Business Topics, 18 (Winter) 64-72.
- Davis, H. and A. Silk (1971), Behavioral Research on Personal Selling: A Review of Some Recent Studies of Interaction and Influence Processes in Sales Situations, Cambridge, MA: Marketing Science Institute.
- Dodge, H. R. (1973), Field Sales Management, Dallas, TX: Business Publications, Inc.
- Engel, J., D. Kollat, and R. Blackwell (1973), Consumer Behavior, 2nd ed., New York: Holt, Rinehard and Winston, Inc.
- Evans, F. (1963), "Selling as a Dyadic Relationship -- A New Approach," American Behavioral Scientist, 6 (May) 76-79.
- Ktsanes, T. (1955), "Mate Selection on the Basis of Personality Types: A Study Utilizing an Empirical Typology of Personality," American Sociological Review, 20, 547-551.
- Scheibelhot, J. and G. Albaum (1973), "Self-Other Orientations Among Salesmen and Non-Salesmen," Journal of Marketing Research, 10, 97-99.
- Stafford, J. and T. Greer (1965), "Consumer Preferences for Types of Salesmen: A Study of Independence-Dependence Characteristics," Journal of Retailing (Summer) 27-33.
- Tanofsky, R., R. Shepps, and P. O'Neill (1969), "Pattern Analysis of Biographical Predictors of Success as an Insurance Salesman," Journal of Applied Psychology, 53, 136-139.
- Toman, W. (1970), "Never Mind Your Horoscope, Birth Order Rules All," Psychology Today, 4 (December) 45-49, 68-69.
- \_\_\_\_ (1976), Family Constellation, 3rd ed., New York: Springer Publishing Company.

TABLE 1  
TOMAN'S (1976) 16 PARENTAL COUPLES<sup>a</sup>

|        |     | Mother               |                      |                      |                      |
|--------|-----|----------------------|----------------------|----------------------|----------------------|
|        |     | OSB                  | OSS                  | YSB                  | YSS                  |
| Father | OBB | R & PS Con<br>RU Rel | R & S Con<br>U Rel   | PS Con<br>RF Rel     | R or S Con<br>MF Rel |
|        | OBS | R or S Con<br>MF Rel | R & PS Con<br>U Rel  | No Con<br>G Rel      | PS Con<br>RG Rel     |
|        | YBB | PS Con<br>RG Rel     | R or S Con<br>MG Rel | R & PS Con<br>U Rel  | R & S Con<br>U Rel   |
|        | YBS | No Con<br>G Rel      | PS Con<br>RG Rel     | R or S Con<br>MG Rel | R & PS Con<br>U Rel  |

<sup>a</sup>Tabular items are coded: R=Rank; S=Sex; PS=Partial Sex; Con=Conflict; RU=Relatively Unfavorable; Rel=Relationship; U=Unfavorable; RF=Relatively Favorable; MF=Moderately Favorable; G=Good; RG=Relatively Good; MG=Moderately Good; No Con=No Rank & Sex Conflict; OBB=Oldest Brother of Brothers; YBB=Youngest Brother of Brothers; OBS=Oldest Brother of Sisters; YBS=Youngest Brother of Sisters; OSS=Oldest Sister of Sisters; YSS=Youngest Sister of Sisters; OSB=Oldest Sister of Brothers; and YSB=Youngest Sister of Brothers.

TABLE 2  
CROSS-CLASSIFICATION OF CUSTOMER AND SALESPERSON SIBLING POSITIONS<sup>a,b</sup>

|                                      |     | C u s t o m e r |     |     |     |     |     |     |     |
|--------------------------------------|-----|-----------------|-----|-----|-----|-----|-----|-----|-----|
|                                      |     | OBB             | OBS | YBB | YBS | OSB | OSS | YSB | YSS |
| S<br>a<br>l<br>e<br>s<br>p<br>e<br>r | OBB | S,U             | S,U | C,M | C,M | S,U | S,U | C,F | C,M |
|                                      | OBS | S,U             | S,U | C,M | C,M | S,U | S,U | C,F | C,F |
|                                      | YBB | C,M             | C,M | S,U | S,U | C,F | C,M | S,U | S,U |
|                                      | YBS | C,M             | C,M | S,U | S,U | C,F | C,F | S,U | S,U |
|                                      | OSB | S,U             | S,U | C,F | C,F | S,U | S,U | C,M | C,M |
|                                      | OSS | S,U             | S,U | C,M | C,F | S,U | S,U | C,M | C,M |
|                                      | YSB | C,F             | C,F | S,U | S,U | C,M | C,M | S,U | S,U |
|                                      | YSS | C,M             | C,F | S,U | S,U | C,M | C,M | S,U | S,U |

<sup>a</sup>Every combination of salesperson and customer is coded relative to similarity/dissimilarity of personality characteristics and degree of favorability of the relationship. In terms of personality attributes, S=Similar; and C=Complementary. Regarding degree of favorability, U=Unfavorable; F=Favorable; and M=Moderately Favorable. Finally, Salesper=Salesperson.

<sup>b</sup>Contrary to Toman's model (Table 1), two dyads (OBS-OSB and YBS-YSB) were switched from Moderately Favorable to Unfavorable Relationships, because of substantial age rank conflicts.

# SALES ETHICS: ARE THERE GENDER-RELATED DIFFERENCES IN THE RANKS OF POTENTIAL SALESPEOPLE?

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## ABSTRACT

The purpose of this study is to determine if gender affects perceptions of ethical salesforce behavior. The results should be of interest to recruiters and managers of salespeople, to aca-

demics with an interest in business ethics, and marketing educators preparing future marketing professionals.

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## INTRODUCTION

Ethical issues in marketing continue to draw media attention. The Wall Street Journal (1992) for example, reported that Data General Corporation terminated two salespeople, had an equipment sale of approximately \$1,000,000 rescinded, and agreed not to participate in competition for contracts in New York State for a six month period. This occurred after it was concluded that the salespeople had violated company policies by discussing making large payments to a consultant working for the state agency, and by making payments to a charitable fund directed by a state official. The purpose of these actions, it was believed, was to influence the agency to award a major contract to Data General.

Such actions indicate that attention to ethical marketing practice is timely, and that the sales function in marketing is highly vulnerable to accusations of unethical practice. Such accusations spring from many sources, not the least of which is the fact that because of personal dealings with salespeople, the general public perceives them to be dishonest and unethical (Murphy and Laceniak 1981). Further, the very nature of much sales activity (little direct supervision, isolation from peers, extreme levels of competition, strong performance pressures) presents salespeople with many ethically sensitive decision situations (Wotruba 1990). Also, since "sales managers may be less than uniform in curbing unethical salesforce behavior" (Bellizzi and Hite 1989, p. 45), sanctions that might be applied in other occupations may be less rigorously enforced in sales. Last, public suspicion of sales practices is reinforced

by the negative sales stereotypes portrayed in literature and the media (Seibold 1988).

Efforts to improve levels of ethical behavior have come from several sources. Companies have developed employee training programs focusing on ethical conduct (Mokowitz 1985). Managers have established formal codes of conduct, acted as role models, and reprimanded those employing unethical practices (Hunt, Chonko, and Wilcox 1984). Business schools have added new ethics courses to their curricula (Berg 1988, for example) or revamped established courses to focus on ethical issues (Stratton, Flynn, and Johnson 1981). And academics have established new journals (Journal of Business Ethics) to provide avenues for dialogue regarding ethics in business.

Nevertheless, charges of unethical practice and widespread media exposure of such practices continue. However, it has been suggested that one trend may bring about an improvement in the ethical behavior of salespeople. The trend, the increasing number of women in selling, is well underway, as is documented by a number of recent articles (Dawson 1992). And, according to the U.S. Department of Labor (1970, 1990), female nonretail salesworkers increased from 6.6 percent in 1970 to 23 percent of the U.S. industrial sales force in 1990. If women have higher ethical standards than men, then their increasing presence in salesforces could result in higher levels of ethical behavior in salesforces.

## GENDER AND ETHICAL SALES PRACTICE

There have been numerous studies of



gender related attitudes toward ethical issues in business, and findings of attitudinal differences related to gender are supported by the literature (DiVito, Carlson, and Kraus 1984; for example). One rationale for the difference is the diverse socializing experiences of males (emphasis on competition) and females (emphases on social relationships) in our society (Beutell and Brenner 1986). However there is not total agreement that perceptions of ethical behavior are gender related. Studies by some researchers have found no significant gender related differences among students regarding their views of ethical managerial decisions (Powell and Butterfield 1986; for example).

Similarly, in the marketing literature there have been disparate findings. Crittenden, Crittenden, and Hawes (1986) found few gender related differences in ethical standards of marketing students. A study by Feldman and Thompson (1990) found that it was "not possible to conclude that female [business] seniors are more 'socially responsible' than male seniors" (p. 21). Conversely, in a study of ethical standards of men and women college students, Dawson (1992) found women to have higher overall standards of ethical behavior than men. Nevertheless, the same study showed that women were less ethical than men on five scenarios (men scored lower than women on ten). Dabholkar and Kellaris (1992) studied marketing students' ethical judgment of selling practices and found that women tended to judge situations as less ethical than did men. But the differences were not statistically significant. The latter two studies both called for replication and expansion of efforts to determine the impact of gender on sensitivity toward ethical sales dilemmas in students preparing for careers in business. It is the purpose of this paper to do just that.

## METHODOLOGY

Attitudes toward the ethics of various sales practices were determined by use of a self-administered questionnaire. The respondents were asked to express their feelings about twenty scenarios on a seven-point semantic differential scale (from ethical to unethical). The scenarios were the entire "Personal Selling Ethics" (PSE) scale used by Dabholkar and Kellaris (1992). The PSE scale was chosen in order to facilitate comparisons with the previous study and because of the high reliability of

the PSE scale (.84 Cronbach's Alpha). Controls to reduce normative responses were the same as those used in the previous study. In addition to judging gender related effects on perceptions of the ethics of the twenty scenarios in the PSE scale, data were also gathered on age, and years of sales experience of each respondent, in order to identify additional potential demographic factors that might influence perceptions. The respondents were students at a major metropolitan state university.

The questionnaire was distributed during regular class sessions. Respondents were not told the reason for the survey, only that an opinion survey was being conducted. Respondents were assured anonymity and participation was voluntary; no one refused to participate in the survey. Total sample size was 402. The sample size was large enough to provide both statistical reliability and respondents with a cross-section of background and academic interests. Both graduate and undergraduate students were represented, as were commuters, and those with and without sales experience. The study consisted of 239 males and 155 females. Their ages ranged from 17 years to 46 years with a mean of 23.2 years. The number of years of sales experience ranged from no experience to 19 years of experience with a mean of 1.9 years. Summary data for all respondents are shown in [Table 1](#).

The specific null hypotheses tested in the study were:

- H<sub>1</sub>: Gender affects an individual's perception of ethics in sales situations.
- H<sub>2</sub>: Age affects an individual's perception of ethics in sales situations.
- H<sub>3</sub>: Years of sales experience affect an individual's perception of ethics in sales situations.

## RESULTS

The scenarios utilized in the survey and their means are summarized in [Table 2](#). A semantic differential scale was used to examine the degree to which respondents perceived the scenarios as being unethical or ethical (i.e., 1 = unethical; 7 = ethical). Overall the scenarios suggest situations that involve ethical issues concerning salesperson personal gain through

interaction with their own company, their competition, or their customers. The range for the means of the scenarios was from 1.51 to 5.77 (see Table 2), suggesting that ethical issues are not perceived as being either "black or white." The reliability of the scale was adequate for further study (Cronbach's  $\alpha = .85$ ).

A MANOVA analysis was used to examine the relationship between the ethical scenarios with gender, age, and sales experience. The results indicated that neither age nor sales experience had any significant effect on the perceived ethical behaviors presented in the scenarios. The multivariate test of significance, Wilks lambda, was .918 and .915 for age and sales experience respectively, neither of which is significant at the .05 level. Wilks lambda for gender was .826 and was significant at .01. The means for male and female respondents (Table 3) indicate that, compared to women, men perceived seventeen of the sales scenarios as being more ethical. In other words, women are less likely than men to perceive a particular sales practice as ethical. For three of the scenarios (i.e., Numbers 6, 8, and 18) no significant differences were identified.

## DISCUSSION

The current study supports the 20-item "Personal Selling Ethics" scale developed by Dabholkar and Kellaris (1992). The reliability in this study (i.e., Cronbach's  $\alpha = .85$ ) is comparable to the initial study (i.e., Cronbach's  $\alpha$  in the original study = .84). While the Dabholkar and Kellaris (1992) study and the current study both examined the impact of gender, sales experience, and age, the results of the two studies differ. In the current study the individual scenarios were examined for differences between male and female ethical perceptions. This approach identified seventeen scenarios that were significantly different at the .05 level. This is in contrast to the Dabholkar and Kellaris (1992) study where the 20-item scale was combined into one score and a t-test identified no gender differences.

Based on the findings of Dawson (1992) and the current study, support can be given for future examination of gender issues concerning ethical perceptions. Of special interest may be the area of salesperson evaluation research. If women are more sensitive to ethical issues and are more likely to disapprove of unethical

behaviors, researchers may want to address the impact of gender on role conflict and performance evaluations.

Future research may also want to explore a factor analysis of the 20-item "Personal Selling Ethics" scale to determine the extent to which the items can be classified as "relational" versus "non-relational." If the PSE scale is unidimensional, then it might be argued that the scenarios are more closely aligned with the "relational" scenarios that were found to be significant in the Dawson (1992) study. If the PSE scale is not unidimensional, then a taxonomy of ethical dilemmas could be identified.

The current research identified significant differences between the ethical perceptions of male and female respondents. As more women move into the work force and attain managerial positions, the differences in ethical perceptions between men and women become more important to managers, employees, and customers. First, management needs to be aware that women are likely to hold different perceptions of ethical behaviors. Second, conflict with employees may result within the sales department as the number of women in management positions increases. Third, since women may be perceived as being more ethical, customers may prefer buying from them.

## CONCLUSION

The feminization of the workforce should result in higher ethical standards. These standards, while most noticeable among female salespeople, will eventually effect the entire salesforce as women move into managerial positions. As a result it would be expected that the diffusion rate of these higher ethical standards will increase as women continue to attain higher positions within corporate America. Future research may want to address how this diffusion will take place.

## REFERENCES

- Bellizzi, Joseph A., and Robert E. Hite (1989), "Supervising Unethical Salesforce Behavior," *Journal of Marketing*, 53 (April), 36-47.
- Berg, Eric N. (1988), "Harvard to Require M.B.A. Ethics Course," *The New York Times*, 137 (July 13), 35 N.



- Beutell, N. G., and O. C. Brenner (1986), "Sex Differences in Work Values," Journal of Vocational Behavior, 28, 29-41.
- Dabholkar, Pratibha A., and James J. Kellaris (1992), "Toward Understanding Marketing Students' Ethical Judgment of Controversial Personal Selling Practices," Journal of Business Research, 24, 313-329.
- Dawson, Leslie M. (1992), "Will Feminization Change the Ethics of the Sales Profession?," Journal of Personal Selling and Sales Management, XII, 1 (Winter), 21-32.
- DeVito, A. J., J. F. Carlson, and J. Kraus (1984), "Values in Relation to Career Orientation, Gender, and Each Other," Counseling and Values, 28, 202, 206.
- Hunt, Shelby D., Lawrence B. Chonko, and James B. Wilcox (1984), "Ethical Problems of Marketing Research," Journal of Marketing Research, 21 (August), 309-24.
- Mokowitz, Daniel B. (1985), "Where Business Goes to Stock Up on Ethics," Business Week, 14 (October), 63, 66.
- Murphy, Patrick E., and Gene R. Laczniak (1981), "Marketing Ethics: A Review with Implications for Managers, Educators and Researchers," Review of Marketing 1981, Chicago: American Marketing Association, 251-266.
- "New York Will Bar Data General Sales to State Agencies Amid Bribery Inquiry" (1992), The Wall Street Journal, (October 8), A4.
- Powell, Gary N., and D. Anthony Butterfield (1986), "The 'Good Manager': Does Androgyny Fare Better in the 1980s?" (Paper delivered at the Annual Meeting of the Academy of Management, Chicago).
- Siebold, Frank J. (1988), "The Customer Service Ethic: Foiling the Ghost of Willy Loman," Proceedings of the Pi Sigma Epsilon National Conference in Sales Management, Atlanta, GA, 55-57.
- Stratton, William E., Randolph W. Flynn, and George A. Johnson (1981), "Moral Development and Decision Making: A Study of Student Ethics," Journal of Enterprise Management, 3 (Winter), 35-41
- U.S. Department of Labor, Bureau of Labor Statistics (1970, 1990), Employment and Earnings, Washington, D.C., U.S. Government Printing Office.
- Vitell, Scott, and Troy Festervand (1987), "Business Ethics: Conflicts, Practices and Beliefs of Industrial Executives," Journal of Business Ethics, 6, 433-38.
- Wotruba, Thomas R. (1990), "A Comprehensive Framework for the Analysis of Ethical Behavior, with a Focus on Sales Organizations," Journal of Personal Selling and Sales Management, 10 (Spring), 29-42.

**TABLE 1**  
**Respondent Profile**

| <u>Gender</u> |            |               | <u>Age</u>        | <u>Sales Experience</u> |
|---------------|------------|---------------|-------------------|-------------------------|
| Male          | 239        | 59.4%         | Range 17-46 years | Range 0-19 years        |
| Female        | 155        | 38.6%         | Mean 23.2 years   | Mean 1.9 years          |
| No Response   | 8          | 2.0%          |                   |                         |
|               | <u>402</u> | <u>100.0%</u> |                   |                         |

**TABLE 2**  
**PSE Scenario Statistics<sup>a</sup>**

| <u>Scenario</u> | <u>Description</u>                   | <u>Mean Rating<sup>b</sup></u> | <u>SD</u> | <u>% Rating as Unethical<sup>c</sup></u> |
|-----------------|--------------------------------------|--------------------------------|-----------|------------------------------------------|
| 1               | Offer monetary bribe to buyer        | 2.96                           | 1.65      | 63.3                                     |
| 2               | Steal from competitor at trade show  | 1.51                           | 1.07      | 94.5                                     |
| 3               | Inflate expense report               | 2.89                           | 1.55      | 65.7                                     |
| 4               | Sneak vacations on company time      | 2.74                           | 1.54      | 72.2                                     |
| 5               | Misallocations of company time       | 4.42                           | 1.70      | 29.7                                     |
| 6               | Conflict of interest with company    | 3.18                           | 1.79      | 59.4                                     |
| 7               | "Psychological tricks" to close sale | 4.37                           | 1.82      | 33.7                                     |
| 8               | Force take-home samples on buyer     | 5.77                           | 1.40      | 8.3                                      |
| 9               | Spying on competition                | 4.43                           | 1.84      | 31.3                                     |
| 10              | Indirect material bribe to buyer     | 3.39                           | 1.79      | 54.7                                     |
| 11              | Lavish entertaining                  | 4.20                           | 1.74      | 35.6                                     |
| 12              | Cheating on sales contest            | 2.50                           | 1.57      | 77.0                                     |
| 13              | False premises used to close sale    | 2.21                           | 1.34      | 85.5                                     |
| 14              | Cheating on bidding process          | 4.34                           | 1.88      | 35.6                                     |
| 15              | Phone sabotage                       | 1.70                           | 1.26      | 90.1                                     |
| 16              | Fear exploitation used to close sale | 3.62                           | 1.82      | 48.3                                     |
| 17              | Resume inflation                     | 2.94                           | 1.67      | 64.2                                     |
| 18              | Frequent flier abuse                 | 3.38                           | 1.84      | 56.3                                     |
| 19              | Quit on short notice                 | 2.83                           | 1.72      | 69.6                                     |
| 20              | Information leaks about customers    | 2.68                           | 1.55      | 69.6                                     |

<sup>a</sup> Table and scenario adopted from Dabholkar and Kallaris (1992).

<sup>b</sup> Based on 7-point ethical scales (1 = unethical; 7 = ethical).

<sup>c</sup> Percent of respondents evaluating scenario as unethical ( $p < .4$ ).

**TABLE 3**  
**Mean Differences Between Males and Females**

| <u>No.</u> | <u>Male</u><br><u>N = 225</u> | <u>Female</u><br><u>N = 141</u> | <u>Level of</u><br><u>Significance</u> | <u>No.</u> | <u>Male</u><br><u>N = 225</u> | <u>Female</u><br><u>N = 141</u> | <u>Level of</u><br><u>Significance</u> |
|------------|-------------------------------|---------------------------------|----------------------------------------|------------|-------------------------------|---------------------------------|----------------------------------------|
| 1          | 3.1                           | 2.7                             | .05                                    | 11         | 4.5                           | 3.8                             | .01                                    |
| 2          | 1.6                           | 1.3                             | .05                                    | 12         | 2.7                           | 2.2                             | .01                                    |
| 3          | 3.2                           | 2.5                             | .01                                    | 13         | 2.3                           | 2.0                             | .05                                    |
| 4          | 2.9                           | 2.3                             | .01                                    | 14         | 4.8                           | 3.7                             | .01                                    |
| 5          | 4.6                           | 4.0                             | .01                                    | 15         | 1.8                           | 1.5                             | .05                                    |
| 6          | 3.2                           | 3.0                             | n.s.                                   | 16         | 4.0                           | 3.2                             | .01                                    |
| 7          | 4.7                           | 4.0                             | .01                                    | 17         | 3.1                           | 2.6                             | .01                                    |
| 8          | 5.9                           | 5.6                             | n.s.                                   | 18         | 3.4                           | 3.3                             | n.s.                                   |
| 9          | 4.8                           | 3.9                             | .01                                    | 19         | 3.0                           | 2.4                             | .01                                    |
| 10         | 3.6                           | 3.0                             | .01                                    | 20         | 2.8                           | 2.4                             | .01                                    |

<sup>a</sup> Based on 7-point ethical scale (1 = unethical; 7 = ethical)

# CHARACTERISTIC EFFECTS OF DISPLAY DIFFICULTY ON INFORMATION PROCESSING

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## ABSTRACT

The research in this paper examines the effects of two common types of difficulty due to information display encountered by consumers: format and organization. The results of a study

demonstrate that difficulty due to format and/or organization has predictable effects on response times, acquisitions of information, processing strategies and confidence in the choice.

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## INTRODUCTION

The choices that consumers make among brands can be difficult for many different reasons. For example, information about brands may not be available at one time or the features of different brands may be presented in different formats. Due to the prevalent use of an information display board format (e.g., Billings and Marcus 1983, Klein and Yadav 1989, Payne 1976), few extant studies reflect the types of difficulty consumers face daily in making choices. This research examines consumers' responses to multiple forms of display difficulty, and describes these responses as an attempt to manage decision making by trading off effort and accuracy.

Consider a consumer who wants to buy a new lawnmower. The consumer may visit Sears to get information about Craftsman models, Ace Hardware to learn about Toro models, et cetera. In each store information may be provided for a similar set of features, but in a different form (e.g., blade length in centimeters versus inches), or in a different order (e.g., warranty, blade length, horsepower versus blade length, horsepower, warranty). How might the information processing behaviors in a situation where information is available all at once and is readily comparable (e.g., a *Consumer Reports*-type matrix) differ from those in a situation where information is only available sequentially and is not in a well-organized matrix format?

## CONCEPTUAL DEVELOPMENT AND HYPOTHESES

Researchers concur that format does affect behavior; consumers who receive information

presented by brand will process and store it by brand, while consumers presented with information by attribute will acquire and store information by attribute (Bettman and Kakkar 1977; Jarvenpaa 1989). These findings support Slovic's (1972) concreteness principle, that people tend to use information in the form in which it was presented, presumably to minimize the effort to make a choice. In addition, choices faced by consumers may be difficult due to the organization of the display. For example, information may be presented in different orders for each brand (Bettman and Kakkar 1977), or the information about the values of a particular attribute may be given in different units (e.g., warranty in weeks, months or years). In the following section, an effort/accuracy framework is used to predict differences in consumers' responses to display difficulty and to compare responses for different combinations of difficulty factors.

## Effects of Format on Behavior

The primary effect of format on processing for choice may be due to demands on working memory. With a sequential format, the consumer must attempt to keep information available about a previously examined brand (or brands) in order to compare it with the brand currently being examined. Wright (1976) suggests that the sequential presentation of brand information may result in a different task than simultaneous presentation of information. In the sequential case, the task is one of single brand evaluation versus multiple brand choice. Thus, sequential format sets up a judgment task while simultaneous format sets up a choice task. That is, consumers faced with a sequential display may attempt to reduce demands on working memory by constructing global, summary

evaluations of brands, perhaps to make pairwise comparisons. To this end, consumers faced with information presented sequentially may tend to exhibit fewer acquisitions of information, longer response times, and more brand-based processing than consumers to whom information is presented simultaneously.

Because the type of processing strategy used to make a choice may affect choice quality (Payne, Bettman and Johnson 1988), predictions about choice quality are based upon the strategies consumers use to manage format difficulty. Recall that consumers with sequential displays are expected to use overall evaluation as a brand-based heuristic, while consumers with simultaneous displays who can scan across brands to compare performance on attribute values are expected to exhibit greater use of attribute-based heuristics to simplify making a choice. Because an overall evaluation does not necessarily mean that a compensatory rule was used (Bettman 1979), there is no reason to expect any quality difference between consumers as a function of format.

The display format may also affect consumers' confidence in their choices, because the overall evaluations predicted as a coping mechanism for sequential displays may give consumers a sense of having completely processed all information. Higher perceptions of confidence are expected for consumers faced with sequential displays than for consumers with simultaneous displays, who are expected to use more attribute-based, heuristic forms of evaluation.

### **Effects of Organization on Behavior**

Suppose that making a choice is difficult because information is presented in different orders for each brand, and that within an attribute, values are not presented in the same units for all brands. This is a common occurrence in many consumer choices. It is expected this poorer organization will result in longer response times, as consumers may attempt to restructure the information using internal resources (Coupey, in press). To manage organization difficulty, consumers may tend to process information by brand, perhaps developing overall evaluations to reduce the need to make attribute values comparable (Bettman 1979). Within-brand processing, which reduces the need for comparisons of brands on each

attribute, may also result in lower numbers of acquisitions for consumers with poorly organized information than for consumers with better organized information.

Choice quality for consumers with better organized displays is expected to be higher than for consumers with poorly organized displays. Although consumers with poorly organized displays may form overall evaluations to overcome difficulty due to the lesser comparability of attribute information between brands, decreased comparability between attribute values may reduce choice quality.

Perceptions of choice quality may also be influenced by the organization of the display. Organization difficulty is expected to result in lower levels of confidence for consumers who make choices from poorly organized displays than for consumers with better organized displays, due to the decreased comparability of attribute values.

### **Effects of Format and Organization on Behavior**

When the two different sources of difficulty are both evident in a display, the main effects hypotheses are modified. In general, choice problems in which two factors of difficulty are present might be expected to be more difficult than problems in which only one factor is present. This assumption may not always be true, however, as some methods for managing one source of difficulty may also take care of another source of difficulty without an additional investment of effort. Thus a problem in which two sources of difficulty are present may actually be less effortful in terms of the amount of information acquired or the amount of time needed to make a choice, depending on the factor that increases difficulty to make the choice. For example, a choice in which information is both poorly organized and sequentially formatted is expected to lead to the use of a brand-based processing strategy in which an overall evaluation is created. An overall evaluation may obviate the need to reorganize the attributes and make their values comparable while simultaneously attempting to keep sequentially presented brand information available. This approach may tend to require less processing effort than a choice among brands poorly organized and displayed simultaneously because consumers may expend effort carrying out the obvious clean-up operations in the latter case.

A choice in which information is better organized, but still sequentially presented, is also expected to lead to the use of a brand-based processing strategy. Because the information for each brand is uniformly presented from brand to brand, however, consumers may tend to be more methodical in making choices, using compensatory processing strategies in which tradeoffs between attribute values can be made systematically from brand to brand. Compensatory strategies tend to be more effortful than other processing strategies, all else being equal (Johnson and Payne 1985), and it is expected that this will be reflected in greater numbers of acquisitions and longer response times for choice problems in which the only factor of difficulty is format, compared with the same measures for choice problems in which both poor organization and sequential presentation increase difficulty to make a choice.

The payoff for the effort expended to complete a compensatory processing strategy may be better quality choices for better organized, but sequentially formatted problems than for any other combination of organization and format. In addition, if consumers are willing to carry out the more effortful processing strategy, then they may tend to expect that doing so will result in higher quality choices. Therefore, the results for confidence should tend to mirror the results for choice quality.

In summary, it is expected that consumers will exhibit adaptive processing behaviors to manage difficulty due to characteristics of the information display, and that the selection of a behavior will be contingent upon the particular source of difficulty.

## METHOD

Sixteen subjects, recruited with a newspaper ad, performed a computer-based task in which they completed five choice problems and provided scale ratings of their confidence in their response. Problem difficulty was manipulated through the organization of information in the display and the format of the display. Stimuli were presented on personal computers with a computer-based, process tracing program (Johnson, Payne, Schkade and Bettman 1989). Data were collected from computer-based process data and verbal protocols. The study took an average of one hour to complete.

## Stimuli

The stimuli were five sets of brands. Each set contained five alternatives, and each set of brands was from a different product category. Every brand in a set was described by the same attributes, and information was available for all attributes. The products were: 1) knitting machines, 2) humidifiers, 3) air cleaners, 4) water purifiers, and 5) storage buildings. These products were selected based upon pretest data which indicated low familiarity with the attributes of these products. Unfamiliarity was desirable because it decreased the likelihood that subjects would use knowledge of real-world brands and their attributes as a basis for making their recommendations.

A better-organized decision was one in which information was presented in brand/attribute matrix form, with all values of an attribute in the same column of the display. A less organized decision was one in which information was not organized in matrix form: that is, attribute information was presented in different orders, appearing in different columns for each brand. In addition, within an attribute information was presented in different units (e.g., warranty in weeks, months, or years). For all five decisions, the numbers of deviations from a standard scale were the same.

The second task factor manipulated in the information displays was the format of the information. Information was presented either simultaneously, with all brands available at one time on the computer screen, or sequentially, one brand at a time. In the sequential condition, subjects had the same acquisition options as subjects in the simultaneous condition; they could look at all or some of the brands or attributes and could reacquire pieces of information.

## Dependent Measures

Three types of dependent measures were used: 1) process, including number of acquisitions, response time (to make the response times comparable across conditions, transition times between alternatives in the sequential conditions were removed), and processing strategy; 2) choice quality; and 3) confidence in the choice.

To reflect the two main categories of processing strategies (Ford et al. 1989), the

dependent measure of processing strategy used in this study is based upon a division of strategies into either evaluative processing that is primarily alternative-based, such as using a weighted adding rule, or evaluative processing that is primarily attribute-based, such as using a lexicographic rule.

Strategy type was assessed with information from verbal protocols and computer-based process data. Strategy type assessment was made for all subjects using the verbal protocols generated during the choice process. Alternative-based choice processes were coded as a 1, while attribute-based choice processes were coded as a 0. (To minimize the risk of subjective biases in coding strategy type from verbal protocols, computer-based information acquisition data were tested against the strategy type assessments based on protocols. The computer-based process tracing data were used to create an information acquisition index of the subject's overall tendency to process by alternative or by attribute for each decision (Payne 1976). This index is bounded by 1, which indicates entirely alternative-based processing, and -1, which indicates purely attribute-based processing. The percent of agreement between the information acquisition measure and the strategy type assessments was calculated and found to be 81%. Thus, strategy type assessments from verbal protocols appeared to be acceptable proxies for decision processing.)

Choice quality was determined by the relative quality of the recommended brand. Because weights were provided to the subjects, an index of brand quality could be created using a compensatory, weighted adding rule. Confidence ratings were provided by subjects on a nine point scale, on which nine was labeled "very confident" and one was labeled "not at all confident."

## RESULTS

It was predicted that subjects with a sequential task would tend to exhibit behaviors more reflective of a judgment task than a choice task. An ANOVA was conducted with format and organization as between subjects variables, and problem as a within subjects variable, for each of the dependent variables -- response time, acquisition, and processing strategy. Subjects with sequential displays took longer to make choices ( $F(1, 15) = 48.86$ ,

$p < .0001$ , with means of 251 seconds for sequential display subjects and 131 seconds for simultaneous display subjects. Contrary to expectation, sequential display subjects made significantly more acquisitions (mean = 97) than simultaneous display subjects (mean = 67), ( $F(1, 15) = 10.98$ ,  $p < .001$ ). Eighty percent of sequential display subjects used a brand-based processing strategy, compared with twenty-one percent of simultaneous display subjects ( $X^2(15) = 36.57$ ,  $p < .0001$ ).

Using the same general linear model, analyses of choice quality and confidence were also completed. As expected, no significant difference was observed in choice quality ( $F(1, 15) = 1.81$ ,  $p < .20$ ). Contrary to expectation, however, sequential display subjects were not more confident than simultaneous display subjects ( $F(1, 15) = .36$ ,  $p < .55$ ).

ANOVAs with the same dependent measures assessed the effect of display difficulty due to lack of organization. Subjects with poorly organized displays did not take significantly longer to make choices than subjects with simultaneous displays ( $F(1, 15) = .89$ ,  $p < .35$ ). As expected, however, they did make more acquisitions of information ( $F(1, 15) = 32.79$ ,  $p < .001$ ), with a mean of 56 acquisitions for poorly organized displays and 111 acquisitions for better organized displays. Directional support for the prediction that subjects with poorly organized displays would tend to use brand-based processing strategies was obtained, although the effect was not significant ( $X^2(15) = 3.23$ ,  $p < .08$ ). As with the effect of format on choice quality, the effect of organization on choice quality was in the right direction but not significant; subjects with better-organized displays did somewhat better than subjects with poorly organized displays (means = 94 and 92, respectively), ( $F(1, 15) = 2.29$ ,  $p < .16$ ). The effect of difficulty due to organization on confidence was as expected; better organized displays resulted in higher levels of confidence than poorly organized displays ( $F(1, 15) = 4.82$ ,  $p < .03$ ).

Tests of hypotheses about processing behavior when both factors of difficulty were present in the information display were also examined. As predicted, the mean response time for subjects in the better organized but sequentially presented display condition was significantly longer than the mean for subjects

in the next most time-consuming condition, poor organization, sequential format ( $t(15) = 2.33, p < .02$ ). Subjects in the better organized, sequentially formatted condition also made significantly more acquisitions of information than subjects in the better organized, simultaneously formatted condition, who made the second greatest number of acquisitions ( $t(15) = 3.47, p < .001$ ).

The interaction of the two factors of display difficulty also affected the type of strategy subjects used to acquire information. As predicted, subjects with better organized, simultaneously presented information tended to use attribute-based strategies more often than subjects in any of the other conditions ( $X^2(15) = 3.975, p < .003$ ). Subjects in the better organized, sequentially formatted condition tended to use a brand-based strategy.

It was hypothesized that subjects in the better organized, sequentially formatted condition would make choices of better quality than subjects in the other conditions. The results of a planned contrast did not support the hypothesis, however, as the difference between subjects' performance with the least difficulty display and the average of performance in all other conditions was not significant ( $t(15) = 1.37, p < .17$ ). The effect of display characteristics on confidence was also not significant ( $t(15) = 1.60, p < .11$ ).

## DISCUSSION

To summarize the results, subjects adapted their decision behaviors to manage two factors of difficulty in the display: format and organization. One of the most common behaviors for managing information that was only available one brand at a time, or that was not organized to facilitate comparisons, was to process by brand. When information was available all at once and was organized into a matrix format, subjects tended to process by attribute.

Despite its frequent use to describe a form of consumer information processing, 'processing by brand' may be too general a term to provide adequate descriptive information for marketers. Although the brand-based strategies, as evidenced by the sequences of acquisitions, may seem superficially similar, subjects in the sequentially presented, poorly organized condition and subjects in the sequentially presented,

better organized condition exhibited the greatest differences in numbers of acquisitions, quality of recommendations, and confidence. Thus, this study suggests that consumers' perceptions of what constitutes difficulty, and how much effort is required to manage that difficulty, may result in very different processing characteristics for making choices -- even though the overall processing strategy appears brand-based.

## REFERENCES

- Bettman, James R. (1979), "A Functional Analysis of the Role of Overall Evaluation of Alternatives in Choice Processes," Advances in Consumer Research, Vol. 7, Provo, UT: Association for Consumer Research.
- Bettman, James R. and P. Kakkar (1977), "Effects of Information Presentation Format on Consumer Information Acquisition Strategies," Journal of Consumer Research, 3 (March), 233-240.
- Biehal, Gabriel and Dipankar Chakravarti (1982), "Information Presentation Format and Learning Goals as Determinants of Consumers' Memory Retrieval and Choice Processes," Journal of Consumer Research, 8 (March), 431-441.
- Billings, R. S. and S. A. Marcus (1983), "Measures of Compensatory and Noncompensatory Models of Decision Behavior: Process Tracing Versus Policy Capturing," Organizational Behavior and Human Performance, 31, 331-352.
- Coupey, Eloise (forthcoming), "Restructuring Information Displays in Consumer Choice," Journal of Consumer Research.
- Ford, J. Kevin, Neal Schmitt, Susan L. Schechtman, Brian Hults, and Mary L. Doherty (1989), "Process Tracing Methods: Contributions, Problems, and Neglected Research Questions," Organizational Behavior and Human Decision Processes 43, 75-117.
- Jarvenpaa, Sirkka L. (1989), "The Effect of Task Demands and Graphical Format on Information Processing Strategies," Management Science, 35 (March), 285-303.

- Johnson, Eric. J. and John W. Payne (1985), "Effort and Accuracy in Choice," Management Science, 31, 393-414.
- Johnson, Eric. J., John W. Payne, David A. Schkade, and James R. Bettman (1989), "Monitoring Information Processing and Decisions: The Mouselab System," Duke University, Center for Decision Studies, Durham, NC 27706.
- Klein, Noreen M. and Manjit S. Yadav (1989), "Context Effects on Effort and Accuracy in Choice: An Enquiry into Adaptive Decision Making," Journal of Consumer Research, vol. 15, 411-421.
- Payne, John W. (1976), "Task Complexity and Contingent Processing in Decision Making: An Information Search and Protocol Analysis," Organizational Behavior and Human Performance, 16, 366-387.
- Payne, John W., James R. Bettman, and Eric J. Johnson (1988), "Adaptive Strategy Selection in Decision Making," Journal of Experimental Psychology: Learning, Memory, and Cognition, 14 (July), 534-552.
- Wright, Peter L. (1976), "An Adaptive Consumer's View of Attitudes and Choice Mechanisms, As Viewed By An Equally Adaptive Advertiser," in Attitude Research at Bay, ed. William D. Wells, Chicago: American Marketing Association, 113-131.



# EFFECTS OF INVOLVEMENT, VISUAL STIMULI, AND VERBAL IMAGERY ON RECALL

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## ABSTRACT

Most forms of print advertising contain both verbal and non-verbal elements in the conveyed message. Considerable research has examined the use of nonverbal and verbal elements in print advertising and their impact upon consumer information processing. However, research has not yet examined the impact of the presence or absence of pictures and accompanying verbal information while accounting for differing levels of consumer involvement, even though previous research has demonstrated that involvement is an integral component of information processing.

Previous research concerning the effect of pictures in print advertising has shown that pictures can attract attention to an ad and therefore lead to greater message processing, which should, in turn, lead to greater recall of the ad and the brand. Two studies (Lutz and Lutz 1977; Childers and Houston 1984) found that interactive pictures (with the ad copy) increased brand recall. In a follow up study Houston, Childers and Heckler (1987) found that brand attribute recall was increased when the ad presented both a visual stimuli and corresponding copy, as opposed to copy and a picture that represented a different brand attribute. In contrast, Edell and Staelin (1983) found that when the information contained in the pictures and the argument of an ad are the same (in a forced exposure situation), then the presentation of the picture in the ad does *not* increase brand or ad recall. Likewise, Unnava and Burnkrant's (1991) results indicate that the addition of a picture that exemplifies the verbal claims in the ad does not improve recall when the text is high in imagery. In other words, the

inclusion of a picture in an ad had no incremental effect on recall when the text of the ad was high in imagery. However, these studies did not examine the issue of degree of involvement.

Unnava and Burnkrant (1991) examined the effects of verbal imagery and pictures on recall; however, these authors did not control for differing levels of involvement (only high involvement was examined). It is our belief that the omission of low involvement and the artificially high level of involvement created by their manipulation is not reflective of "real world" setting. We offer a replication and an extension of Unnava and Burnkrant's work.

We replicated as faithfully as possible the experiment conducted by Unnava and Burnkrant (1991) and extended their work by incorporating differing levels of involvement in the experimental design. A 2x2x2 factorial design was developed with three independent variables: visual stimuli (picture present or not present), level of involvement (high or low) and verbal imagery (high or low). Recall for immediate response was used as the dependent variable.

It was found that the inclusion of a picture will not improve recall under high involvement conditions. The addition of a picture in a low involvement setting did improve recall scores when the verbal imagery of the ad copy was low. The experiment also provides further support for the Elaboration Likelihood Model of information processing. Finally, results indicated that a picture may also increase the perceived imagery of the ad copy.

# PERCEIVED QUALITY FOR A SYMBOLIC PRODUCT: AN EMPIRICAL INVESTIGATION

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## ABSTRACT

This study offers insight into consumer perceptions of product quality for a symbolic product - an area which has been neglected in the perceived quality literature. An experiment examines the effects of brand, price, and store on quality perceptions and product preference for womens' jeans. A 2 X 2 X 2 completely

between-subjects factorial design was used with two levels of brand, store and price. MANOVA results coincide with a descriptive study and an exploratory focus group, indicating that the female college students in this sample use brand as a dominant information cue when assessing product quality for jeans.

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## INTRODUCTION

Product quality and perceived quality continue to be topics of keen interest among marketing managers, practitioners and researchers. Quality measurement conferences grow increasingly popular among academicians and practitioners alike. What is interesting is the lack of consensus about what is meant by the terms, "product quality" and "perceived quality." Regardless of the conceptualization and operationalization of product quality and perceived quality, marketing researchers and theorists have yet to adequately deal with the relationship of perceived quality to purchase behavior.

From the perceived quality literature, it is clear that the price-perceived quality relationship is moderated by a variety of variables and that the influence of brand, store and product composition differs across products and situations (Andrews and Valenzi 1971; Dodds, Monroe and Grewal 1991; Etgar and Malhotra 1981; Olson 1977). Zeithaml (1988) calls for a de-emphasis on price as the main extrinsic quality indicator and an inclusion of other important indicators, as well as an identification of situations in which various cues are used over others. An area which has been virtually ignored by consumer researchers is perceived quality for symbolic products. Consumer judgments of quality for symbolic products and their relationship to purchase intention may vary distinctly from those made for products purchased

primarily for concrete, tangible benefits.

## PERCEIVED QUALITY AND SYMBOLIC PRODUCTS

A symbolic product is a product that communicates social meaning through the possession of abstract, intangible, esthetic attributes (Holbrook and Hirschman 1980). Symbolic products are often products that consumers use to express something about themselves to others through consumption (Belk, Bahn and Mayer 1982). Marketers do readily recognize that products are often purchased and consumed for their symbolic nature (Solomon and Buchanan 1991). However, as Holbrook and Hirschman (1980) suggest, marketing researchers have, in empirical investigations, neglected symbolic products and more frequently studied products consumed primarily for tangible, concrete attributes. The price-perceived quality literature is no exception.

Although many authors have suggested that the price-perceived quality relationship should not be generalized to all products in all situations (e.g., Gardner 1974; Olson 1977) and that the importance of different cues actually depends on the type of product chosen (Zeithaml 1982; 1988), published work on perceived quality has not included an emphasis on symbolic products or products which possess both functional and symbolic aspects. Although some studies have included products which may have a symbolic element such as clothing

or beer (Andrews and Valenzi 1971; Etgar and Malhotra 1981), the recognition of this symbolic nature and its impact on the significance of certain quality cues has been neglected.

Products and services which have a symbolic component or are consumed in a symbolic nature may evoke significantly different cues of product quality than more functional products. In fact, given the attempts of marketers to create symbolic associations with brand names (Wilkie 1990), it is particularly important to examine the interaction of price with brand name on perceived quality for symbolic products. For high status/upscale image brands, price may be irrelevant in signaling quality, i.e., the brand cue may mask any inferences made from price. In the case of lower status brands, however, price may interact with brand image to affect perceptions of quality (i.e., higher price signaling higher global quality).

The formation of quality perceptions for symbolic products may be quite different from that of more functional products. If, as Leigh and Gabel (1992) suggest, "...consumers acquire a specific good or service for what it signifies, based on symbols attached by society," (p. 28), brand name and retailer image may be significant signals of global product quality for symbolic products. Global quality assessments may be used for symbolic products even more than for products consumed for tangible, concrete characteristics. Fewer tangible, concrete features (or at least less attention to concrete features) could result in an increased use of inferential belief processes for symbolic products.

The extent to which quality perceptions play a role in the selection of symbolic products is also not clear. For products which portray a particular image, the importance of objective product quality may pale in comparison to the image elicited by the product or brand. Conversely, a popular brand image may have a halo effect on perceived quality for symbolic products. Indeed, this is particularly important to investigate for types of products which do possess observable compositional differences, as well as symbolic brand positioning (e.g., womens' jeans). Brand name may, in fact, signal product quality, but perceptions of quality may not be as salient to product purchase as the image of the brand.

The experiment described below was designed to examine the influence of price, brand name and retailer (store) image on perceptions of product quality, product preference and purchase intention for womens' jeans, a product with both symbolic and functional aspects.

## HYPOTHESES

The following hypotheses were developed from exploratory research (focus group discussions and a descriptive survey of undergraduate females) on womens' jeans:

- H1: There will be main effects of brand, store and price on perceptions of quality. High store status, high brand status, and high price will all result in a higher perceived quality rating for womens' jeans.
- H2: There will be an interaction of brand and store on quality perceptions for womens' jeans. For a high status brand, perceived quality will remain constant whether it is sold in a high or low status store. For a low status brand, perceived quality will be greater when the product is sold in the high status store than in the low status store.
- H3: There will be an interaction of brand and price on quality perceptions. For the high status brand, the perceived quality will be constant whether it is sold at a high or low price. For the low status brand, perceived quality will be greater when it has a high price than when it has a low price.
- H4: There will be an interaction of brand and price on brand preference and purchase intention. For the high status brand, preference and purchase intention will be higher at the low price. For the low status brand, preference and purchase intention will not be affected by price.

## METHOD

### Focus Group

In preparation for the experiment described here, an exploratory focus group was conducted and confirmed the symbolic meaning of jeans among female college students. Specifically, subjects in the focus group referred repeatedly to the way different brands made them feel and how different brands were just not "cool."

Based on the focus group discussion and a descriptive survey of two hundred undergraduate females, two brands and two stores were selected to be used in the experiment. For the college female population group, the focus group and survey results revealed that the brand, Guess, was perceived as a high status brand, while Lee was perceived as a low status brand; Bergner's, a local department store, was perceived as a high status store, and Sears was perceived as a low status store. The two levels of price were also determined from the focus group and actual levels observed in the local market place: a high price of \$58 and a low price of \$19.

### Sample and Procedure

A convenience sample of one hundred and forty-one female undergraduate students at a large midwestern university served as subjects. In return for their participation subjects received extra credit in a course. The sample was quite homogeneous and represented heavy users of womens' jeans (Simmons Study of Media and Markets 1991). Over 50% of the subjects were 21 years old, and 72% of the participants were seniors in college.

A 2 X 2 X 2 completely between-subjects factorial design was used with two levels of price (\$58/\$19), two levels of brand name status (Guess = high; Lee = low) and two levels of store status (Bergners = high; Sears = low). Since the primary focus of the experiment was to isolate price-brand-store-perceived quality relationships for a symbolic product, the between-subjects design was used to avoid hypothesis guessing.

Each condition included at least 17 subjects. The data were collected during 26 sessions over two days. Treatments were randomly assigned across the time periods and subjects signed up for sessions which best fit their schedules.

Each subject was exposed to the "same" experimental stimulus: a pair of Guess jeans for which all references to the Guess brand were removed. An informational tag manipulated the level of the three independent variables across the conditions. The physical composition cues of the jeans, then, were identical across the treatments - only price, brand and retailer information varied between treatments. Before

examining the jeans, subjects were told to assume that the jeans were the size that they would be interested in purchasing and that they were considering purchasing them to wear to classes. Subjects were given as much time as they wanted to examine the jeans and then complete the dependent measures and manipulation checks.

### Dependent Measures

After examining the jeans, subjects indicated purchase intention via a seven point likelihood scale; affect (preference) for the pair of jeans via a seven point "like very much" to "Do not like at all" scale and attitude toward purchasing via a three item standard semantic differential scale (Cronbach's  $\alpha = 0.90$ ). Subjects then rated the pair of jeans they had just seen on several attributes using a series of modified semantic differential scales. One of the items was the "high quality - low quality" measure.

Manipulation checks included ratings of brands of jeans and ratings of retailers. Attribute importance was measured for nine attributes (including price, brand name and quality) via a seven point "very important" to "very unimportant"(in the purchase of jeans) scale. Six brands of jeans were rated using modified semantic differential scales including expensive-inexpensive, durable-not durable, unattractive-attractive, flattering style - not flattering style, high quality - low quality, and likely to buy - not likely to buy. Nine retailers were rated using modified semantic differentials on high/low quality products, often/seldom shop there, expensive/inexpensive merchandise, fashionable/not fashionable clothing, and provides good/bad service.

## RESULTS

### Manipulation Checks/Attribute Importance

In terms of attribute importance for the purchase of jeans, quality was rated third in importance ( $\bar{x} = 1.87$ , on a 1 to 7 "very important" to "not important" scale). Fit and style were rated as the most important attributes( $\bar{x} = 1.16$  and  $\bar{x} = 1.76$ , respectively). Brand name was rated second to last on importance ( $\bar{x} = 3.83$ ).

Guess was rated as the most expensive brand ( $\bar{x} = 1.20$ , on a 1 to 7, "Expensive" to

"Inexpensive" scale), while Lee was second to last on expensive-inexpensive ( $\bar{x} = 4.49$ ). On durability, Lee and Guess were both rated as durable ( $\bar{x} = 2.16$  and  $\bar{x} = 2.13$ , respectively, on a 1 to 7 "durable" to "not durable" scale). Guess was considered to be the most attractive pair of jeans ( $\bar{x} = 6.16$ , on a 1 to 7 "unattractive" to "attractive" scale) and was rated significantly higher than Lee ( $\bar{x} = 4.21$ ) and all other brands on this attribute ( $\alpha = .01$ ). With regard to quality ratings, Guess was again the highest rated brand ( $\bar{x} = 1.76$  on a 1 to 7 "high quality" to "low quality" scale), however, all but one brand scored 3.0 or better on quality. Lee was rated significantly lower on quality than Guess ( $\bar{x} = 2.66$ ,  $\alpha = .01$ ).

Bergner's was rated significantly higher on quality of merchandise, price, and fashionable clothes than Sears ( $\alpha = .01$ ). In fact, Bergner's was rated as the most expensive store ( $\bar{x} = 1.87$  on a 1 to 7 "expensive" to "inexpensive" scale), whereas Sears was considered to be the least expensive store ( $\bar{x} = 2.95$ ).

### MANOVA Analysis

A three factor (price by brand by retailer) MANOVA was run using the four dependent measures, quality rating, purchase intention, preference (affective scale) and attitude toward purchasing (Refer to Table 1). No significant interactions were observed (rejecting H2, H3, and H4), however, brand and price had significant multivariate effects ( $F_{4,127} = 6.97$ ;  $p = 0.000$  and  $F_{4,127} = 8.97$ ;  $p = 0.000$ , respectively).

An examination of the individual cell means (Refer to Tables 2, 3, 4 and 5), reveals that the Guess brand name had a significant positive influence on the quality rating ( $F_{1,130} = 21.08$ ;  $p = 0.000$ ), preference (liking) ( $F_{1,130} = 6.65$ ;  $p = 0.011$ ), attitude toward purchasing ( $F_{1,130} = 13.88$ ;  $p = 0.000$ ) and purchase intention ( $F_{1,130} = 12.57$ ;  $p = 0.001$ ). Price was significantly negatively related to attitude toward purchase ( $F_{1,130} = 20.04$ ;  $p = 0.000$ ) and purchase intention ( $F_{1,130} = 16.14$ ;  $p = 0.000$ ).

### DISCUSSION

Several authors have suggested that the price-perceived quality relationship should not be generalized to all products and to all situations (e.g., Wheatley and Chui 1977; Zeithaml

1982; 1988). This seems particularly important for symbolic products for which consumers may approach product information and cues differently than they would for more functional products. Results of this study indicate that brand name was the dominant variable affecting perceived quality for jeans for this sample of female college students, while price did not significantly affect quality perceptions. It could be argued that the dominance of brand name is further reflected in the lack of any interactions between price, store and brand.

Results of this analysis revealed that, as expected, for a symbolic product, brand name had a significant impact on both perceptions of quality and purchase intention. In addition, price had a significant impact on attitude toward purchasing and purchase intention. The direction of the effect was consistent with Dodds, Monroe and Grewal (1991). The lower priced pair of jeans was always rated higher on attitude toward purchase and purchase intention, regardless of the brand name or retailer information. Price did not significantly influence perceived quality ratings. According to this data, the brand perceived to be higher in quality was preferred, however, price was not a significant signal of quality, given the consistent preference for the lower-priced jeans. This is a particularly interesting result given manufacturers' frequent use of price to position a brand as a high status, high quality brand. In the case of womens' jeans and the college student sample, this result probably points to the stability of the images of the two brands used in this study.

Many issues remain to be explored with respect to the price-perceived quality relationship for a symbolic product. The poor rating given to the importance of brand name in the manipulation checks (8th out of 9 attributes) is particularly interesting, given its significance for all dependent variables in the MANOVA. This apparent contradiction may be the result of either a social desirability bias (Nunnally 1967) or simply a lack of awareness on the part of subjects as to the profound influence of brand names on their perceptions and preferences for this product class. Isolating either explanation as the cause here could prove valuable to both researchers and strategists attempting to understand the origin and manifestation of such perceptions and preferences.

In addition, much work remains to understand the dimensions of perceived quality for a symbolic product. A weakness of this study is clearly the unidimensional, global quality assessment used as one of the dependent measures. As work in the services sector (Parasuraman, Zeithaml, and Berry 1985) and price-perceived quality literature (Garvin 1984) has illustrated, the accurate measurement of perceived quality should be multidimensional and specific to the product type under study. For example, in brand ratings in this study, Guess and Lee were both rated as durable and did not differ significantly on this attribute. However, Guess was rated as significantly higher on quality than Lee. Product specific measurement of perceived quality, then, should not only be multidimensional, but should also tap the relative importance of dimensions in determining product preference.

Clearly, work is needed to understand how consumers measure quality for symbolic products. Quality perceptions for a symbolic product may be affected less by true indicants such as materials and construction (Glisan and Showers 1989) than by surrogates such as brand name. Thus, the selection of jeans as the symbolic product in this study is critical to the interpretation of these results. Jeans clearly possess objective, functional attributes which are observable (e.g., stitching, texture, weight of material). However, clothing, in general, and jeans, for a female college population, are consumed, at least in part, to symbolize status or membership in a particular reference group, based on symbols attached by society (Leigh and Gabel 1992). Differences for other products may result depending on the level and type of symbolism present in their consumption. Theoretical work remains in describing perceived quality for symbolic products and its relationship to product preference.

Results of this study illustrate the importance of brand name in the formation of both perceptions of quality and purchase preference and intentions for a symbolic product. Further, the significance of price on attitude toward purchase and purchase intention (specifically a preference for the lower-priced jeans), but not on perceived quality, indicates an apparent separation of price from quality perceptions for this product. At the least this study points to a need for further exploring the origin and influence of quality perceptions for symbolic products.

## REFERENCES

- Andrews, P.R. and E.R. Valenzi (1971), "Combining Price, Brand and Store Cues to Form an Impression of Product Quality," in Proceedings of the 79th Annual Convention of the American Psychological Association, 6, 649-650.
- Belk, R., K. Bahn and R. Mayer (1982), "Developmental Recognition of Consumption Symbolism," Journal of Consumer Research, 9, 4-17.
- Dodds, W. B., K. B. Monroe and D. Grewal (1991), "Effects of Price, Brand, and Store Information on Buyers' Product Evaluations," Journal of Marketing Research, 28, 307-319.
- Etgar, M. and N.K. Malhotra (1981), "Determinants of Price Dependency: Personal and Perceptual Factors," Journal of Consumer Research, 8, 217-222.
- Gardner, D. M. (1974), "Is the Price/Quality Relationship Important?" Faculty Working Papers, University of Illinois, College of Commerce and Business Administration, Paper No 186.
- Garvin, David A. (1984), "What Does 'Product Quality' Really Mean?" Sloan Management Review, 40-43.
- Glisan, G.B. and L.S. Showers (1989), "Product Quality: Issues, Concepts and a Framework for Analysis," Advances in Marketing, SE Missouri State University: Southwestern Marketing Association, 385-393.
- Holbrook, M. and E. Hirschman (1980), "Symbolic Consumer Behavior: An Introduction," in E. Hirschman and M. Holbrook (eds.) Proceedings of the Conference on Consumer Esthetics and Symbolic Consumption, New York: Association for Consumer Research, 1-2.
- Leigh, J. and T. Gabel (1992) "Symbolic Interactionism: Its Effects on Consumer Behavior and Implications for Marketing Strategy," Journal of Consumer Marketing, 9 27-38.
- Nunnally, J.C. (1967), Psychometric Theory, New York: McGraw-Hill.

- Olson, J.C. (1977) "Price as an Informational Cue: Effects on Product Evaluations," in A. Woodside, J.N. Sheth, and P.D. Bennett, (eds.), Consumer and Industrial Buying Behavior, New York: North Holland Publishing Co., 267-286.
- Parasuraman, A., V. Zeithaml, and L. Berry (1985), "A Conceptual Model of Service Quality and Its Implications for Future Research," Journal of Marketing, 49, 41-50.
- Simmons Market Research Bureau, Inc. (1991) Study of Media and Markets, P-14, 0174.
- Solomon, M. and B. Buchanan (1991) "A Role-Theoretic Approach to Product Symbolism: Mapping a Consumption Constellation," Journal of Business Research, 22, 95-109.
- Wheatley, J.J and J.S. Chui (1977), "The Effects of Price, Store Image and Product and Respondent Characteristics on Perceptions of Quality," Journal of Marketing Research, 14, 181-186.
- Wilkie, W.L. (1990), Consumer Behavior, Second Edition, New York: John Wiley & Sons.
- Zeithaml, V.A. (1982), "Consumer Response to In-Store Price Information Environments," Journal of Consumer Research, 8, 357-69.
- \_\_\_\_\_ (1988), "Consumer Perceptions of Price, Quality, and Value: A Means-End Model and Synthesis of Evidence," Journal of Marketing, 52, 2-22.

**TABLE 1: SUMMARY OF THE ANOVA ANALYSIS**

| <b><u>EFFECT PRICE:</u></b>                     | <b><u>F VALUE</u></b> | <b><u>P VALUE</u></b> |
|-------------------------------------------------|-----------------------|-----------------------|
| MULTIVARIATE TEST OF SIGNIFICANCE (4 & 127 DF)  | 1.863                 | 0.121                 |
| UNIVARIATE TESTS OF SIGNIFICANCE (1 & 130 DF)   |                       |                       |
| QUALITY                                         | 0.086                 | 0.770                 |
| LIKING                                          | 2.666                 | 0.105                 |
| ATTITUDE                                        | 1.570                 | 0.212                 |
| PURCHASE INTENTION                              | 5.795                 | 0.017                 |
| <b><u>EFFECT PRICE:</u></b>                     |                       |                       |
| MULTIVARIATE TEST OF SIGNIFICANCE (4 & 127 DF)  | 8.973                 | 0.000                 |
| UNIVARIATE TESTS OF SIGNIFICANCE (1 & 130 DF)   |                       |                       |
| QUALITY                                         | 0.163                 | 0.687                 |
| LIKING                                          | 0.837                 | 0.362                 |
| ATTITUDE                                        | 20.037                | 0.000                 |
| PURCHASE INTENTION                              | 16.143                | 0.000                 |
| <b><u>EFFECT BRAND:</u></b>                     |                       |                       |
| MULTIVARIATE TEST OF SIGNIFICANCE (4 & 127 DF)  | 6.968                 | 0.000                 |
| UNIVARIATE TESTS OF SIGNIFICANCE (1 & 130 DF)   |                       |                       |
| QUALITY                                         | 21.080                | 0.000                 |
| LIKING                                          | 6.652                 | 0.011                 |
| ATTITUDE                                        | 13.881                | 0.000                 |
| PURCHASE INTENTION                              | 12.575                | 0.001                 |
| <b><u>INTERACTIONS:</u></b>                     |                       |                       |
| MULTIVARIATE TESTS OF SIGNIFICANCE (4 & 127 DF) |                       |                       |
| STORE BY PRICE                                  | 0.627                 | 0.644                 |
| STORE BY BRAND                                  | 1.542                 | 0.194                 |
| PRICE BY BRAND                                  | 0.467                 | 0.760                 |
| STORE BY PRICE BY BRAND                         | 0.741                 | 0.566                 |

**TABLE 2: CELL MEANS FOR QUALITY PERCEPTION MEASURE**

|              | <b>SEARS</b> |             | <b>BERGNER'S</b> |             |
|--------------|--------------|-------------|------------------|-------------|
|              | <b>\$19</b>  | <b>\$58</b> | <b>\$19</b>      | <b>\$58</b> |
| <b>LEE</b>   | 5.444        | 5.333       | 5.250            | 5.118       |
| <b>GUESS</b> | 6.187        | 6.000       | 5.824            | 6.556       |

OVERALL MEAN = 5.710 (NOTE: 1 = LOW QUALITY, 7 = HIGH QUALITY)



**TABLE 3: CELL MEANS FOR PURCHASE INTENTION MEASUREMENT**

|       | SEARS |       | BERGNER'S |       |
|-------|-------|-------|-----------|-------|
|       | \$19  | \$58  | \$19      | \$58  |
| LEE   | 4.778 | 3.333 | 5.300     | 4.118 |
| GUESS | 5.875 | 4.235 | 6.176     | 5.556 |

OVERALL MEAN = 4.949 (NOTE: 1 = NOT LIKELY AT ALL, 7 = VERY LIKELY)

**TABLE 4: CELL MEANS FOR PREFERENCE MEASURE**

|       | SEARS |       | BERGNER'S |       |
|-------|-------|-------|-----------|-------|
|       | \$19  | \$58  | \$19      | \$58  |
| LEE   | 5.000 | 5.067 | 5.400     | 5.059 |
| GUESS | 5.750 | 5.118 | 5.882     | 6.000 |

OVERALL MEAN = 5.413 (NOTE: 1 = DO NOT LIKE AT ALL, 7 = LIKE VERY MUCH)

**TABLE 5: CELL MEANS FOR ATTITUDE TOWARDS PURCHASE MEASURE**

|       | SEARS |       | BERGNER'S |       |
|-------|-------|-------|-----------|-------|
|       | \$19  | \$58  | \$19      | \$58  |
| LEE   | 4.870 | 3.778 | 5.450     | 4.294 |
| GUESS | 6.208 | 4.706 | 5.745     | 5.259 |

OVERALL MEAN = 5.058 (NOTE: 1 = UNFAVORABLE, 7 = FAVORABLE)

# THEORY BUILDING FROM THE QUANTITATIVE ANALYSIS OF QUALITATIVE INFORMATION

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## ABSTRACT

This article examines a methodology for building theory from the quantitative analysis of qualitative information through the analysis of linkages between codes and of code configurations, which define causal relationships across interviews. Transcripts from 39 personal discus-

sions with undergraduate seniors in marketing provided the data to illustrate the approach. The findings demonstrate the potential of using personal interviews, content analysis, and quantitative methods on qualitative information to develop theories.

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## INTRODUCTION

Quantitative analysis of qualitative data begins with identifying units of meaning in text and coding them by attaching abbreviated names. These codes not only reduce individual language to a less complex and ambiguous system, but they can also represent interpretive and/or explanatory efforts designed to develop an understanding of relationships between/among meanings. The result is the explication of general ideas or themes, the quantification of categories in texts, and the development and evaluation of associations between/among codes. This process has value because interpretations are scrutinized for objectivity, reliability, and validity, corresponding to better qualitative research (Hubbell and Garcia 1991; Tesch 1990).

Much of this analysis emphasizes personal theories which are substantive because they explain everyday situations and experiences. Although these theories are personal constructions, they are not necessarily idiosyncratic since groups of individuals often share theories about themselves and their environment and by sharing theories they are distinguished as types. These studies analyze and describe elements of subjective theories with relationships constructed by discerning the nature of each individual's personal theory at the level of within-text category analyses, after which results are grouped across interviews to find types of personal theories. This approach explicates individual patterns of meaning, reveals individual patterns of perceiving and evaluating typical situations and reactions to them through the reconstruction of personal theories from

analyses within texts, and distinguishes between types of individuals according to their personal theories from analyses across texts (Hubbell and Garcia 1991).

The purpose of this paper is to (1) characterize a theory building methodology for the analysis of qualitative information; (2) describe software for theory building from qualitative data; and (3) illustrate the methodology by analyzing undergraduate marketing student career issues, emphasizing career plans, perceptions, and expectations.

## THE QUANTIFICATION OF QUALITATIVE RESEARCH

Theory-building in qualitative analysis involves connecting codes by relating conceptual categories as coding segments. The objective is to discover and evaluate whether there are instances from which the researcher can discern that (A) is always present where (B) occurs; given (A), then (B) will follow; (A) is necessary but not sufficient for (B) to occur; (A) causes (B); and others (see Miles and Huberman 1984). One such program created for this purpose is AQUAD.

## AQUAD

The AQUAD software program facilitates inquiries into theories by providing a quantitative analysis of individual interviews (see Tesch 1992). With AQUAD, interview transcripts are characterized by their codes and groups of interviews are distinguishable by their combinations of codes. Thus, the program not only categorizes and assembles the data for codes, but

it also allows for drawing conclusions by relating codes to each other, thus exploring the occurrence of repeated configurations of code representations. Since the emphasis is on the co-occurrence of codes, there is an opportunity to formulate logical conditions about relationships and to locate all instances in which the conditions are fulfilled, also counting those in which the particular connections do not exist.

The strongest feature of AQUAD is its ability to evaluate postulated causal relations through the Boolean method of qualitative comparisons. All interviews are searched for the presence or absence of code combinations and the results are entered into a table, with cell entries signifying the presence or absence of conditions.

### **STUDENT CAREER PLANNING**

The analysis of student career plans, perceptions, and expectations provides an illustration of the approach to theory building discussed here. Student career planning is a complex area involving many factors. Although there are many studies about this phenomenon and related influences, generalizations are possible. Many college students make a career choice early in their academic training (Keller, Piotrowski, and Rabold 1990). Successes in pursuing career goals are related to self-confidence and self-understanding, life style preferences, financial requirements and expectations, interpersonal differences, social relationships, coping skills and emotional well-being, anxiety associated with career decision making, and work orientation (e. g., Berger-Gross, Kahn, and Weare 1983; Johnson and Hoese 1988; Kivlighan, Johnsen, and Fretz 1987; Wilkes, Davis, and Dever 1989).

### **METHOD**

This study uses qualitative data from discussions with 39 undergraduates about to receive their bachelor's degrees on marketing. All interviews were done in-person during the latter part of a capstone course in marketing strategy. At the start of a discussion, each student was told that the next half-hour would be spent talking about his/her career plans, using the student's own thinking and activities as the reference point. A very unstructured discussion guide facilitated the flow of each interview without suggesting potential responses. Tapes

from the interviews were transcribed into a format suitable for a content analysis by a stenographer who created computer files of the individual sessions.

### **Coding and Analysis**

The review of literature on student career plans, perceptions, and expectations and a grounded theory approach to discovering, developing, and verifying codes (see Strauss and Corbin 1990) produced the categories and codes in [Table 1](#). By this approach, concepts and relationships were both hypothesized and evaluated in the theory formulation process. Note however that this exercise is only designed to create analysis codes for illustrative purposes and not to develop a comprehensive theory about student career issues. Each interview was coded separately by two individuals, with disagreements resolved through the discussion of disputed text passages.

The dependent measure in this study is whether the student had a job to go to at graduation. This job needed to be full-time and not a continuation of part-time work unless it was consistent with the student's marketing undergraduate training.

### **Linkage and Configuration Analysis**

The focus here is on analyzing linkages between codes and on formulating logical connections between codes across interviews. This is done within texts when examining personal theories, and across texts when looking for types of personal theories. These repeated configurations of codes will reveal causal relationships.

### **ANALYSIS AND FINDINGS**

This section itemizes the code frequencies, examines linkages between codes based on a distance criterion, and analyzes causal relationships by evaluating code configurations found across interviews.

### **Codes and Code Frequencies**

The analysis codes in [Table 1](#) are designed to identify both occurrences and degrees of attribution. For example, EXPT (expectations) was coded as "high" or "medium" or "low" since it is both the discussion of this code and its characterization that is of interest. If this

code was never mentioned during an interview, a designation for "none" was used.

The next step was to identify the prominence of codes in the interviews. To this end, frequency counts for each code were developed. As can be seen in [Table 1](#), the most frequent code is ECON (economy) in the context dimension, followed by EXPT (expectations) in the personal dimension and LFST (lifestyle preferences) in the planning dimension.

### Linkage Analysis

The first prerequisite for further analyses was the selection of a maximal distance (of text lines) from where a particular code was identified to another code, focusing on linkages of between the codes based on that distance. In this study, a maximal distance of ten lines was used as the criterion for code linkage searches.

The linkage evaluations were done by taking the codes in [Table 1](#) and analyzing the set of all possible code pairs. However, normally the researcher has hypotheses about code linkages stated as the number of lines from one code to another. Mechanically, hypothesis evaluation normally involves using AQUAD to search for the frequencies of code linkages which confirm or disconfirm a hypothesis based on a significant criterion of 80 percent confirmation versus disconfirmation (see Hubbell and Garcia 1991). For example, [Table 2](#) shows the personal dimension codes within ten lines of the code SCON for self-confidence in the personal dimension by a sampling of three student interviews, for the hypothesis that personal dimensions are always discussed in proximity to one another.

### Configuration Analysis

Next, hypothesis testing was conducted in a more conventional sense in terms of causality. This evaluation was done by analyzing the configuration of conditions found within interviews across all texts, using Quine and McClusky's algorithm (see McDermott 1985) for logical minimization of configurations and the Boolean algebra methods by Ragin (1987).

For this purpose, several of the codes in [Table 1](#) were transformed into "truth values," reducing them to binary statements "condition

true" (existing in any particular text) versus "condition false" (not existing). This analysis looked at the personal dimension predictors of employment, amounting to eight codes. AQUAD allows a maximum of 12 codes during any one configuration analysis. The truth values for the codes in the career status and personal dimension were used to construct [Table 3](#).

After the eight codes were reduced to binary data points, combinations were represented by rows in a table of truth values (see Ragin 1987). Along one row, then, is the configuration of interviews for comparable sets of codes. The conditions are logically combined through Boolean multiplication. For instance, in [Table 3](#), the first combination is described by the configuration: A = true and B = true and C = true and d = false and E = true and F = true and G = true and H = true and I = true. This combination shows that students with secured employment characterize their career plans, perceptions, and expectations in terms of experiences as a student and in the job market, self-understanding, anxiety/concerns, interpersonal differences, family background, and expectations.

The next step was to reduce the combinations in the truth table to a series of equations. Central to that analysis is the Boolean concept of minimization. If the effect (B) operates in two interviews, but in one interview the condition (A) is given among other conditions, whereas (A) is absent in the second interview, then this condition (A) can be eliminated from the further analysis as irrelevant. This approach results in a simplified, minimized configuration of conditions for (B).

Of particular interest here are the Boolean minimization solutions to [Table 3](#) which produced essential implicants from combining the "primitive" truth value expressions into a minimized expression which provide reduced equations. "Prime implicants" are created through a further reduction process where each Boolean expressions that implies another is subsumed, minimizing the primitive sums-of-products expressions. The objective of this second reduction phase was parsimony through covering as many primitive Boolean expressions as possible with a logically minimal number of prime implicants. Written in logical notation, the result for the positive conditions (have employment) analysis is:

$$A = BCEFGHI + BdEFGHi + bCdefgh + bCdEFHi \quad (1)$$

and the negative conditions is:

$$a = bCDEFGHi + BcDeFhi \quad (2)$$

where A is whether the student had secured a job to enter at graduation. The "+" between sets reads as "or" in terms of operating conditions. Each equation describes the logically minimal different combinations of conditions associated with the outcome.

Some comments on equations (1) and (2) should provide a flavor of how interpretations would proceed if the objective of this paper was the study of student career issues. The role of each personal dimension is indicated by a capital letter (major role), a small case letter (minor role), or no letter (no role at all). For example, EXPS (experience as a student) is a major influence on employment for some students and a minor one for others. This is also true for the negative outcome (no employment). Thus, self-confidence (D) plays either a minor role or not role at all for the positive outcome, but it plays a major role in the negative outcome, meanings that those without employment emphasize their self-confidence more than those who are employed pre-graduation. The interpretation is that those students without employment prospects are more likely to emphasize their self-confidence.

## DISCUSSION AND CONCLUSIONS

Theory-building approaches seek explanations for what is and why it is, beginning with attempts to establish linkages between/among categories and culminating with the identification of configurations which identify relationships, such as given (A), then (B) will follow or (A) is necessary but not sufficient for (B) to occur or (A) causes (B). Thus, entities called categories are conceptually related develop and evaluate hypotheses about the personal theories of those interviewed.

The use of the Boolean method of qualitative comparisons by AQUAD integrates features of experimental and interpretive design by treating the existence of a condition, representing the occurrence of a code signifying a category, as a dichotomous categorical variable. Causes are analyzed as complex combinations of conditions that are associated with a particular outcome.

This approach formalizes qualitative comparative methods without departing from the general logic of case-oriented research, allowing for the examination of larger numbers of cases and conformance to the comparative logic of experimental design. This is valuable because it preserves the advantages of the case-oriented approach but formalizes them as a general method of qualitative comparison using Boolean algebra. This allows for the assessment of complex patterns of multiple and conjunctural causation and the consideration of alternative explanations (see Ragin 1987). This Boolean method is especially well suited to addressing questions about outcomes resulting from multiple and conjunctural causes where different conditions combine in different and sometimes contradictory ways to produce the same or similar outcomes (Ragin 1987). This method is unique because (1) it is designed to uncover patterns of invariance and constant association; (2) it is insensitive to the frequency distribution of types of cases (one case can cast doubt on a hypothesized cause); (3) it forces the study of cases as a whole rather than as a series of variables; and (4) it stimulates a dialogue between theories and evidence which leads to better specifications of casual relationships (Ragin 1987).

## Qualitative Research and Theory

Those who employ language-oriented research are interested in the usage of language and in the meaning of words. This approach to analysis is predominant in both classical content analysis and computer-based analysis where language is considered a means of communication and a manifestation of culture. However, since theory and hypothesis testing have been traditionally the domain of researchers who work with quantitative data, many consider theoretical formulations based on qualitative data less reliable than those derived from variable-oriented data. Although qualitatively developed statements do not achieve the same degree of generalization as statistically tested statements, the conclusions developed can be based on methods that impose rigor on the analysis.

## Methodological Limitations

Although this approach gives insights into the occurrence of events based on binary conditions, it does not provide information about

variable variance and correlations which are the province of variable-oriented studies. Because the Boolean analysis approach requires that outcomes be reduced to binary codes, there is an automatic simplification of the phenomenon under study. This criticism also applies to the transformation of the predictor categories in the analysis.

### **Innovation in Qualitative Research**

The marketing discipline can benefit from applying methodologies emerging from the social sciences which use computer techniques to bridge the historical gaps between case-oriented and variable-oriented research. Of particular interest are innovative methods for theory development and evaluation that provide a conceptual and analytical foundation for a direct linkage between the traditionally disparate research approaches.

### **REFERENCES**

- Berger-Gross, Victoria, Matthew W. Kahn, and Constance R. Weare (1983), "The Role of Anxiety in the Career Decision Making of Liberal Arts Students," Journal of Vocational Behavior, 22 (June), 312-323.
- Hubbell, Gunter L. and Carlos Marcelo Garcia (1991), "Computer Assistance for Testing Hypotheses About Qualitative Data: The Software Package AQUAD 3.0," Qualitative Sociology, 14 (Winter), 325-347.
- Johnson, Richard W. and Jo Hoese (1990), "Career Planning Concerns of SCII Clients," Career Development Quarterly, 36 (March), 251-258.
- Keller, John, Chris Piotrowski, and Frank L. Rabold (1990), "Determinants of Career Selection in Undergraduates," Journal of College Student Development, 31 (May), 276-277.
- Kivlighan, Dennis M., Bonita Johnsen, and Bruce Fretz (1987), "Participant's Perceptions of Change Mechanisms in Career Counseling Groups: The Role of Emotional Components in Career Problem Solving," Journal of Career Development, 14 (Fall), 35-44.
- McDermott, Robert M (1985), Computer-Aided Logic Design, Indianapolis: Sams.
- Miles, Matthew B. and A. Micheal Huberman (1984), Qualitative Data Analysis. A Sourcebook of New Methods, Newbury Park: Sage Publications.
- Ragin, Charles C. (1987), The Comparative Method: Moving Beyond Qualitative and Quantitative Strategies, Berkeley: University of California Press.
- Strauss, Anselm and Juliet Corbin (1990), Basics of Qualitative Research, Newbury Park: Sage Publications.
- Tesch, Renata (1992), AQUAD User's Manual, translated from Gunter L. Huber (1989), AQUAD: Manual zur computerunterstützten Auswertung qualitativer Daten, Bericht Nr. 25, Institut für Erziehungswissenschaften 1, Universität Tübingen.
- \_\_\_\_\_ (1991), "Software for Qualitative Researchers: Analysis Needs and Program Capabilities." in Neigel G. Fielding and Raymond M. Lee (eds.) Using Computers in Qualitative Research, Newbury Park: Sage Publications.
- \_\_\_\_\_ (1990), Qualitative Research: Analysis Types and Software Tools, New York: The Falmer Press.
- Wilkes, Susan B., Liza Davis, and Laurie Dever (1989), "Fostering Career Development in Student-Athletes." Journal of College Student Development, 30 (November), 567-568.

**TABLE 1**  
**Code Frequencies Ever Mentioned in Interviews**

|                                      | Marketing<br>Students<br>(39) | %     |
|--------------------------------------|-------------------------------|-------|
| <b>1. Career Status</b>              |                               |       |
| EMOB employment obtained (yes)       | 18                            | 3.4   |
| <b>2. Personal dimension</b>         |                               |       |
| EXPS experience as student           | 23                            | 4.3   |
| EXPJ experience in job market        | 28                            | 5.3   |
| SCON self-confidence                 | 20                            | 3.8   |
| SUND self-understanding              | 9                             | 1.7   |
| ANXT anxiety/concerns                | 28                            | 5.3   |
| INTE interpersonal differences       | 13                            | 2.4   |
| FAMB family background               | 21                            | 3.9   |
| EXPT expectations                    | 30                            | 5.6   |
| <b>3. Social dimension</b>           |                               |       |
| SIGO significant others              | 28                            | 5.3   |
| PART parents                         | 24                            | 4.5   |
| STTR student teacher relations       | 18                            | 3.4   |
| SOCR social relationships            | 16                            | 3.0   |
| <b>4. Institutional dimension</b>    |                               |       |
| PLAC placement services              | 27                            | 5.1   |
| CLAS class content                   | 29                            | 5.4   |
| <b>5. Planning Dimension</b>         |                               |       |
| LERS letters and resumes             | 28                            | 5.3   |
| GOAL career goals                    | 28                            | 5.3   |
| LFST lifestyle preferences           | 30                            | 5.6   |
| FINR financial requirements          | 27                            | 5.1   |
| <b>6. Context dimension</b>          |                               |       |
| ECON economy                         | 39                            | 7.3   |
| PROS professional standards/training | 20                            | 3.8   |
| PROF profession trends               | 29                            | 5.4   |
| Total mentions:                      | 533                           | 100.0 |

**TABLE 2**  
**Sample of Personal Dimension Codes Within Specific Distance**

| Codes within ten lines of SCON (self-confidence) |                  |      |      |                  |      |      |              |
|--------------------------------------------------|------------------|------|------|------------------|------|------|--------------|
| Student                                          | Text segment     |      |      | Text segment     |      |      | Hypothesis   |
|                                                  | first            | last |      | first            | last |      |              |
|                                                  | line in the text |      |      | line in the text |      |      |              |
| 001:                                             | 124              | 126  | SCON | 134              | 136  | EXPS | confirmed    |
| 001:                                             | 231              | 234  | SCON | 239              | 241  | EXPJ | confirmed    |
| 001:                                             | 289              | 290  | SCON | 299              | 303  | ANXT | confirmed    |
| 001:                                             | 345              | 350  | SCON |                  |      |      | disconfirmed |
| 001:                                             | 566              | 568  | SCON | 572              | 575  | EXPT | confirmed    |
| 002:                                             | 67               | 68   | SCON | 68               | 71   | EXPS | confirmed    |
| 002:                                             | 111              | 113  | SCON | 120              | 123  | EXPJ | confirmed    |
| 002:                                             | 230              | 233  | SCON | 235              | 237  | INTE | confirmed    |
| 002:                                             | 435              | 437  | SCON | 439              | 441  | EXPT | confirmed    |
| 006:                                             | 99               | 102  | SCON | 108              | 111  | EXPJ | confirmed    |
| 006:                                             | 261              | 264  | SCON | 267              | 269  | ANXT | confirmed    |
| 006:                                             | 289              | 292  | SCON |                  |      |      | disconfirmed |

**TABLE 3**  
**Configurations of Codes**

| Combination | Marketing Students<br>(39) |
|-------------|----------------------------|
| ABCdEFGHI   | 8                          |
| aBcDeFGHi   | 7                          |
| aBcDeFghi   | 7                          |
| ABcdEFGHI   | 5                          |
| AbCdEFGHi   | 4                          |
| abCDEFGHi   | 3                          |
| AbCdEFgHI   | <u>3</u>                   |
| Total       | 37                         |

Where:

|                                   |                                    |
|-----------------------------------|------------------------------------|
| A = EMOB employment obtained      | G = INTE interpersonal differences |
| B = EXPS experience as student    | H = FAMB family background         |
| C = EXPJ experience in job market | I = EXPT expectations              |
| D = SCON self-confidence          |                                    |
| E = SUND self-understanding       |                                    |
| F = ANXT anxiety/concerns         |                                    |

Note: Only combinations with a minimum of three students are shown.



# FUZZY LOGIC AND MARKETING: A SIMPLE INTRODUCTION

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## ABSTRACT

Computers have introduced enormous changes into marketing theory and practice. One computational arena as yet hardly introduced is the very large conceptual domain of artificial intelligence and pattern recognition.

Disciplines as diverse as electrical engineering and linguistics, mathematics and psychology, are collaborating in the computer-based emulation of human mental process.

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## INTRODUCTION

In September of 1993, I listened to a presentation on fuzzy logic by two practitioners before a business audience. Information later sent me indicated that many kinds of businesses were using these techniques, beyond their initial example of financial services.

Adding to the operational significance of fuzzy logic (FL) are the thirty-one or more product-lines which Japanese firms are currently selling globally. Further, in one of the three sources emphasized in this paper, Kosko (1993), informs the surprised reader that at the end of 1991, thirty of the thirty-eight U.S. patents on fuzzy logic were held by the Japanese. These thirty include Nissan's more prosaic "fuzzy control system for automatic transmissions" and "anti-skid braking control system based upon fuzzy inference," to Omron Electronics' very high tech "fuzzy semi-finished integrated circuit" and "fuzzy logic computers and circuits." Apparently, many Americans are even further out-of-date in assuming that America gets the patents while the Japanese get the business.

In addition, Kosko (p. 190) informs us that the ubiquitous MITI (Ministry of International Trade and Industry) assisted in creating two public/private research entities in 1989 and 1990. Competing between themselves are Life (Laboratory for International Fuzzy Engineering Research) and FLSI (Fuzzy Logic Systems Institute), with most large Japanese firms in manufacturing, electronics and vehicles belonging to one or both. After stumbling over these acronyms, it dawned upon this writer that perhaps the Japanese were pulling a Sputnik on the world; they were deep into something which

could give them a big leg up on global economic competition. While Americans are economically debilitated by the end of the cold war, we are being attacked by others more familiar than we in arcane topics like pattern recognition, artificial intelligence, expert systems, neural networks and fuzzy logic. I felt compelled to investigate ideas, already well-supported by patents, products and hard-nosed business consultation.

This paper endeavors to treat very lightly some of the concepts contained in Kosko (1993); Marik, Stepankova and Trappl (1992); and Schalkoff (1992). The three sources contained 1,151 pages, inclusive of references. Much of their work is extremely technical, with particular regard to formal logic, mathematics and computer science. Personally trained at the bachelor's level in formal logic and the master's in applied mathematics, this researcher could not follow all the arguments. Fortunately for both the busy reader and writer, none of the three usual subtopics of pattern recognition (statistical, neural and linguistic) are discussed. Beyond definition, artificial intelligence and expert systems will not be introduced. Yet we will have much to understand, for running through all of the above is the concept of fuzzy logic and fuzzy systems which this logic defines.

## PHILOSOPHY AND PHYSICS

Fuzzy logic has been discussed in this century by Polish, English and American logicians (Lukasiewicz, Russell, and Black). In physics, its essence is expressed by Heisenberg's Uncertainty Principal. The word "fuzzy" was introduced explicitly in 1965 by Lotfi Zadeh, Chair of the U.C. Berkeley Department of Electrical Engineering and Computer Science. In a direct

way, all this work was a reaction to the paradigm given the Western world by Aristotle, long before the commencement of the Christian era.

Fuzzy logic stands in general opposition to the notion of exactness or definiteness. Aristotle insists "A or not - A." Aristotle demands that we make a decision as to whether something exactly and definitely is, or is not. In market research we often require a response such as "Similar or not similar," or "Like, neither like-nor-dislike, not like." In other words, we are telling our informants that only two, three or some other exact and definite number of responses are permitted. Fuzzy logic says that if we want to know how the world REALLY works, this is an inferior approach. Kosko offers the personally appealing situation of eliciting a response as to where a dingbat friend parked their vehicle at school: one might say, "a bit in space #214, mostly in space #215." Of course, a "quant" could volunteer, "about 20% in #214 and 80% in #215 - more or less."

### PHILOSOPHY, EAST AND WEST

FL, then, alters the Aristotelian "A or not A" to "A and not A," meaning generally some of each -- but normally more of one than another. In the language of FL, we now acknowledge the world of the East, the yin and the yang, the world of Buddha. This is the core concept of fuzzy logic: categories of thought and measurement are artificial, in that they generally do not correspond to how people think or how natural systems operate.

Let us use a modified example, taken from Kosko (pp. 161-176). While he addressed the issue of when to fire the air conditioning motor to maintain an acceptable interior temperature, we can use the same approach to the response, say, of a retailer of what mix of clothes to advertise given outdoor temperatures. The horizontal axis will measure the independent variable of temperature, both exactly and using the fuzzy language of the consumer, say: "cold," "cool," "just right," "warm," "hot." The vertical axis measures the dependent variable of advertising mix provided -- say, cottons/synthetics to total -- as the objective scaling. The fuzzy language on the vertical scale will be terms used by the firm, say: "late Fall/Winter," "early Fall," "Spring," "early Summer," "high Summer."

For reasons beyond the scope of this paper,

it is required that fuzzy terms be used on BOTH the horizontal and vertical axis, to form "patches" of contiguous input/output relationships of generally non-linear order. Let us examine the graph below, noting that on each axis we can have strengths or degrees of from 0% to 100% for the fuzzy terms.

While the meaning on each axis of the triangles is extremely important to FL, for our purpose we can consider these a measure of the proportion of persons on each axis who would use these words at a particular temperature (horizontal) or advertising mix (vertical) ON AVERAGE. "On average" is important, since our personal response depends upon whether we have eaten, drunk, smoked, exercised, had wild thoughts, or any number of other situations.

Once this apparatus is in place, we can ask a question such as: At 63 degrees F, what response should be given by the store? At 63 degrees, we note that about 80% of our potential customers consider conditions "just right," on average. We also note that about 15% of our potential customers consider 63 degrees "cool," on average. Our next query is, how to proceed: One approach is to write the fuzzy verbal rules:

If "cold," then "late  
Fall/Winter;"

If "cool," then "early  
Fall;"

If "just right," then  
"Spring;"

If "warm," then "early  
Summer;"

If "hot," then "high  
Summer."

Again, we note that behind each fuzzy term there stands a range of explicit temperature observations (horizontal) and particular advertising decisions by a firm (vertical).

The "trick" then becomes to modify the response triangles on the vertical axis by the weighting of the input triangles. We take the 80% of "just right," and weight the associated "Spring" by the same percentage. We take the 15% of "cool" and weight the associated "early

Fall" similarly. In a very straightforward business sense, the customer's perceptions are taken to alter the response of the firm in this non-specific, rather vague world in which we all live. The reduction is done below graphically. Computers and even particular chips routinely do this now. For our purposes, all one does is to reduce the vertical mid-point of the appropriate response triangle (vertical axis) by either 80% or 15%, and then connect the previous end-points. The result is shown on the second graph. What then is our response to the two reduced, overlapping triangles? Again, this reduction of the firm's (vertical) fuzzy words is done to reflect the fuzzy categories of customers' (horizontal) fuzzy words. And just as that reduction was done by percentage weighting, so too the combination of the two reduced triangles is done by weighting. In a straightforward process, the amount of advertising for clothing for cottons/synthetics as a percentage of total advertising for woollens + cottons/synthetics is weighted by the corresponding point on the reduced triangle. This arithmetic average, or centroid if one wishes, can be done manually (each point on the vertical times its percentage, all summed), by algebraic calculation, or by computer. The result, in our instance, is 42%. That is the specific and particular number which arises from this situation.

#### **RECONCILING MENTAL AND ENGINEERING PROCESS**

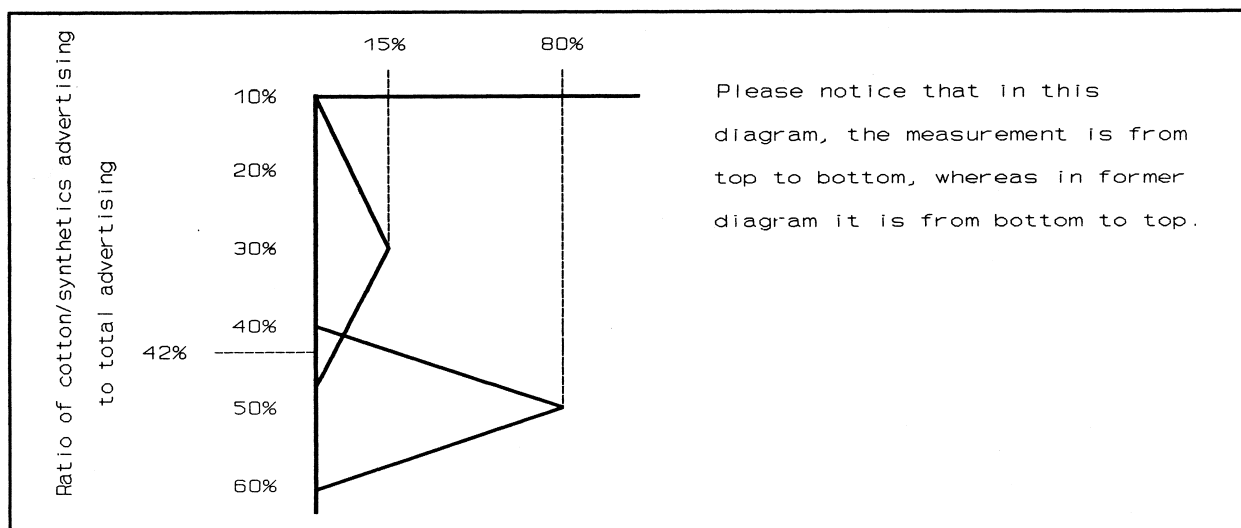
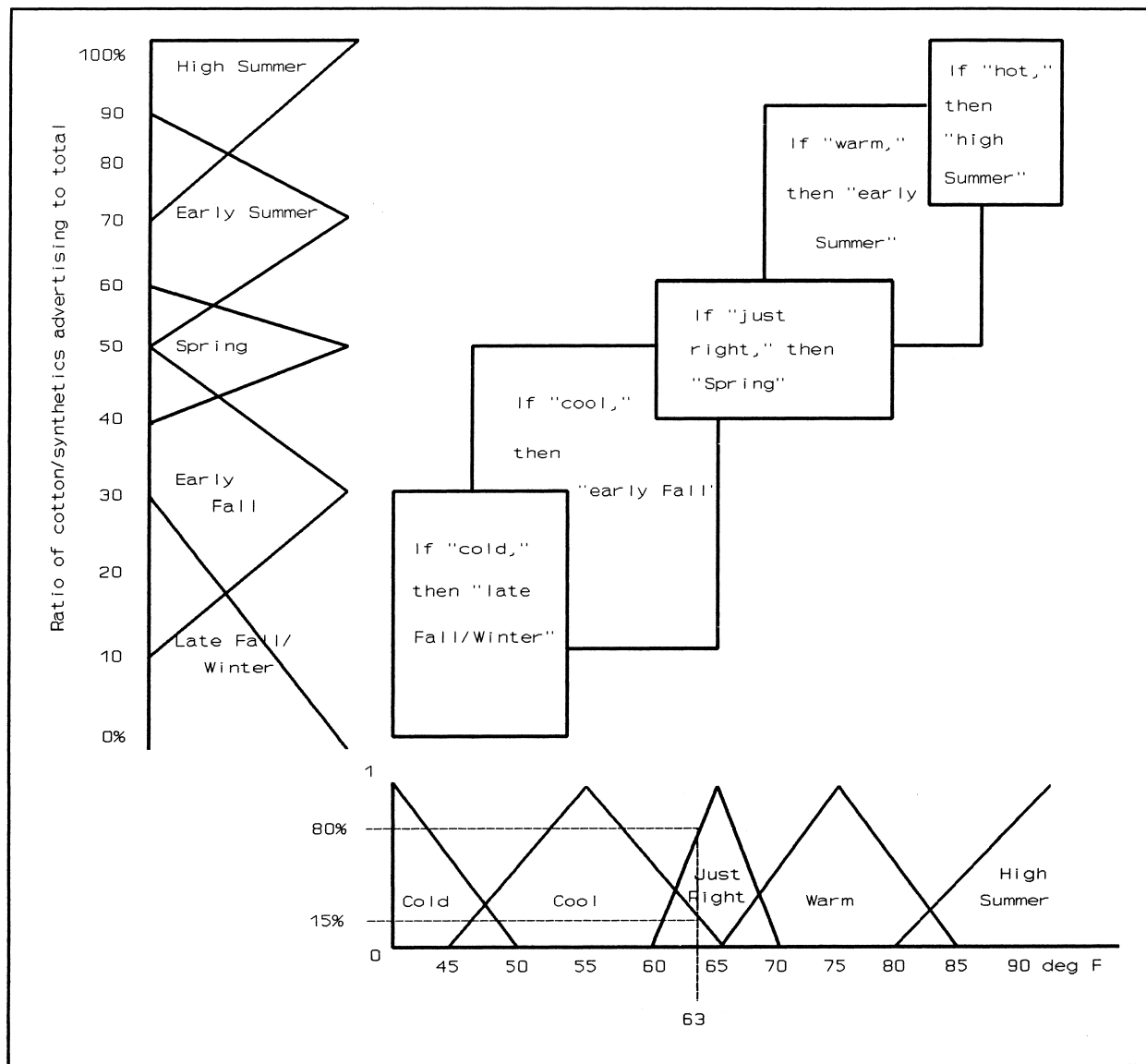
What does all this unorthodox thinking do for us? At a minimum, it demonstrates what computers are doing today with fuzzy physical systems, as with the many Japanese products. It also is an introduction to adaptive fuzzy systems, involving neural networks, such as were offered by consultants in that September meeting. It could be an introduction to studying how the brain ACTUALLY functions (Havel, pp. 25-34). It could also be related to how the brain MIGHT function, that is, with artificial intelligence (Dorffner, pp. 440-449).

Another aspect of artificial intelligence is expert systems, which is likely to be NOT what we have examined. The reason, succinctly, is that our customers are not all "experts," even if many business persons are of the opinion that they personally are. It is to the degree that business persons substitute their own "expert" opinions for that of the actual market place, that "optimal" solutions replace profitable ones.

If the foregoing is unclear after first reading, I suggest rereadings, as I was obligated to do in much of the material. That it should be understood, I believe is clear -- at least some academic marketers should comprehend it in order to "keep up" with consultant practitioners AND possibly to find useful applications within our discipline.

#### **REFERENCES**

- Dorffner, Georg. (1992), "An Introduction to Neurocomputing and its Possible role in AL," Advanced Topics in Artificial Intelligence, eds. Vladimir Marik, Olga Stepankova, and Robert Trappl. Berlin: Springer-Verlag, 440-464.
- Havel, Ivan M. (1992), "Artificial Intelligence and Connectionism: Some Philosophical Implications," Advanced Topics in Artificial Intelligence, eds. Vladimir Marik, Olga Stepankova, and Robert Trappl. Berlin: Springer-Verlag, 25-41.
- Kosko, Bart (1993), Fuzzy Thinking: The New Science of Fuzzy Logic. New York: Hyperion.
- Marik, Vladimir, Olga Stepankova, and Robert Trappl (1992), Advanced Topics in Artificial Intelligence. Berlin: Springer-Verlag.
- Schalkoff, Robert J. (1992), Pattern Recognition: Statistical, Structural and Neural Approaches. New York: Wiley.



# LOGICAL EMPIRICISM: ASSUMPTIONS, LANGUAGE, ACTIVITIES, PRODUCTS, GOAL, AND THEORY CREATION

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## ABSTRACT

Logical empiricism is the philosophical thought most often utilized in scholarly marketing research. But what is it? To answer the question in a simple manner, this paper summarizes the assumptions, language, activities, products, goal, and theory construction process

of logical empiricism based on popular thoughts in the existing marketing and social science literatures. A framework for logical empiricism theory building is provided to guide future research.

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## INTRODUCTION

The objective of philosophy is the logical clarification of thoughts; therefore, a philosophy such as logical empiricism is not a theory as such but an "activity" that mainly consists of elucidations; the goal is to clarify, not create, propositions about some phenomenon (Wittgenstein 1922). So, this means that "reality" and "truth" exist, but the interpretation of this reality and the subsequent truth differs depending on the chosen philosophical foundation of a person. The existence of various philosophical interpretations of phenomenon is the reason why the study of scholarly thoughts can be represented by a continuous process of thought classification, attempting to, in some cases, solve the mystery of the world (e.g., logical empiricism); or in other cases, move from point A to point B, with the knowledge that when one point is reached one has created an exponentially set of new points that can function as new goals, and so on (e.g., relativism).

The purpose of this paper is to clarify how logical empiricism (LE), the overriding philosophical thought of scholarly marketing research, explicates: laws, explanation, theories, and verification based on its assumptions, language, activities, products, and ultimate goal. As such, this paper will: discuss epistemological assumptions of LE; discuss LE's language, activities, products, and ultimate goal; deconstruct LE based on its own assumptions, and lastly summarize LE's theory building process in a synthesis model.

## EPISTEMOLOGICAL ASSUMPTIONS OF LE

There are several assumptions of LE, some

of which will be discussed below. First, LE assumes that the social world is a hard, concrete, and real entity that affects everyone (Morgan and Smircich 1980). It can be thought of as a structure founded in a network of relationships between various constituencies. Reality is viewed as the behaviors and relationships that exist between the various constituencies; it is an objective phenomenon that can be measured either through simple observation or empirical measurement (Morgan and Smircich 1980). Thus reality is merely what is "out there" in the form of the external environment and the so called real world. Individuals fit into this reality as products of the external forces in the environment to which they have been exposed (Carnap 1950; Morgan and Smircich 1980). For example, people from different cultures can be viewed as different because of the fact that they are products of different external environments. Based on the specific environment, individuals are believed to behave in predictable and somewhat determinate ways. A network of relationships links all aspects of behavior to the particular context. Individuals' perceptions of objects are viewed as less significant than the process of reality, i.e., people behave according to preset standards that are based on the surrounding environment. The idea that perception is not a focal part of LE is based on the notion that verification of an event (or theory) must be grounded in the acquisition of scientific or empirical data; data that cannot be questioned or contradicted based on differing interpretations (i.e., for example interpretation based on some other form of philosophy of science). The ultimate goal of LE is the desire or outcome of certainty, consistency, and progressive elimination of ambiguity (Bernstein 1983).

## **LANGUAGE, ACTIVITIES, PRODUCTS, AND GOAL OF LE**

In a very generalized way, one can state that the goal of LE is to find Truth by utilizing the activity of the scientific method; which, in this case, is founded in the language that states that "a theory is a systematically related set of statements, including some lawlike generalizations, that is empirically testable. The purpose of theory is to increase scientific understanding through a systematized structure capable of both explaining and predicting phenomena" (Rudner 1966, p. 10); the intermediary steps in this process can be viewed as the products of LE, i.e., hypotheses are tested based on scientific or empirical data (Hunt 1991). Again, the ultimate goal is for the hypotheses testing to reach the outcome where "everything" is empirically corroborated, i.e., the Truth has been found. The following section will discuss the basic components of logical empiricism, including its language, activities, products, and ultimate goal.

### **Language**

The language used in LE includes elements, formation rules, and definitions (e.g., Hunt 1991). The basic "words" of the system are composed of a set of primitive elements (nominal definitions as opposed to operationalized definitions) that are truly basic in the system; all nonprimitive terms existing in the system are explicitly deduced from the primitive elements. This means that a fully formalized LE theory includes a formal language system that has been axiomatized, i.e., a calculus. The axiomatization of a formal language system requires the adoption of rules of transformation and the selection of appropriate fundamental statements (axioms). The transformation rules specify how statements can be combined to deduce other statements in the system. The fundamental statements have to be: (1) free from contradiction-mutually exclusive outcomes cannot be deduced from the fundamental statements; (2) independent-no statement in the final set of statements can be deducible from the other statements; (3) sufficient-all statements included in the theory can be derived from the fundamental statements; and (4) necessary-all fundamental statements in the system are used to derive other statements in the system (Popper 1959).

### **Activities**

Initially, while LE is founded in the scientific method, it has to be said that many scientific discoveries are made based on perceptual insight, and thus are not the result of some rigorous testing procedure (Hunt 1991). The idea of the scientific method in LE involves four steps: selecting facts, registering these facts, rearranging the facts in a logical manner or pattern that is significantly different from a general chaos, and deducing or finding a formula about the generality of the facts (McGarry 1936). The basic thought is that the researcher has to form some a priori hypotheses about the phenomena that may be systematically related, and then make observations and record data relevant to the hypotheses (Brodbeck 1982). This means that data are never a priori relevant or irrelevant to a phenomenon; it is a priori relevant or irrelevant to the predetermined hypotheses. This also means that the researcher collects the data that are relevant to testing the hypotheses (Hunt 1983); most of the time, this means that all details about the phenomenon are not collected.

### **Products**

The objective of LE, as of all scholarly thought, is to produce knowledge. However, the question is what is considered knowledge? Hunt (1989) reiterates the criteria used by our scholarly journals, relating to specific manuscripts: nature of contribution to knowledge, extent of the contribution to knowledge, and is the contribution to knowledge genuine. The nature criteria refers to the notion that a marketing manuscript has to expand or contribute to the knowledge base in the scholarly and applied fields of marketing. This naturally does not mean that it cannot contribute to other fields, but marketing thought is supposed to be the key focus. The extent of the contribution refers to such things as newness of the contribution; is the contribution significant, or large, enough to warrant publication?; and will the contribution create further research, does it inhibit value for the field? Genuineness, which may be the criteria that causes the most controversy, refers to the fact that the research has to be founded in a rigorous and solid philosophical thought that guide the research in its discovery and justification claims; the key being verification of theory (Hunt 1990).

## Goal

The overriding objective of LE is to find the Truth with the realization that it will never be totally corroborated (Hunt 1991). Then, an intermediary or primary objective is to develop theories, according to the previous discussion, and derive bridge laws and subsequently testable hypotheses from such theories. Next, the research hypotheses are tested and statistically corroborated. Thus, the theory as such is not tested, and therefore, the specific theory cannot be strictly confirmed; theories cannot be proved to be conclusively true in an empirical sense. This also means that theory testing requires both deductive (hypotheses are deduced from the theory) and inductive (the theory is provided inductive support based on the verification of the hypotheses) procedures.

### DECONSTRUCTION OF LE BASED ON ITS ASSUMPTIONS

While there are several assumptions underlying LE, some of which have been addressed earlier in this answer, this deconstruction (cf. Culler 1989) section will focus on the following: the social world is a hard, concrete and real world that affects everyone; reality is based on behavior and relationships that exists between various constituencies; individuals' perceptions of objects are viewed as less significant than the process of reality, i.e., people behave according to preset standards that are based on the surrounding environment; the ultimate goal of LE is the desire or outcome of certainty, consistency, and progressive elimination of ambiguity.

Hard and concrete world that affects everyone. While this assumption is straightforward and most of the time non-controversial, it can be contradicted at times. Take for example the person that lives in his or her own frame of mind, i.e., the person is using their own established framework with which to see reality; this person, regardless of the outside world, is going to behave according to their social framework that they have created based on some experiences. And, these experiences do not necessarily have to include "reality as we know it." It seems that society establishes preset standards that one has to follow, everything else is regarded as "odd"; this is naturally not always true...

Reality is based on the behavior that exists between various constituencies. While this notion is similar to that of the relativist, i.e., reality is defined as the notion that something is relative to something else within given frameworks (Muncy and Fisk 1987), LE assumes that the behaviors are predicatable and determinate (to some extent). Thus, relationship building and its behaviors is a key (in any philosophical thought), but LE assumes that this behavior and the relationship determinants can be empirically (or somewhat objectively) measured and also that these behaviors, etc. are consistent within the total framework of society, which also means that LE assumes that there may not be more than "one" societal framework and people behave according to preset standards that are based on the surrounding environment.

Individuals' perceptions of objects are viewed as less significant than the process of reality. Again, this statement assumes that there is "one" reality "out there" and that overall the society is going to behave accordingly. The specific individual, for example, does not necessarily count for "that much," instead the process of reality within the society "rules" the behaviors of the people. While this assumption is great for research purposes, it is obvious that there is more to it than this. This notion is also being realized in much of the CB literature where perceptions of items such as perception of quality and value are being measured instead of the objective (e.g., "does the product behave according to preset standards") quality or value of that item.

The ultimate goal of LE is the desire or outcome of certainty, consistency, and progressive elimination of ambiguity. The assumption here is that if we found out that "knowledge A exists," then that knowledge will take us closer to the Truth; thus, the notion is that the world exists of a certain set of features and "knowledge" and the search for this knowledge is the key...the goal is to corroborate and verify the world as it is existing... Obviously, this may be too strong of a deduction, but the assumption is still that one finding does not create other goals and potential knowledge that did not already exist. This notion about reality may not be true; who knows...does God really exist? But, simply assuming that there is a Truth out there may not be appropriate.

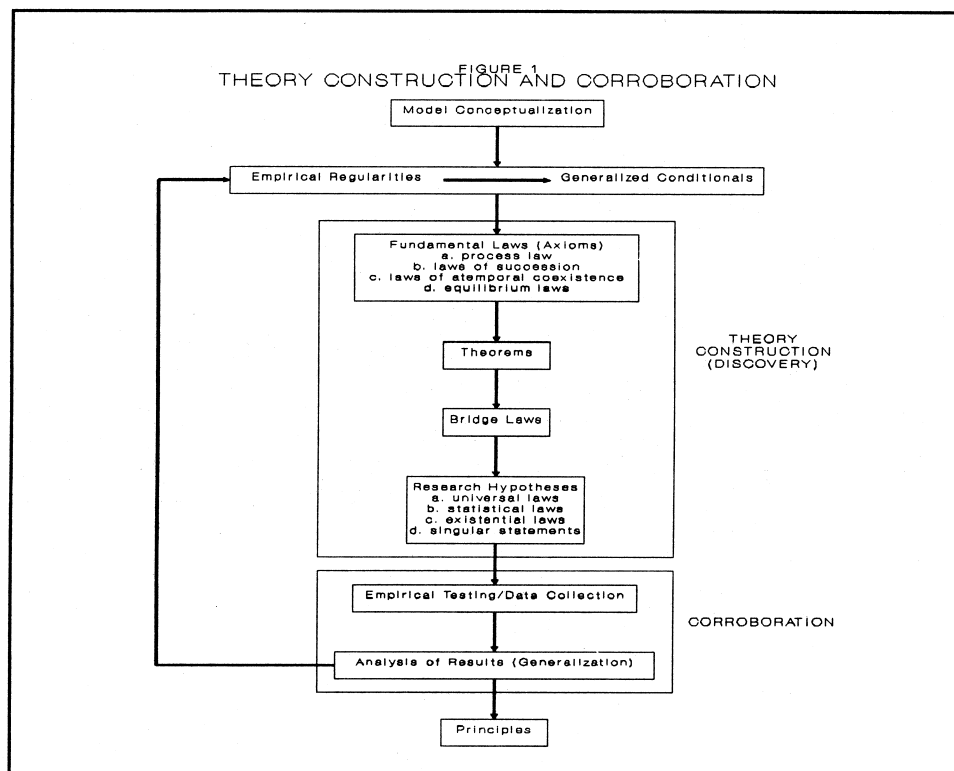
Lastly, while the focus in this section has

been to deconstruct LE based on its underlying assumptions, one can also deconstruct the definitional elements of LE, i.e., the activities, products, goals, and language requirements. For most practical purposes the preceeding elements are requirements of the philosophical thought, but they incorporate several assumptions. First, the language is very specific to the philosophical thought; requiring elements to be defined both nominally and operationally can have serious drawbacks. How does one evaluate and associate the two definitions? The products and subsequent "Truth" to a certain extent rely on the notion there is truth out there that exists in a form of static state. Lastly, the activities, while very straightforward, usually only look at the broad and main elements of the

system, potentially leaving out several of the minor but potentially significant attributes.

## THEORY BUILDING BASED ON THE LE FOUNDATION

**Figure 1** conceptually summarizes the theory-building process founded in logical empiricism thought. While theory building can vary depending on the situation and the time in which it takes place and also depending on the individual researcher that develops the theory, there are some common steps that should be followed in theory creation: model conceptualization, generalized conditionals, lawlike generalizations, laws, and the ultimate goal of reaching the status of principles.



Model conceptualization in this case refers to both conceptual models and frameworks. For example, construct A is related to construct B in some way, which is related to construct C, and so on. LE assumes that these relationships are specified in the form of generalized conditionals. Next, the lawlike generalizations are propositions within the theory that are specified in generalized conditional form which fulfill the criteria of laws, but have not been tested and corroborated (Hunt 1991). As such, these prop-

ositions have to have empirical content, exhibit nomic necessity, and be systematically integrated into a body of scientific knowledge (e.g., Hunt 1991). The next step in the theory building process is to create fundamental laws within the specific system. These laws are based on the initially created nominal definitions of the constructs. The fundamental laws are used to derive theorems within the system.

After the preceeding steps have been per-



formed, the theory has been created. The subsequent step in the process is to empirically corroborate the created theory. To do this, bridge laws have to be developed; these bridge laws are used to originate specific research hypotheses based on the theory system. The research hypotheses are then empirically tested, the data analyzed, and some generalization deduced from the collected data (e.g., corroboration). The ultimate goal of the general theory is to reach the status of principle. A law, based on theory, becomes a principle when it is widely held to be of extreme significance to the particular discipline and when the evidence corroborating it is overwhelming (Hunt 1991).

### CONCLUSION

The main objective of this paper is to clarify what constitutes logical empiricism, which is considered the overriding philosophical thought in contemporary scholarly marketing research. To create a better understanding of the assumptions of logical empiricism and the logical deduction it employs in theory creation, logical empiricism thought is deconstructed based on its assumptions. This deconstruction section identifies the limitations of logical empiricism, which have to be taken into account when utilizing its thought process.

A synthesis model of the theory building process based on logical empiricism is presented to provide a framework for theory building and the steps included in this process. The framework should provide a clear illustration of the procedures and different theories that can be created based on logical empiricism thought. For example, while all theories include fundamental laws, these laws can be in several different forms -- process laws, laws of succession, etc. Also, the theory can be tested based on different forms of research hypotheses.

### REFERENCES

- Bernstein, Richard J. (1983), Beyond Objectivism and Relativism, Philadelphia: The University of Pennsylvania Press.
- Brodbeck, May (1982), "Recent Developments in the Philosophy of Science," in Marketing Theory: Philosophy of Science Perspectives, Ronald F. Bush and Shelby D. Hunt, Eds., Chicago: American Marketing Association.
- Carnap, Rudolf (1950), Logical Foundations of Probability, Chicago: University of Chicago.
- Culler, Jonathan (1989), On Deconstruction: Theory and Criticism after Structuralism, Ithaca, New York: Cornell University Press.
- Hunt, Shelby D. (1983), Marketing Theory: The Philosophy of Marketing Science, Homewood, Illinois: Richard D. Irwin.
- \_\_\_\_\_ (1989), "Naturalistic, Humanistic, and Interpretative Inquiry: Challenges and Ultimate Potential," in Interpretative Consumer Research, Elizabeth Hirschman, Ed., Provo, Utah: Association for Consumer Research.
- \_\_\_\_\_ (1990), "Truth in Marketing Theory and Research," Journal of Marketing, 54 (July), 1-15.
- \_\_\_\_\_ (1991), Modern Marketing Theory: Critical Issues in the Philosophy of Marketing Science, Cincinnati, Ohio: South-Western Publishing Co.
- McGarry, Edmund D. (1936), "The Importance of Scientific Method in Advertising," Journal of Marketing, 1 (October), 82-6.
- Muncy, James A. and Raymond P. Fisk (1987), "Cognitive Relativism and the Practice of Marketing Science," Journal of Marketing, 51 (January), 35-8.
- Morgan, Gareth and Linda Smircich (1980), "The Case for Qualitative Research," Academy of Management Review, 5 (4), 491-500.
- Popper, Karl R. (1959), The Logic of Scientific Discovery, New York: Harper and Row.
- Rudner, Richard (1966), Philosophy of Social Science, Englewood Cliffs, New Jersey: Prentice-Hall, Inc.
- Wittgenstein, Ludwig (1922), Tractatus Logico-Philosophicus, London: Routledge and Kegan Paul.

# MARKETING EDUCATIONAL SERVICES TO RETURNING ADULTS

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## ABSTRACT

This research investigates service attributes and factors that influenced potential returning adults in college/university choices. Respondents rank quality-faculty, accreditation, and job-oriented majors highest among academic

factors and convenient schedules, campus location and safety highest among non-academic factors. Marketing strategies for targeting returning adults are discussed.

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## INTRODUCTION

Marketing programs of educational institutions started as "total marketing programs" (Krachenberg 1972), followed by "systematic marketing" (Grabowski 1981) and "strategic marketing" (Kotler and Fox 1985) in the eighties, and more aggressive "hard-sell" marketing programs of the nineties (Brazziel 1990; Deutsch 1991; Paulsen 1990; Schmidt 1991). Currently, universities are constantly "re-positioning" themselves for a competitive edge over neighboring universities (e.g., Berry and George 1983; Schmidt 1988). Higher education has been transformed from a seller's to a buyer's market (Feinberg 1981). In the 1960s and 1970s, when enrollments were high, budgets healthy, and support from legislators strong, most higher education institutions did not have to engage in active marketing programs. But today, with decreased enrollments, reduced budgets and federal supports, all higher education institutions are scrambling for students, grants, and donors (Brazziel 1990; Schmidt 1988, 1991). Universities are now tapping new markets such as those of returning adults, mid-life managers, and retiring seniors. This paper focuses on returning adults. Based on a sample of 334 adults drawn from metropolitan Detroit households, this research investigates the academic and non-academic "attributes" that universities and colleges could feature in attracting returning adults to their institutions.

## THEORETICAL BACKGROUND: FACTORS INFLUENCING UNIVERSITY CHOICES

Most studies characterize the returning adult as over 25 years and returning to school after

a few years on the job or at home (e.g., Sewall 1984; Sewall and Kocurek 1985; Stolar 1991). This study uses this definition. While several studies have investigated factors that influence high school graduates in the choice of college or university, few studies have examined such factors for returning adults. Apart from two studies (Miller et al. 1990; Parker, Pettijohn and Pettijohn 1989), most studies are descriptive or speculative, and as such not based on representative samples of the population studied.

Factors that influence university choices are usually classified as "academic" and "non-academic."

Academic factors often cited are . . .

- quality education,
- academic reputation or excellence,
- student/faculty ratio,
- access to faculty,
- number of students,
- types of majors offered,
- specific programs,
- degrees and research of professors, and
- overall college image.

Non-academic factors include . . .

- campus appearance,
- distance of college from home,
- tuition,
- location,
- facilities,
- career interest,
- job opportunity, and
- direct mailing from the academic institution; friendly atmosphere, small school attention, financial considerations, social activities, and small school atmosphere.

Factors influencing MBA applicants include. . .

- communication skills and real-world projects,
- facilities,
- degree and research of professors,
- location, and
- school reputation.

Major constraints in pursuing higher education among returning adults include:

- increase in stress,
- balancing school and family time,
- balancing job and school time,
- spending time with immediate family,
- job and home responsibilities,
- lack of incentives,
- high cost,
- lack of financial aid and scholarships,
- inflexible time and day schedules of course offerings,
- good programs generally not available at the right place or right time (Stone 1991), and
- returning adults have no energy nor time for such programs even if available.

The problem of balancing school and family time were reportedly more severe over retraining years, while the other barriers remained steady or abated over time.

Technology has greatly affected American jobs in recent years and many worker skills are obsolescent. Most adults need updated job-related skills. Today's workers must perform an increasing number and variety of duties. Bank tellers, freed from routine tasks, must formulate and solve customer's money management problems. Workers on manufacturing lines, freed from routine operations by robotics, must perform statistical process control and make critical decisions (McGee 1989). Voluntary early retirees and older managers are seeking retraining, while other workers are refocusing (Stolar 1991; Wilson 1990). Many workers need training in basic skills such as reading, writing, communicating, and reading comprehension (McGee 1989; Sewall 1984; 1986).

## RESEARCH DESIGN AND METHODOLOGY

Based on a literature search, factors or attributes that influenced college/university choices were classified as academic and non-academic (extra-curricular and supportive). After considerable brain-storming with selected groups of returning adults and area university administrative officials, only 16 attributes were selected for

this study, eight academic and eight nonacademic factors [Table 1]. Respondents were asked to rank these factors within each (academic/non-academic) category, giving rank 1 to the most important, and rank 8 to the least important factor. Among factors that constrain or facilitate education among returning adults eight were used for this research [Table 2].

A university/college is a service institution with a definite set of attributes and features, and prospective returning adults are assumed to make university/college choices on defined attributes and features (Kotler and Fox 1985; Parker, Pettijohn and Pettijohn 1989). This research also investigated information sources of returning adults in making university choices. These options were "direct marketing" mail from universities, "friends at work," "family members," "friends near home," TV, morning daily newspaper, radio stations, local newspapers, local magazines, trade journals, billboards, and "other" sources.

## Sample Design

The survey was conducted using a sample drawn from commercial mailing lists of households in the metropolitan Detroit area. Budgetary constraints suggested a stratified mailing list of 7,500 household heads, 25 to 60 years in age, proportionately representing each of the eight metro Detroit counties. The first wave generated 236 completed responses in first five weeks, while a second wave added 98 completed responses totaling the sample to 334, a response rate of 4.45 percent. The responses of second wave questionnaires did not significantly differ from those of the first wave, partially supporting the "typicality" of the first wave responses.

## Data Analysis, Findings And Discussion

Of the 334 respondents, 58 percent are males, 42 percent are females, and their average number of years of schooling is 16.1 years, which is uniformly distributed across all age groups. Respondent spouses record a lower average of 14.3 years of schooling. Only 15 percent of adult respondents are "returning adults" currently attending college. This figure closely matches the national average (Stone 1991). Sample demographics suggest that the typical returning adult is more likely to be a female between 30 and 45 years of age; the

number of returning adults in a given age group is inversely related to the age of that group.

Twelve major information-sources on academic institutions among returning adults were investigated. Their use was quite similar among males and females. The most used source (59%) was "direct marketing" mail from the college or university; the next most cited source (57%) was "friends at work"; least cited information sources among both males and females were "billboards" (3%), "trade journals" (6%), and "local magazines" (10%). Electronic media such as TV and radio, and print media such as daily newspapers and magazines do not effectively reach returning adults. Thus, the more effective information-dissemination mode for colleges and universities is "direct marketing" to area households and area employees, thereby networking "friends at work" with "family members." Returning adults seek varied academic outcomes from on-going learning: 20% wanted "some years of college," 37% a "bachelor's degree," 35% a "master's degree," 29% preferred a "professional certificate," while another 35% were just interested in "continuing education." Chi-square tests indicated that respondent preference for education-outcome modules was independent of gender and age.

**Table 1** lists "academic" and "nonacademic" factors that influence choices of colleges or universities among returning adults. Judged by weighted ranks, the three most influencing academic factors were "faculty quality," "reputation/accreditation", and the "choice of job-oriented majors". The least important factors were "education in moral values" and "student advising or counseling". Most important non-academic factors were "convenient scheduling", "campus location", and "campus safety and security"; "social life" and "athletic programs" were the least important factors.

Chi-square tests indicated the following results: all academic factors to be gender-independent; among non-academic factors, "convenient schedules" and "campus life-activities" showed some dependence, males attaching more importance to these factors than females; age-dependence with both academic and non-academic factors; nonprofessional respondents attach more importance to "student advising" and "career placement/co-op"; "direct marketing" campaigns of colleges

and universities had any significant effect on factor ranks such as "reputation/accreditation" and "social life." Thus, in their "direct marketing" literature campaigns, universities need to highlight features such as accreditation and social life.

**Table 2** reports locational, scheduling and financial factors that can affect retraining motivation among returning adults. While there is a still strong preference for courses at the regular campus (76.3% among males, 79.3% among females), there is a stronger preference to have campus near one's workplace (80.9% among males, 84.3% among females). Both males and females prefer evening or weekend courses, and want their employer to pay for them.

## CONCLUDING REMARKS

Viewing returning adults as student-buyers, any marketing effort on the part of universities would require a sound understanding of the consumers they intend to target, especially in regard to what criteria will influence their choices of a college or university for their retraining (Kotler and Fox 1985). Marketing universities is not just "hard selling." Aggressive, unplanned and sporadic hard selling tactics of universities can boomerang ill-effects (Grabowski 1981). A systematic marketing concept applied to universities would need that academic administration would first find out which market segment the university should serve, determine what this segment wants, and then accordingly dovetail its product lines to meet the needs of this target market segment. Colleges and universities must tailor their programs to fit industry requirements. Returning adults will find it easier to learn things they need to know. Direct marketing mail targeted for returning adults must provide clear information. Updating U.S. worker skills is a university function and responsibility.

## REFERENCES

- Berry, L. and W. R. George (1983), "Marketing the University: Opportunity in and Era of Crisis," Marketing in Non-profit Organizations, edited by Patrick J. Montana, NY: AMACOM, 165-66.
- Brazziel, William F. (1990), "Marketing Small College Continuing Education," Journal of Marketing for Higher Education, 3:1, 141-49.

- Deutsch, M. John (1991), "Getting University-Industry Relations Right," Technology Review, (May-June), 65.
- Feinberg, Lawrence (1981), "A Buyer's Market in College Education," The Boston Globe, (March 11), 3.
- Grabowski, Stanley M. (1981), Marketing in Higher Education; AAHE:ERIC/Higher Education Research Report No. 5, Washington, DC: American Association for Higher Education: Educational Resources Information Center.
- Kotler, Philip and Fox, Karen (1985), Strategic Marketing for Educational Institutions, Englewood Cliffs, NJ: Prentice-Hall.
- Krachenberg, A. R. (1972), "Bringing the Concept of Marketing to Higher Education," Journal of Higher Education, 43: (May), 369-380.
- McGee, F. Lynne (1989), "Teaching Basic Skills to Workers," Personnel Administrator, (August), 42-47.
- Miller, Patrick, Charles W. Lamb Jr., Ronald Hoverstad, and Edward G. Boehm (1990), "An Approach for Identifying Benefit Segments among Prospective College Students," Journal of Marketing for Higher Education, 3:1, 49-65.
- Parker, R. Stephen, Charles Pettijohn, and Linda Pettijohn (1989), "Choosing a Business School: The Relevant Criteria," Journal of Marketing for Higher Education, 2:2, 97-106.
- Paulsen, Michael B. (1990), "Enrollment Management with Academic Portfolio Strategies: Preparing for Environment-Induced Changes in Student Preferences," Journal of Marketing for Higher Education, 3:1, 107-119.
- Schmidt, Sandra L. (1988), "Marketing Higher Education: Past, Present and Future," Journal of Marketing for Higher Education, 1:2, 3-13.
- \_\_\_\_\_ (1991), "The Enrollment Challenge for Business Schools: An Alumni View," in New Strategies in Higher Education Marketing, ed., The Haworth Press, 113-128.
- Sewall, J. Timothy (1984), "Academic Skills of the Returning Adult Student: Report of a Pilot Study," Assessment Center, Wisconsin University, Green Bay.
- \_\_\_\_\_ (1986), "Non-traditionals in a Traditional Setting: Why Older Adults return to College," presented at the Annual Meeting of the American Educational Research Association, San Francisco, CA.
- \_\_\_\_\_ and Margaret Kocurek (1985), "Adult Students and their Unenrolled Cohorts at University of Wisconsin Stevens Point," Assessment Center, Wisconsin University, Green Bay.
- Stolar, M. Steven (1991), "Non-traditional Age Students: Attrition, Retention, and Recommendations for Campus Change," Cumberland County College, Vineland, NJ.
- Stone, Nan (1991), "Does Business Have Any Business in Education?" Harvard Business Review, (March-April), 46-62.

**TABLE 1**  
**ACADEMIC/NON-ACADEMIC FACTORS INFLUENCING CHOICE**  
**OF COLLEGE/UNIVERSITY AMONG RETURNING ADULTS [N=334]**

| ACADEMIC FACTORS          | WTD RANK | NON-ACADEMIC FACTORS       | WTD RANK |
|---------------------------|----------|----------------------------|----------|
| quality faculty           | 6.37     | convenient schedules       | 6.15     |
| accreditation             | 5.84     | campus location            | 6.08     |
| job oriented majors       | 5.80     | campus safety/security     | 5.73     |
| personalized curriculum   | 4.52     | career/co-op placement     | 5.68     |
| small classes             | 4.47     | financial aid/scholarships | 5.14     |
| library/computer center   | 4.17     | campus activities          | 3.78     |
| student advising          | 3.56     | athletic programs          | 2.40     |
| education in moral values | 3.29     | campus social life         | 2.26     |

**TABLE 2**  
**FACTORS FACILITATING RETRAINING AMONG RETURNING ADULTS**

| AGE GROUP              | <u>MALE RESPONDENTS</u> |       |      | <u>FEMALE RESPONDENTS</u> |       |      |
|------------------------|-------------------------|-------|------|---------------------------|-------|------|
|                        | <30                     | 31-45 | >45  | <30                       | 31-45 | >45  |
| SAMPLE SIZE            | 19                      | 79    | 96   | 11                        | 60    | 69   |
| <u>LOCATIONAL:</u>     |                         |       |      |                           |       |      |
| University Campus      | 78.9                    | 82.5  | 69.8 | 100.0                     | 83.3  | 72.5 |
| Near one's Workplace   | 4.2                     | 82.3  | 79.2 | 100.0                     | 86.7  | 79.7 |
| Correspondence Courses | 31.6                    | 25.3  | 18.8 | 9.1                       | 20.0  | 21.7 |
| Via cable TV Networks  | 5.3                     | 26.6  | 29.2 | 27.3                      | 23.2  | 29.0 |
| <u>SCHEDULING:</u>     |                         |       |      |                           |       |      |
| During Weekends        | 78.9                    | 75.9  | 67.7 | 90.1                      | 88.3  | 76.8 |
| In the Evenings        | 100.0                   | 94.9  | 88.5 | 100.0                     | 98.3  | 84.1 |
| <u>FINANCIAL:</u>      |                         |       |      |                           |       |      |
| Fees to be paid by:    |                         |       |      |                           |       |      |
| Employer               | 89.5                    | 77.2  | 74.0 | 100.0                     | 80.0  | 76.8 |
| Schools                | 63.2                    | 50.6  | 50.0 | 90.1                      | 60.0  | 56.5 |

a Entries indicate percentage of "YES" frequency of each age group on respective factors. Chi-square value of "yes" frequencies by gender and age groups were insignificant at  $p < 0.05$ .

# WHY DO SPECTATORS GO TO THE GAME?

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## ABSTRACT

### INTRODUCTION

The purpose of this paper is to provide a research agenda for understanding the reason spectators attend major college and professional sporting events. Although Americans spend around \$3 billion a year on tickets to professional and college sporting events, empirical investigation into the factors influencing individual consumer decision-making regarding the attendance of sporting events is limited.

### THEORY

Traditionally sports management has emphasized a product-orientation (i.e., produce a good team) to attract spectators. More recently, sports administrators have begun to recognize the importance of offering a "sports encounter" that satisfies other customer needs and wants. Using Sheth, Newman, and Gross' (1991) consumer choice framework, we address other consumer values which may influence consumers' choices to attend ball games, particularly at the college and professional level. Listed below are the eight factors drawn from the relevant literature review which are expected to have a positive influence on spectators' decisions to attend a game:

1. Satisfaction with stadium service quality.
2. Satisfaction with the servicescape.
3. Perceived value of the sporting event.
4. Social acceptability of the sporting event with one's positive reference groups.
5. Level of spectator excitement associated with the sporting event.
6. Level of a spectator's enduring involvement with the sport.
7. Presence of situational involvement for a specific sporting event.
8. Variety-seeking of the individual.

### IMPLICATIONS

Although the willingness of prospective team owners to spend upwards of \$120 million

to obtain an NFL or NBA franchise indicates confidence and optimism in attracting future spectators, such attendance is not assured. Nor is attendance entirely based upon team performance (for example, the Pittsburgh Pirates from 1991-1992). The authors provide a number of practical recommendations to sports administrators, including the following:

1. Since the servicescape is a key element in services strategy, its planning and implementation should not be left people outside of marketing management (i.e., janitorial services, etc.)
2. College and minor league programs may benefit from promoting their games as an exciting, socially acceptable entertainment alternative (perhaps with local celebrities) to increase attendance.
3. Getting players in personal contact (i.e., using personal selling) with the fans through autograph sessions or public service may reinforce their loyalty to the sport, team, and player.
4. If spectators attend on the basis of team or individual performance (and subsequent excitement), rules which inhibit spectator enjoyment of that performance may be detrimental. For instance, the recent (1993) NCAA "celebration" rule which prohibits players from excessive displays of emotion after outstanding plays (e.g., touchdowns, receptions, sacks) may reduce the feelings of excitement that spectators usually share (i.e., exchanging "high-fives," etc.).

In terms of research, theory and practice, the field of sports marketing appears to be relatively immature and unstructured. Some of the propositions mentioned above have received relatively limited research (e.g., servicescapes, excitement with purchase, enduring involvement with services). Conducting such research in the sports arena offers some interesting avenues of investigation.



# RELATIONSHIP MARKETING AND SERVICES ADVERTISING

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## ABSTRACT

This study was undertaken to investigate whether, and how, service providers communicate marketing relationships through an analysis of service advertisements. Results show that high contact firms are more likely to emphasize

relationships by using customers or both customers and employees in their advertisements. Additionally, services involved in discrete transactions are also more likely to emphasize relationships in their advertisements.

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## INTRODUCTION

The importance of relationships in services marketing is well established. While the literature has addressed issues regarding building relationships with various marketing constituencies, the communication of buyer-seller relationships through advertising remain largely unexplored. Because advertising assists marketers in providing their images to customers, it is important to understand how advertising fosters marketers' efforts in establishing and maintaining relationships with their customers. The services literature has long recognized the importance of personal interactions in creating satisfied customers and has encouraged the use of relationship marketing (e.g., Levitt 1983; Parasuraman, Zeithaml, and Berry 1985). Relationship marketing implies developing marketing strategies that emphasize communications of buyer-seller interactions, and thereby enhance customer loyalty as well as business from existing customers. These strategies represent a combination of database marketing, general advertising, sales promotion, public relations, and direct marketing (Copulsky and Wolf 1991), and have a focus on building a long-term, mutually beneficial relationship rather than stimulating a single transaction.

Managers in service organizations have recently given increased attention to relationship marketing strategies, with an emphasis on keeping customers and cross-selling to existing customers. This increased emphasis on relationship marketing can be traced to three characteristics of services: intangibility, inseparability and whether the service involves continuous or discrete delivery. A service encounter occurs whenever the customer interacts directly with

any representative of the organization. Moreover, it is a variety of employees whose main duties may be in production, deliveries, technical service, claims handling, and other tasks that traditionally are considered nonmarketing who are responsible for creating these encounters. During customers' contacts with such representatives of the firm, the skills, customer orientation, and service-mindedness of these employees are of critical importance to customers' perceptions of the firm and influence their future patronage behavior. These part-time marketers occupy a position close to the customer, and are often best suited to perform the role of "relationship manager" (Crosby, Evans and Cowles 1990).

While relationship marketing is important for services marketers, it can not succeed without an adequate understanding by customers of what the marketer is trying to accomplish. The intangible nature of services demands that marketers communicate the benefits of their offerings in order to develop the relationships with customers. That is, establishing and fostering relationships with customers is critically dependent upon appropriate communications with customers. Advertising plays a pivotal role in relationship marketing and is frequently the initial contact customers have with the service firm. The two dimensions of services, degree of contact and nature of transactions, have certain implications for advertising of services. Because these dimensions determine customers' participation in production and consumption of services, it is prudent for marketers to include customers in their advertisements as their inclusion would facilitate their relationships with customers. Also, showing representatives of the organization in advertisements can assist



marketers in illustrating the service-mindedness of their organization. In fact, inclusion of both, the representatives as well as customers can enable marketers to demonstrate the customer orientation of their organization. Indeed, such a proposition receives support from several studies on services advertising (George and Berry 1981).

## METHODOLOGY

We content analyzed magazine advertisements of services to assess how marketers espouse the concept of relationships with customers. Magazines represent a major advertising medium for service advertisements, and are readily accessible for analysis. With the objective of detecting different advertising strategies, it was necessary to look at general interest magazines rather than specialty magazines. Because services may be directed to individual customers or businesses, a business magazine, specifically *Forbes*, for 1990, was considered appropriate for the analysis of the advertisements. Furthermore, it is not gender specific. Two senior level marketing students were selected as judges to examine the advertisements. Both the judges independently coded all the advertisements in the two magazines, and were not aware of the purpose of the study. The coding of advertisements done by the two judges was found to have an inter-judge reliability of 85%, meeting the minimum inter-judge reliability of 85% (c.f. Kassarian 1977).

The advertisements were analyzed for the following: (1) type of service advertised, (2) degree of contact (high or low) with customers, (3) nature of transactions (continuous or discrete), and (4) inclusion of organization representatives, customers or both in an advertisement. The degree of contact between the services marketer and customers was deemed to be high if customers need to work closely with the services providers to receive the services. If customers could receive a service without interacting closely with the service provider, the necessary contact between them was judged to be low. Additionally, if a service was such that customers receive it on a continuing basis, the service transaction was classified as continuous. However, if purchases of a service would be separate for each transaction, the service was considered to entail discrete transactions. Last, the advertisements were analyzed

for the inclusion of person(s) in them. If the person appeared to be attired in a company uniform, or displaying a connection with the firm, the person was judged to be a representative (an employee) of the firm. However, if the advertisement showed a person seemingly unrelated with the firm, or receiving the service, the person was judged to be a customer.

## RESULTS

In all, 1334 advertisements were found in the magazine for the year 1990, of which 629 were services advertisements, whereas the rest of the advertisements were for goods. The frequency distribution of different categories of services is shown in Table 1. Next, the usage of customers, employees, or both in advertisements for high and low contact services was examined. As shown in Table 2, an association between the degree of contact and inclusion of customers in advertisements was found to be significant ( $\chi^2 = 11.6$ ,  $p < .001$ ). No association between the extent of customer-employee contact and inclusion of an employee in advertisements was found (see Table 2). Further, the analysis revealed an association between the degree contact between customers and employees, and inclusion of both the customers and employees in advertisements ( $\chi^2 = 3.54$ ,  $p < .06$ ). These findings indicate that there is a relationship between the degree of contact with customers, and inclusion of customers and customers as well as employees in advertisements to demonstrate relationship marketing. Apparently, marketers of high contact services more often use either customers, or both the employees and customers in their advertisements.

The relationship between continuous delivery and usage of customers, employees, and both employees and customers was then examined. As shown in Table 3, there exists an association between whether the service delivery is continuous or discrete and usage of customers in advertisements ( $\chi^2 = 7.68$ ,  $p < .001$ ). Analysis of whether nature of transaction is related to inclusion of employees in advertisements showed a significant relation ( $\chi^2 = 33.24$ ,  $p < .001$ ). The number of advertisements which included an employee was relatively small compared to that without an employee. Nonetheless, it appears to be more common for discrete services advertisements to use a company representative than for continuous services advertisements. Table 3 also

shows similar results for inclusion of both the customers and employees ( $\chi^2 = 19.78$ ,  $p < .001$ ). The findings regarding whether the service involves discrete or continuous delivery, and inclusion of the three techniques described in this paper indicate that indeed a relationship exists between the type of service delivery and use of employees, customers and both employees and customers to demonstrate relationship marketing. For services involving discrete transactions all three types of techniques (use of employees, customers and both customers and employees) are more likely to be used than for services involving continuous delivery.

## DISCUSSION

The results provide an interesting look at relationship marketing and services advertising. Indeed, any implications of these results must be accepted in light of the limitations of the study. Data were collected from alternate months' issues of the magazine for just one year, so the number of advertisements analyzed was relatively small. However, the particular issues of the magazine were selected without any specific reason; that is, the particular issues would be as good as any other issues. Also, only one type of magazine was included in the content analysis; but the magazine was selected because a wide array of service firms, those involving varying degrees of contact and delivery, are included in it. This was congruent with the objectives of the study. Indeed, nearly half of the advertisements appearing in the magazine were service advertisements, providing a rich look at services advertising strategies. Although, it is acknowledged that more issues of different magazines could provide a broad spectrum of advertising in those magazines.

The two dimensions of focus in this study, degree of contact and nature of transactions, represent continuum. Thus, some services, though classified as either extreme in the study, may not be clearly delineated in reality. Nevertheless, the results seem to suggest that high contact service firms are more likely to include customers, and both customers and employees, in their advertisements as opposed to low contact service firms. It can be surmised that as the contact between customers and employees rises in providing the service, the relationship marketing can be ameliorated by showing customers and employees in advertisements. On the other hand, results indicate that services delivered in discrete transactions, rather than

continuous, are more likely to be advertised with customers, employees and both customers and employees. Several explanations exist for this finding. First, because continuous services typically have high switching costs to customers, advertisements may be designed to first secure the customer by emphasizing the technical quality or price of the service. Once the customer is locked into the service, other methods, which can be tailored more directly to specific customer needs (e.g., direct mail), may be used to develop and maintain a good relationship. On the other hand, firms providing services in discrete transactions are mostly constrained by the same product offering. Their customers patronize mainly for consistent technical quality of a service for a good price value. Customers engage in transactions, and continue to do so with the same service provider as long as they receive good value for their money. But if competition offers the same service quality at the same price, one way to differentiate from competition is to emphasize customer relations. While these are both plausible explanations, research investigating the causes and consequences of this finding is clearly needed.

## REFERENCES

- Copulsky, Jonathan R., and Wolf, Michael J., "Relationship Marketing: Positioning for the Future," *Journal of Business Strategy*, (July-August) 16-26.
- Crosby, Lawrence A. (1989), "Building and Maintaining Quality in the Service Relationship," in *Quality in Services*, Stephen W. Brown and Evert Gummesson, eds. Lexington, MA: Lexington Books.
- George, William R. and Leonard L. Berry, "Guidelines for the Advertising of Services," *Business Horizons*, 24 (July-August), 52-56.
- Kassarjian, Harold H. (1977), "Content Analysis in Consumer Research," *Journal of Consumer Research*, 4 (June), 8-18.
- Levitt, Theodore (1983), "After the Sale Is Over," *Harvard Business Review*, 61 (September-October), 87-93.
- Parasuraman, A., Valarie A. Zeithaml, and Leonard L. Berry (1985), "A Conceptual Model of Service Quality and Its Implications for Future Research," *Journal of Marketing*, 49 (Fall), 41-50.

**TABLE 1**  
**Frequency Distribution of Services Advertisements**

| <u>Types of Services Advertisements</u>        |               |                |
|------------------------------------------------|---------------|----------------|
|                                                | <u>Number</u> | <u>Percent</u> |
| Financial Services                             | 143           | 22.7%          |
| Insurance                                      | 87            | 13.8           |
| Communications                                 | 76            | 12.1           |
| Hotel Services                                 | 53            | 8.4            |
| Passenger Airlines                             | 49            | 7.8            |
| Corporate Banking                              | 41            | 6.5            |
| State/Country Economic Promotion               | 38            | 6.0            |
| Management Consulting                          | 31            | 5.0            |
| Freight Transportation                         | 19            | 3.0            |
| Credit Cards                                   | 13            | 2.1            |
| Education                                      | 12            | 2.0            |
| Travel Services                                | 11            | 1.7            |
| Information Services                           | 9             | 1.4            |
| Car Rental                                     | 8             | 1.3            |
| Utilities                                      | 6             | 1.0            |
| Other                                          | <u>33</u>     | <u>5.2</u>     |
|                                                | 629           | 100.0%         |
| <br><u>Ads with the Dimensions of Services</u> |               |                |
| <u>Contact:</u>                                | <u>Number</u> | <u>Percent</u> |
| High                                           | 250           | 39.7%          |
| Low                                            | <u>379</u>    | <u>60.3</u>    |
|                                                | 629           | 100.0%         |
| <br><u>Transaction:</u>                        |               |                |
| Continuous                                     | 439           | 69.8           |
| Discrete                                       | <u>190</u>    | <u>30.2</u>    |
|                                                | 629           | 100.0%         |
| <br><u>Persons in Ads:</u>                     |               |                |
|                                                | <u>Number</u> | <u>Percent</u> |
| Ads with Customers                             | 115           | 59.3%          |
| Ads with Employees                             | 57            | 29.4           |
| Ads with Both                                  | <u>22</u>     | <u>11.3</u>    |
|                                                | 194           | 100.0          |

**TABLE 2**  
**Relationship Between Persons in Ads and Degree of Contact**

| <u>Ads With Customers</u> |             |            |              |
|---------------------------|-------------|------------|--------------|
| <u>Degree of Contact</u>  |             |            |              |
| <u>Customers</u>          | <u>High</u> | <u>Low</u> | <u>Total</u> |
| <u>Present</u>            | 66          | 58         | 124 (19.7%)  |
| <u>Absent</u>             | 184         | 321        | 505 (80.3%)  |
| <u>Total</u>              | 250         | 379        | 629          |
|                           | (39.7%)     | (60.3%)    |              |

$\chi^2 = 10.92$ , d.f. = 1,  $p < .001$

| <u>Ads With Employees</u> |             |            |              |
|---------------------------|-------------|------------|--------------|
| <u>Degree of Contact</u>  |             |            |              |
| <u>Employees</u>          | <u>High</u> | <u>Low</u> | <u>Total</u> |
| <u>Present</u>            | 28          | 36         | 64 (10.2%)   |
| <u>Absent</u>             | 222         | 343        | 565 (89.8%)  |
| <u>Total</u>              | 250         | 379        | 629          |
|                           | (39.7%)     | (60.3%)    |              |

$\chi^2 = .31$ , d.f. = 1,  $p < .59$

| <u>Ads With Both (Customers and Employees)</u> |             |            |              |
|------------------------------------------------|-------------|------------|--------------|
| <u>Degree of Contact</u>                       |             |            |              |
| <u>Employees</u>                               | <u>High</u> | <u>Low</u> | <u>Total</u> |
| <u>Present</u>                                 | 11          | 7          | 18 (2.9%)    |
| <u>Absent</u>                                  | 239         | 372        | 611 (97.1%)  |
| <u>Total</u>                                   | 250         | 379        | 629          |
|                                                | (39.7%)     | (60.3%)    |              |

$\chi^2 = 2.68$ , d.f. = 1,  $p < .10$

**TABLE 3**  
**Relationship Between Persons in Ads and Nature of Transactions**

| <u>Ads With Customers</u>     |                   |                 |              |
|-------------------------------|-------------------|-----------------|--------------|
| <u>Nature of Transactions</u> |                   |                 |              |
| <u>Customers</u>              | <u>Continuous</u> | <u>Discrete</u> | <u>Total</u> |
| <u>Present</u>                | 74                | 50              | 124 (19.7%)  |
| <u>Absent</u>                 | 365               | 140             | 505 (80.3%)  |
| <u>Total</u>                  | 439               | 190             | 629          |
|                               | (69.8%)           | (30.2%)         |              |

$\chi^2 = 7.09$ , d.f. = 1,  $p < .008$

| <u>Ads With Employees</u> |                   |                 |              |
|---------------------------|-------------------|-----------------|--------------|
| <u>Degree of Contact</u>  |                   |                 |              |
| <u>Customers</u>          | <u>Continuous</u> | <u>Discrete</u> | <u>Total</u> |
| <u>Present</u>            | 24                | 40              | 64 (10.2%)   |
| <u>Absent</u>             | 415               | 150             | 565 (89.8%)  |
| <u>Total</u>              | 439               | 190             | 629          |
|                           | (69.8%)           | (30.2%)         |              |

$\chi^2 = 33.56$ , d.f. = 1,  $p < .59$

| <u>Ads With Both (Customers and Employees)</u> |                   |                 |              |
|------------------------------------------------|-------------------|-----------------|--------------|
| <u>Degree of Contact</u>                       |                   |                 |              |
| <u>Customers</u>                               | <u>Continuous</u> | <u>Discrete</u> | <u>Total</u> |
| <u>Present</u>                                 | 4                 | 14              | 18 (2.9%)    |
| <u>Absent</u>                                  | 435               | 176             | 611 (97.1%)  |
| <u>Total</u>                                   | 439               | 190             | 629          |
|                                                | (69.8%)           | (30.2%)         |              |

$\chi^2 = 17.53$ , d.f. = 1,  $p < .001$

# EVALUATING SHRINKAGE IN THE RETAIL ENVIRONMENT: EXAMPLES OF CURRENT PRESCRIPTIVE CONTROL METHODS BY LEADING RETAILERS

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## ABSTRACT

This study discusses the effects of shrinkage as reported by successful retailers and

presents contemporary examples of prescriptive control methods in minimizing shrinkage.

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## INTRODUCTION

*Shrinkage.* The word shrinkage may often encourage a headache for many store managers. The fact is, shrinkage is a significant and very costly problem. Employees are stealing, customers are stealing, and mistakes are being made. Shrinkage remains a critical area of concern that often has a major impact on the profitability of a store or business.

The retailers contacted agreed to discuss shrinkage in their businesses and divulge contemporary prescriptive procedures being used to control the problem. Ideally their hope, and that of the authors, is that prescriptive controls to minimize shrinkage by larger corporate retailers might be adopted retail-wide in order to reduce existing opportunities available to those who steal and otherwise cause shrinkage to exist.

Retailer responses revealed three major factors that cause shrinkage: internal theft, external theft, and operational mistakes.

## INTERNAL THEFT

Employee theft is a very serious problem faced by business. According to the U.S. Chamber of Commerce, \$40 billion in cash and merchandise is stolen annually. This is ten times the cost of the nation's street crimes (Snyder, Broome, and Zimmerman). Statistics in the retail industry attribute at much as 50% of all losses to employee theft while studies by the U.S. Chamber of Commerce suggest that "up to 75 percent" of all employees steal at least once (McGurn).

## Prescriptive Controls

A traditional procedure used in checking employee shrinkage in the retail industry is a sporadic register check. This may determine if the balance in the cash drawer matches the receipts printed out. A problem with this, however, is that many employees may operate a single register. Another method often used is to verify the receipts with employee purchases to be sure they match.

Clothing store managers may also choose to monitor what their employees are wearing. If an employee continues to wear new clothes that the store carries, the manager might choose to watch the employee more carefully.

There are five steps that a retailer can take to reduce employee shrinkage:

- 1) Adopt a clear policy on employee theft. Companies cannot rely on the "the adequacy or appropriateness of prohibitions regarding theft in the general society but must broadcast the message that theft is not acceptable behavior."
- 2) Communicate the policy continually in the work force. Let workers know the company cares about both its property and its employees.
- 3) Enforce the policy at all levels. False threats do more harm than silence. "If higher status employees get different treatment, this will erode the fairness necessary to deter theft."
- 4) Use control systems that monitor transactions against norms.
- 5) Let employees know the system is working (Bacas).

Controlling employee theft is a difficult matter. Many businesses do not want employees to feel as though they are being scrutinized, while others take significant actions to ensure that employees do not steal. Employees do like being treated with respect. Pride in an employee's work is often a deterrent for stealing. Rewards for efforts in preventing internal shrinkage is also beneficial. Profit sharing is another option for many businesses. Employees are less likely to steal when they own shares in the profit and are less likely to turn away from other employees who are stealing (Outcult).

There is a relatively new procedure being used by businesses to battle employees who are stealing; involving the civil demand law. A civil demand letter can be sent to employees warning that civil demand procedures will be used against anyone caught cheating from the business (Jewelers Circular). Currently 18 of the 32 states that use the civil demand law have provisions for employee theft. More will be discussed about the civil demand law in evaluating external shrinkage.

## **EXTERNAL THEFT**

F.B.I. statistics show that shoplifting is the nation's fastest growing crime. There were 1.2 million shoplifting incidents reported last year, and the crime has been growing at steady pace, up 35% over the past several years. Shoplifting now accounts for 16% of all reported larcenies (Loss Prevention, 1991).

Ten percent of Limited Express' customers are shoplifters, and research indicates that an additional 20 to 33 percent are potential shoplifters. According to Limited Express' corporate office, potential shoplifters will steal if given the opportunity. "In Limited Express' case, for the amount of money we lost in shrinkage in 1989, we could hire Tom Cruise, Jose Canseco, Wayne Gretsky, George Bush, and Bo Jackson as stock boys for a year" (Limited Express).

Shoplifters are categorized as two types, professionals and amateur. For professionals, shoplifting is big business, they may make their living by stealing. Amateurs on the other hand may shoplift occasionally or "just for kicks." Shoplifters may be of any economic or ethnic background and the crime often appears to be a type of sport (Shoplifting...").

Store managers agree that shoplifting occurs more at certain times of the day. The first and last hour of operation are often critical times. Employees may be concerned with setting up or closing down operations and may not be paying as much attention to the customers. Other times of the day, such as lunch hours and shift changes, when attention is given to operating procedures, are also critical times. Finally, a great deal of shoplifting occurs when the store is busy, a shoplifter will wait until a clerk helps another customer before committing the crime.

## **Prescriptive Controls**

In spotting a shoplifter, there are many key elements that retailers should look for:

- 1) Watch your customers's eyes. If they are really shopping, they will be looking at merchandise. If they are looking at you or other sales people in the store, they usually need assistance or are contemplating shoplifting.
- 2) Watch for customers with loose or baggy clothing. They can easily conceal merchandise under garments.
- 3) Watch for customers with larger bags or purses that may conceal merchandise.
- 4) Be aware of customers who seem nervous or refuse assistance.
- 5) Be aware of customers who visit the store on a regular basis but never seem to buy anything.
- 6) Be aware of a customer who creates a disturbance. The action may be a decoy.
- 7) Be aware of a customer who keeps asking for merchandise in the stockroom.
- 8) Be aware of young people in groups (Limited Express).

Nearly all stores interviewed believe service is the key tool for preventing shoplifting. In fact, many stores use only service to deter shoplifters. There are, however, many types of security measures that may be used to catch a thief. Cameras are often used to observe many areas of a store. They may be out in the open or hidden behind smoked glass. Monitors may allow loss-prevention managers to view many areas of the store on a single screen. Another often-used tool is mirrors that allow employees to observe aisles or areas of the store that may be out of view. Two-way mirrors allow employees to see out while customers cannot see in.

A typical technique for controlling shoplifting is in the placement of the merchandise itself. Small and/or expensive items should be placed near employee stations so attention may always be placed on them. Expensive items may also be placed behind a glass counter or in a glass or acrylic case or else attached by non-breakable cords to a stationary object.

Although many of these deterrents may be sufficient, innovative technology is presenting many new ideas and procedures in shrinkage control. Protex International Corp., a company in Bohemia, New York, that specializes in theft prevention, has developed the Protron Alert. The Protron Alert detects minute changes in weight when merchandise is removed from a fixturing, such as a clothes rack, or from displays. A signal is sent to a remote beeper worn by an employee to alert them someone is at the display. A voice module is activated at the same time at the display, announcing that "A salesperson will be with you in a moment." The Protron Alert aids in increasing customer service while it is also deterring shoplifting (Protex). Protex offers a catalog featuring the Protron Alert and many other innovations to prevent shoplifting. It includes a wide variety of security hangers that must be opened by employees, and also detection mirrors, electronic protection, and simulated surveillance. Protex also offers videos that may be used as training tapes to increase awareness of internal and external theft, and such devices as clear plastic zipper purses that allow store officials to see everything employees are carrying as a way of preventing employee theft.

Other types of innovative theft equipment include such devices as Anne Droid, a mannequin with a tiny video camera in her eye and a microphone up her nose. The equipment, developed by Jerry Gutierrez, a Denver mannequin repairman may be installed in any mannequin for \$1,150 (Tsiantar). Ink-loaded tags and tags that sound an alarm when removed or damaged, say in a dressing room, are also becoming more popular (Smarter Tags...).

One of the biggest developments in external theft control is use of the Civil Recovery Act. The act works as follows: when a person is caught stealing, they have the option to sign an agreement of guilt that will let the merchant demand the return of the stolen merchandise, or else pay the retail price. If the goods are

damaged or are not in a merchantable condition, the retailer may receive a penalty to the amount of five times the value of the goods. The amount must be between \$75 and \$500. The choice is to the accused whether to pay the amount and have no criminal record claim, or else plead "not guilty" and go to court. According to Mike Rosen, V.P. Government Relations New York State Merchants Association, Civil Recovery is working and 80% or more of the individuals apprehended are willing to settle out of court (Pesky). Currently 32 states have enacted the Civil Recovery Act. Since the Act may bypass the police and courts more businesses should be willing to take action without the expense and hassle of the court system.

Application of the law has been positive. A Woolworth store in the Boston area announced that its shrinkage decreased by 22% in 1989 and 39% in 1990, and a Los Angeles Woolworth announced an 80% reduction in 1990 after a 26% decrease in 1989 (Pesky).

A good way to control shoplifting is to attack the crime before it occurs. Many stores set a "gate guard" at the entrance/exit of the store. Customers entering the store will notice that the guard observes all people exiting. Often the guard has a surveillance terminal to watch different areas of the store at the same time. This, combined with anti-shoplifting sensors, have helped Best Buy, an audio, video, and appliance store, keep shoplifting well below the national average.

## **OPERATIONS**

The third major cause of shrinkage is in the area of operational procedures. Merchandise must be received into the store, marked up, marked down, transferred, sold, and inventoried according to a specific set of procedures. However, each time an employee neglects to follow the established procedures or creates a mistake that goes unnoticed, shrinkage most likely occurs. For many retailers, refunds and voids are the single largest area of operational shrinkage.

Often shrinkage occurs before the product even enters the store. Direct Store Delivered products are likely to shrink in two ways. First the product may suffer physical theft or inaccuracy on the part of the driver. Shrinkage might also occur by differing invoice prices or by unclear vendor-retailer communications (Litwak).



## Prescriptive Controls

Best Buy tracks merchandise with detailed computer work. Computers track shipping and receiving. Inventory must match exactly before merchandise enters the store. If a discrepancy occurs, the correction must be made through corporate headquarters immediately.

Other guidelines to prevent mistakes:

- 1) Never guess at the price of unmarked merchandise. If an unmarked item is found in stock or if an unticketed item is returned to the store, attempt to locate an identical item and re-ticket the merchandise.
- 2) Double-check register entries. Verify that the correct keys were pressed for payment, sales, or refunds.
- 3) Be aware and certain of instructions for price changes and inventory changes and procedures.
- 4) Always write legibly.
- 5) Never assume anything.

J.C. Penney has a system to detect fraudulent refunds. A letter is sent to customers who have returned items for refunds. It is to remind the customer of the refund and to confirm the price. This procedure deters employee theft by assuring the transaction did indeed take place.

The combination of internal, external, and operational shrinkage may add up to thousands of dollars in losses for stores every year. Researcher Read Hayes has compiled four A's for controlling retail shrinkage: Awareness, Auditing, Apprehension and Area Focus (Hayes, R). Employee **Awareness** of shrinkage may help to solve shrinkage problems before they happen. **Auditing** may catch mistakes and prevent future mistakes from occurring. **Apprehension** by such acts as Civil Demand are proving to be effective. Twenty percent of the store often presents eighty percent of the problem so **Area** control should be given special care.

Managers need to be actively involved in the overall inventory shrinkage reduction effort. Most of the stores surveyed set a shrinkage goal of 1%. Setting examples of honesty, listening to employee suggestions, and showing concern for eliminating inventory shrinkage may help stores meet this goal or reduce it further. Loss prevention is not just a management problem, it is everyone's problem. The best defense is a good offense, so preventing losses before they occur is the best way to control shrinkage.

## REFERENCES

Bacas, Harry (1987), "To Stop a Thief," Nation's Business (June), 16-23.

"Civil-Recovery Laws Gain Popularity" (1991), Jewelers Circular (May), 34-35.

Hayes, Read (1990), "The four A's of Controlling Retail Shrinkage," Sporting Goods Business (June), 19.

Limited Express, Handbook.

Limited Express, Notice To All Employees.

Litwak, David (1991), "Company Shrink: A Progress Report From the Front Lines," Supermarket Business Magazine (May), 45-50.

"Loss Prevention Can Be Profitable: Civil recovery procedure demands restitution from shoplifters" (1988), Chain Store Age Executive (December), 72.

"Loss Prevention: Controlling Shrinkage" (1991), Chain Store Age Executive (December), 52-59.

McGurn, William A. (1988), "Spotting the Thieves Who Work Among Us," Wall Street Journal (March 7), Section 1, 16.

Outcult, Dick (1991), "The Million-Dollar Heist," Gifts and Decorative Accessories (November), 32-33, 138.

Pesky, Greg (1991), "32 States Enact Shoplifting Law Allowing Vendors to Bypass Courts," Sporting Goods Business (November), 28.

Protex, Catalog.

"Shoplifting: Bess Myerson's arrest highlights a multibillion dollar problem that many stores won't talk about" (1988), Life (August), 32-35.

"Smarter Tags Combat Smarter Thieves" (1990), Chain Store Age Executive (May), 295.

Tsiantar, Dody (1989), "Big Brother at the Mall," Newsweek (July 3), 44.

# THE INFLUENCE OF CONSUMER RELIGIOSITY AND RELIGIOUS AFFILIATION ON SUNDAY SHOPPING

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## ABSTRACT

Sunday, once considered a day for family as well as a religious holiday, is increasingly becoming a day for consumer activity. In response to this consumer demand, unrestricted Sunday shopping within urban areas has become commonplace; however, this retail practice has not extended itself to rural areas. Hence, Sunday shopping by rural consumers may constitute a dimension of generalized outshopping. Although many demographic and psychographic variables have been examined in relation to outshopping, no study has specifically investigated Sunday outshopping and the possible moderating effects of the religious commitment of the rural community. The purpose of this study, then, is to provide an empirical examination of the relationship between religiosity, Sunday shopping, and Sunday outshopping. This investigation appears warranted in that a defined association between religiosity and Sunday shopping further characterizes and explains the consumer, allows better retail strategies with respect to the trading areas' religiosity, and creates a basis for selecting target markets.

Three primary constructs were operationalized for examination in this study -- Sunday shopping, Sunday outshopping and religiosity. Sunday shopping and outshopping were measured on behavioral components. In the manner of Wilkes, Burnett, and Howell (1986), and McDaniel and Burnett (1990), religiosity was measured by religious affiliation, and by behavioral and cognitive dimensions of religious commitment.

An area comprised of five small communities with household units totaling 8,566 was used for this study. This area is well-suited for outshopping studies, as the largest town of the five surveyed has a population less than 20,000 and local shopping is limited to a traditional downtown area and two stand-alone discount stores. Additionally, more sophisticated regional retail shopping is only available in substantially larger cities some distance

away. A random telephone survey, employing the addition of a constant integer, was utilized to collect the data for this study. A total of 923 calls were completed resulting in 338 usable responses for a 36.6 percent response rate.

Differences in religiosity were found to be a determinant in the distance travelled for Sunday shopping, the frequency of Sunday shopping and Sunday outshopping, and the percentage of retail purchases made on Sunday; consequently, the religiosity of the local community should be formulated into the marketing strategies of the retail trade. The higher the religious commitment of the local trade area, the less likely the community residents are to shop or outshop on Sunday. Thus, the need for retail establishments to open on Sunday is moderated by the religiosity of the surrounding community.

This study also underscored the importance of examining the religious affiliation of the community. In general, Catholics expressed a lower religious commitment than Protestants, were involved in more Sunday shopping, and travelled greater distances for Sunday shopping opportunities. Retailers can examine the religious affiliations of their trade area to gain an understanding of weekend shopping patterns and optimal times for weekend operating hours. Moreover, religious affiliation appears to serve as a valid variable in segmenting the retail market.

## REFERENCES

- McDaniel, Stephen W. and John J. Burnett (1990), "Consumer Religiosity and Retail Store Evaluative Criteria," Journal of the Academy of Marketing Science, 18 (Spring), 101-112.
- Wilkes, Robert E., John J. Burnett and Roy D. Howell (1986), "On the Meaning and Measurement of Religiosity in Consumer Research," Journal of the Academy of Marketing Science, 14 (Spring) 47-56.

# THE EFFECTS OF PERCEIVED TIME PRESSURE ON RELATIVE SHOPPING TIME AND EXPENDITURES

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## ABSTRACT

This manuscript reports the results of an exploratory study of the effects of time pressure on consumer supermarket shopping behavior. Unique to the study is the use of both actual and relative measures of shopping time and expenditures. Because previously used

research methodologies may be inappropriate for natural research settings and/or for all shopping situations the use of measures of relative shopping time and expenditures may provide additional insight into the effects of time pressure on shopping behavior.

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## INTRODUCTION

Without question, many consumers today are facing severe time shortages. As a result, time is rapidly becoming one of the most highly valued resources in America. How consumers deal with temporal shortages and how these shortages affect marketing strategy are of primary concern. Previous research findings (e.g., Iyer 1989; Park, Iyer, and Smith 1989) indicate that supermarket shoppers operating under conditions of high perceived time pressure tend to expend less time and money than shoppers with fewer time constraints. However, what is not known are the expenditure behaviors of shoppers under moderate time constraints: a segment that potentially represents the bulk of supermarket shoppers.

It may be safe to assume that certain shopping tasks are not undertaken by choice. Shopping for groceries and household supplies, while potentially rewarding experiences for some consumers, represent menial and routine but essential (nondiscretionary) tasks for others. When and how often a consumer shops for groceries may be somewhat at the shopper's discretion. In addition, certain services can be substituted for certain products thereby eliminating the need to shop. However, the fact still remains that nineteen percent of total U.S. retail sales is accounted for by grocery stores (U.S. Department of Commerce 1992) and the average U.S. consumer household spends over eight percent of its after-tax income on food to be consumed at home (U.S. Department of Labor 1992).

It would seem that for the majority of consumers the use of some portion of nondiscretionary or leisure time for such tasks as shopping for groceries or household products may be unavoidable. Given the potential for lack of consumer control over certain shopping situations, there is an inherent need to understand if time pressure effects hold regardless of the level of consumer control over time and dollar expenditures. The purpose of this manuscript is to report the results of an exploratory study of the impact of perceived time pressure on consumer shopping behavior. The study examines the influence of perceived time pressure on the shopping time and expenditures of supermarket shoppers. Unique to this study is the addition of measures of relative time and money expenditures which may provide a more accurate representation of the effects of time pressure.

## BACKGROUND

Time can be divided into three major categories: work (paid) time, nondiscretionary (obligated) time, and leisure (discretionary) time (Engle, Blackwell, and Miniard 1993). Of these three temporal categories, nondiscretionary and leisure time are the most important to marketers as it is during these periods of time that consumers purchase most products for personal consumption. Given what we know about consumer shopping behavior, perhaps we may also use these same delineations for shopping tasks. More specifically, we could potentially divide shopping tasks into two general non-mutually exclusive categories -- nondiscretionary and leisure -- depending on the nature and the

timing of the shopping task. Grocery shopping would most likely fall into the nondiscretionary category for most consumers.

The notion that the behavior of shoppers operating under increased time pressure is different from that of shoppers under relatively less pressure has been well documented (e.g., Holman and Wilson 1982; Iyer 1989; Park, Iyer and Smith 1989). Also documented is the fact that shopper time constraints are potentially influenced by several personal and household characteristics: employment status, income, education and the number and ages of children living in the consumer's household (Holman and Wilson 1982).

In their 1989 study Park, Iyer and Smith examined the effects of time pressure on unplanned purchasing and in-store purchase volume deliberation. The results suggest that failure to purchase intended products was higher for subjects shopping under high time pressure and that both the frequency of unplanned purchases and purchase volume deliberation were higher for subjects shopping with few temporal constraints.

Consumers cope with time constraints in a number of ways. One strategy shoppers have for dealing with time pressure is to make shopping trips during low-volume hours and/or make more trips to convenience type grocery stores rather than full-line supermarkets (Holman and Wilson 1982). Another popular strategy consumers use to cope with time constraints is to combine several shopping tasks and/or errands (Kaufman, Lane, and Lindquist 1991). The popularity of this strategy, also referred to as polychronic time usage, is evidenced by the growth in popularity of combination stores and super stores (Progressive Grocer 1992) as well as the addition of pharmacies, banks, and video kiosks to traditional grocery store formats. Consequently, the effects of time pressure seem to be most evident both in how long consumers shop as well as how much money they spend. In an effort to confirm these propositions, the following hypotheses were tested.

- H1:** Total shopping time is negatively related to perceived time pressure.
- H2:** Total shopping expenditure is negatively related to time pressure.

Few could argue against the idea that temporal constraints in some way influence consumer shopping behavior. Consumers operating under extremely high levels of time pressure would most likely spend less time shopping for groceries and potentially buy much less than a consumer with virtually no time constraints. However, even without empirical evidence for support, it may be safe to assume that most shoppers fall somewhere inbetween on the continuum of high to no time pressure. As a result, one may find few or no discernable differences in the total shopping time or dollar expenditures of consumers operating under more moderate levels of time pressure when time pressure effects may indeed exist (Type II error).

A second consideration is that it may be unrealistic to assume that all or even most consumers operating under high (low) levels of time pressure buy less (more), spend less (more) time shopping, or shop during "off" ("peak") times. Certain shopping tasks and certain product purchases may be postponed or delayed temporarily but not indefinitely. Alternately, consumers can only spend so much time and so much money. To assume that shoppers under high (low) time pressure spend any less (more) money or time neglects the fact that many consumers have little control over when they shop, how much they buy, and/or how much time they spend. As a result, actual shopping time and expenditures may not reflect the true or complete scope of time pressure effects for all shopping situations.

Given the preceding discussion, it can be suggested that measures of total shopping time and expenditures do not cover the complete spectrum of time pressure effects or all shopping situations. What is needed are additional measures that take into account: (1) the effects of moderate levels of time pressure and (2) the possibility that due to other factors total shopping time and expenditures may be beyond the control of the shopper.

One possible solution, the approach taken in this study, is to use relative shopping time and expenditures. To accomplish this two additional dependent variables were computed: relative shopping time and relative purchase amount. Relative shopping time was obtained by dividing total shopping time in minutes by total dollar expenditure. The resulting value represents the average amount of time spent for each dollar

spent. Relative expenditure was obtained by dividing total expenditure by total shopping time in minutes thus representing the amount of money spent per minute in the store. The hypothesized relationships between time pressure and relative shopping time and relative expenditure are stated formally as:

**H3:** Relative shopping time is negatively related to time pressure.

**H4:** Relative shopping expenditure is positively related to time pressure.

## METHOD

The present study was part of a more comprehensive project investigating shopper responses to retail environments. Data were collected between the hours of 1 p.m. and 8 p.m., Monday through Thursday, over a three-week period at a location of a supermarket chain. Prior to entering the selling area of the supermarket shoppers were asked to participate in a study conducted as part of a university project. Potential participants were offered a five dollar gift certificate from the participating retailer in return for their participation. The surveyed sample represents a diverse group of 140 adults from a metropolitan area in the Southeastern United States. The sample was comprised of 112 females and 28 males. The average age of the participants was 43 years old. Sixty-seven percent of the participants were married, and 68 percent shopped alone. Average size of household was 2.82 people. The average level of education of participants was 15.65 total years. While trading area population statistics were not obtained for this study, the supermarket general manager reported that the sample characteristics approximated the store's typical shopper.

Forty-eight percent of the participants reported that they did not spend any more or less time in the supermarket than usual. Approximately fifty-six percent of the participants reported that they spent less money than they usually do when shopping for groceries and thirty-six percent stated that they spent about the same amount as usual.

After agreeing to take part in the study, each participant was instructed to complete a questionnaire consisting of several questions requesting demographic data and several items

used to compute perceived time pressure. After completing this first questionnaire, participants were asked to return to the researcher's booth upon departing the checkout queue to complete a second questionnaire. After the initial instructions were relayed to the participant, the researcher unobtrusively recorded the participant's time of entry into the selling space of the supermarket.

The researcher next recorded the time of day to the nearest second at which the participant entered the checkout queue. The time lapse between entering the selling space of the supermarket and entering the checkout queue, measured in whole seconds, served as the measure of shopping time and was processed as a dependent variable. After the participant exited the checkout queue, he or she was asked to produce his or her cash register receipt from which the researcher recorded purchase amount. At this time the participants were instructed to complete a second questionnaire containing a question used to assess demand artifacts. No evidence of demand bias was observed.

## Operationalization of Measures

The items measuring perceived time pressure (Table 1) were developed specifically for this study. Each of the seven statements provided for a five-point Likert-type response ranging from very inaccurate to very accurate. The measures of perceived time pressure represent the participant's subjective comparisons of the anticipated amount of time he or she needed to complete the shopping task compared to the amount of time he or she had available due to current extraneous time constraints. Five of the seven items load together on a distinct factor (Table 1). Two of the time pressure items, "I can shop at my leisure today," and "I have as much time as I need to complete my shopping," load on a second factor. These two items were negatively keyed on the survey and reversed coded for the factor analysis. Consequently, the failure to load on the main factor may be attributable to response acquiescence. Accordingly, the two items loading on the second factor were omitted from the analysis. The alpha reliability for the remaining five item factor is .8685. The resulting measure for perceived time pressure used in the analysis consisted of the summated score for the five items.

**Table 1**  
**Varimax Rotated Factor Matrix for Time Pressure Items**

| Items                                                     | Factors       |               |
|-----------------------------------------------------------|---------------|---------------|
|                                                           | I             | II            |
| I must rush if I am to complete my shopping trip on time. | <u>.89379</u> | .25523        |
| I feel pressured to complete my shopping quickly.         | <u>.88006</u> | .22548        |
| I do not have enough time to shop today.                  | <u>.76798</u> | .27567        |
| I must hurry to complete my shopping on time.             | <u>.69933</u> | .27151        |
| There are other things I need to be doing right now.      | <u>.68063</u> | -.02599       |
| I can shop at my leisure today.                           | .21752        | <u>.92505</u> |
| I have as much time as I need to complete my shopping.    | .17246        | <u>.92488</u> |
| Eigenvalue                                                | 3.904         | 1.266         |
| % of Variance Explained                                   | 55.800        | 18.100        |

## RESULTS AND DISCUSSION

### OLS Regressions

Four separate OLS regressions were used to test the hypotheses. The dependent variables were shopping time, purchase amount, relative shopping time, and relative purchase amount.

The independent variables were perceived time pressure and hour of day. The variable representing hour of day (1 = 1:00 p.m., 8 = 8:00 pm.m) was included to provide some statistical control for the differences in sales normally observed in the daily pattern of grocery sales. [Table 2](#) presents the final coefficients for each of the four OLS regression models.

**Table 2**  
**Results of OLS Regressions**

| Independent Variables | Dependent Variables |                                |                                |                               |
|-----------------------|---------------------|--------------------------------|--------------------------------|-------------------------------|
|                       | Shopping Time       | Purchase Amount                | Relative Time                  | Relative Purchase             |
| Constant              | 25.432<br>(5.358)   | 51.993<br>(10.613)             | 1.013<br>(0.360)               | 1.571<br>(0.397)              |
| Time Pressure         | -1.009<br>(1.286)   | -0.828<br>(2,548)              | -0.186 <sup>a</sup><br>(0.086) | 0.202 <sup>a</sup><br>(0.095) |
| Hour of day           | -0.525<br>(0.925)   | -3.626 <sup>a</sup><br>(1.832) | 0.108 <sup>b</sup><br>(0.062)  | -0.084<br>(0.067)             |
| R <sup>2</sup>        | .007                | .029                           | .056                           | .043                          |
| F-value               | 0.468               | 2.009                          | 3.863 <sup>a</sup>             | 2.992 <sup>a</sup>            |

<sup>a</sup> significant at .05 level or lower.

<sup>b</sup> significant at .10 level or lower.

The estimates obtained when shopping time and purchase amount were regressed on perceived time pressure were -1.009 and -0.828 respectively. While the signs for the coefficients were both in the hypothesized direction neither coefficient was statistically different from zero at the .10 level of significance or better. Time of day did impact purchase amount ( $t = 1.98$ ,  $p = .05$ ) but not shopping time ( $t = 0.568$ ,  $p = .57$ ). The findings do not support hypotheses one and two.

Hypotheses three and four propose that regardless of the total time or money shoppers spend in the supermarket, they will spend less time purchasing a dollar's worth of groceries and/or more money in the time available to them when pressed for time. The estimated coefficient obtained when relative shopping time was regressed on perceived time pressure was -0.186 ( $p = .03$ ). This finding indicates that shoppers operating under higher levels of time pressure spent less time on the average making any given purchase. Consequently, there is evidence to support hypothesis three. The estimated coefficient obtained when relative purchase amount was regressed on perceived time pressure was 0.202 ( $p = .04$ ). An interpretation of the coefficient would suggest that shoppers operating under higher levels of perceived time pressure spent relatively more money in the time available to them than those shoppers with fewer temporal constraints. The analysis provides some evidence to support hypothesis four.

## **DISCUSSION OF RESULTS**

The failure to find support for hypotheses one and two does not necessarily imply the absence of time pressure effects. Previous research has shown that consumers operating under high levels of time pressure expend, on the average, less time and money when shopping for groceries than consumers operating under little or no time pressure (Park, Iyer, and Smith 1989). Instead, the findings merely support the idea that time pressure effects are not always readily observable at all levels of perceived time pressure or for all shopping situations. Given the level of support provided for hypotheses three and four it appears that relative time and expenditures are potentially more capable of capturing the effects of time pressure on shopping behavior.

The level of support provided for hypotheses three and four is potentially of marked importance to supermarket or grocery retailers. Hypothesis three suggests that shoppers under relatively higher time constraints spend less time making any given purchase while hypothesis four indicates that these shoppers spend more money in the time available to them. In combination, these related findings indicate that supermarket or grocery retailers should attempt to accommodate the time harried consumer by making product selections and overall shopping less time consuming. Although the idea of helping consumers find ways of spending less time in a supermarket goes against the conventional wisdom of many retailers and against the principles of scrambled merchandising, retailers who are able to purvey an image of fast service may develop certain competitive advantages.

## **CONCLUSIONS AND SUGGESTION FOR FUTURE RESEARCH**

The effects of time pressure on consumer shopping behavior is a complex issue. Knowledge of the influence of time pressure on behavior is somewhat limited. By including measures of relative time and money expenditures this exploratory study approaches the issue of temporal effects from a slightly different perspective. In general, the finding that time pressure impacts relative shopping time and expenditures rather than total shopping time and expenditures may be of particular importance to both retailers and marketers. In essence, the results have direct implications for merchandising and marketing strategies. It should be noted that the sample obtained for this study may exclude shoppers operating under extreme levels of time pressure and therefore cannot be extended to all grocery shoppers. Future research should attempt to obtain the behaviors of consumers under extreme levels. In the future, researchers may wish to consider not only the amount of time and money spent but the types of products purchased as well.

Of added interest would be to determine what types of services are substituted for normal convenience goods (e.g., groceries and household supplies) and which consumers are most likely to substitute services for goods. The use of natural field studies such as this one may be more preferable, though not always feasible, than contrived studies where time pressure or other factors are artificially manipulated.

## REFERENCES

- Engle, James F., Roger D. Blackwell, and Paul W. Miniard. 1993. Consumer Behavior. Fort Worth: Dryden.
- Holman, Rebecca H. and R. Dale Wilson. 1982. "Temporal Equilibrium as a Basis for Retail Shopping Behavior." Journal of Retailing 58 (Spring): 58-81.
- Iyer, Easwar S. 1989. "Unplanned Purchasing: Knowledge of Shopping Environment and Time Pressure." Journal of Retailing 65 (Spring): 40-57.
- Kaufman, Carol F., Paul M. Lane, and Jay D. Lindquist. 1991. "Exploring More than 24 Hours a Day: A Preliminary Investigation of Polychronic Time Use." Journal of Consumer Research 18 (December): 392-401.
- Park, C. Whan, Easwar S. Iyer, and Daniel C. Smith. 1989. "The Effects of Situational Factors on In-Store Grocery Shopping Behavior: The Role of Store Environment and Time Available for Shopping." Journal of Consumer Research 15 (March):422-433.
- "59th Annual Report of the Grocery Industry." 1992 Progressive Grocer (April).
- U.S. Department of Commerce. 1992. Current Business Reports: Retail Trade 1991. Bureau of the Census Report BR/90.
- U.S. Department of Labor. 1992. Consumer Expenditures. Bureau of Labor Statistics Report 835.



# ATMOSPHERIC RESEARCH: PAST, PRESENT AND FUTURE DIRECTIONS

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## ABSTRACT

This is a conceptual paper which examines the progress made over the past 20 years in the exploration of the effects of environmental cues or "atmospherics" on buyer behavior. Herein the authors review the pertinent literature by constructing a comprehensive table of the em-

pirical studies in this area, then, comparing and contrasting the various findings associated with these investigations. In addition to discussing current trends in research methodologies, the paper concludes by offering numerous suggestions for future atmospheric-related research.

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## INTRODUCTION

Twenty years ago, Kotler (1973) set forth the idea that marketers could design an aggregate bundle of atmospheric variables which would arouse desired behavioral responses, such as approach or avoidance behavior, increased expenditures, and shorter decision making intervals. Kotler called this intentional control and structuring of such environmental cues, "atmospherics." If consumers are influenced by physical stimuli experienced at the point of purchase, then, the practice of creating influential atmospheres should be an important marketing strategy for most exchange environments. According to a recent article written by Bitner (1990), such atmospheric planning can make the difference between a business's success or failure.

However, two decades after Kotler's original article advocating strategic atmospheric planning, Bitner (1992) writes, "...in marketing there is a surprising lack of empirical research or theoretically based frameworks addressing the role of physical surroundings in consumption settings. Managers continually plan, build, change, and control an organization's physical surroundings, but frequently the impact of a specific design or design change on ultimate users of the facility is not fully understood" (p. 57).

Berman and Evans (1992) attempt to clarify the concept by noting that an image relies heavily on the atmosphere that a retailer creates. However, they also recognize that a retail

atmosphere itself can be very complex and that it can be comprised of a wide variety of elements or cues. In order to provide some conceptual organization and understanding of the subtle effects of a retail environment, Berman and Evans divide atmospheric elements into four categories. First is the exterior which includes the storefront, marquee, entrances, display windows, building architecture, the surrounding area, and parking. Second is the general interior which is made up of variables like flooring/carpeting, lighting, scents and sounds, temperature, cleanliness, fixtures, wall textures, and cash register placement. Next are the store layout variables which include allocation of floor space, product groupings, traffic flow, department locations, and allocations within departments. Finally, there are atmospheric cues which emanate from interior displays which can include product displays, racks and cases, posters, signs, cards, and wall decorations.

The preceding dichotomy of atmospheric cues presented by Berman and Evans represents a rare attempt at imposing some managerial organization on atmospheric stimuli. Their discussion allows managers to identify and tailor appropriate atmospheric elements in order to communicate a desired image.

## THE PURPOSE OF THIS SYNTHESIS

As with many expanding concepts, there have not been any systematic attempts to synthesize and compare the methodologies and results of the diverse investigations into the effects of various atmospheric variables. The

purpose of this paper, therefore, is to first, briefly review, then, compare and contrast the extant literature on consumer related atmospheric effects in an attempt to identify common methodologies and major findings. The importance of marketing atmosphere's has also been widely discussed in several related areas such as retail image (c.f. Golden, Albaum and Zimmer 1987) and situational variables (c.f. Belk 1975). We did not review these studies since our specific purpose is to examine attempts that manipulated atmospheric variables and gauged their effect of consumer behavior. After reviewing these studies, we also identify some limitations and gaps in the literature and suggest possible directions for future research in an attempt to give some guidance to other scholars that might be interested in pursuing this stream of study.

## **A REVIEW OF THE PERTINENT LITERATURE**

Prior research in this area has found that consumers who desire stimulation and novelty seek out stores that offer such environments, while those who desire "information rich" stores seek out exchange environments that offer different atmospheres (Bellenger and Korgaonkar 1986). Certain colors affect physical attraction toward a store environment (Bellizzi, Crowley, and Hasty 1983) and other colors exacerbate the perception of crowdedness and influence shoppers to leave the area (Omura 1982). Similarly, music has been shown to effect the pace of in-store traffic flow, and gross sales (Smith and Kurnow 1966; Milliman 1982; Milliman 1986; Areni and Kim 1993).

A summary table of the published empirical studies of the influence of marketing atmospheres on consumers is presented in Exhibit 1. Collectively, these studies provide reasonably convincing empirical support for the purported influence of a limited array of atmospheric variables. Based upon these findings, therefore, it appears that careful crafting of the atmosphere, in the exchange setting, can, indeed, be a useful behavior shaping tool.

The exhibit indicates that the literature in this area is both very diverse and eclectic. In spite of the diversity in methodologies, it is important to note that each of these studies found some type of relationship between the atmosphere and patronage behavior. In this section we will provide a more in-depth discussion

of some critical aspects associated with Exhibit 1. Specifically, we will review the use of research designs, independent variables, and dependent variables which have been used to study the effects of marketing environments.

## **Research Designs**

Experimental designs have tended to predominate in this literature stream. Smith and Curnow (1966), Milliman (1982) and (1986), Andrus (1986), and Yalch and Spangenberg (1990) have all used some form of field experiments involving data collection in actual retail stores. Bellizzi et al. (1983) used a laboratory experiment to study the effects of colors in retail stores. In comparison, Bitner (1990) employed a factorial design which used a case scenario to manipulate the independent variables. Baker et al. (1992) employed a different method for communicating independent variable levels in their factorial experiment by using film to capture the environment under investigation.

In contrast, different methodologies were employed by Donovan and Rossiter (1982), Ward et al. (1992), and Grossbart et al. (1990). Donovan and Rossiter and Ward et al. used descriptive designs, while Grossbart et al. used a causal design.

## **Independent Variables**

These variables represent the elements of the atmosphere which have been tested to determine their effects, if any, on consumer behavior. One of the special problems associated with studying this phenomenon is that there are a large number of variables which can influence atmospheric perceptions (Berman and Evans 1992).

However, there have been a relatively small group of empirical investigations of atmospheric effects. This means that there are a number of potentially influential variables which have not been studied, or which have only been included in a single study.

When the studies in Exhibit 1 are classified according to Berman and Evans (1992) typology of atmospheric variables, it becomes apparent that general interior variables have been the most studied dimension of a marketing atmosphere. Store layout variables are the next most popular category, but surprisingly both the

exterior category and interior display category have only been included in one study each. Music, a general interior variable, has also been the single most studied environmental variable to date.

### **Dependent Variables**

Atmospheric effects have been measured on a wide variety of different dependent variables. Such elements that were found positively related, statistically, to the environment in at least two studies include approach behavior (Donovan and Rossiter 1982; Bellizzi et al. 1983; Baker et al 1992), and time spent in a facility (Smith and Curnow 1966; Milliman 1986; Yalch and Spangenberg 1990).

When several studies that included the similar dependent variables are inspected some interesting observations emerge. Milliman (1982) and (1986) both found that music influenced sales and profits, Smith and Curnow (1966) found sales per minute were influenced by music, and Areni and Kim (1993) reported that the type of music influenced the price level and quality of merchandise selected. In contrast, Yalch and Spangenberg (1990) failed to find a significant relationship between music and impulse buying. However in Smith and Curnow's, both of Milliman's studies, and Areni and Kim's studies actual data (sales/profits) were measured, while Yalch and Spangenberg used a self-report measure of impulse sales which could, conceivably, account for these differences.

Music, however, does not seem to have any significant influence on certain other dependent variables which have been measured. These include "music liking" (Yalch and Spangenberg 1990) and "music awareness" (Milliman 1982; Andrus 1986). Even though some studies have found that music influences a variety of behaviors (see previous discussion), consumers appear to not be aware of it while shopping.

### **SUGGESTIONS FOR FUTURE RESEARCH**

Based upon this review of the literature, the authors have a number of suggestions for future research. First we will discuss atmospheric variables which deserve further examination, and then follow this with a discussion of methodological issues associated with researching atmospheric effects.

### **Atmospheric variables**

As Exhibit 1 indicates, a number of atmospheric elements have only been used as an independent variable in a single study. The most obvious example is color. Although the Bellizzi et al. (1983) study is widely cited, discussed and accepted as truth, it remains the only published empirical study on the effects of color on Retail shopping behavior. Obviously, enormous opportunities exist here for additional investigations, e.g., different colors and shadings, color combinations, different colored walls in various marketing environments, testing the effects of different colored lights, etc. Are certain colors appropriate for certain exchange environments while others might be more fitting in different marketing situations?

Future research is likely to uncover the same facts that music researchers have found, colors are both a subtle and complex influence on behavior. Since the Bellizzi et al study took place in a simulated environment, future studies which take place in the field are particularly warranted.

Another variable, or perhaps class of variables, which deserves more attention from researchers are external variables. Currently, Ward et al. (1992) seems to be the only published piece of research which directly examined the influence that a facility's exterior has on consumer perceptions. However, this absence of attention by researchers should not be interpreted as a lack of importance of external variables on the atmospheric design.

Berman and Evans (1992) indicate that a store's exterior has a strong impact on retail image and is particularly important to new customers. Ward et al.(1992) found agreement with this when they noted that the external variables associated with a fast food restaurant are particularly important in the categorization process and are used to compare the restaurant to others in that perceived category.

Although the importance of the interior atmosphere should not be discounted, the fact remains that the exterior must first "pass muster" before the interior is ever processed. However, at present very little evidence is available about what consumers look for when they evaluate an exterior for potential retail patronage.

An interesting study of the exterior influences of a store might be to study the perceptions of two stores from the same chain and the same city where one is located in a mall and the other is downtown or in some other type of location. Although other factors such as personnel, convenience of location, prototypicality and comparable surroundings would have to be considered, a study of this type might reveal some interesting insights on the effects of the exterior on consumers.

Another independent variable that would seem to offer considerable opportunity for innovative research is "olfactory." Some exploration into the effects of olfactory sensations has been conducted in other disciplines (e.g., psychology, see Baron 1980, 1981, 1983, 1990). To date, very little has been published dealing with olfactory stimuli as one of the independent variables in a marketing atmosphere. However, there has been increased attention given to the topic over the past five years. For instance, in 1991, a special session of the Association for Consumer Research was devoted to olfactory investigations. Again, in the most recent ACR conference (1993), several presentations focused on olfactory stimuli as the primary independent variable. However, these activities have not yet resulted in any published work on olfactory related atmospheric effects.

The information currently available focusing on the effects of olfactory stimuli in a marketing situation, limited as it may be, seems to suggest that such stimuli can be, potentially, quite influential, though complex and difficult to experimentally control. There are some indications that men respond to different aromas than women, and people from different regions of the country are affected differently than those from other regions and by different aromas; though, these findings do not appear to be published by academic or refereed journals (e.g. Fost 1991).

Lighting, apart from the issue of colored lighting effects, has also not been given much attention. It is certainly appropriate to examine bright vs dim lighting; however, how bright is bright? Other questions lighting include, does bright or dim lighting have different effects on customer behavior, depending upon the marketing atmosphere? Does general lighting produce different perceptions than does spot lighting? Is natural lighting ever preferred to artificial

lighting? Research which investigates these issues could prove to be very illuminating.

Yet, another atmospheric element that has been given little attention is temperature. Andrus (1986) did not manipulate temperature but asked respondents if they connected temperature to satisfaction. They did not. However, temperature could be varied from one extreme to another in different marketing situations to determine if there is an preferred temperature for one type of exchange situation compared with another. Another approach may be to manipulate temperature to see if it influences length of shopping time.

Finally, we suspect different floor coverings can be shown to have a very significant influence on the perceptions of patrons, e.g., price, quality, service, merchandise selection, etc. For instance, what effect does tiled floors compared to carpeted floors have on buyer perceptions or even varying carpet thicknesses?

### **Methodological issues**

One of the most striking developments in this literature stream is associated with the methodology which has been used to study the effects of retail environments. The early studies in this area were often field experiments which have difficulty controlling exogenous variables, but are considered to have high external validity. In these studies, consumers actually experienced the environment and researchers either tracked behavior or asked them about any cognitive or emotional effects that they experienced.

More recent studies have been using either pictures (Bitner 1990; Hui and Bateson 1991) or video tapes (Baker et al. 1992) of the environment as a representation of the store's atmosphere. Although there has been little discussion associated with using this approach, some researchers believe that it is appropriate for this type of research. For example, Baker et al. (1992) state that, "The use of experiments using videotapes provides retailers with a relatively easy, inexpensive, and realistic method of examining the impact of several store environmental situations on customers" (p. 457). In another article in the same journal Ward et al. (1992) counter this philosophy by stating that "actual restaurants were used for the study instead of photographs or descriptions of

restaurants in order to increase the validity of the environmental resemblance measures as well as the external validity of the results" (p. 202).

We tend to agree with the Ward et al. position and have significant reservations with this approach for several other reasons. First, there are limitations associated with any camera, as all amateur photographers learn very quickly. The camera just does not "see" the same way the human eye does. The angle of vision and the depth perception associated with photographs are just basic examples.

The angle of vision issue recognizes that a camera basically takes a picture through a lens which can be thought of as a tube of varying lengths. By shooting down this tube the photographer loses a great deal of width of vision. Although a wide angle lens can be used, these lenses often distort the size of the objects being photographed. Anyone who has tried to capture the rugged panorama of the Rockies or the Alps on film, and has come up short, understands this camera based distortion. Pictures just do not have the same effect.

The depth perception issue in photography is equally prevalent and disturbing. Photographs can mislead and distort the distance between two objects. For example, one of the authors once took a photo of the moon appearing to be balanced on a factory smokestack. This photograph is an example of how deceiving a one-dimensional photograph of a three-dimensional view can be. At times, this depth of field is almost completely missing. Photographs of retail stores often do not realistically capture aisle width, the correct proximity of merchandise to each other, or the sheer size of a department or room. Although videotapes are an improvement to still photographs, they still have the same depth of field limitations of any camera.

We have a final problem with photographic representations of an environment. No matter how well taken, a photograph just will not completely capture a store's atmosphere. An atmosphere is more than just visual information. It also contains sounds, smells and textures that we touch as we move through the environment. We visualize an atmosphere as something similar to a service. It is an intangible and so cannot be either transported or stored. It must be experienced to be understood.

As an example, visualize a picture of a hot-tub full of water. Although we could ask subjects how comfortable this hot-tub is, and how satisfied they would be if they sat in it, what would be the point? Until actually getting into the tub and feeling the water temperature, the swirling of the water, and the depth of the tub, the respondent can't actually tell how pleasurable this experience would be.

A photograph of the environment is not much different from this example. Before any more studies use this methodological approach, it should be carefully reconsidered for its validity. An interesting study would be to expose one set of respondents to a store's atmosphere, and to show another set of respondents a videotape of the environment of the same store and then compare differences in perception. If no significant differences are found then this methodological approach would then be more acceptable; however, if differences do emerge then the approach should either be discouraged in future studies or at the very least, the weakness should be explicitly recognized in these future studies.

## CONCLUSION

Although there is still much work left to do, atmospheric research has shown that the environment does influence a wide range of marketing behaviors. Consumers, even when they are not aware of certain atmospheric variables, often react to these variables and modify their behavior.

However, perceptions of and reactions to these variables do not appear to be universal. For example, Yalch and Spangenberg (1993) showed that perceptions of music tend to vary by age and gender. Future research in this area should focus on using the atmosphere as a segmentation tool.

Even though researchers in this area are quite certain that the atmosphere does influence retail behavior, there are still a large number of variables and situations that need to be studied. This quest for understanding should mean that atmospheric research should remain viable and important for many years.

## REFERENCES

- Akhter, Syed H., J. Craig Andrews and Srinivas Durvasula (1991), "Examining the Influence of Retail Store Environment on Brand Beliefs, Attitude, Evaluation, and Intentions," in Mary C. Gilly et al. (eds.), Enhancing Knowledge Development in Marketing, Chicago, IL: American Marketing Association, 98-99.
- Andrus, David (1986), "Office Atmospherics and Dental Service Satisfaction," Journal of Professional Services Marketing, 1 (Summer), 77-85.
- Areni, Charles S. and David Kim (1993), "The Influence of Background Music on Shopping Behavior: Classical Versus Top-Forty Music in a Wine Store," in Leigh McAlister and Michael L. Rothschild, eds., Advances in Consumer Research, Provo, UT: Association for Consumer Research, 336-340.
- Baker, Julie, Michael Levy and Druv Grewal (1992), "An Experimental Approach to Making Retail Store Environmental Decisions," Journal of Retailing, 68 (Winter), 445-460.
- Baron, R.A. (1990), "Environmentally Induced Positive Affect: Its Impact on Self-Efficacy, Task Performance, Negotiation, and Conflict," Journal of Applied Social Psychology, 20, 368-384.
- \_\_\_\_\_, R.A. (1983), "The sweet smell of success?" The impact of pleasant artificial scents on evaluation of job applicants." Journal of Applied Psychology, 12, 709-713.
- \_\_\_\_\_, R.A. (1981), "Olfaction and human social behavior: Effects of pleasant scent in attraction and social perception," Personality and Social Psychology Bulletin, 7, 611-616.
- \_\_\_\_\_, R.A. (1980), "Olfaction and human social behavior: Effects of a pleasant scent on a physical aggression," Basic and Applied Social Psychology, 1, 163-172.
- Belk, Russell W. (1975), "Situational Variables and Consumer Behavior," Journal of Consumer Research, 2 (December), 157-164.
- Bellenger, Danny and Pradeep Korgaonkar (1986), "Profiling the Recreational Shopper," Journal of Retailing, 56(Fall), 77-92.
- Bellizzi, Joseph A., Ayn E. Crowley and Ronald W. Hasty (1983), "The Effects of Color in Store Design," Journal of Retailing, 59 (Spring), 21-45.
- Berman, Barry and Joel R. Evans (1992), Retail Management: A Strategic Approach, New York: Macmillan Publishing Company.
- Bitner, Mary Jo (1992), "Servicescapes: the Impact of Physical surroundings on Customers and Employees," Journal of Marketing, Vol. 56 (April) 57-71.
- \_\_\_\_\_, Mary Jo (1990), "Evaluating Service Encounters: The Effects of Physical Surroundings and Employee Responses," Journal of Marketing, 54 (April), 69-82.
- Donovan, Robert J. and John R. Rossiter (1982), "Store Atmosphere: An Experimental Psychology Approach," Journal of Retailing, 58 (Spring), 34-57.
- Fost, Daniel (1991), "Different Smells for Different Shoppers," American Demographics, 13 (January) 10-13.
- Golden, Linda L., Gerald Albaum and Mary Zimmer (1987), "The Numerical Comparative Scale: An Economical Format for Retail Image Measurement," Journal of Retailing, 63 (Winter), 393-410.
- Grossbart, Sanford, Ronald Hampton, R. Rammohan, Richard S. Lapidus (1990), "Environmental Dispositions and Customer Response to Store Atmospherics," Journal of Business Research, 21, 225-241.
- Hui, Michael K. and John E. G. Bateson (1991), "Perceived Control and the Effects of Crowding and Consumer Choice on the Service Experience," Journal of Consumer Research, 18 (September), 174-184.
- Kotler, Phillip (1973), "Atmospherics as a Marketing Tool," Journal of Retailing, 49 (Winter), 48-64.

Milliman, Ronald E. (1986), "The Influence of Background Music on the Behavior of Restaurant Patrons," Journal of Consumer Research, 13 (September), 286-289.

\_\_\_\_\_, Ronald E. (1982), "Using Background Music to Affect the Behavior of Supermarket Shoppers," Journal of Marketing, 46 (Summer), 86-91.

Omura, Glenn S. (1982), "Strategic Design of Store Interiors," Academy of Marketing Science, Monograph Series 2, No. 1, eds. Harold Berkman and Jane Fenyo.

Smith, Patricia Cain and Ross Curnow (1966), "'Arousal Hypothesis' and the Effects of Music on Purchasing Behavior," Journal of Applied Psychology, 50 (No. 3), 255-256.

Ward, James C., Mary Jo Bitner and John Barnes (1992), "Measuring the Prototypicality and Meaning of Retail Environments," Journal of Retailing, 68 (Summer), 194-200.

Yalch, Richard and Eric Spangenberg (1990), "Effects of Store Music on Shopping Behavior," Journal of Consumer Marketing, 7 (Spring), 55-63.

Yalch, Richard and Eric Spangenberg (1993), "Using Store Music For Retail Zoning: A Field Experiment," in Leigh McAlister and Michael L. Rothschild, eds., Advances in Consumer Research, Provo, UT: Association for Consumer Research, 632-636.

**Exhibit 1**  
**Summary Table of Key Atmosphere Studies**

| CITATION                     | SAMPLE                            | DESIGN                | INDEPENDENT VARIABLES                                                                                                          | DEPENDENT VARIABLES                                                                                                                                     | PURPOSE/FINDINGS                                                                                                                                                                                                                                                                                                                                              |
|------------------------------|-----------------------------------|-----------------------|--------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Smith & Curnow (1966)        | 1,100 Actual Supermarket Shoppers | Field Experiment      | Music                                                                                                                          | Sales Time                                                                                                                                              | Believed that time in store and sales would be adversely related to "loud" music. time in store was shorter in the "loud" condition but total sales were not influenced by music loudness. However, sales per minute increased since customers spent less time in the store.                                                                                  |
| Donovan & Possiter (1982)    | 30 Graduate Business Students     | Descriptive           | Pleasure<br>Arousal<br>Dominance<br>Information rate                                                                           | Approach-Avoidance behavior intentions                                                                                                                  | Purpose was to test whether APPROACH-AVOIDANCE behavior can be predicted from reported emotional states, from arousal experienced inside a store, and information rate. The emotional states of pleasure and arousal are promising predictions of behavior.                                                                                                   |
| Milliman (1982)              | Actual Supermarket Shoppers       | Field Experiment      | Music tempo                                                                                                                    | Traffic pace<br>Sales volume<br>Music awareness                                                                                                         | Purpose was to test the effect of music and music tempo on traffic pace, volume and music awareness in a supermarket. Music tempo is related to both traffic pace and sales volume, but is not related to awareness.                                                                                                                                          |
| Bellizzi, et al. (1983)      | 125 Females                       | Laboratory Experiment | Colors                                                                                                                         | Approach behavior<br>Physical attraction<br>Environment and merchandise perceptions                                                                     | Colors do not influence approach behavior but is associated with physical attraction. The effect of color on perceptions of the environment and merchandise was mixed. People are drawn to warm colors, but they find them to be unpleasant.                                                                                                                  |
| Milliman (1986)              | Actual Restaurant Patrons         | Field Experiment      | Music tempo                                                                                                                    | Service time<br>Customer time at table<br>Customer groups leaving before seating<br>Amount of food purchased<br>Amount of bar purchases<br>Gross margin | Music tempo influences customer time at table, bar purchases, and gross margin. Music did not influence service time, leaving before being seated or food purchases.                                                                                                                                                                                          |
| Andrus (1986)                | 190 Patients                      | Post Test Only Design | Waiting room furniture<br>Exam room equipment<br>Office organization<br>Temperature<br>Music                                   | Satisfaction                                                                                                                                            | The purpose was to see whether dental patient satisfaction is influenced by the independent variables. They were not manipulated to test effects on satisfaction. Patients reported that organization, exam room equipment and comfort of waiting room furniture influenced satisfaction. Patients may not have been aware of music and temperature.          |
| Yalch and Spangenberg (1990) | Actual Department Store Shoppers  | Field Experiments     | Music<br>Age                                                                                                                   | Mood<br>Impulse behavior<br>Time perceptions<br>Music liking                                                                                            | Customer preferred foreground to background music across age groups. Younger shoppers reported increased time in the store with background music, while older shoppers reacted this way to foreground music. When purposefully shopping, shoppers made fewer impulse purchases with foreground music. Shopping behavior and music have a complex interaction. |
| Grossbart, et al.(1990)      | 243 Adults                        | Causal Design         | Pastoralism<br>Urbanism<br>Environmental adaption<br>Stimulus seeking<br>Environmental trust<br>Antiquarianism<br>Need privacy | Physical design<br>Crowding                                                                                                                             | Tests the relationship between environmental predispositions and atmospherics. The results indicate that pastoralism and need for privacy are positively related to responsiveness to store atmospherics while urbanism, environmental adaption, stimulus seeking, environmental trust and age are negatively related.                                        |
| Bitner (1990)                | 145 Travelers                     | Factorial Design      | Organization<br>Explanation<br>Offer to compensate                                                                             | Disconfirmation<br>Attribution<br>Satisfaction<br>Intended behaviors                                                                                    | Environment influences attributions when service failure occurs. Subjects in the organized travel agency condition were less likely to expect the failure to occur again.                                                                                                                                                                                     |



| CITATION                   | SAMPLE                               | DESIGN                   | INDEPENDENT VARIABLES                                                                                                                                    | DEPENDENT VARIABLES                                                                           | PURPOSE/FINDINGS                                                                                                                                                                                                                                                                                                                   |
|----------------------------|--------------------------------------|--------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Akhter et al. (1991)       | A - 209 students<br>B - 160 students | Factorial Design         | Store favorability<br>Product type                                                                                                                       | Brand beliefs<br>Brand attitude<br>Brand evaluation<br>Purchase intention                     | Reports results of two related experiments. Brand related judgements are more positive when evaluated in a favorable store compared to an unfavorable store. This relationship held across all three products (beer, watches, and T.V.'s), except for purchase intentions of beer which were not influenced by store favorability. |
| Hui & Bateson (1991)       | 115 British Adults                   | Factorial Design         | Consumer density<br>Choice<br>Service setting                                                                                                            | Perceived choice<br>Perceived control<br>Perceived crowding<br>Pleasure<br>Approach-Avoidance | Perceived control can be used to explain the effects of consumer choice and consumer density on the emotional and behavioral outcomes of the service encounter. Choice mediates the influence of density on perceived crowding. This study used slides to represent the environment of a bank and a bar.                           |
| Ward et al. (1992)         | 86 Undergraduate Students            | Descriptive Correlations | Family resemblance<br>Exterior family resemblance<br>Interior family resemblance<br>Typicality<br>Attitude<br>Frequency of instantiation<br>Market share | Attribute resemblance                                                                         | Applies family resemblance approach to studying how retail environments are perceived and the relation of these perceptions to typicality. Environmental features are very important in the categorization of retail store. They found that the extensive strongly influences perceptions of the store.                            |
| Baker et al. (1992)        | 147 Undergraduate Students           | Factorial Design         | Ambient levels<br>Social levels                                                                                                                          | Willingness to buy<br>Affective ratings of environment<br>Arousal<br>Pleasure                 | Used videotapes of store environments to measure store environmental situations on consumers. Supports Donovan and Possiter's (1982) contention that the Mehrabian-Russell model is applicable to a retail setting.                                                                                                                |
| Yalch & Spangenberg (1993) | Actual Shoppers                      | Field Experiments        | Music<br>Department<br>Time of week<br>Age<br>Gender<br>Musical preference<br>Group size                                                                 | Music perceptions<br>Mood<br>Shopping Behavior<br>Merchandise perceptions<br>Store Perception | Overall, the effects of the type of music played were negligible. However, music effects tend to vary by the type of shopper and by department. Younger males liked foreground music, older females liked background music.                                                                                                        |
| Areni and Kim (1993)       | Actual Shoppers                      | Field Experiment         | Music<br>Gender<br>Customer Type<br>Age                                                                                                                  | Info Search<br>Purchase Behavior<br>Consumption Behavior<br>Time Spent Shopping               | Studied the differing effects of classical and top 40 music on wine shoppers. Classical music resulted in significantly higher sales because "classical music led them to buy more expensive items."                                                                                                                               |

# A COMPARISON OF TV ADS AIMED AT THE GENERAL U.S. MARKET, THE U.S. HISPANIC MARKET, AND THE MEXICAN MARKET

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## ABSTRACT

The importance of culture for the study of consumer behavior has been well documented (McCracken 1988). It is generally agreed that all societies have culture based on their language, customs, traditions, and institutions, and that the behavioral patterns of a particular culture express those shared values and beliefs of that culture (Wallendorf and Reilly 1983).

This study contributes to the literature by narrowing the focus of a cross-cultural exami-

nation from an inter-country perspective to a cross-cultural intra-country perspective. This paper will identify the presence of various cultural orientations in television advertisements aimed at: 1) the U.S. market, 2) the U.S. Hispanic market, and 3) the Mexican market in Mexico. As noted by Belk and Bryce (1986), "it is a basic premise of advertising that a successful ad must appeal to the values and needs of its intended audience" (p. 571).

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## A REVIEW OF THE LITERATURE

### The Dimensions of Culture

Hofstede (1980) identified four dimensions of culture: individualism, power distance, uncertainty avoidance, and a masculinity-femininity dimension. On several of these dimensions, Mexico and the United States are on opposite extremes. McCarty and Hattwick (1992), include two other dimensions, an activity orientation and a human's relationship with nature orientation. They classify Mexico as generally a "being" culture that takes a subjugated stance with respect to nature, while the United States would be classified as a "doing" culture that feels that it may dominate nature.

Chandler (1979) propose measuring a "modernity" dimension which is, in turn, a function of an activity-time dimension, an integration with kin dimension, a trust dimension, and an occupational primacy dimension. The results of the study showed that the Anglo sample scored much higher than did the Mexican-American sample on all of the "modernity" dimensions.

A longitudinal examination of consumption value orientations across three Chinese cultures (Tse, Belk, and Zhou 1989) concluded that

advertising stresses distinctive consumption appeals across cultures. A society's consumption characteristics and values are revealed by the nature of the product advertised, the consumption appeals expressed in the ad, and the advertised benefits and existential themes.

### Assimilation and Acculturation

Previous assimilation research (e.g., Gordon 1964) has identified several components of the traditional assimilation process: cultural assimilation, structural assimilation, marital assimilation and identificational assimilation. Wallendorf and Reilly (1983) hypothesized that, with respect to the Mexican-American immigrant, "immigrants to a new culture will exhibit a cultural style that lies somewhere between the normatively prescribed behavior patterns prevalent in the culture of origin and those prevalent in the culture of residence" (p. 294).

Acculturation, according to Olmedo (1979), is a multi-dimensional process. The measurement of acculturation has included such dimensions as ethnic loyalty, ethnic identification, socioeconomic status, language preference, values, and the media (Valencia 1985; O'Guinn, Lee, and Faber 1986; Grønhaug, Gilly, and Peñaloza 1993). These acculturation indicators have been used to segment the Hispanic market

and examine behavioral differences by segments (Deshpande, Hoyer, and Donthu 1986; Hernández and Newman 1992). As the U.S. and Mexico are generally at opposite poles with respect to these cultural dimensions, it was expected that the U.S. Hispanic community would fall somewhere in the middle, and advertisers would reflect that in their ads.

## RESEARCH METHOD

Four matched hours of programming were videotaped in each market. The samples were taken in October 1993. The channels were Televisa (Mexico), Telemundo (U.S. Hispanic), and CBS. The taped programs produced a total of 288 non-self-promotional ads. Televisa had the highest number of ads, 147, compared with 52 for Telemundo, and 89 for CBS. Several consumer dimensions, indicated in Table 1, were identified in the ads, and coded for by the lead author using content analysis.

## RESULTS AND DISCUSSION

Telemundo, the U.S. Hispanic station, had the highest proportion of ads featuring most of the orientations discussed, including family, masculine traits, being, doing, feminine traits, and a modern dimension. Thus, for this sample of ads, Telemundo does not appear to fit in the "cultural" middle as expected. However, it may be the case that Telemundo is responding to both the pressure to conform to American values as well as the pressure to maintain Latin American traditions, thus contributing to this proliferation of consumer cultural orientations in its ads. This is consistent with the notion that U.S. Hispanics are resistant to U.S. acculturation forces (Valencia 1989). These findings are summarized in Table 2.

A Chi-square goodness-of-fit test was used to test whether the cultural dimensions were uniformly distributed across networks. This test is a first step in establishing that the cultural orientations do differ by network, and, by association, their respective audiences. Significant results were observed for five consumer dimension orientations: family (collectivistic), woman portrayed as sex object, a doing orientation, a feminine trait dimension, and performance (see Table 3).

## CONCLUSION

This exploratory examination found evidence

of five orientations that varied across audiences. Under the assumption that advertisements would reflect the basic cultural orientations of a society, this study provides further empirical evidence that there are cultural differences with respect to the markets examined.

There are several limitations to this study, however. One limitation is that the advertisements were coded by a single coder. A second limitation is the relatively low number of hours of programming analyzed. Finally, there were two exogenous events that may have influenced the advertising. Sears was having a sale at the time and a variety of Sears products were heavily advertised on Telemundo, and the World Series was aired on CBS during several hours of the taped programming as well. Nonetheless, this limited exploratory study provides additional support for the idea that cultural differences exist between the U.S., Mexican, and the Hispanic market. Hopefully, this study will motivate further academic and practitioner interest in the area of assimilation research.

## REFERENCES

- Belk, Russell W. and W. Bryce (1986), "Materialism and Individual Determinism In U.S. And Japanese Print And Television Advertising," ACR, 13, Provo, UT: ACR, 568-572.
- Chandler, Charles R. (1979) "Traditionalism in a Modern Setting: A Comparison of Anglo- and Mexican-American Value Orientations," Human Organization, 38, 153-159.
- Deshpande, Rohit, W. Hoyer and N. Donthu (1986), "The Intensity of Ethnic Affiliation: A Study of the Sociology of Hispanic Consumption," JCR, 13, 214-220.
- Gordon, Milton M. (1964), Assimilation in American Life: The Role of Race, Religion, and National Origin, NY: Oxford Press.
- Grønhaug, Kjell, M. Gilly and L. Peñaloza (1993), "Barriers and Incentives in Consumer Acculturation," European ACR, 1, Provo, UT: ACR, 278-286.
- Hernández, Sigfredo A. and L. Newman (1992), "Choice of English v. Spanish Language in Advertising to Hispanics," Journal of Current Issues and Research in Advertising, 2, 35-45.

Hofstede, Geert (1980), Culture's Consequences: International Differences in Work-Related Values, Beverly Hills: Sage.

McCarty, John A. and P. Hattwick (1992), "Cultural Value Orientations: A Comparison of Magazine Advertisements from the United States and Mexico," ACR, 19, Provo, UT: ACR, 34-38.

McCracken, Grant (1988), Culture and Consumption, Bloomington: Indiana Univ. Press.

O'Guinn, T., W. Lee and R. Faber (1986), "Acculturation: The Impact Of Divergent Paths On Buyer Behavior," ACR, 13, Provo, UT: ACR, 579-583.

Olmedo, Esteban L. (1979) "Acculturation: A Psychometric Perspective," American Psychologist, 34, 1061-1070.

Tse, David K., R. Belk and N. Zhou (1989), "Becoming a Consumer Society: A Longitudinal and Cross-Cultural Content Analysis of Print Ads from Hong Kong, the People's Republic of China, and Taiwan," JCR, 15, 457-472.

Valencia, Humberto (1985), "Developing an Index to Measure Hispanicness," ACR, 12, Provo, UT: ACR, 118-121.

\_\_\_\_ (1989), "Hispanic Values and Subcultural Research," JAMS, 17, 23-28.

Wallendorf, Melanie and M. Reilly (1983), "Ethnic Migration, Assimilation, and Consumption," JCR, 10, 292-302.

**TABLE 1**  
**Consumer Cultural Dimensions**  
**Coding Cues**

|                     |                                                                              |
|---------------------|------------------------------------------------------------------------------|
| 1. Modernity:       | Ad content showing the future, modern or new.                                |
| 2. Uniqueness       | Ad stressing individualism.                                                  |
| 3. Family featured: | Focus on family identifying a collectivistic value orientation.              |
| 4. Hedonism:        | An emphasis on fun, prestige, and luxury.                                    |
| 5. Performance:     | Mention of quality and high performance.                                     |
| 6. "Being":         | Ad showing what the reader can become with the help of the product.          |
| 7. "Doing":         | Ad focusing on an activity aided or provided by the product.                 |
| 8. Sexy female:     | Showing a female as an adornment or object.                                  |
| 9. Masculinity:     | Ad showing masculine traits such as aggression, achievement, and dominance.  |
| 10. Femininity:     | Ads showing feminine traits such as nurturing, helpfulness, and affiliation. |

**TABLE 2**  
**Percentage of Advertisements with the Cultural Dimension**

|                | <u>Dimension</u> |       |       |      |      |      |      |      |      |      |
|----------------|------------------|-------|-------|------|------|------|------|------|------|------|
|                | Masc             | Being | Doing | Faml | Femn | Hedn | Modn | Perf | Uniq | Sexy |
| <u>Network</u> |                  |       |       |      |      |      |      |      |      |      |
| CBS            | 24.7             | 24.7  | 9.0   | 13.5 | 11.2 | 9.0  | 12.4 | 28.1 | 14.6 | 14.6 |
| Telemundo      | 28.8             | 28.8  | 44.2  | 34.6 | 32.7 | 9.6  | 17.3 | 34.6 | 7.7  | 32.7 |
| Televisa       | 21.1             | 22.4  | 7.5   | 8.4  | 6.8  | 17.0 | 15.6 | 20.4 | 11.6 | 42.9 |

**TABLE 3**  
**Chi-Square Goodness of Fit Statistic**

| <u>Dimension</u> | Chi-Square | DF | Significance |
|------------------|------------|----|--------------|
| Doing            | 44.88      | 2  | .0000        |
| Family           | 9.62       | 2  | .008         |
| Sex Object       | 30.10      | 2  | .0000        |
| Performance      | 4.61       | 2  | .099         |
| Femininity       | 23.29      | 2  | .0000        |

# COMPARING CONSUMER PREFERENCES IN TWO EUROPEAN COUNTRIES: A PARTIALLY-INDIVIDUALIZED CONJOINT ANALYSIS

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## ABSTRACT

While the EU has cleared away most regulatory barriers to standardization, firms serving the Single European Market continue to be concerned about differences in consumer preferences that may still limit the standardization potential. This paper attempts to shed light on this issue by contrasting product attribute preferences of British and German consumers with regard to automobile purchases. Within a multi-cue context, particular emphasis is placed on consumer attitudes towards country-of-origin and ecological product features.

A large data-base was gathered via an interactive computer-aided decision analysis questionnaire and the analysis itself was conducted utilizing a partially-individualized

conjoint approach. The latter enables a *quantification* of the expressed preferences.

The results point to a number of differences between British and German consumers in terms of their preferences for a variety of product attitudes, including country-of-origin and ecological product attitudes associated with cars. This highlights the still existing difficulties in approaching the entire EU with a single marketing strategy. While the regulatory environment in the EU may soon be sufficiently harmonized to permit a standardized marketing approach in *principle*, the *realistics* of existing differences in consumer preferences are likely to obstruct the use of standardized marketing programs for some time to come.

# ETHICAL PERCEPTIONS AND CUSTOMER-ORIENTATION OF TAIWANESE AUTOMOBILE SALES COMPANIES

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## ABSTRACT

This study examines ethical training, perceptions of ethical behavior, sales person customer-orientation, and company differences between the four largest automobile firms in Taiwan. Low levels of ethical training were reported and certain activities, such as selling

more expensive autos, giving preferential treatment, and misinforming customers, were perceived as being more ethical. Overall, sales person customer-orientation varied by company and supported the earlier reported ethical positions.

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## INTRODUCTION

Because sales personnel occupy boundary-spanning positions, loyalties are often torn between customer demands and organizational expectations (Walker, Churchill, & Ford 1975). This is especially true when companies adopt marketing strategies to achieve short-term goals that include aggressive sales force behavior. Automobile manufacturers in Taiwan are experiencing manufacturing over-capacity and increased international competition. In response, new marketing programs have been implemented (Moore 1990). At least one automotive company instituted an aggressive marketing campaign that sets high sales goals on the sales force to regain lost market share quickly (Chang 1992). Increased pressure on the sales force can lead to unethical behavior (Laczniak & Murphy 1993).

This paper has three purposes: (1) to compare the current level of ethical training sales persons receive among major auto firms in Taiwan, (2) to gauge sales persons' ethical behavior across auto firms, and (3) to compare the relationship of auto sales persons' ethical perceptions and customer-orientation across firms based upon marketing strategies. Given the phenomenal economic growth occurring in Asian marketplaces (Engardio 1993) and the increased importance of company and sales person ethical behavior world-wide, international companies can better prepare themselves for opportunities and challenges presented by emerging markets by familiarizing themselves

with the outcome of questionable marketing strategies.

## BACKGROUND ON TAIWAN

Taiwan is one of the economic "Tigers of Asia," with a 1992 economic growth rate approaching 6.1%, down slightly from 7.2% in 1991. Per-capita income rose from US\$8,815 in 1991 to US\$10,215 in 1992 (AWSJ February 22, 1993). The projected total demand for passenger vehicles in Taiwan for 1992 was 400,000 units (Europa World Encyclopedia 1992). There are currently ten auto assembly plants in Taiwan, with production capacity of 500,000 units per year. According to one automotive manager, there is no such thing as a "fixed-price" for automobiles in Taiwan (Chang 1992). One manufacturer, who will not be more precisely identified, has implemented an aggressive marketing plan to quickly regain lost market share and profitability through aggressive sales efforts.

## LITERATURE REVIEW

In the automotive industry management influences how employees behave. To demonstrate loyalty in matters related to moral judgement, employees obey their supervisors. This ethical/unethical behavior is reinforced through the use of reward and/or punishment (Ferrell and Fraedrich 1991). Opportunity is a set of conditions that limit unfavorable behavior or reward favorable behavior. That is, a person who behaves unethically and is rewarded (or

not punished) is likely to continue to act unethically (Ferrell and Fraedrich 1991). Lacznia and Murphy (1993) list a number of conditions that provide opportunities for the sales force to act unethically:

- \* intense competition
- \* questionable industry dealings
- \* difficult economic time
- \* abbreviated sales training
- \* commission-based compensation
- \* limited selling experience

Competitive dimension, or rivalry among competitors for consumer dollars and patronage, also influences ethical behavior. For example, if competition is so intense that a company's survival is threatened, unacceptable behavior may become acceptable (Schellhardt 1990). A recent study by Honeycutt and Ford (1993) examined the ethics of automobile sales persons in the U.S. Sales people reported significant levels of participation in misinforming the customer, giving preferential treatment, and using high pressure to close the sale.

## **METHODOLOGY**

### **Sample and Data Collection**

Data were gathered through self-administered questionnaires, at randomly selected large and small automobile dealerships of the four largest Taiwanese manufacturers. All salespersons selected completed the survey. A total of 160 useable questionnaires were completed for this study--consisting of 78, 28, 27, and 27 respondents from companies 1-4, respectively. Companies interviewed include: Ford, Honda, Nissan, and Toyota. Due to the proprietary nature of the data and because one firm adopted a more aggressive and short-term strategy (hereafter referred to as Company X) that placed a major performance emphasis on their sales force, the data collected from that company were compared to the combined data of the other 3 firms. Nine potentially unethical situations existing in the automobile industry were identified from the literature (Vitell & Festervand 1987; Levy & Dubinsky 1983) and discussions with automobile dealers. The situations presented in the questionnaire were:

- 1) Inform customer someone else is interested in auto to gain commitment (when this is not true -- INFORM.

- 2) Using high pressure tactics to close a sale -- PRESSURE.
- 3) Charge full price for an auto on sale without the customer's knowledge -- FULLPRICE.
- 4) Make a promise to customer you know dealership will not honor -- PROMISE.
- 5) Don't tell customer complete truth about specifications of auto -- TRUTH.
- 6) Give preferential treatment to certain customers -- PREFERENTIAL.
- 7) Sell a more expensive auto when a less expensive would be better for customers -- SELLMORE.
- 8) Take sales away from sales associates -- SALESAWAY.
- 9) Peer pressure not to report unethical behavior -- PEERPRESSURE.

For each of the nine ethical issues, the respondents were asked to provide ratings (e.g. 1 = highly disagree to 5 = highly agree) for each of the following five items:

1. I have received training/education regarding this issue...EDUC
2. Salespeople in the automobile industry participate in this activity...INDUSTRY
3. Salespeople in my company participate in this activity...COMPANY
4. Successful salespeople participate in this activity...SUCCESS
5. This activity is ethical...ETHICAL

Social desirability bias--the tendency to deny socially undesirable traits--can influence respondents' answers to sensitive questions (Nederhof 1986). Additional studies have found self-reported measures of ethical behavior are higher because respondents need to maintain their self-esteem (Morgan 1993). The questionnaire also contained a twenty-four question Sales Orientation Customer Orientation (SOCO) scale (Saxe and Weitz 1982). Customer orientation is a selling behavior that focuses on achieving long-term satisfaction. Sales persons who engage in customer oriented behaviors are more effective in their selling efforts (Saxe and Weitz 1982). Also, performance data have been closely correlated with the sales persons' scores on the SOCO scale.

## **RESULTS**

### **Level of Training**

Overall, it appears auto sales people in Taiwan receive low levels of ethical training.



Respondents disagreed (ratings <2) that they had received training for all but one of the nine potentially unethical statements listed--selling a more expensive car than needed.

### **Perceptions of Unethical Behavior**

Looking at all respondents, auto sales people reported the highest ethical mean scores for giving preferential treatment (2.85), selling a more expensive car than needed (2.69), and informing the customer someone else was interested (2.66). Lowest mean scores were recorded for taking sales away from associates (1.43), not telling the complete truth (1.58), and using high pressure to close a sale (1.68). When comparing Company X and the other three major automotive companies in Taiwan, significant differences were found for three of the situations. Company X's sales people were in significantly less ethical disagreement of not telling the customer the whole truth (Company X mean of 1.86 as opposed to 1.32,  $p = .0016$ ), charging full price even when the car is on sale (Company X mean of 2.43 as opposed to 1.63,  $p = .0001$ ), and informing customers that someone else was interested in the car when that was not true (Company X mean of 2.99 as opposed to 2.36,  $p = .0051$ ). A proportion of respondents from both samples perceived that all nine situations were ethical. These ranged for the Company X sample from a high of 39.5% agreement for misinforming the customer (INFORM) to a low of 4.0% for taking sales away from associates. The other three companies' responses ranged from a high of 28.4% agreement for giving preferential treatment (PREFERENTIAL) to a low of 3.7% for not telling the complete truth (TRUTH). Sales people from Company X report different perceptions than sales people from the other three major competitors.

Another statement examined whether the respondent participated in these potentially unethical situations. Company X sales people reported less disagreement that they participated in this activity. As expected, the rankings were similar to the rankings for the ethicalness question. And, as seen before, a number of respondents reported they participated in these potentially unethical situations. The highest level of agreement was found for informing customers someone else was interested (INFORM) situation for the Company X sample, while the other three dealers' responses ranged

from a high of 37.8% agreement (for SELL-MORE) down to 3.7% (for TRUTH). What is clear is that there are perceptual differences regarding the ethicalness of these situations and the level of participation in these situations between Company X and the other three automotive companies. An Analysis of Variance (ANOVA) was run, by company, on the average scores of each of the 24 SOCO scale items. Not surprisingly, Company X appears to be less customer-oriented than the other three companies involved. Company X sales people were less likely to "get customers to discuss their needs," and more likely to "paint too rosy a picture," "spend time persuading versus finding what is needed," and "treating the customer as the enemy." Given these responses, the SOCO scale findings are supportive of the ethical perceptions stated by sales persons from Company X.

### **CONCLUSIONS**

A number of conclusions can be drawn from this study. First, auto sales persons in Taiwan do not receive high levels of ethical training. Also, Taiwanese auto sales persons perceive that it is most ethical for them to give preferential treatment, to sell a more expensive car than needed, and to misinform customers someone else is interested in the auto to gain commitment. Conversely, respondents agree taking sales away from colleagues, not telling the complete truth, and using high pressure are less ethical. These findings are consistent with previous U.S. studies and set a benchmark for auto sales person behavior in Taiwan. There are also significant differences in perceptions and orientations among Taiwanese automotive companies. Company X salespeople agreed that the ethical issues presented are more acceptable than their three major competitors. This conclusion is also supported by the significant differences registered on Company X's SOCO Scale item scores. Therefore, these findings support a connection between ethical perceptions and a company's sales/customer orientation.

### **LIMITATIONS/FUTURE RESEARCH**

First, this survey instrument has not been validated cross-culturally. However, translation of the questionnaire into Mandarin Chinese was verified by a commercial market research firm. Additional studies should be conducted that include customer perceptions of ethical concerns.

This would allow researchers to see the company from customers' viewpoints and make suggestions for modifying company behavior so that more satisfied customers and increased efficiency in the market.

## REFERENCES

- Chang, Derlin (1992), "What? Ford Beats Toyota!" unpublished graduate manuscript, UNC-Wilmington.
- Engardio, Pete, Joyce Barnathan, and William Glasgall (1993), "Asia's Wealth," Business Week, November 29, 100-104, 106, 108.
- Ferrell, O.C. and John Fraedrich (1991), Business Ethics, Boston: Houghton Mifflin.
- Honeycutt, Earl D. Jr. and John B. Ford (1993), "Ethical Dilemmas In The Automotive Industry," AMA Summer Educators' Proceedings, 4, August, 352-358.
- Laczniak, Gene R. and Patrick E. Murphy (1993), Ethical Marketing Decisions, Boston: Allyn and Bacon.
- Levy, M. and Alan J. Dubinsky (1983), "Identifying and Addressing Retail Salespeople's Ethical Problems: A Method and Application," Journal of Retailing, 59, Spring, 46-66.
- Moore, Johnathan (1990), "Reverse Gear," Far Eastern Economic Review, 21 June, 78.
- Morgan, Ronald B. (1993), "Self- and Co-Worker Perceptions of Ethics and Their Relationships to Leadership and Salary," Academy of Management Journal, 36: 1, February, 200-214.
- Nederhof, A.J. (1985), "Methods of Coping With Social Desirability Bias: A Review," European Journal of Social Psychology, 15, 263-280.
- Saxe, Robert and Barton A. Weitz (1982), "The SOCO Scale: A Measure of the Customer Orientation of Salespeople," Journal of Marketing Research 19, August, 343-351.
- Schellhardt, T.D. (1990), "Rivalries, Law Policies Take A Toll In Ethics," Wall Street Journal, March 22, B1.
- "Taiwan-Passenger Cars" (1992), Europa World Encyclopedia, December 23.
- "Taiwan's Economic Growth Slows To 6.1%," Asian Wall Street Journal, 22 Feb.
- Vines, Stephen (1991), "Taiwan Makers Confident Despite Sales Rollercoaster Ride," Automotive News, June 3, 22.
- Vitell, Scott J. and T.A. Festervand (1987), "Business Ethics: Conflicts, Practices, and Beliefs of Industrial Executives," Journal of Business Ethics, 6, 111-122.
- Walker, O.C., G.A. Churchill, and N.M. Ford (1975), "Organizational Determinants of the Role Conflict and Ambiguity Experienced by Industrial Salesmen," Journal of Marketing, 39, January, 32-39.

# CONSUMER PREFERENCES OF FAST-FOOD OUTLETS IN THE U.S. AND CANADA: A COMPARATIVE STUDY

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## ABSTRACT

In recent years, a major food consumption trend in the U.S. and Canada is that more people are eating more meals outside their homes. As a result, greater market opportunities fast-food markets are offering for marketers. This comparative study explores consumers' preferences of fast-food restaurants in Canada and

the U.S.A. The findings of the study offer need oriented type of marketing strategies for both franchisors and franchisees in the fast-food industry to enable them to be more competitive in this fast changing fast-food business environment.

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## INTRODUCTION

A major trend in North America and in most of the industrial world is that more people are eating meals outside their homes. Studies suggest that one out of every 2½ meals today is eaten away from home (Hume 1992). According to the Bureau of Labor Statistics, the share of total fast-food spending away from home rose from 33% in 1975 to 39% in 1980 and to 46% in 1990. Even in the current recessionary times, sales of fast-food franchises grew by 11%. If the current trend continues, North Americans will consume more than half of their meals outside the home by the end of the century which will account for nearly 50 percent of their household food expenditures (Mc Neal, Stem and Nelson 1980). Of course, many types of fast-food outlets are benefitting from this trend. Due to the relatively inexpensive costs and quick convenient service, fast-food outlets have become a "home away from home" for breakfast, lunch and dinner.

In the light of aforementioned discussions, the specific purpose of this study is to understand consumer perceptions and preferences of fast-food outlets in Canada and U.S.A. Specifically, the study constructs perceptual maps of consumers' preferences of fast-food outlets on some pre-specified attributes (fast-food outlets' or product's concrete or abstract attributes). The findings are expected to have relevance to both fast-food franchisors and franchisees in the way of helping them to prepare consumer oriented marketing strategies.

## PREVIOUS STUDIES

The internationalization of fast-food outlets is proceeding in many different ways, including cross-border transfers of techniques, methods, and practices, in addition to direct investment activity and the development of cross-border alliances between leading fast-food retail outlets and their local counterparts. The globalization of retailing techniques, practices, and principles are inherently un-quantifiable but they are highly recognizable in the international emergence of trading formats such as fast-food outlets (Treadgold 1989). In an increasingly competitive industry, fast-food restaurants are faced with the challenge of maintaining profitability in a shrinking market while providing target customers with high quality and efficient services. In achieving this objective, fast-food restaurants can pursue two strategic options: a) they can focus on means to improve operational efficiency of the fast-food outlets, and b) they can take actions to enhance the operational quality of the fast-food outlet's operational system (Yasin and Yavas 1992).

Miller and Ginter (1979) argued that the situational variation can be used to explain consumer choice behavior and attitude by finding the importance of attributes in different use occasions. They simply plotted the importance of pre-specified attributes and compared the attributes for different fast-food outlets using mean rating values. Louviere (1984) used fast-food outlets to forecast consumer choices. His

work is useful in the context of this study in terms of the identification of the attributes used to predict consumer choices in the fast-food market. No previously reported research has explored the perceptions and preferences of fast-food outlets consumers. This study focuses on the managerial relevance of consumers' perceptions and self reported preferences.

## ANALYSIS AND RESULTS

Previous studies reported by Miller and Ginter (1979), Louviere (1984), and Mc Neal et al. (1980) helped to determine the criteria on which consumers differentiate among fast-food restaurants. The attributes that were elicited from the literature are listed below. These attributes are also consistent with those suggested by Belk (1974). The attributes used in this study are: (1) price, (2) friendliness of personnel, (3) variety of menu, (4) service speed, (5) calorie content, (6) cleanliness, (7) convenience, (8) business hours, (9) delivery service, (10) novelties for children, and (11) seating facilities.

The data for this study were collected through self-administered questionnaires in the three cities of Bedford, Dartmouth and Halifax, Nova-Scotia, Canada and the three-county region of York-Lancaster-Harrisburg, Pennsylvania, U.S.A. In both regions of North America, there are capital cities of the respective regions and they contain sizable percentage of urban population who are a major target market for a variety of fast-food outlets. In both major cities, a sizable percentage of population make their living from service, light manufacturing and resource-based industries. These apparent structural similarities between the two selected regions of North America lend much credence to the study and make the study results more comparable for marketing policy implications purposes. A stratified sampling method was utilized. The two study areas have distinct characteristics with diverse socio-economic and cultural backgrounds. Survey questionnaires were hand distributed to 200 households in the U.S.A. and Canada in the three predetermined cities where there are distinct demographic and socio-economic groups of households. After a one-week waiting period, the questionnaires were personally retrieved from the respondents with the aid of undergraduate university students. A total of 179 usable questionnaires were obtained from the U.S. sample yielding a

89.5% response rate; and 141 usable questionnaires from the Canadian sample yielding a 70.5% response rate. These response rates are highly acceptable by social science standards. Approximately 40% of the respondents were female and there were not significant differences between the two samples in terms of age, income, and occupation.

**Table 1** shows consumer preferences of fast-food in the two regions. There is a significant difference between the U.S. and Canadian consumers as to favorite fast-food they prefer at  $p < .05$ . While the U.S. consumers prefer hamburger the most, Canadian consumers prefer seafood the most. Second most preferred fast-food by the U.S. consumers is pizza while hamburger is the second most preferred fast-food for Canadian consumers. The U.S. and Canadian consumers do not differ in terms of the eating time. Most U.S. and Canadian consumers prefer to eat between 11:00 a.m. and 3:00 p.m. The second most popular eating time again for both U.S. and Canadian consumers is between 3:00 p.m. and 8:00 p.m. Although there is a significant difference between U.S. and Canadian consumers in terms of the eating place, the most preferred place for both U.S. and Canadian consumers is a fast-food restaurant close to their home. This means that convenience is a big factor in selection of a fast-food outlet. **Table 1** also shows that there is a difference between U.S. and Canadian consumers in terms of the price that they are willing to pay for fast-foods. While most U.S. consumers is willing to pay between \$3.00 and \$4.00, most Canadian consumers are willing to pay between \$2.00 and \$3.00 for fast-food.

In determining the perceptions of fast-food restaurant for U.S. and Canadian consumers, a Correspondence Analysis (CA) was used in this study. The data on the factors influencing fast-food restaurant choice was collected by using 11 items which are mentioned earlier. An interval scale was used ranging from 1 (no influence) to 5 (very strong influence). To understand the influence of a factor on respondent's choice, only "indicates a lot of influence" and "indicates very strong influence" responses are used.

There are differences found between the US consumers and Canadian consumers in terms of the relationship between frequency of purchase and importance factors. **Figure 1** illustrates the

relationship between the frequency of fast-food purchases and factors considered important in choosing a fast-food restaurant for U.S. consumers. Figure 1 also illustrates that frequent fast-food buyers in the U.S.A. perceived that "delivery service", "variety", "speed of service", "quality", "cleanliness", and "friendly staff" are the most important influencing factors of their fast-food restaurant choice. However, less frequent U.S. buyers indicated

that "novelties for children", "price", and "nutritional value" are the most important factors influencing their fast-food restaurant choice. It seems that less frequent buyers are seeking price deals and promotions to visit a fast-food restaurant as well as to meet their children's request. This result offers significant managerial applications in terms fast-food marketers' effort to target frequent and/or non-frequent buyers.

**Table 1**  
**Comparison of U.S. and Canadian Consumers**

| <b>Characteristics</b>                            | <b>U.S. (%)</b> | <b>CANADA (%)</b> |
|---------------------------------------------------|-----------------|-------------------|
| <b><sup>a</sup>Favorite Fast-Food<sup>b</sup></b> |                 |                   |
| Hamburgers                                        | 40.22           | 27.73             |
| Seafood                                           | 3.91            | 36.24             |
| Pizza                                             | 29.05           | 7.09              |
| Chicken                                           | 12.85           | 4.96              |
| Chinese Food                                      | 4.47            | 2.84              |
| Greek Food                                        | 1.12            | 12.77             |
| Others                                            | 8.38            | 8.37              |
| <b>Eating Time</b>                                |                 |                   |
| 7 a.m. - 11 a.m.                                  | 6.70            | 6.93              |
| 11 a.m. - 3 p.m.                                  | 50.84           | 45.65             |
| 3 p.m. - 8 p.m.                                   | 34.08           | 37.32             |
| 8 p.m. - Midnight                                 | 7.82            | 10.52             |
| Later                                             | 0.56            | 1.58              |
| <b>Eating Place<sup>b</sup></b>                   |                 |                   |
| Home                                              | 65.92           | 42.06             |
| Place of Employment                               | 27.93           | 36.91             |
| Place of Recreation                               | 1.68            | 12.80             |
| Other                                             | 4.47            | 8.23              |
| <b>Price willing to pay<sup>b</sup></b>           |                 |                   |
| Under \$2.00                                      | 3.35            | 6.38              |
| \$2.00 - \$3.00                                   | 19.55           | 36.88             |
| \$3.01 - \$4.00                                   | 60.34           | 35.46             |
| Above \$4.00                                      | 16.76           | 21.28             |

(a) Comparison based on Chi-Square Test

(b) Significant at  $p < .05$

On the other hand, different factors found to be influencing Canadian consumers' fast-food restaurant choice. "Price," "location" and "novelties for children" were considered important factors in choosing a fast-food restaurant by the less frequent Canadian buyers. On the other hand, frequent fast-food buyers in Canada considered "seating capacity", "cleanliness," "nutritional value", "friendly personnel" and "variety" as the most important factors. Note that these factors are different from the factors considered important by the U.S. consumers.

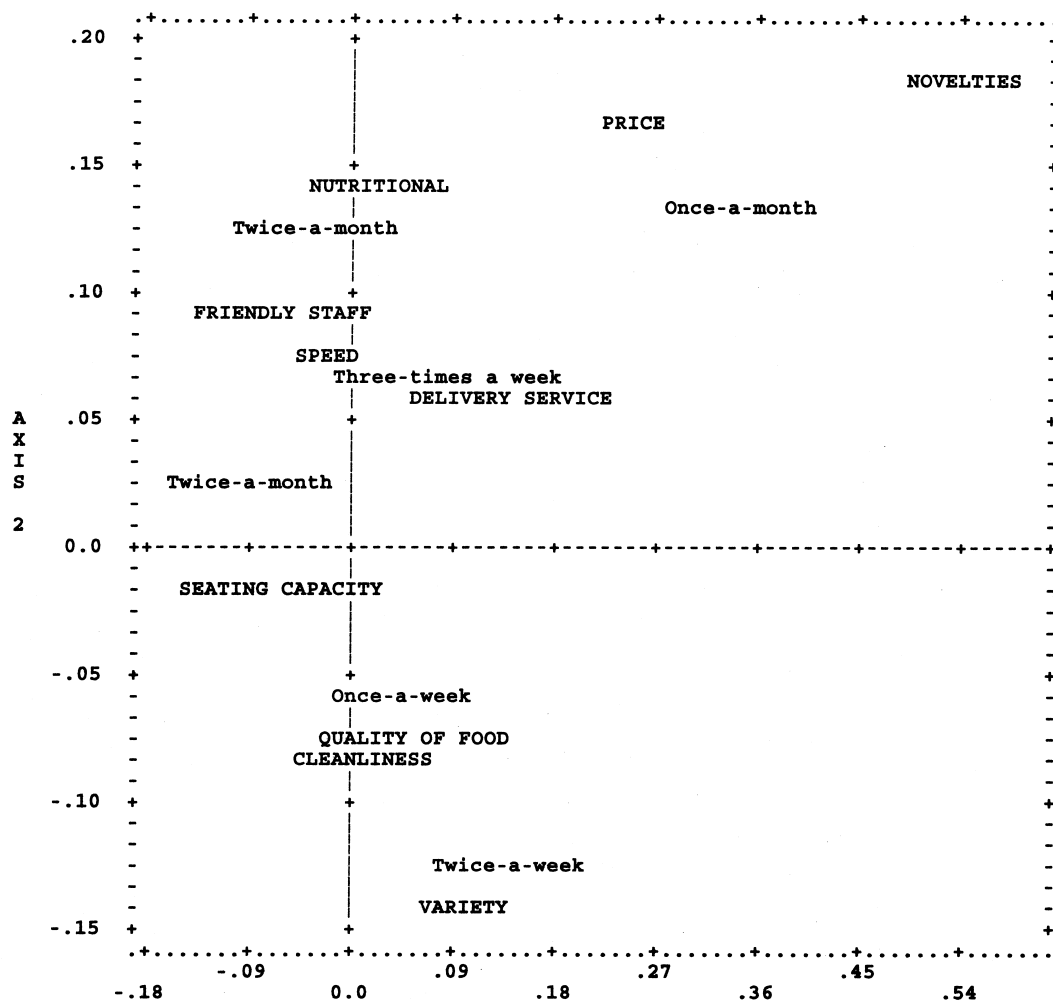
## **DISCUSSIONS AND IMPLICATIONS**

The objective of marketing activities is to develop a segment where the product is differentiated from the rival products to serve the needs of that segment in a best way possible. This can be achieved by product differentiation and market segmentation. Sometimes the marketer's job is relatively easy for products that have unique attributes or advantages over other products. However, this does not guarantee that the existing advantage of the product will

last. Sometimes, the marketer's job is more difficult for products that are considered as "commodities" or frequently purchased non-durable goods. Regardless of the size of the

market and number of competing products, if the product can not be differentiated opportunities may be lost and company objectives may not be achieved.

**Figure 1**  
**Frequency of Fast-Food Purchases and Important Factors**  
**For Choice U.S. Consumers**



In the literature it has been mentioned that fast-food market has become a commodity market where purchases are frequent and the dollar amount spent is not significant in the household income. In this comparative study, we explored U.S. and Canadian consumers' preferences and perceptions of fast-food restaurants using advanced analytic techniques. The results indicate that there are significant differences between the U.S. and Canadian consumers in terms of the factors considered important for a fast-food restaurant choice. Frequent buyers in the U.S. considered variety, speed, and friendly staff as the most important factors of their fast-food restaurant choice while less frequent buyers

indicated that price and promotional deal were the most important factors. On the other hand, frequent Canadian fast-food buyers considered seating capacity and nutritional value as the most important factors while less frequent buyers indicated that, as their U.S. counterparts, price, novelties, and location as the most important attributes for their choice.

These results offer several important managerial implications. First, it emphasizes the differences between the two very similar nations' (U.S. and Canada) consumers perceptions and preferences for so called commodity type product/service, fast-food. Marketers in these

countries who are interested in understanding their consumers' preferences can benefit from the results of this study. Second, this study illustrates that there are several product/service factors that consumers pay attention to make their decision on selection of a fast-food restaurant. It is an incorrect approach to assume that fast-food market has become a commodity market. The marketers who understand the factors that fast-food customers consider most important for their choice may emphasize those factors in their marketing strategies and can differentiate (actual or perceived) their product/service offerings. For instance, the customization offered at Fuddrucker's enables the consumers to control the amount of calories in their meal which contributes Fuddrucker's increased success. Finally, the results of this study indicated differences between different consumers' preferences of fast-food restaurants in different age groups and with different frequency of buying within as well as between nations. This emphasizes the importance of target marketing for the fast-food restaurants both in the U.S. and Canada.

Our study has some limitations, however, these limitations should be viewed as future research agenda items. Although a sufficiently large sample from the two countries was used in the study, samples should not be considered representative of overall U.S. and Canadian consumers. It only represents urban consumers' perceptions in the two regions selected. A more representative sample would consider the differences within the two nations more carefully. Despite this caveat, however, samples used in the study are drawn from the general public and therefore, it is a plus for the generalizability of the results. The results of this study should be replicated with the data collected at the consumption point. In other words, data might be collected in the fast-food restaurants during the actual consumption, therefore, yielding a more realistic information. Furthermore, a comparison of on-the-premise versus off-the-premise fast-food consumption behavior may shed additional lights in this under research topic.

## REFERENCES

- Belk, R.W. (1974), "An Exploratory Assessment of Situational Effects in Buyer Behavior," Journal of Marketing Research, 11, 156-163.
- Hume, Scott (1992), "Fast-Food Chains Cook Up Ways to improve Service," Advertising Age, 63, 23 (June 8), 3 and 46.
- Louviere, J. J.(1984), "Using Discrete Choice Experiments and Multinomial Logit Choice Models to Forecast Trial in a Competitive Retail Environment: A Fast-Food Restaurant Illustration," Journal of Retailing, 60 (4), 81-107.
- Mc Neal, J. U., D. E. Stem, Jr., and C. S. Nelson (1980), "Consumer' Nutritional Ratings of Fast-Food Meals," Journal of Consumer Affairs, 14(1), 165-179.
- Miller, Cyndee (1991), "Fast-Food Marketers Try to Curve Consumer Blahs," Marketing News, 25, 12 (June 10), 6-7.
- Miller, K. E. and J. L. Ginter (1979), "An Investigation of Situational Variation in Brand Choice and Attitude," Journal of Marketing Research, 16, 111-123.
- Smithies, R. H. (1975), "Good Housekeeping Goes to Seven Popular Fast-Food Chains and Tells How They Rate in Nutrition, Quality, and Costs," Good Housekeeping, 181, 170-172.
- Treadgold, Alan (1989), "1992: The Retail Responses to Changing Europe," Marketing and Research Today, 17, 3 (August), 161-166.
- Yasin, Mahmoud M. and Ugur Yavas (1992), "Improving the Quality and Efficiency of Fast-Food Operations," International Journal of Retail and Distribution Management, 20 (4), (July/August), 28-34.



# AN EVALUATION OF ALTERNATIVE SEGMENTATION STRATEGIES IN STANDARD INDUSTRIAL PRODUCTS MARKETS

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## ABSTRACT

This abstract summarizes the results of a study on alternative segmentation strategies in the market of standard industrial products. There are two major approaches for segmentation (e.g., Day 1990). One is an a priori approach in which the segmentation variables and their categories are decided before data are collected. Traditional segmentation approaches based on geographic, socio-demographic variables fall into this category. The other approach is a clustering-based segmentation design in which the segments are determined a posteriori by a cluster analysis on a set of relevant variables. Benefit segmentation is an example of this approach.

Since Haley's (1968) pioneering work, benefit segmentation has been widely adopted by consumer marketers. Practitioners in industrial marketing, however, have been reluctant to embrace the benefit segmentation approach due in large part to their belief that traditional segmentation criteria can serve as reasonable bases for forming near or quasi-benefit segments (e.g., Moriarty and Reibstein 1986). The primary objective of the present study is to examine the relationship between traditional and benefit segmentation approaches. Specifically, the study attempts to test the following hypotheses:

- H<sub>1</sub>:** Market segments derived from three traditional segmentation variables: sales volume, industry type, and type of organization ownership possess distinct supplier attributes across the resultant market segments.
- H<sub>2</sub>:** Market segments derived from distinct supplier attributes are dependent upon the sales volume of the company, the industry to which the company belongs, and the type of organization ownership.
- H<sub>3</sub>:** Market segments derived from distinct supplier attributes are related to individual respondent's job title, size of purchase, years of work experience, age, and level of education.

A structured questionnaire was developed incorporating 51 choice criteria employed by industrial buyers in the selection of suppliers. Purchasing managers of a random sample of 500 Indian firms were contacted as key informants and 164 usable questionnaires were obtained. A number of multivariate statistical techniques, including principal components analysis, cluster analysis, MANOVA, and discriminant analysis were used to test the hypotheses. No strong empirical evidence was found in the study to support the hypotheses. Results suggested that the link between traditional and benefit segmentation approaches seemed far weaker than commonly believed by industrial marketers. The conventional wisdom that traditional segmentation bases such as sales volume and industry type can serve as surrogate measures for distinct benefit segments may thus be challenged. The fact that the two segmentation approaches do not align with each other suggests that industrial marketers exercise caution when using the traditional segmentation approach. A nested approach that requires the successive application of benefit and traditional segmentation approaches may be desirable.

## SELECTED REFERENCES

- Day, G.S. (1990), Market Driven Strategy: Processes for Creating Value, New York: The Free Press.
- Haley, R.I. (1968), "Benefit Segmentation: A Decision-Oriented Research Tool," Journal of Marketing, 32 (July) 30-35.
- Moriarty, R.T. and Reibstein, D.J. (1986), "Benefit Segmentation in Industrial Markets," Journal of Business Research, 14 (December) 463-486.



# THE MARKETING PLANNING AND IMPLEMENTATION INTERFACE: SOME EMPIRICAL EVIDENCE

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## ABSTRACT

Forty managers involved in implementing marketing strategies shed light on the marketing planning-implementation interface. Findings highlight the need to revise current conceptions

of the boundaries between the two functions, and for conceptualizing them as an inclusive gestalt. Implications of the findings are discussed, and propositions for future testing generated.

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## INTRODUCTION

Strategic planning and implementation in marketing are often thought of as discrete, conceptually separate, and temporally successive processes. Although the marketing literature has predominantly focused on planning related issues, conceptual and empirical works on implementation can be identified (e.g., Bonoma 1985). Implementation related discussions also are frequently found in end chapters of most leading marketing texts. The literature is silent, however, on whether or not the two seemingly discrete processes are related. Much less is known about how this interface, should one exist, is managed.

A historic precedent for this lack of interest in the planning-implementation interface can be traced in the literature. Implicit in Chandler's (1962) works, and in the stream of research that followed (e.g., Lawrence and Lorsch 1967, Galbraith and Kazanjian 1986) is the existence of an identifiable boundary between planning and implementation. Similarly, the marketing literature has focused either on strategic planning (e.g., Day and Wensley 1983), or implementation (e.g., Bonoma 1985), but seldom on both. A few empirical studies suggest, however, that marketing planning and implementation may be related, and that the relationship may positively impact their strategic success. For instance, in the context of implementing educational innovations (e.g., Berman and McLaughlin 1975) and new technologies (e.g., Leonard-Barton 1988), plans and organizational forms are reported to mutually adapt to each other, *mutate*, and positively impact their outcomes. These findings appear relevant since adjustments in marketing

plans as well as implementation directed actions are increasingly cited as necessary to remain relevant to changing market dynamics and customer needs (Chorn 1991). An in-depth examination of the often neglected planning-implementation interface is clearly called for. This study responds to these observations and to two leading scholars who have noted, "The widespread inability to implement strategy may be a sign that accepted approaches to strategy formulation are not as good as many think they are, for a well-conceived strategy is one that is *implementable* ... A tendency to treat formulation and implementation as two separate phases is at the root of many failed strategies," (Hambrick and Cannella 1989, p.278).

## THE STUDY

Managers from forty firms directly involved in and responsible for accomplishing their firms'/divisions' market related objectives were interviewed. The study was exploratory and inductive because the current paucity in research indicated theory derived hypotheses testing approaches as premature. The purpose was to gain insights into actual market related planning and implementation processes, and understand managerial perceptions of their interface. Managers represented firms that employed between 45 and 650, with sales ranging from \$4 million to over \$300. Ninety percent of managers had been involved in marketing implementation for over ten years. A convenience sample was used, and interviews were conducted until indicators of data saturation were noticed. Managers were contacted on the phone, qualified as the person most responsible for the unit's marketing function, and

asked to participate in the study. As part of a larger study, managers were asked to describe their market related planning and implementation processes and the relationship between them, if one existed. They were also asked to identify the planners and implementors, and to describe their relationship. Additional probing questions seeking clarifications and explanations were frequently asked. Interviews were tape recorded, transcribed and content analyzed. The major themes in the managerial responses were identified and developed with supporting data, i.e., with actual managers' quotes. Next, we report the major themes related to the planning-implementation interface.

## FINDINGS

There is overwhelming evidence in the data to support the notion that marketing planning and implementation are inter-related parallel processes. The nature of the plans, managers explain, directly implicate the implementation directed tasks and actions, whereas the actual process of implementation and the feedback received from the market often triggers adaptations in the plans. The planners' perceptions of the firm's resources and skills directable toward implementation constrain and shape strategic planning processes. Additionally, the deployment of new technologies in the market often

shape customer preferences and choice behaviors, and affect subsequent planning processes. Several managers attribute their competitive success to the responsiveness between planning and implementation that they actively foster, and clearly articulate its importance.

The most notable uniting theme in our data is the managerial conviction that market responsiveness and flexibility are key characteristics of the planning-implementation interface. By responsiveness in planning, managers refer to the on-going evaluation and re-adjustment of target markets, objectives, and the marketing mix elements undertaken to fit the often changing reality of the market place. Responsiveness in implementation refers to the continual re-adjustments in the organization's programs, processes and actions to support the marketing plans and achieve strategic objectives in an evolving and changing environment. The responsiveness and dynamism in the interface is cited as critical for reflecting environmental volatility, and for fitting limited organizational means in markets with unlimited potential for change. Three ways of managing the responsiveness between planning and implementation could be identified in the data (see [Table 1](#)). Next, the three major styles of managing the planning-implementation relationship are briefly discussed.

**TABLE 1**  
**The Planning-Implementation Interface**

| <u>Composition</u>                                                                      | <u>Relationship</u>                              | <u>Cited by</u> |
|-----------------------------------------------------------------------------------------|--------------------------------------------------|-----------------|
| Some planners and implementors are different persons. Mid to low degree of interaction. | Emphasis on clear directives and communications. | 14 (35.0%)      |
| Some planners and implementors differ. High degree of interaction.                      | Emphasis on high joint development.              | 11 (27.5%)      |
| Planners and implementors are the same.                                                 | Fusion of Function                               | 15 (37.5%)      |

### Responsiveness via Communications

In fourteen firms, although a relationship between planning and implementation is reported, the owners, superiors, and the main office conduct most of the former, whereas employees, subordinates, regional offices, and sales personnel conduct most of the latter. Managers involved both in planning and implementation foster responsiveness by relying on

intensive communications with implementors. Even in the instances where market-related planning is negligible, managers note the importance of communicating with implementors to gain latest market information and facilitate modifications in implementation directed actions. Additionally, managers highlight the importance of the planning-implementation relationship, and note that it results when market needs are well communicated to the planners,

and when the firm's marketing agenda is well communicated with the implementors.

Managers appear to treat the participants in implementation process such as production and engineering departments as well as salespersons and independent sales representatives as extensions of their customers. There is a strong emphasis on *persuading* and *selling* their vision and market related agenda. Describing his emphasis on creating a cohesive customer focus within the firm and the importance of communicating internally with the planners and implementers, a manager described:

(I want to create) a commonality of objective, a commonality of purpose... you have gotta sell sell sell sell. Even within the firm. Even more so within the firm. I would say that you have to sell more within a company than outside a company. (Vice President, Electronic Components)

Managers are involved not so much in a joint creation of an organization wide customer focused agenda as they are in selling their own. Their motives in communication often are to establish sensitivity toward market and customer needs as they perceive it within a firm mostly focused on technology and production. Hence, communication patterns possess the quality of *orchestrations*:

(A plan) dilutes down the line significantly. It goes through a lot of hands before it gets to the front line if you will, where the negotiation both from an engineering and a commercial standpoint takes place... I think it's a matter of communication in a lot of areas... (Information is) disseminated to the (sales) representatives' offices that are involved. He orchestrates, or I may from my position tell him what orchestrations to make in terms of what customers to visit... who makes those visits, what kind of presentations are made and what kind of follow-up's are done. (V.P. Sales and Marketing, Air Filtration Systems)

### **Responsiveness via Involvement**

In eleven instances, responsiveness is fostered by a high degree of involvement between planners and implementors. Managers appear interested in integrating to a varying extent, diverse views, frames of references, and capabilities into coherent plans that have organization wide ownership. Implementors often possess better understanding of customer needs and market potential, whereas planners

are more aware of the firm's capabilities, constraints, and broader objectives. A manager noted the benefits in terms of improved market related predictions and assumptions that can result from the close association between planners and implementors:

If you are doing a plan, you can predict only so many steps without jumping in. So if you are in charge of only planning, you are going to make assumptions along the way. If you had the implementor there, he can help you make correct assumptions so that the third, fourth and the fifth step in your plan is more likely to succeed and be more accurate. Because you correctly implement it or use some implementation experience up to that point instead of just planning experience. (Marketing Manager, Industrial Tools and Equipment)

The high degree of involvement helps establish realism in the plans and relevance in the market place. Describing the improvements in the implementors' perceptions of the plans feasibility that can result from a high degree of involvement, a manager noted:

I think its the biggest failure of planning just to have one person do the plan and have somebody else try to implement it. That doesn't work because its not their plan, there is no ownership for the plan, ... You have to be involved... the worst kind of planner is the guy who sits in his office, writes plans and throws them over the transom and says, go implement them. (Owner, Ceramic based electronic components)

The involvement appears to ensure that plans reflect the implementors' notion of what is achievable in the market given time and resource constraints. In describing how involvement and a close working relationship fostered market responsiveness, one manager stated:

(the relationship between planners and implementors is) A very close working relationship. We talk and push and plan and conceive and conceptualize every single day of the week... there's a lot of interaction. This business is so small and so intense and so wound up all the time that there's actually no room for boss subordinate relationships. (Director of Sales and Marketing, Automation Systems)

Hence, close involvement between planners and implementors appears to foster flexibility, realism and promote organizational commitment toward achieving marketing objectives.

## Responsiveness via Fusion of Function

Fifteen managers foster a high degree of responsiveness in the planning-implementation interface by fusing the two seemingly discrete functions into one unit of responsibility. The flexibility in planning and implementation directed actions that such an arrangement affords is cited as the key advantage of fusion:

Maybe its hard for me to separate the two (planning and implementation functions) because I move quickly back and forth between them. When you're in the implementing mode, I think you have to know how to come back to the plan and change the plan. If all of a sudden in the practical world of implementation the plan just ain't working anymore... It's crazy to be persistent if the world has changed. (Marketing Manager, Machine Tools)

Managers' internalized learning and experiences appear better utilized when planning and implementation are decentralized and condensed into the realm of one unit's responsibility. The fusion appears to facilitate sensitivity in the planning and implementation functions that other arrangements appear to infrequently achieve. Describing the improvements in flexibility as a result of the fusion, a manager noted:

(Planners have to be implementors as well because) to do it any other way is to make... unreal objectives (and) unreal goals... If you have never done something, you can never really appreciate the difficulties and the time required, the ups and downs, the adjusting that is required to implement successfully. (Marketing Manager, Industrial Pumps)

Managers report significant improvements in the response time in meeting customer and market needs that apparently results from the fusion:

In our company, they (i.e., planners and implementors) are one and the same because we are a very flat organization by design. One of the things that makes a smaller company more flexible, faster on our feet as we think of it, is an organization that you don't have to go through multiple layers to get a decision made. In our organization, the planners are the implementors. (Director of Sales and Marketing, Photographic Imaging Equipment)

Thus, the fusion appears useful for the high degree of responsiveness necessary for actual

accomplishment of marketing goals. A manager, noting the synergistic and living characteristics of fusion, elaborated:

I don't see a distinction between planners and implementors...We're all involved in thinking and strategies and planning and the execution and implementation....People who are the ultimate implementors are also the ones that are thinking about what needs to be done and creating the plan. It's kind of a living process. (Sales Manager, Electronic Audio Equipment)

## IMPLICATIONS AND PROPOSITIONS

### The Planning-Implementation Synergy

One of the clearer implications of the findings relates to the advantages of conceptualizing marketing strategy planning and implementation as an inclusive gestalt. Additionally, it appears that the nature of the planning-implementation interface and the resulting synergies impact on marketing's strategic success more decisively than the isolated impact of either. We find few real world analogues of academia's collectively assumed and implicit boundary between the marketing planning and implementation functions. In the experiences of managers we studied, there is simply a lack of a distinct identity for marketing implementation as conceptually separate from planning, that academia often takes for granted.

Furthermore, this study indicates that while it may be relatively easy to identify whether or not intended marketing objectives are actually achieved in the market, the implementation outcomes do not by themselves clearly indicate the effectiveness of either the plan or the implementation. Unaccomplished marketing objectives, loss of competitive position, and other negative outcomes of strategy implementation signal the presence of weak plans or ineffective implementation, or *both*. The frequent adaptation in marketing plans and implementation actions undertaken to reflect changing customer preferences, as well as their resulting synergies, so characterize implementation processes that simple attribution of strategic failure to one or the other appear speculative. A new emphasis and research on the planning-implementation *relationship* to accelerate our understanding of marketing's strategic effectiveness holds significant promise. To ignore the planning-implementation interactions is to

ignore the resulting synergies which may well positively impact strategic outcomes. As such, these findings validate the assertions of Hambrick and Cannella (1989). Based on these implications, the following propositions are developed.

- P1: The greater the interaction in the marketing planning and implementation process, the greater the likelihood of accomplishing strategic market objectives.
- P2: The interactive marketing planning-implementation effect is stronger than their isolated impact on the accomplishment of strategic objectives.

### **The Interface and The Environment**

It is important to note that managers find their particular interface management styles effective and appropriate in their particular environment. No manager in the study specified any dissatisfaction with her/his way of managing the interface. Hence, the styles appear to vary mostly with the firm's technical orientation and the market environment. The communicators, and their emphasis on persuading and "selling" their market related agenda to implementors are observed in firms interested mostly in finding buyers for their existing products. While markets are described as competitive, the technology is often mature, and customer needs stable and predictable. Customers are described as being aware of their needs and focused on gaining the best deals in the market to solve their own production problems. Managers appear to *know* what customers want, and are focused on gaining acquiescence from within the organization to implement this vision. The involvers, with their emphasis on a somewhat joint determination of the marketing plans and implementation agenda appear to operate in environments with considerable change and volatility. The non-standardized customer needs and the flexible nature of the firm's products involves a higher degree of interaction between planners and implementors. Managers do not know precisely what customers want, and product related specifications and other needs are often negotiated with buyers. Products, features, and other marketing mix elements are frequently modified to fit each customer's specific needs and preferences. Unexpected market contingencies, such as competitor activities and technological changes frequently trigger changes in plans as well as

implementation directed actions. Hence, the marketing plans and implementation directed actions often are co-determined.

Finally, firms that fuse the planning and implementation function appear to operate in highly volatile technological markets. In these instances, managers note that customer needs are frequently difficult to determine precisely, and the firm's market offering of cutting edge technology and applications tend to shape customer preferences and choice behaviors. In these instances, customers often appear unclear about their new technology/application needs, and the firm's market offering tends to shape and influence the demand patterns. A close working relationship between the firms and their leading customers, aimed at joint development of new products/technologies is often observed in the data. The technology marketing process appears to require high degrees of adaptations in the market related plans and implementation actions. The propositions that emerge from this discussion are:

- P3: The greater the unpredictability of customer needs, the greater the responsiveness in the marketing planning-implementation interface necessary for successful accomplishment of marketing objectives.
- P4: The greater the market uncertainty owing to competitive actions and technological changes, the greater the responsiveness in the marketing planning-implementation necessary for successful accomplishment of marketing objectives.

### **SUMMARY AND CONCLUSION**

Markets characterized by dedicated and resourceful competitors, demanding and knowledgeable customers, and rapidly changing technology call for a new level of dynamism and responsiveness in the market planning and implementation processes. In order to develop fresh insights, a study was conducted aiming in part to explore this relationship and understand how it was managed. The findings that a relationship almost always exists, and likely impacts marketing's strategic success are consistent with the exploratory intent. There is a need to systematically assess the resulting synergies of the relationship, and its impact on strategic outcomes. Empirical tests of our propositions offer another avenue for future research. Efforts to identify alternate ways of

fostering responsiveness in the interface, and to assess their relationship with marketing's strategic success are also likely to shed light on this underdeveloped and under-researched area of academic inquiry.

#### REFERENCES

- Berman, Paul, and Milbrey Wallin McLaughlin (1975), Federal Programs Supporting Educational Change, Vol IV: The Findings in Review, Santa Monica, CA: Rand.
- Bonoma, Thomas V. (1985), The Marketing Edge: Making Strategies Work, New York, NY: The Free Press.
- Chandler, Alfred D., (1962), Strategy and Structure, Cambridge, MA: MIT Press.
- Chorn, Norman H. (1991), "The "Alignment" Theory: Creating Strategic Fit," Management Decisions, 29 (1), 20-24.
- Day, George E., and Robin Wensley (1983), "Marketing Theory with a Strategic Orientation," Journal of Marketing, 47 (Fall), 79-89.
- Galbraith, J.R. and R.K. Kazanjian (1986), Strategy Implementation: Structure, Systems, and Process, St. Paul, MN: West Publishing.
- Hambrick, Donald C., and Albert A. Cannella Jr. (1989), "Strategy Implementation as Substance and Selling," Academy of Management Executive, 3 (4), 278-285.
- Lawrence, P. and J. Lorsch (1967), Organization and Environment, Boston, MA: Division of Research, Harvard Business School.
- Leonard-Barton, Dorothy (1988), "Implementation as Mutual Adaptation of Technology and Organization," Research Policy, 17, 251-267.

# ECONOMICS, INTUITION AND BUDGETS: THE THEORY OF CONSTRAINTS ALTERNATIVE

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## ABSTRACT

Not since the Italian scientist-monk, Luca Pacioli, codified the double-entry accounting system based on Arabic algebra in the 15th century has there been as potentially significant a contribution to the economic literature by a non-business scholar as is represented in the fledgling Theory of Constraints. Born in the brain of an Israeli physicist, Eilyahu M. Goldratt, this new theory poses a significant challenge to

the domination of cost accounting methods in the management of business enterprises. This article describes in non-technical terms the major philosophical differences between current economic cost accounting methods and this relatively undeveloped new theory of the firm. Its primary purpose is to motivate an interest in the Theory of Constraints.

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## COST ACCOUNTING

*"Who could transfer what the mind has absorbed from our specialized training," they ask;*

*"To minds that would shun and as surely abhor the repeat of so arduous a task?"*

*"Who could infer what particular facts every manager who's reached will possess,*

*To structure reports towards those that he lacks? Who could manage so complete a mess?"*

*"May it profit the managers in this consequence," the advice from accountants rings clear,*

*"If we set measures out in a technical sense and suggest to our rules they adhere!"*

## INTRODUCTION

The advent of the first Doctor of Philosophy in Business made it virtually inevitable that a certain philosophical pontification would creep into the debate over theories of business. This pontification has always been the hallmark of economic courses on the "Theory of the Firm" from which the current disciplines in business have evolved. Unfortunately, economists with their mathematically-based theories have tended to pre-empt consideration of less formalized pontification by business professors. It would be unthinkable for mere business professors to suggest that the use of traditional economics be reconsidered and a fresh start be given to a new approach.

The academic respectability accorded economists and their theories exacerbates the task of promulgating more "reality-based" formulations of business theory. After all, the President

of the United States has his Council of Economic Advisors and the Nobel committee has a separate category just for economists. Perhaps that is why the most revolutionary theory of the firm to be advanced in recent years had to be developed by an Israeli theoretical physicist (Goldratt 1990)! With 1984 well behind us, it is time we heeded George Orwell's advice: "We are now at a depth at which restatement of the obvious is the first duty of intelligent men."

Despite what we have been led to believe through generations of blind acceptance of the economic theories of the firm, we do not have "economic systems." We have businessmen who happen to achieve their social objectives using social "vehicles" that have "economic engines" and operate on "economic freeway systems." Analyses of these "economic engines and freeway systems" can't really help businessmen solve the complex problems that face businesses today. Mathematics adds the aura of science to economic analyses, but it obscures the fact that human beings are acting for very human reasons. To expect an "economic theory of the firm" to help businessmen solve today's complex problems is as preposterous as expecting a "physics theory of the car," based on analyses of internal combustion engines and freeway systems, to help traffic analysts solve problems for automobile drivers.

## ECONOMIC THEORIES OF THE FIRM

It is not by accident that the general public accords economic analyses and predictions less credence than weather reports. It is the lack of

correspondence of theoretical explanations or predictions with the "real world" that usually prompts the epithet of "too theoretical" when students talk about economics courses. When students are probed for specifics about why they thought a particular course was "too theoretical," their responses are fairly consistent. Shelby Hunt (1991, p.149) reported four major types of criticisms of a theory course that underlie the complaint that it is "too theoretical." Below are the four recurring themes:

1. *The course was difficult to understand.*
2. *The course was conjectural rather than factual. (That's just a theory, not a fact.)*
3. *The course was not related to the real world.*
4. *The course was not practical enough. ("It's all right in theory but not in practice.")*

Hunt (1991, p.151) points out that the above criticisms of theory courses are really the result of the evolution of "theories" that are nothing more than "obtuse armchair philosophy or mathematical mental gymnastics with no explanatory or predictive power." The following passage from Hunt (1991, p.151) eloquently summarizes the problem:

... Rather than "it's all right in theory but not in practice," the truth of the matter is that *if it is not all right in practice, it cannot be alright in theory!* Courses filled with complex mental gymnastics (often couched in mathematical terms) that have no relevance to the real world and no explanatory or predictive power are not *too theoretical* at all. On the contrary, such courses are completely devoid of theoretical content.

It is the predictive failure of economics that prompted William Hudson (1987) to make the following indictment:

... Economics is widely believed to be a science of the same order as chemistry and physics, but that simply isn't true. As we all know, the forecasts of economists are wrong, are not improving, and are not likely to improve.

Predictive failure is the major evidentiary refutation of "scientific" theories, yet economists routinely explain away or deny such failures on the basis of "technical complexities" (Hendry, 1980). As Hudson (1987, p.15) irreverently points out . . .

... Complexity works as a defense of economics in the following way: If you approach a professional economist, especially an econometrician, with a desire to understand his arguments by casting them in plain language, he will say that such a method will oversimplify things, and that his proposition must use mathematics, often rather advanced mathematics. He may call your desire for plain language a case of "*Wall Street Journal* economics" that doesn't merit serious attention.

### Intuition and Mathematics

The confusion in economic explanations is exacerbated, not elucidated, by the tendency of analysts to describe this complexity using mathematics. When expressed mathematically, the "technical or scientific" arguments mask the fact that they are actually confessions of ignorance. One favored such argument describes "lagged" effects of posited causes as "long and variable" to cover an inability to reliably predict them and to deny a very real ignorance of the actual causal linkages.

But, our mental habits are strong and mathematics was created specifically to conform to those habits. As George Boole (1955, p.165) observed, "The laws of thought . . . are of the same kind as are the laws of the acknowledged processes of mathematics." This makes it all the more necessary to remind ourselves of the artificiality of the number domain (Dedekind 1955, p. 306):

... I consider the number-concept entirely independent of the notions or intuitions of space and time . . . numbers are free creations of the human mind.

Proponents of constructive mathematics (Bishop 1967) have been provoking controversy among abstract mathematicians over this very issue for centuries.

Econometricians seem to be in a mental "trap" from which it is difficult to view the mathematics objectively. Perhaps we are so comfortable with the mathematical domain that we forget its basic artificiality and the major assumptions built into the relationships among its constructs. The mathematical language is not usually handled intuitively by most businessmen so that a further barrier to intuition is created. Intuition is usually supplanted by our formal mathematics training to the detriment of



both. Allan Calder (1979, p.171) described it thus . . .

. . . The vitality of mathematics springs mainly from intuition . . . which formalism tends to devalue. Indeed, in the finished product of mathematics it is not uncommon to find that all signs of intuition have been removed.

It is all too easy for a mathematical exposition to run counter to any objective appreciation of the issues, frequently without provoking criticism or debate. In the popular press, the oft-cited "devastating effect" of the government deficit on interest rates and the availability of credit uses the seemingly unassailable (and consistent with our intuitive understanding of subtraction) mathematical certitude that if the government borrows large sums of money then that **MUST** leave less for everyone else. This pervasive belief persists despite the fact that the existing data and reality do not support this notion. Current debt and deficits are at record levels and the interest rates are low.

What an uninstructed or undisciplined intuition fails to consider because the "mathematical reality" is so obvious is that the banking system in concert with the government creates the money supply. As a borrower, then, the government is in a special category not comparable to every other borrower, and our mathematical sense of the situation is misleading. When an entity is simultaneously a consumer of money and a determiner of the available supply the real relationships are seldom intuitive nor are they necessarily amenable to mathematical modeling that mirrors reality. Primarily, this is so because the situation encompasses a complex interaction of resource constraints and probabilistic recursive behaviors by players in the system, certainly non-symmetrically distributed, subject to unintuitive effects (such as interest and principal "transfer payments" affecting money multipliers, bank reserves, and, hence, the money supply) and other very probably non-homogeneous (in the mathematical metric sense), countervailing government actions (such as open market operations).

Our deterministic mathematical rules normally assume that a complete specification of ALL the elements is possible and exists (or is probabilistically accounted for). The relationships among the elements are presumed to correspond to the requirements of continuity and

equality of effect (transitivity, homogeneity, triangle inequality, etc.). Only then would it always be true that an action that was of a certain magnitude as it entered the system on one side of the "ledger" would operate as though it were of the same magnitude when it entered the other side. Complex resource constraint interactions probably don't follow the rigid rules that govern mathematical relationships, nor is it likely that reality comports with the probabilistic distributional assumptions so pervasively used.

Typically, we assume that the statistical fluctuations in our systems are subject to a symmetrical distribution, but many of the distributions that govern our reality are skewed in a major way. Imagine a process or procedure that averages one hour. Now imagine that process requiring 24, 48, or even 72 hours. We would unlikely be surprised by such events. Even events remote by more than twenty sigmas from the average often have non-negligible probabilities. But the outcomes of interactive systems are impacted by the tails of the distributions more strongly than these probabilities suggest (Goldratt 1989, p.13). Try to imagine the above process taking minus 23 hours, or minus 47 hours, or minus 71 hours. Given this lack of symmetry, how much compensation is necessary to restore the "ledger" to the average from even one "20 sigma" event? How much sense does it make to meddle or intervene using complexity-enhancing policies and budgetary controls on these interactive resource constraints whose impacts we cannot model or understand?

## Complexity

How complex are these economic systems? The complexity of any system is an expression of the number of things that have to be considered simultaneously. The things that have to be considered are the factors that have an impact on the desired performance of the system - anything that limits the system from achieving higher performance - i.e., its constraints. But the number of constraints does not determine the complexity of the system. It is the number of interacting constraints that determines complexity. If none of the constraints interact, each constraint can be considered as a simple subsystem and the overall performance of the system is simply the summation of the performance of all the subsystems. Without interacting constraints, it

would be a very simple system, even if it contained an enormous number of constraints.

Economic theory has its focus on resource constraints as the interacting constraints that drive the complexity of our systems. Goldratt (1981) suggested that a large number of interactive resource constraints are unlikely to be tolerated by any real life systems. Using the environment of a single manufacturing plant (a small-scale economic system) he tried to show that the existence of two different phenomena - statistical fluctuations and dependent resources - make the existence of interactive resource constraints highly improbable. His novel, *The Goal* (Goldratt 1984), presents the ideas in an even less formal mode. He subsequently provides a more rigorous proof (Goldratt 1989). This non-intuitive conclusion, that no real life system can exist if it contains many interactive resource constraints, is best considered using a chain analogy. The strength of a chain is determined by its weakest link. The fact that other links are stronger is irrelevant. There cannot be more than one weakest link in any real chain, and the weakness of the weakest link does not depend on the strength of any other link.

Consider the following situation:

*A traffic analyst notes a traffic jam at exit 46 on the freeway system at 5:00 pm every weekday since a new traffic light was installed two blocks away.*

If we were to analyze this transportation system using resource constraints as we would an economic system, we would first count the number of cars, entrances, and exits within the city limits. Then we would ascertain how much fuel is available in the city to run the engines and how much fuel is used by various types of competing automobiles. We would probably determine the acceleration and deceleration capabilities of the engines and vehicles currently in use. We would count the number of cars on the roads between the hours of 4:00 pm and 6:00 pm, as well as the number and type of traffic controls within the city limits, the capacity of the roads, and on, and on . . .

Armed with the preceding kinds of data, we would use our fundamental premise in the "Theory of the Car" (Microeconomic Theory of the FIRM), which states that people drive cars to get somewhere (PROFIT), and, absent any

real intuition, we might try to decide whether there is . . .

- 1) *too much fuel (MONEY) in the system;*
- 2) *an inadequate number of traffic signs (CONTROLS);*
- 3) *an inadequate number of entrances and exits (BARRIERS);*
- 4) *an excess of inefficient drivers (POOR PRODUCTIVITY);*
- 5) *a failure of existing laws to specify an adequate minimum speed (MINIMUM WAGE);*
- 6) *a failure of the traffic light (REGULATORY AGENCY) to regulate the traffic properly.*

As an exercise of our cognitive faculties, the preceding might be useful "mental aerobics," but it is unlikely to produce any real world solution that would include, for example, the causative impact of the simultaneous (with the traffic light) opening of an all-nude singles bar with amateur strip show from 5:00 pm to 6:00 pm! Despite such "reality-missing" drawbacks, the economic venue, per se, has generally been considered to mirror the relationships among the real world activities and events being modeled.

The correspondence of economic relationships with "reality-relationships" is largely taken for granted in the methodologies currently employed (Blaug 1981) despite the questionable validity of even the most basic assumptions, such as linearity. And, as if the preceding were not enough to give us pause, economic analyses can often be challenged as biased on specific methodological grounds, e.g. when Ando and Modigliani (1965) attacked Friedman and Meiselman's (1963) biased methodology in testing the money multiplier by correlation coefficients. But the most devastating feature of economic approaches to business is the tendency (one could almost say perverse predilection) to use policies and the economic boundary conditions to control performance through costs.

### **The Economic Boundaries - Budgets**

Economic analyses ignore fundamental realities in favor of focusing only on the more objective financial performance boundaries. The economic analysts would rather rely on the boundary principles rather than engage in the extensive problem solving and decision making that would be necessary to discover the few essential causal factors that are actually

controlling outcomes. Economic principles cannot be ignored because they DO define the boundaries within which economic activity is possible. However, this gives them no special role in explaining the social activity they contain. It similarly would have to be admitted that the principles of physics cannot be ignored either because they DO define the boundaries within which ANY activity is possible.

For example, no one would deny that the amount and kind of water sports (wading, swimming, diving, etc.) COULD be managed by filling or draining a swimming pool. The laws of physics could certainly limit the behavioral options, e.g., you aren't likely to dive in one foot of water. However, swim clubs would hardly be well advised to depend on such principles to manage their members! Even though physical laws underlie swim club activities, we would consider ludicrous any attempt to manage swim clubs on the basis of the physical boundaries except in the most rudimentary ways, such as fences, gates and locks, etc. Yet, because "economic laws" underlie business activities, we routinely attempt to manage the detailed aspects of businesses on the basis of the economic boundaries (Budgets). It is just as ludicrous to "fill and drain the economic pool" (BUDGET) to manage economic activities as it would be to fill and drain a swim club pool to manage swim club activities!

Budgets are the main tool for managing today's complex corporations. An article in Fortune decried the over-reliance on budgets as the fundamental flaw in American management (Stewart, 1990). The reason for this reliance is a preference for the "fundamental simplifying reality" that economic principles supply in the complex environments of today's corporations. In the face of such complexity, managers retreat to the simplest level of abstraction that they can defend as consistent with their intuition and their economic objectives. The economic complexities of most such enterprises present a formidable obstacle to intuition in problem solving.

Managers use budgets because they are simple management solutions that minimize the thinking necessary and routinize the process. So, it shouldn't be surprising that they have fallen into a reliance on cost specialists in the management of our huge, diversified corporations. This tragic cost focus seems to ignore

the inequality of effect among costs. For example, some costs can work directly to generate revenues far in excess of their magnitude. One such class of costs we call marketing costs. Under circumstances where increased costs generate increased revenues beyond the existing budget, the budgetary expectations become moot.

### **The Cost Accounting Trap**

The evolution of cost accounting was a natural formalization of our intuition to facilitate the management of complex entities. It is intuitively (as well as mathematically) obvious that if you subtract expenses from income, the net is your profit. To control net profit, then, we need simply to control costs and incorporate them into our quoted price structure. Charging accountants with the responsibility for ascertaining and assigning costs to the various activities within the firm is the natural outgrowth of the preceding intuition.

Unfortunately, cost measurements drive performance toward the objectives of reducing costs or increasing prices to increase net profit. The desirability of the goal cannot justify the foolishness of the methods. Trying to achieve the firm's purpose by enforcing a generalized cost-sensitivity that dominates the decision-making and problem solving throughout the firm has the managers looking in the wrong direction - inward. Managers will be reluctant to question what the numbers seem to require them to do to stay within acceptable performance limits (Stewart, 1990) even when their intuition "feels" that it cannot be right in light of the firm's purpose. Perhaps you will see some similarity between the preceding logic and the following clever parody of human judgement:

### **REPORT OF AN ADJUDGED CASE**

*Between Nose and Eyes a strange contest  
arose, the spectacles set them unhappily wrong;  
The point in dispute was, as all the world  
knows, to which the said spectacles ought to  
belong.*

*So Tongue was the lawyer, and argued the  
cause with a great deal of skill and a wig full of  
learning;*

*While chief Baron Ear sat to balance the laws,  
so famed for his talent in nicely discerning.*

*"In behalf of the Nose it will quickly appear,  
and your Lordship," he said, "will undoubtedly  
find*

*That the nose has had spectacles always in wear, which amounts to possession time out of mind."*

*Then holding the spectacles up to the court - "Your Lordship observes they are made with a straddle,*

*As wide as the bridge of the Nose is; in short, designed to sit close to it, just like a saddle."*

*"Again, would your Lordship a moment suppose (Tis a case that has happen'd, and may be again)*

*That the visage or countenance had not a Nose, pray who would, or who could, wear spectacles then?"*

*"On the whole it appears, and my argument shows, with a reasoning the court will never condemn,*

*That the spectacles plainly were made for the Nose and the Nose was as plainly intended for them."*

*Then shifting his side (as a lawyer knows how), he pleaded again in behalf of the Eyes.*

*But what were his arguments few people know, for the court did not think they were equally wise.*

*So his Lordship decreed with a grave solemn tone, decisive and clear, without one 'if' or 'but' -*

*That, whenever the Nose put his spectacles on, by daylight or candlelight - Eyes should be shut!*

- William Cowper

The accountants (Noses) have assumed exclusive ownership of the performance measurements (Spectacles). The minds (Eyes) have been ordered shut in the presence of intuition (Light) and so cannot fulfill the purpose of the spectacles, improved performance (Vision). The general description of this is "a triumph of technique over purpose." There is likely no situation more common in human organizations. The triumph is aided when the techniques involve reasonably intuitive notions of cost.

The pervasive cost emphasis in management is mirrored throughout our government as well, witness the hassles over the federal budget and procurement policies! In fact, the continual "filling and draining of our economic pools" through legislation, taxation, monetary and fiscal policies, and regulatory action has caused severe structural realignments and complex anomalies in our economic system that defy our intuition. Keynesian, Neo-Keynesian, New Deal, "Old Deal," demand-side, supply-side or Reaganomics, it's all "Voodoo Economics" based on non-intuitive mathematical models! It's little wonder that our leaders relegate the

assessment of economic conditions and expectations to the "experts" even when their intuition tells them that the explanations don't "feel" right.

Unfortunately, because cost is integral to the current forms of financial reporting that are integrated into the entire fabric of our economy, it is inevitable that the external environment will come to play an even more important role in affecting the implementation of the Theory of Constraints. The Internal Revenue Service, financial institutions, and investors all are interested in the financial reporting of performance, especially notions of cost. The vested interests of the large accounting firms in costing techniques can also work to impede the changeover from a "cost-world" perspective. Organizations need to change their internal measurement processes because cost-based measures, with their internal focus and incorrectly presumed homogeneity, can impede or misdirect performance. But since the analysts' theories are the problem, they cannot rely on their analyses to understand the problem! Catch 22!

A particularly troubling consequence of our societal focus on economic costs resides in the fact that "excessive costs" can be a shield for continuing socially irresponsible actions or failing to take actions that might be more responsive to human concerns. It is too easy to justify action or inaction on the intuitively simple basis of costs. This inappropriate cost-focus is precisely what has been questioned by the Theory of Constraints (Goldratt, 1990). The Theory of Constraints offers an alternative pair of "contact lenses" (Throughput measures) with which to discern the true purpose of "spectacles" (Performance measures) and to reassign their ownership to the "eyes" (Minds), not the "noses" (Accountants). The true dilemma for the Theory of Constraints lies in the fact that cost is so intuitively appealing and so completely integrated into our society. Acceptance of this innovation will require a major "recanting" of all cost-oriented economic rationales!

## THE THEORY OF CONSTRAINTS

The Theory of Constraints has been developed primarily in the area of production management and has gained a remarkably strong following because of its directly implementable principles for the shop floor. This practical "foot on the ground" aspect of the theory bodes well

for its ability to provide empirically testable axioms, law-like generalizations and bridge laws that are the hallmarks of a true theory. It circumvents the main criticism of most economic theories, e.g. that they are "too theoretical."

The theory is a refreshing exception in the economic literature. It properly elevates intuition to a central role but in a greatly improved form. A manager's intuition is currently the best sampling device he has for the "real world" components often missing in economic analyses. When it is reliably informed by more rigorous analysis and discipline, it constitutes our superior problem-solving capacity or our illative sense. As Hudson (1987, p 2.) noted . . .

. . . A single human mind is the instrument best equipped to grasp reality in its rawest, most multidimensional form and to reason out the possibilities and probabilities. A single human mind dealing simultaneously with qualitative and quantitative analyses soundly defeats any team of technicians dealing mainly with figures.

The theory offers an alternative for the management of complex systems because it propounds a new "fundamental simplifying reality" to replace the economic boundary rationale. That reality is, "The achievement of any particular objective by any real system is dependent upon only a very few constraints, not all of its components." The main tenet of the theory is that because of statistical fluctuations among interdependent processes, only a very few of a system's unique constraints materially affect its performance toward its goal. Sometimes characterized as the "Theory of the Weakest Link," this easily demonstrated phenomenon has profound implications (Goldratt, 1990).

In our earlier traffic analogy, the underlying complexity was real but the analytical error was in thinking that we must represent all of the complex interdependencies to understand or predict the "system" performance in a particular situation. Under the Theory of Constraints, the primary requisite for the management of any complex system would be identification of its few ACTUAL operating constraints, not all of its theoretical or possible bounds. The boundaries of a system are constraints only when the system is driven to those bounds. As long as the system is operating in the "zone of the middle dimensions," the boundary rationales are not controlling and the few actual operating constraints can be exploited.

## Exploiting The Theory of Constraints

Exploiting the actual operating constraints requires a concerted effort to make sure the constraints are maximally (not optimally) effective. All non-constraint components must be controlled only in support of the constraints and should have over-capacity to protect them from any and all degradation due to non-constraint activities. This is referred to as subordination of the non-constraint components.

Improvement of the system is achieved by improving the operating constraints. This is called elevating the constraints or improving the weakest links. This becomes an iterative problem solving process because it is likely that once elevated a constraint would cease to be the weakest link. This would necessitate an attempt to identify the new constraint, subordinate the non-constraints, and seek to elevate the new constraint, etc., thereby fostering an "ongoing improvement" environment within the firm. Unfortunately, this creation of a "culture of innovation" mandates the full participation and commitment of everyone involved because most organizations are resistant to change rather than actively promoting it.

The Theory of Constraints establishes procedures for disciplining our problem solving intuition to determine:

1. *What to change. (Focus on pinpointing the problem.)*
2. *To What to change. (Focus on simple solutions.)*
3. *How to change. (Focus on the Socratic method.)*

It does not attempt to supplant a manager's intuitive decision-making with "scientific" decision criteria. The theory promotes the illative sense that employs scientific method as the means for verbalizing, diagramming, and hence clarifying our problem solving intuition. A future paper is targeted to deal with the specifics of this theory and its applications.

## CONCLUSIONS

Cost accounting techniques were very powerful solutions to the problem of managing large, complex organizations. However, once budgeting, variance, efficiency, and control procedures and techniques became more

important than continuously improving the organization's ability to achieve its purpose through creative problem solving, "*the tail started wagging the dog*." Thompson (1961) coined the phrase "bureaupathology" to describe this tendency of organizations to be shackled by their own procedures and policies. Even a cursory analysis of the operation of a large bureaucracy would reveal that the more complex the interactions and dependencies, the more complete is the triumph of techniques over the purpose, and the more complete is the stagnation and stifling of creativity and innovation (Thompson 1969).

In the Theory of Constraints view of business management, problem solving is the order of the day, it is not simply a process applied to exceptional situations. The continual thinking, re-evaluating, and re-organizing that is necessary to successfully implement and promote a culture of ongoing improvement is impeded by the establishment of routinized economic procedures, such as cost measurement and budgetary processes. The Theory of Constraints does not allow, in fact it warns against, the development of a set of procedures to routinize the process for the future. It is just such "creation of inertia" that the theory seeks to eliminate.

## REFERENCES

- Aldrich, Howard E. (1979), Organizations and Environments. Englewood Cliffs: Prentice-Hall.
- Anderson, B.F. (1980), The Complete Thinker. Englewood Cliffs, NJ: Prentice Hall.
- Ando, A. and F. Modigliani (1965) "Velocity and the Investment Multiplier," American Economic Review, pp. 693-728.
- Boole, G. (1955) "The Laws of Thought," in Treasury of Philosophy, ed. D. Runes, New York: Crown Publishers.
- Bigoness, W. and W.D. Perrault (1982), "A Conceptual Paradigm and Approach for the Study of Innovators," Academy of Management Journal, 24, 68-82.
- Bishop, Errett (1967), The Foundations of Constructive Mathematics. New York: Crown Publishers.
- Blaug, M. (1981), On the Methodology of Economics. Cambridge: Cambridge University Press.
- Calder, Allan (1979), "Constructive Mathematics," Scientific American, 146-171.
- Dedekind, Richard (1955), "The Nature and Meaning of Numbers," in Treasury of Philosophy, ed. D. Runes, New York: Crown Publishers, 306-307.
- Downs, George W. and Lawrence B. Mohr (1976), "Conceptual Issues in the Study of Innovations," Administrative Science Quarterly, 21, 700-714.
- Friedman, M. and D. Meiselman (1963), "The Relative Stability of Monetary Velocity and the Investment Multiplier in the United States, 1897-1958" in Commission on Money and Credit, Stabilization Policies, Englewood Cliffs, N.J.
- Galbraith, Jay (1973), Designing Complex Organizations. Reading, MA: Addison-Wesley.
- Goldratt, Eliyahu M. (1984), The Goal: A Process of Ongoing Improvement. Croton-on-Hudson, NY: North River Press.
- Goldratt, Eliyahu M. (1988a), "Apologia," The Theory of Constraints Journal, Vol. 1, No. 1, April/May.
- Goldratt, Eliyahu M. (1988b), "Laying the Foundation," The Theory of Constraints Journal, Vol. 1, No. 2, April/May.
- Goldratt, Eliyahu M. (1989), Chapter 5: How Complex Are Our Systems? The Theory of Constraints Journal, 1, July/August.
- Goldratt, Eliyahu M. (1990), Theory of Constraints. New York: North River Press.
- Hage, Jerald and Michael Aiken (1970), Social Change in Complex Organizations. New York: Random House.

- Hendry, D.F. (1980), "Predictive Failure and Econometric Modelling in Macroeconomics: The Transactions Demand for Money," in Omerod, P.A. (ed.), Economic Modelling, London: Heinemann.
- Hudson, William J. (1987), Business Without Economists. New York: American Management Association.
- Hunt, Shelby D. (1991), Modern Marketing Theory: Critical Issues in the Philosophy of Marketing Science. Cincinnati: South-Western Publishing.
- Kimberly, J. R. and M. J. Evanisko (1981), "Organizational Innovation: The Influence of Individual, Organizational and Contextual Factors on Hospital Adoption of Technological and Administrative Innovations," Academy of Management Journal, 24, 689-713.
- Lawrence, Paul R. and Jay Lorsch (1967), Organization and Environment. Boston: Harvard.
- Mansfield, Edwin (1968), The Economics of Technological Change. New York: Norton.
- Nelson, Philip B. (1981), Corporations in Crisis, Behavioral Observations for Bankruptcy Policy. New York: Praeger.
- Staw, Barry M., Lance E. Sandelands and Jane E. Dutton (1981), "Threat-Rigidity Effects in Organizational Behavior: A Multilevel Analysis," Administrative Science Quarterly, 26, 501-524.
- Stewart, Thomas A. (1990), "Why Budgets Are Bad For Business," Fortune, June, 115-118.
- Thompson, V. A. (1969), Bureaucracy and Innovation. Alabama: University of Alabama Press.
- Thompson, V. A. (1961), Modern Organization. New York: Knopf.

# STRATEGIC AND TACTICAL CURRICULUM ASSESSMENT: A CASE STUDY IN DEVELOPMENT

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## ABSTRACT

Curriculum assessment strategies made distinctions for the appropriate use of tactical operational information (course evaluations from current students), medium-range strategy information (exit interviews from graduating

seniors), and long-range strategy information (alumni surveys). Each of the groups surveyed provided information for different types of strategies and objectives.

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## INTRODUCTION

Recent research has begun to seek ways of improving the quality of student produced by marketing programs (Chonko and Caballero 1991; Ramocki 1993). Marketing curriculum and program improvement research has provided snapshot illustrations of classroom ratings from students (cf. Clayson and Haley 1990; Kelley and Gaedecke 1990), impressions and needs of industry (cf. Gomes, Pickett, and Duke 1992), and feedback from alumni (cf. Schmidt 1991). Rationale for catering to these publics suggests that students and industry are direct customers of marketing programs and that alumni are sources of funds as well as information (cf. Chonko and Caballero 1991). However, published research has not examined the role and proper use of these varied publics as sources of information in marketing program and curriculum development. This paper describes an evolving assessment process that uses input from students and alumni to detect shifts in the needs for marketing education.

Classical planning methods suggest that strategies are tracked, modified, and implemented using medium- and long-term plans as well as short-range tactical plans. Student satisfaction from individual classes has been the focus of most evaluations, however they tend to reflect transient issues such as course difficulty and instructor personality (cf. Bharadwaj, Futrell, and Kantak 1992). These evaluations can be useful in operational assessment of short term performance of instructors. However, curriculum content and relevance should not be judged by current students who

are not yet able to consider the value of their education. Graduates of a program are likely to be better judges of the long term value of a curriculum. Appraisal of the general flow of courses, prerequisites, course load, and the contribution or synergy of courses both inside and outside a marketing department are medium-range planning issues. To obtain relevant feedback that centers on immediate familiarity with a program, exit interviews from graduating seniors may be the best source of information. Exit interviews are used by some institutions but have not been examined as a part of an overall assessment program. Alumni assessments have been used to provide insight into a program's direction and content by reflecting the needs of industry (cf. Schmidt 1991). These graduates are familiar not only with the demands of industry (Gomes, Pickett, and Duke 1992) and but also with their alma mater's program, as it was when they were enrolled. The potential to combine graduating senior evaluations along with work-experienced alumni provides educators with a system of tracking changes in attitude toward curriculum flow as well as its relevance to the work-place. By using appropriate information from current students, exiting seniors, and alumni, departments can create a more coordinated information gathering system. The curriculum and program evaluation processes suggested here are simple, cost-effective methods. The innovation comes from their combined use as monitors for change and the understanding of the information being requested.

## METHOD

During a single academic year, evaluations



of a marketing program was made by graduating seniors and alumni. Some information was similar across groups whereas other information was unique to one group. Although ratings were obtained from all groups on individual professor effectiveness, information presented here relates only to curriculum content and other academic program activities. Exit interviews were mailed to all graduating seniors during an academic year with a 41% response rate yielding 51 evaluations. Alumni questionnaires were mailed by the university assessment office during the same academic year to a random sample of graduates from the previous two academic years. The 99 responses constituted a 34% response rate. A special telephone survey was conducted to verify the alumni survey and to explore additional criteria used by alumni to judge the value of their education. This random sample of all alumni resulted in 100 responses with no refusals.

The graduating senior exit survey used a multi-page questionnaire that asked a large number of open-ended questions concerning the marketing program. Quality of marketing education was measured on a 7-point scale from very poor to excellent. The three "best" courses were chosen from a list whereas open-ended questions requested those courses liked most and least. Additionally, an open-ended question solicited suggestions for improvement. The alumni mail questionnaire asked for information on the former student's job. A 4-point unbalanced itemized satisfaction scale was followed with a 3-point itemized rating of how well-prepared for the job the respondent felt. The top three courses for career preparation were requested. An open ended question sought any suggestion to improve the quality of the marketing program.

In an effort to validate and improve the alumni mail survey as well as to explore other issues not covered in that questionnaire, a telephone survey of randomly selected alumni was administered. The telephone survey used many of the same questions as the mail survey such as requesting current job functions along with itemized scales on satisfaction with education and preparation for current position. Each marketing course was rated on how well it prepared the student for the current job. Improvement potential for marketing courses in general was measured on a 4-point itemized scale from 'a great deal' to 'none at all'. Given a choice

among teaching styles (lecture, guest speakers, case studies, individual projects, group project, or homework-problems), respondents suggested the teaching styles or combinations that were best suited for each individual course. In order to provide more insight into evaluation methods, open-ended questions sought input on additions-deletions of classes and the appropriate criteria for alumni to use in evaluating a marketing course.

## RESULTS

Exit interview results indicated that students considered the marketing faculty to be about as effective as faculty in other disciplines ( $M = 1.80$ ,  $sd = .72$ ). Similarly, the quality of the degree program was rated slightly above mid-scale between the extremes of excellent and poor ( $M = 4.98$ ,  $sd = 1.02$ ). An open-ended question (Table 1) indicated the total number of times a specific marketing class was mentioned as being the most valuable. Most frequently mentioned were promotions management, marketing management, personal selling, and consumer behavior. Suggestions for improvement were varied but generally indicated interest in more content courses and direct job orientation. More classes and sections were desired along with smaller numbers in the class to allow for more interaction. Additionally, students requested more real world applications along with more and better group projects, cases, and exercises. General likes and dislikes of exiting students generated comments on the size of classes and the content of courses. These exiting seniors generally liked faculty knowledge and interaction, projects/hands on experience, real world related curriculum, and classroom activity. Primary dislikes included a curriculum that is too broad, too many group projects, not enough faculty involvement with students, and not enough depth in courses. No significant differences were noted for any variables compared across gender, overall GPA, or marketing course work GPA.

The alumni mail survey indicated that they were satisfied with their marketing education ( $M = 2.33$ ,  $sd = .73$ ). Respondents felt somewhat well-prepared for their jobs ( $M = 2.07$ ,  $sd = .54$ ). First-year graduates were less satisfied than other graduates ( $MS = 1.87$ ,  $F[4,94] = 3.81$ ,  $p < .01$ ), even though the first-year graduates felt more prepared ( $MS = 1.10$ ,  $F[4,94] = 4.15$ ,  $p < .01$ ). The greatest number of alumni

in this sample were employed in industrial sales, consumer sales, retailing, and areas of service marketing. Alumni felt that the courses which best prepared them for marketing or business careers were consumer behavior, marketing management, services, sales management, and promotions management (Table 1). Personal selling and product management were not offered until after these alumni graduated.

The telephone survey instrument was adopted from the questionnaire used in the mail survey and thus contained many of the same items. Alumni indicated that they were satisfied with their marketing education ( $M = 2.95$ ,  $sd = .64$ ), and that they felt somewhat well-prepared for their jobs ( $M = 3.02$ ,  $sd = .97$ ). As in the mail survey, the greatest number of alumni in the sample were employed in industrial sales, consumer sales/retail, and services areas of marketing. Those not in marketing (38 percent) held diverse jobs but several were in financial services fields.

Courses were rated individually for contribution to job preparation. This sample of alumni felt that the courses which best prepared them for marketing or business careers were marketing management, promotions management, consumer behavior, and principles (Table 1). Additionally, suggested teaching methods for each course indicated a desire for more experiential techniques (outside project, cases, and speakers) to enhance job preparation. In addition, potential new classes mentioned included advertising, public relations, and personal selling. Alumni suggested that the best criteria for evaluating a marketing course are the perception of (1) teacher abilities, (2) currency the information and techniques, and (3) practical applicability to the work place.

The similarity of the mail and telephone surveys of alumni allowed some limited statistical comparisons. No differences were noted in the frequency of job content areas between the mail and telephone alumni surveys. However, satisfaction with education was greater with the telephone alumni survey ( $t = 64.7$ ,  $df = 197$ ,  $p < .0001$ ). Also, those alumni sampled in the telephone survey felt more prepared for their jobs ( $t = 76.2$ ,  $df = 197$ ,  $p < .0001$ ).

## DISCUSSION

The managerial approach of using appropriate groups to measure tactical versus medium-

range versus long-range issues is key to developing a meaningful marketing assessment procedures. Core courses such as marketing management, promotions management, consumer behavior, and marketing research were considered important by all groups with professional selling being popular with those exposed to the course. Area courses such as business-to-business (industrial), services, retailing, and product management followed these core courses in importance. Exiting seniors tended to discuss curriculum flow and synergy, and alumni tended to suggest substantive course content issues or more general strategic directions (such as more job-content related experiences). All of these perspectives are needed to provide a balanced approach to the development of a relevant curriculum. Alumni-developed rating criteria reinforce previous calls for changes discussed in the marketing education literature: (1) use of more current information, (2) update of marketing techniques, (3) use of more practical applications, and (4) emphasis on perceived instructor ability.

Lessons learned from this experience in assessment evolution include the need for consistent questions and scales across varied assessment tools. Better understanding of the changes or consistency of perceptions from continuing students, existing seniors, and experienced alumni can aid in managing student expectations as well as providing college management with appropriate input for tactical versus strategic decisions. In addition, continual development through special surveys (telephone in this case) can provide samples that verify on-going surveys (mail in this case) and detect changes not found in standard surveys. Telephone contact appears to have a public relations advantage not only by reminding the alumni that the department cares about their comments but also by involving the students with alumni. This interaction helps to build a bond among year groups and orients the students toward a continuing involvement with the department.

Several assessment actions have been taken as a result of this exercise. These actions include revision of all questionnaires to reflect similar questions and scales to provide a basis for comparisons; establishment of an annual alumni telephone survey to assist in developing appropriate criteria and measures for assessment; and commitment to publish relevant

results and departmental response in alumni communications. Curriculum and program actions taken or to be taken as a result of this assessment process include greater flexibility in curriculum and programs to allow individual tailoring to fit a student's specific career orientation; changes in prerequisites to provide a better background for key courses; change in course sequencing to provide a more appropriate flow of educational material; reduction of the number of required business courses to allow for more classes in other disciplines in recognition of the non-marketing careers of graduates.

Continuous monitoring for curriculum feedback is a natural extension of the marketing concept to marketing academics. By sharing experiences and techniques, departments will become more informed on curriculum trends as well as the monitoring techniques that are effective. Choosing techniques which can be easily implemented and analyzed is key to the long term viability of the monitoring process.

#### REFERENCES

- Bharadwaj, Sundar A., Charles M. Futrell, and Donna M. Kantak (1992), "Antecedents of Student Satisfaction: A Causal Analysis," AMA Educators' Proceedings, R.P. Leone and V. Kumar, eds., Chicago: American Marketing Association, 525.
- Chonko, Lawrence B. and Marjorie J. Caballero (1991), "Marketing Madness, or How Marketing Departments Think They're in Two Places at Once When They're Not Anywhere at All (according to Some)," Journal of Marketing Education, 13 (1, Spring), 14-25.
- Clayson, Dennis E. and Debra A. Haley (1990), "Student Evaluations in Marketing: What is Actually Being Measured?" Journal of Marketing Education, 12 (3, Fall), 9-17.
- Gomes, Roger, Gregory M. Pickett, and Charles R. Duke (1992) "Broadening the Marketing Curriculum with High Technology: An Academic Response to 'World Class' Industrial Evolution," Journal of Marketing Education, 14 (3, Fall), 15-22.
- Kelley, Craig A. and Ralph M. Gaedecke (1990), "Student and Employer Evaluation of Hiring Criteria for Entry-Level Marketing Positions," Journal of Marketing Education, 12 (3, Fall), 64-71.
- Ramocki, Stephen P. (1993), "A New Model to Implement Marketing Education," Marketing Education Review, 3 (1, Spring), 18-25.
- Schmidt, Sandra (1991), "Marketing Alumni Perspectives on the Educational Challenges for the 1990's" Marketing Education Review, 1 (2, Winter), 24-33.

**TABLE 1**  
**MOST VALUABLE MARKETING COURSES**

|                           | Student Exit Survey |                     | Alumni Mail Survey |                     | Alumni Telephone Survey |                              |      |
|---------------------------|---------------------|---------------------|--------------------|---------------------|-------------------------|------------------------------|------|
|                           | Rank                | Frequency<br>n = 51 | Rank               | Frequency<br>n = 99 | Rank                    | Mean <sup>a</sup><br>n = 100 | SD   |
| Principles                | 12                  | 3                   | 8                  | 13                  | 4                       | 2.32                         | .88  |
| Consumer Behavior         | 3                   | 13                  | 1                  | 41                  | 3                       | 2.57                         | 1.06 |
| Professional Selling      | 3                   | 13                  | --                 | NA                  | --                      | NA                           | --   |
| Small Business Marketing  | 14                  | 2                   | 11                 | 5                   | 10                      | 1.37                         | 1.36 |
| Promotions-Communications | 1                   | 26                  | 5                  | 27                  | 2                       | 2.58                         | 1.23 |
| Sales Management          | 6                   | 10                  | 3                  | 28                  | 6                       | 2.16                         | 1.38 |
| Retail Marketing          | 10                  | 5                   | 8                  | 13                  | 9                       | 1.69                         | 1.24 |
| Business Marketing        | 11                  | 4                   | 8                  | 13                  | 7                       | 2.01                         | 1.47 |
| International Marketing   | 7                   | 9                   | 7                  | 17                  | 9                       | 1.83                         | 1.21 |
| Services Marketing        | 8                   | 6                   | 3                  | 28                  | 8                       | 1.92                         | 1.67 |
| Non-Profit Marketing      | 12                  | 3                   | --                 | NA                  | --                      | NA                           | --   |
| Product Management        | 8                   | 6                   | --                 | NA                  | --                      | NA                           | --   |
| Marketing Research        | 5                   | 11                  | 6                  | 23                  | 5                       | 2.20                         | 1.14 |
| Marketing Management      | 2                   | 17                  | 2                  | 33                  | 1                       | 2.92                         | 1.02 |

<sup>a</sup> **Note:** Alumni Mail Questionnaire ratings (4 = highest, 1 = lowest)

# AWARENESS, TIMING AND REASONS FOR CHOOSING MARKETING AS A COLLEGE MAJOR

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## ABSTRACT

This paper presents the results of an exploratory survey on junior and senior level marketing majors at a midwestern university. The objectives were to determine how they

become aware of marketing as a major/career, when they make the decision to become a marketing major and to determine some of the reasons for that choice.

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## INTRODUCTION

As the American economy stagnates and with it many career opportunities for business majors, many universities across the nation are finding themselves with fewer students than seats. The downturn reverses a 30-year trend and a 1990 peak. In 1990, over 250,000 business degrees were granted. Some schools have reported drops of 25% in undergraduate business enrollment (U.S. News and World Report, 1993). There are probably few other consumer segments we know so little about as the undergraduate business major, including the marketing major. We may have knowledge of the demographics of this market segment, but little is known about their choice processes. This exploratory research was undertaken to gain a better understanding of the consumer choice processes, mainly awareness, time of decision and reasons for selection of a marketing major/career for the undergraduate marketing major.

## LITERATURE REVIEW

There is extensive literature to describe the consumer decision process, but little is known about the specifics of those processes for the market segment searching for a major/career. A recent survey showed that 80% of children between the ages of 8 and 17 plan to attend college and 69% know what career they will choose (*USA Today*, 1988). In a three-year study of over 500 business students, most chose a career in information systems as young as high school. Reasons given for the choice centered around parental pressure (Zawacki, 1988). Financial achievement as a reason for choice of college major turn up more frequently in 1985 than in 1967 (Greene, 1986).

## OBJECTIVES AND HYPOTHESES

The objective of this study was to develop a better understanding of the decision processes of the undergraduate marketing major. Goals of this exploratory research were to understand when students become aware of marketing as a major/career, when students make a decision to pursue marketing as a major/career, and why they decide to pursue a career/major in marketing. Understanding the decision process will help marketing departments more effectively address the issues of promotion and product development. Specifically, the hypotheses for this research were as follows:

- H01:** The sources of awareness of marketing as a major or career is independent of sex of the student.
- H02:** The choice of marketing as the original major is independent of how students first become aware of marketing.
- H03:** The time of the decision to pursue marketing as a major is independent of sex of the student.
- H04:** The time of the decision to pursue marketing as a major is independent of the source of awareness.
- H05:** The reason for choosing marketing as a major/career is independent of sex.
- H06:** The reason for choosing marketing as a major/career is independent of time of the decision.

## METHODOLOGY

A questionnaire was constructed after interviewing a number of undergraduate marketing majors on awareness of marketing as a major/career, the decision to pursue marketing as a

major/career, and reasons for choosing marketing. The questionnaire was developed as a way to gather more information for a final draft questionnaire for a national sample. It contained fixed alternative answers with an open-ended alternative. It was completed by 141 junior and senior marketing majors at a midwestern public university with 382 declared marketing majors. Seventy-four of those completing the survey were males and 67 were females. The surveys were distributed in upper-level marketing courses over a two-week period.

## RESULTS

Students were given five fixed alternative

answers and one open-ended choice for the question, "How did you learn about marketing?" They were permitted to choose more than one source. Following are the results: 27% became aware of marketing from the business community, 22% from the media, 22% from friends, 19% from parents, and 17% through their high school sources. The largest number, however, 31% responded to this question in an open-ended manner. The responses to this open-ended questionnaire were mainly 'college sources.' Included in this category were college catalogues (16%), other college courses (8%) and the introductory marketing course (5%). It is interesting to look at these sources of awareness for marketing for males versus females.

**TABLE 1**  
**Source of Awareness of Marketing As a Major/Career**

| SOURCE              | TOTAL | MALE      | FEMALE   | SIG |
|---------------------|-------|-----------|----------|-----|
| Business Community  | 27%   | 25 (34%)* | 13 (19%) | .05 |
| Friends             | 22%   | 17 (23%)  | 14 (21%) | **  |
| Media               | 22%   | 21 (28%)  | 10 (15%) | .05 |
| Parents             | 19%   | 17 (23%)  | 10 (15%) | **  |
| High School Sources | 17%   | 8 (11%)   | 16 (24%) | .04 |
| College Sources     | 32%   | 22 (30%)  | 22 (33%) | **  |

\* Represents percent of all of that sex responding to this source.

\*\* No significant differences.

There is a significant difference between males and females and how they became aware of marketing as a major/career. Males reported becoming aware of marketing through the business community and media more frequently than females ( $p < .05$ ). Females reported becoming aware of marketing through high school sources more frequently than males ( $p < .05$ ). Another question asked whether or not Marketing was their original choice of majors at the university. Sixty-three (44.4%) said it was, but 79 (55.6%) said it was not their original choice. [Table 2](#) looks at how they first became aware of marketing, and whether or not they chose marketing as a major or chose another field and then switched to marketing.

The students who had heard about marketing from significant relationship sources before

college (parents and high school), had the highest percentage originally choosing and remaining in marketing (74% and 75%, respectively). Those hearing from friends may have had a negative effect on their original choice. Only 7 (23%) said they made marketing their original choice when they learned of marketing through friends. This brings up the analysis of when the choice of marketing as a major was made. Five fixed answers were given for the question, "When did you decide to pursue marketing as a major?" The totals for each category are presented in [Table 3](#) along with the number of males and females choosing this category.

The largest percentage for both males and females made their decision to pursue marketing as a major in their sophomore year of college. Of those who chose marketing as their



college major during high school, all 32 said it was their original choice. As the time of their decisions pushes deeper into their academic careers, these percentages drop significantly. Marketing was said to be the original choice of major for 15 (79%) of the 19 who made this decision in their freshman year, 13 (22%) of the 59 in their sophomore year and only 2 (7%)

of 27 in their junior year. It appears that a majority of those choosing marketing past their freshman year in college only do so when another major does not work out. Although there were no significant differences between time of decision and sex ( $p > .05$ ), a larger percentage of females than males decided on marketing in high school.

**TABLE 2**  
**The Choice of Marketing As a Major/Career and the Source of Awareness**

| SOURCE              | TOTAL | 1ST CHOICE | SIG |
|---------------------|-------|------------|-----|
| Business            | 38    | 18 (47%)   | **  |
| Friends             | 31    | 7 (23%)    | .00 |
| Media               | 32    | 11 (34%)   | **  |
| Parents             | 27    | 20 (74%)   | .00 |
| High School Sources | 24    | 18 (75%)   | .00 |
| Other               | 32    | 11 (34%)   | **  |

\* Represents percent of all of those responding to the source who said marketing was their first choice of major.

\*\* No significant difference.

**TABLE 3**  
**Sex Differences in the Time of Decision to Pursue Marketing**

| TIME OF DECISION | MALE       | FEMALE   | TOTAL    | SOURCE*                                              |
|------------------|------------|----------|----------|------------------------------------------------------|
| High School      | 14 (19%)** | 18 (23%) | 32 (23%) | Parents (38%)<br>H.S. Source (38%)<br>Business (32%) |
| Freshman         | 13 (18%)   | 6 (9%)   | 19 (14%) | Business (42%)<br>College (42%)                      |
| Sophomore        | 34 (46%)   | 25 (38%) | 59 (42%) | Friends (34%)                                        |
| Junior           | 12 (16)%   | 15 (23%) | 27 (19%) | College (50%)                                        |
| Senior           | 1 (1%)     | 2 (3%)   | 3 (2%)   | College (100%)                                       |

\* More than one answer possible.

\*\* The only significant difference at  $p < .05$

What sources of marketing awareness piqued interest in the students at earlier ages? [Table 3](#) lists these sources of awareness by the time of the students decision. When a decision to choose marketing as a major/career was

made in high school, 38% said they learned of marketing from their parents, 38% from high school sources, and 32% from business sources (multiple choices were allowed). When a decision to choose marketing as a major/

career was made as a freshman in college 42% said they learned of marketing from business sources and 42% learned from college sources. When the decision was made as a sophomore the source checked most often was friends (34%) and for juniors, the source checked most often was college sources (50%), such as professors, introductory marketing courses and the college catalogue.

There was a significant difference between the time of the decision to pursue marketing and the students' source of awareness of marketing as a major/career. When parents and high schools were the source of awareness, a significant difference ( $p < .05$ ) in the time of the decision at an earlier age was evident. When the decision was made as a college sophomore, friends were most often the source of awareness ( $p < .05$ ) and as juniors, college sources were most often cited as the source of awareness ( $p < .05$ ).

A third question asked, "What factor(s) influenced your decision to choose marketing as a major/career?" Five fixed alternative answers were possible, with the category 'other' used as an option. Once again, multiple answers were possible. Of the choices, 31 (22%) and they chose marketing for 'monetary reasons,' 62 (44%) said 'opportunity,' 108 (77%) said 'interests,' 9 (6%) said they had 'no other option,' 4 (3%) chose it because it was 'easy,' and 16 (11%) chose it for other reasons. The crosstabs showed some significant differences ( $p < .05$ ) between influencing factors and sex (Table 5). While more males than females chose 'monetary' reasons for their choice of marketing were also run to see if student grade point averages had any significant affect on factors for choosing marketing as a career/major. GPAs did not seem to be related to the factors that influenced the student to choose marketing.

**TABLE 4**  
**Factors Influencing the Choice of Marketing As a Major/Career**

| INFLUENCING FACTORS | MALE      | FEMALE   | SIG |
|---------------------|-----------|----------|-----|
| Monetary            | 21 (28%)* | 10 (15%) | .05 |
| Opportunity         | 35 (47%)  | 27 (49%) | **  |
| Interest            | 52 (70%)  | 56 (85%) | .04 |
| No Other Option     | 4 (5%)    | 5 (8%)   | **  |
| Easy Major          | 2 (3%)    | 2 (3%)   | **  |
| Other               | 9 (12%)   | 7 (10%)  | **  |

\* As a percentage of all males.

\*\* No significant difference.

Another crosstab was run to see if the reasons/factors for selecting marketing as a career/major was affected by the timing of the decision to choose marketing. Do students who choose marketing as early as high school have different reasons for selecting marketing than those choosing as college juniors. While there were no significant differences between any of the crosstabs of decision time by reason for choice, some interesting findings appeared. Using the top three reasons, the results are chose marketing as a major/career, a larger percentage of high school students chose marketing for 'monetary reasons.'

## IMPLICATIONS

This research was an exploratory study to investigate choice processes used by students in marketing majors. The focus was on understanding when students become aware of marketing as a major/career, when they make a decision to pursue marketing as a major/career, why they decide to pursue a major/career, and why they decide to pursue a major/career in marketing. While the primary objective is to develop a questionnaire for national distribution, analysis was done on the data which was collected. The preliminary results from this study indicate some tentative findings of interest.



**TABLE 5**  
**Reasons for Choosing Marketing As a Career/Major**

| TIME        | MONEY     | OPPORTUNITY | INTEREST |
|-------------|-----------|-------------|----------|
| High School | 11 (34%)* | 14 (44%)    | 26 (81%) |
| Freshman    | 5 (26%)   | 9 (48%)     | 14 (74%) |
| Sophomore   | 12 (21%)  | 30 (51%)    | 39 (67%) |
| Junior      | 3 (11%)   | 9 (32%)     | 26 (93%) |
| Senior      | 0         | 1 (33%)     | 2 (67%)  |

\* As a percentage of high school students.

A large percentage (64%) of the students never made the decision to pursue marketing as a career until at least their sophomore year at college. This is in sharp contrast to USA TODAY (1988) study that showed 69% of children between the ages of 8 and 17 know what career they will choose. A question comes to mind as to whether we are creating awareness of our profession to those under the age of 18, and those whose relationships with them are the most influential (parents and high school sources). The research showed that only 19% of the students learned about marketing from their parents, and 17% through high school sources. Yet, 74% who learned about marketing from their parents and 75% who learned from high school sources said it was their first and only choice as a major/career. With 64% of the students not making a decision until at least their sophomore year in college, creating 'significant' awareness in students appears to be a necessary goal for marketing educators.

Educators must also be aware of the reasons given by students as to why they chose marketing as a major/career. The largest percentage of students claim interest (females, especially) and opportunity as the more important reasons for choosing marketing. Seventy-seven percent (77%) of the 140 students said one of the reasons they were in marketing was interest, and 44% said 'opportunity.' The first consideration, then, should be to further investigate 'what' specifically interests 'which' students about marketing. Also we need to understand what is meant by 'opportunity.' Is it the chance

to grow and advance in the workplace, the ability to simply find a 'job,' or do the students have other, additional interpretations? With this information, informational campaigns can be developed to promote marketing as a career/major to high school and freshman college students and their parents and high schools.

Further research will look more closely at these issues through a more thorough questionnaire and more representative sample. These preliminary results seem to indicate, at least in this region of the country, that marketers and marketing educators need to take a closer look at 'marketing' marketing.

## REFERENCES

- Greene, Elizabeth (1986), "Shifts in Students' Attitudes Seen Threat to Liberal Arts," Chronicles of Higher Education, Nov. 5, 1988, 32-35.
- Tooley, Jo Ann (1993), "From Boom to Bust," US News & World Report, October 4, 1993, 120-121.
- USA Today: The Magazine of the American Scene, "Young Americans' Education and Career Plans," March 1988, 10-11.
- Zawacki, Robert and Debra Kubert Scott (1988), "How College Students Choose IS Careers," Datamation, Sept. 15, 1988, 40-48.

# AN EXPLORATORY INVESTIGATION OF STUDENTS' PERCEPTIONS OF PSYCHOLOGICAL CLIMATE AND TRUST IN HIGHER EDUCATION

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## ABSTRACT

Faced with declining enrollments, evolving accreditation standards, and rising concerns about institutional effectiveness, colleges and universities are entering a period of skepticism. This skepticism from various publics suggests that institutions of higher learning will need to re-evaluate their primary constituents' -- students' -- outcome expectancies.

The present study views the institution as a social system, and it extends a channels framework for evaluating the institutional climate and the faculty-student dyad. Toward this end, this preliminary investigation addresses the degree to which students' *trust in faculty* serves as a meaningful discriminant across a battery of psychological climate dimensions. The findings

suggest that students' trust in their professors is a portentous moderator of their perceptions of the institutional climate. Specifically, innovation, fairness and recognition may be normative tools for building trust in the faculty-student dyad. The results suggest that *trust in faculty* may ameliorate students' perceptions of the institutional climate. As such, the normative implication is that faculty may use trust as a mechanism for building and maintaining positive outcome expectancies among students. It implicitly positions the professor in a leadership position in the education exchange process, and it champions the position that subordinates' -- in this case, students' -- view of institutional values will affect the dynamics and consequences of the dyadic interaction.

# FINDING TIMES IN HOUSEHOLD TECHNOLOGIES

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## ABSTRACT

Practitioners and researchers have sought an understanding of tradeoffs and uses of consumer resources. It is a challenge throughout the product lifecycle and the whole consumer buying and consumption process. Combinations

of methodologies are explored to broaden the knowledge of how technologies in the home are used within the context of multiple consumer resources.

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## INTRODUCTION TO T-I-M-E-S

A realistic picture of everyday life suggests that typical household members are often faced with competing choices of how to use their resources. The telephone is ringing, the dinner is being prepared, the news is being monitored, and the children need to be driven to art class. All of these activities compete for several consumer resources simultaneously; situations like this are regularities in consumers' lives. It is unfortunate that consumer models, frameworks, and research methods often do not account for the consumer behavior which results from such multi-resource dilemmas.

In the framework proposed in the present paper, the household is considered as one or more individuals occupying a single dwelling [see Roberts and Wortzel (1984) for reviews on household changes and definitions]. These individuals collectively and individually possess a store of resource potential, comprised of time, information, money, energy, and space. The household members allocate these resources in order to obtain the things which they desire, such as freshly-baked cookies, music lessons, or the solitude of a sunny beach. There are many ways that the consumer can obtain these things; for instance, cookies can be made at home from scratch or from prepared foods, purchased in bakeries, or simply bought in the supermarket.

TIMES, in its simplest form, is an acronym for the multiple resources which consumers acquire, use, tradeoff, and produce in their daily lives. The TIMES model attempts to draw clear distinctions as well as identify relationships among the multiple resources available in the

household. The TIMES model can be applied to look at consumer issues across cultures, organizational issues from simple units like the household to huge units like a multinational corporation, and from the design of a product to its final marketing.

Any evaluation of a product or service must take each of these resources into consideration from the user point of view. The TIMES model is arrayed below as an exercise for the reader in order to illustrate its application. Think about the case of a home computer purchase. The exercise below could be filled in with the different product attributes which meet or fail to meet with the resource criteria which a consumer may establish; we have suggested several possible resource uses on the vertical axis. Similarly, competing computer products could also be compared and contrasted in terms of the time to seek, acquire, and learn to use the computer, versus the information needed to make the purchase, the money to buy and maintain it, the energy spent in shopping trips, and the amount of space which would be used as well. The purpose of this simple exercise is to raise questions for the researcher as they think through a purchase or marketing decision.

The TIMES model can be used to analyze resource differences at many levels of the marketing process. For instance, if a firm served several market segments, the relative importance of each resource could be examined for each target group. Alternatively, new product design alternatives could be assessed in terms of the total resource amount which consumers would "pay": how much time they would use or save, how much they need to learn, how much they would pay for each design, and so

forth. It could be used strategically to look at competitive products/services or to look across the marketing mix. In our opinion individuals

arrive at their purchasing decisions based in large part upon the combination of resources available to that individual for product use.

### EXERCISE 1

| Computing Options |   |                                                                            | Product | Competitor |
|-------------------|---|----------------------------------------------------------------------------|---------|------------|
| <b>T</b>          | = | Time<br>Search<br>Evaluation<br>Acquisition<br>Set Up<br>Use<br>Disposal   |         |            |
| <b>I</b>          | = | Information<br>Clarity<br>Completeness<br>Knowledge Needed<br>Availability |         |            |
| <b>M</b>          | = | Money<br>Travel<br>Purchase<br>Finance<br>Operation<br>Maintenance         |         |            |
| <b>E</b>          | = | Energy<br>Travel<br>Search<br>Acquisition<br>Consumption<br>Maintenance    |         |            |
| <b>S</b>          | = | Space<br>Use<br>Storage                                                    |         |            |

#### Business Applications

Understanding consumers and how they combine the TIMES resources can have a major impact on the ability to develop and position a product for competitive advantage. Leading edge product innovation people are using these techniques to study consumers. Researchers, for instance, might gain insight by framing their studies in the multi-resource framework proposed in the TIMES concept. Consumer product firms could also benefit. The direction of consumer resource allocation trends is critical to the development of a competitive advantage.

The TIMES model for households would be similar to the illustration above except that the individual TIMES resources would be broken down for the specific uses for the household item being studied. The horizontal axis enables comparisons of several households. The entries can be used to compare the relative resource uses of each household. This structure, together with other data, can be used to extrapolate how consumer resources impact motivation in purchasing decisions.

For instance, in comparing two households on their food eating habits, research can be

designed to collect data in some form on each type of resource. This approach allows the examination of the relationships among the various resources which household members use. The TIMES tradeoffs should become apparent if you think through two households one which primarily prepares food at home, and the other tends to eat out most of the time.

## METHODOLOGIES

A research project for the Research Institute for Telecommunications and Information Marketing led to investigating new ways to get information that might provide a more complete picture of how households use their TIMES resources (Kaufman and Lane 1994). The initial setting for this was a Marketing New Products graduate course in the MBA program in a progressive mid-sized Midwestern city. Student participation was voluntary after an outline of the procedures was discussed.

It was decided to combine some traditional and nontraditional methodologies which would allow us to "see" and verify the combinations of the TIMES resources which are used in conducting the process of household life. The investigation focused on televisions, computers, and telephones. In addition to standard kinds of research using focus groups and questionnaires, we also included photography, time logs, and schematics as part of a multiple method approach.

### Photography

The literature on use of photography in research is rich with illustrations of the benefits (Chiozzi 1989; Collier 1987). Heisley and Levy (1991) argue that when seeing themselves in photographs, respondents tend to want to explain what is happening and may even remember or identify things which would otherwise be forgotten or left unreported.

In the current research each respondent was provided a single-use camera to photograph specific items and rooms in their homes. The cameras were returned at the second meeting and time logs were handed out. At the third meeting the sealed developed films were returned to the individual respondents, who then sorted through their pictures discarding any they were uncomfortable with.

The photographs are both objective and subjective. The photographs are objective for

analysis of room content to the extent shown. They are subjective as the perception of the photographer impacts the choice of content and because the photographer is allowed to edit by discarding any unwanted pictures.

The photographs provided a new look at the household use of space. The photographs clearly indicated the impact of space on the selection and use of communication technology. In addition, the pictures together with the time logs appeared to provide information on energy, information, and time use in the home.

### Time Logs

A time log, or diary, is a technique which requests that respondents record their activities for a given time period, usually a few days. The diaries were used in home economics to study the efficiency of housewives and were often used as the basis for suggestions to improve the speed with which household chores were accomplished. The time diaries were originally structured so that the respondent filled in their activities for specific time blocks, such as every 15 minutes. In addition, some researchers requested time estimated only for certain specific activities, while others only allowed one or two activities at the most to be reported within the same time period (Barclay and Lytton 1989; Beutler and Owen 1980; Family Time Use 1981; Hefferan 1982).

The time log adopted in our research allowed for free-form entering of activities, in that neither time blocks, number of activities, nor identity of activities were specified. The authors have argued previously against the limitations of the use of many traditional forms of time logs (Kaufman and Lane 1991, 1990). The open form logs are in contrast to traditional logs which specify activities and limit activities reported in a time block. The time logs used here give the respondent complete freedom in the numbers and definitions of activities as well as in the size of the time blocks reported on.

Space does not permit this paper to examine the results in detail. The focus here is the methodology of finding the TIMES resources in the household. It is clear that using photography or video with the standard research methods of household resource allocation adds a new dimension to the analysis:

- 1) It indicates product presence and space allocation.

- 2) It provides verification of feasibility of respondents' reported activities as multiple T.V. viewing with televisions stacked two and three high.
- 3) It provides an indication of concentration of spending on one type of product or another.
- 4) It provides an indication of value of product bought and the allocation of resources used as in a house with an expensive computer set-up and low cost furniture.
- 5) It provides a sense of space allocation that defines the respondent's lifestyle.

The questionnaire did not probe deeply enough to tell why such allocation decisions were made. Needed in future studies is more background information. This could be crucial in determining marketing strategies in given areas.

In prior research the authors have found that consumers provide a wealth of information through simple drawings. The focus here was spatial arrangements of the consumers' appliances. Respondent were asked to draw a reasonable resemblance of their home. After completing the overall schematic, they were directed to place their phones, televisions, and computers. Finally, they were asked to locate their pictures on the schematics. The pictures show what the television looks like in its setting. The schematic shows its relative location in the home. Together they helped the authors better understand the reported activities in time logs and to verify if reported behaviors appeared actually possible. This collated information across the TIMES resources provides an chance for a real look at consumer resources.

## REFERENCES

- Barclay, N. and Lytton, R. (1989), "Household Time Use," The Quality of Life Interface, Third Quality of Life/Marketing Conference, Blacksburg, VA.
- Beutler, I. and Owen, A.J. (1980), "A Home Production Activity Model," Home Economics Research Journal, 9 (September), 16-26.
- Chiozzi, P. (1989), "Reflections on Ethnographic Film with a General Bibliography," Visual Anthropology, 2 (1), 1-84.
- Collier, J. (1987), "Visual Anthropology," in Images of Information, ed. Jon Wagner, Beverly Hills, CA: Sage, 161-169.
- Hefferan, C. (1982), "New Methods for Studying Household Production," Family Economics Review, eds. Kathleen K. School and Katherine S. Tippet, Hyattsville, MD: Agricultural Research Service, 3, 30-33.
- Heisley, D.D. and Levy, S.J. (1991), "Auto-driving: A Photoelicitation Technique," Journal of Consumer Research, 18, 3 (December), 257-272.
- Kaufman, C.F. and Lane, P.M. (1994), "Time and Technology: The Growing Nexus," in New Information Technologies in the Home: Demand-Side Perspectives, eds. Ruby Roy Dholakia, Norbert Mundorf, and Nikhilesh Dholakia. Hillsdale, New Jersey: Lawrence Erlbaum and Associates, Inc., forthcoming.
- Kaufman, C.F. and Lane, P.M. (1993), "Time and Technology: Acquisition and Use of Household Innovation," Marketing for the New Europe: Dealing with Complexity, eds. Josep Chais and Joan Sureda, Vol. 1, 631-648.
- Kaufman, C.J. and Lane, P.M. (1991), "Bridging the Time Use Measurement Gap: Insights, Issues, and Problems from Five Major Time Use Studies," Proceedings of the 1991 Southern Marketing Association Conference, 88-93.
- Kaufman, C.J. and Lane, P.M. (1990), "Standard Clocks, Non-standard People: Research Limitations of the Fixed-Resource Approach to Time," Proceedings of the 1990 Southern Marketing Association Conference, 80-86.
- Roberts, M.L. and Wortzel, L.H. (1984), The Changing Household, Cambridge, MA: Ballinger Publishing Company.

*The authors gratefully acknowledge the financial support and consultation provided by the Research Institute for Telecommunications in Marketing and Kolon, Desmond and Bittker, both of whom are sponsoring our work. Further, we would like to acknowledge the important part in the development of this work that was played by Alyssa Klopp and Jill Anderson. Thanks also to our constant editor, critic, and cheerleader M.V. Lane.*

*Note: The authors have significantly redrafted this "Proceedings" version of the paper in consideration of reviewers' comments and the space limitations of this publication. A full working paper on this topic is available, as are a number of supplemental pieces.*

# TOWARD AN EXPLANATORY MODEL OF RETAIL CROWDING

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## ABSTRACT

This manuscript provides a review of the extant crowding literature and culminates in an integration of the various discussions, some of conceptual and some supported by empirical re-

search, into a comprehensive schema of crowding. Empirical support (or lack of support) for the relationships posited in the literature and illustrated in the schema is discussed.

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## INTRODUCTION

The impact of such environmental factors as retail crowding on shopping behavior has only recently begun to receive much needed attention (Eroglu and Machleit 1990). The notion that retail density influences shopping behavior is becoming increasingly well documented, with many of the potential antecedents to perceived crowding identified and general models extended and partially tested. Despite this, too little is known about the nature of the relationship between perceptions of crowding and consumer behavior. Because of the potentially detrimental effects of retail crowding, additional research in this area is justified and needed. The overall objective of this manuscript is to help retailers develop a better understanding of the concept of retail crowding and by so doing help in the development of strategies to counter the effects of retail crowding.

## REVIEW AND SCHEMA

Retailers should be concerned about crowding for several reasons. First, crowding can influence shoppers' selection of retail establishments. Patronage decisions are often based on such environmental cues as physical density, number of shoppers present, and layout and merchandising characteristics (Grossbart, Hampton, Rammohan, and Lapidus 1990). Second, when a shopper perceives a retail environment as crowded he or she may alter shopping strategies (Eroglu and Machleit 1990). Perceived crowding can also influence a shopper's emotional evaluation of the retail environment (Hui and Bateson 1991). Finally, shoppers may drastically revise shopping habits (e.g., shopping through mail-order outlets) as a result of perceived crowding (Eroglu and Harrell 1986).

## Antecedents and Evaluation Processes

In an effort to explain perceived crowding, several models have been offered (see Eroglu and Harrell 1986; Eroglu and Machleit 1990; Harrell, Hutt, and Anderson 1980; Hui and Bateson 1991; Mehrabian and Russell 1974; Worchel and Teddlie 1976). Mehrabian and Russell (1974) suggest that perceived crowding is a function of information. More specifically, environmental cues (e.g., number of shoppers, structural enclosure) contribute information to a situation. As a result, increases in the rate of information lead to increases in the level of perceived crowding which in turn leads to an increase in arousal. Mehrabian and Russell (1974) measured behavioral responses to environmental stimuli in terms of approach and avoidance behaviors. Approach behaviors represent an individual's willingness to enter, explore, and remain in an environment. Avoidance behaviors represent a tendency to avoid entering, exploring, and remaining in an environment. The environmental psychology model suggests that arousal is positively related to avoidance behaviors (Mehrabian and Russell 1974). Alternately, Worchel and Teddlie (1976) propose that perceived crowding results from a two-step process. The first step is an increased level of arousal brought about by violations of personal space. Second, the increased level of arousal is attributed to other people in the environment thus resulting in an increased level of perceived crowding.

In one of the earliest marketing-related examinations of crowding Harrell, Hutt, and Anderson (1980) attempt to explain behavioral responses to crowding as a function of both physical density and perceived density. Perceived density is posited to be a function of

both physical density and personal factors (i.e., past experience, aggressiveness, impatience, time awareness). Physical density is purported to be a function of the number of shoppers in a store. The consequences of perceived crowding are stated in terms of adaptation strategies (e.g., deviating from planned shopping time, fulfillment of purchase plans) which influence certain outcomes (e.g., store satisfaction, enjoyable time consumption).

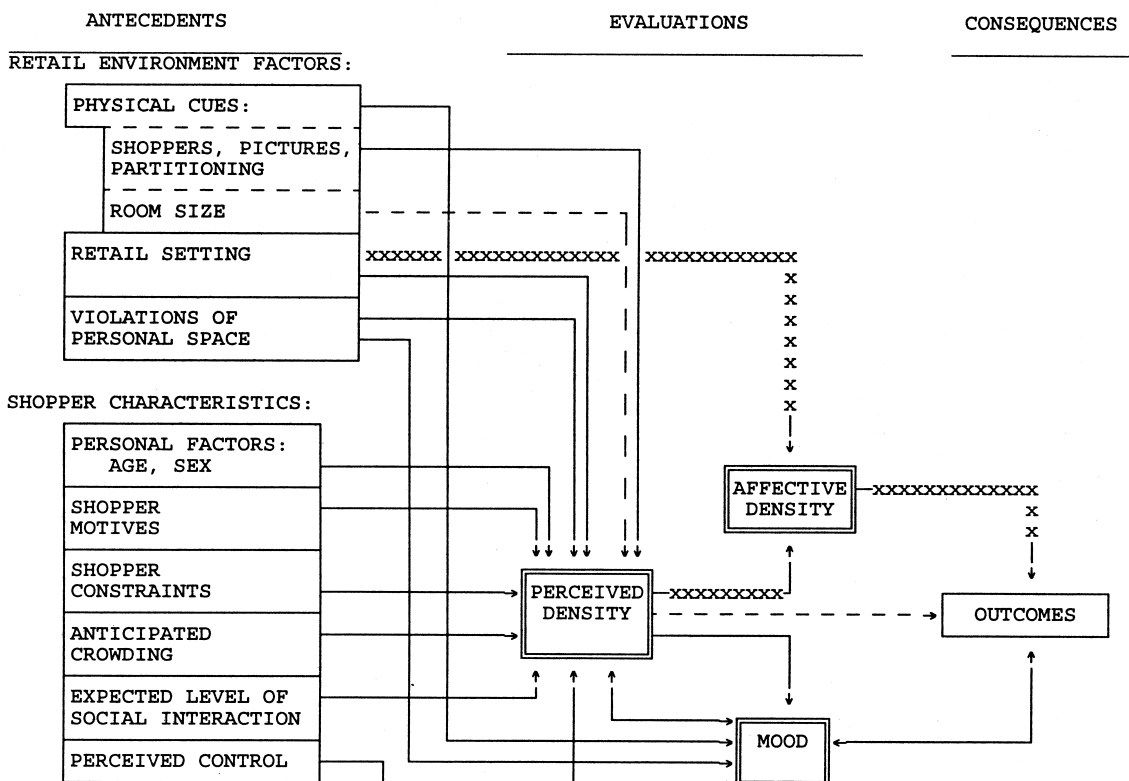
Eroglu and Harrell (1986) offer some refinements to the model originally proposed by Harrell, Hutt, and Anderson (1980). In their model, Eroglu and Harrell (1986) suggest that shoppers select and interpret environmental cues that act in combination with personal factors (i.e., shopping motives, constraints, and expectations) to influence perceptions and evaluations of retail density. Ultimately, how a shopper perceives and evaluates perceived density dictates the adaptive strategies that are used as well as what outcomes are attained. Hui and Bateson (1991), in an attempt to further explain the phenomenon of retail crowding, propose that perceived crowding is directly influenced by consumer density and perceived control and indirectly influenced by consumer

choice. Hui and Bateson (1991) further posit that the effects of perceived crowding on retail shopping behavior are moderated by shoppers' emotions and the retail setting as well.

### A Schema of Retail Crowding

While each of the models discussed above makes a unique contribution to an understanding of retail crowding, no individual model adequately explains the complete domain of the construct. However, when the individual models are combined a more complete explanation begins to take form. Figure 1 represents the combined information from all five models discussed above. Other applicable research findings are also included. The solid lines in Figure 1 indicate some empirical evidence exists that these relationships have been found to be significant in previous research. The dashed lines indicate some empirical research has been completed on these relationships; however, no clear findings can be established. The "x" lines are proposed relationships that have not been empirically tested, but have been suggested as a result of previous research or logically developed from existing models of crowding. A discussion of the retail crowding schema follows.

**Figure 1.**  
**Retail Crowding Schema**





The solid lines in the figure indicate that some empirical evidence exists that these relationships have been found significant in previous research. The dashed lines indicate that some empirical research has been completed on these relationships; however, no clear findings can be established. The "x" lines are proposed relationships that have not been empirically tested, but have been suggested as a result of previous research or logically developed from existing models of crowding.

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The schema is yet to be tested in its entirety. However, portions of the diagram have been tested. Mehrabian and Russell (1974) measured the emotional reactions and information rate of 214 college students. The results obtained indicate that environmental stimuli are related to information rate which, in turn, is correlated with arousal (mood). Baum and Koman (1976) reported that perceived density is a product of anticipated crowding. More specifically, individuals who anticipate a large degree of crowding tend to report a higher level of perceived crowding than do subjects anticipating a low degree of crowding. Structural enclosure (room size) did not influence perceived density. However, expected level of social interaction did influence perceived density. More specifically, subjects expecting large, unstructured groups reported more crowding than those anticipating large structured groups. Men experienced more crowding than did women. In a related vein, Grossbart et al (1990) reports that age appears to be inversely related to perceived density.

Desor (1972) reported that partitioning an enclosed space (environmental cue) reduces perceptions of crowding. In addition, perceived density varies by level of social interaction. Perceived crowding is lower under conditions of social interaction than under conditions of no social interaction. Research findings reported by Worchel and Teddlie (1976) offer tests of several other relationships offered in the schema. First, violations of personal space increases perceptions of crowding. Second, the manipulation of simple density (size of room) does not yield clear crowding effects. Finally, the presence of pictures can reduce the experience of crowding, but only in situations where close personal interaction occurs. In summary, Worchel and Teddlie (1976) propose that crowding is influenced by interaction distance rather than physical density.

Harrell, Hutt, and Anderson (1980) conducted a survey of 600 supermarket shoppers to determine the influence of physical density and perceived crowding on the adaptation strategies and outcomes of shoppers. The results indicate that objective density is correlated with

perceived density. In addition, both objective density and perceived density influence deviations from planned shopping time (adaptation strategies). However, perceived density appears to have a relatively greater influence on deviations from planned shopping time than on observed density. Deviations from planned shopping time influence satisfaction derived from a retail environment, enjoyable time consumption while shopping, and confidence in shopping behavior (shopping outcomes).

The results of Eroglu and Machleit's 1990 study provide several important contributions to an understanding of retail crowding. First, higher objective density results in more intense feelings of retail crowding (perceived density). Second, with respect to shopping motives, task-oriented shoppers perceive greater retail crowding than non-task oriented shoppers but only in high density retail settings. Task-oriented shoppers' perceptions of crowding are positively related to both perceived risk and time pressure: but only in situations of high density. Finally, at higher levels of objective density, time pressure negatively affects satisfaction with the retail environment.

Additional support for the detrimental effects of perceived crowding on shopping behavior is offered by Hui and Bateson (1991). In addition, Hui and Bateson (1991) provide empirical support for the effects of consumer density, perceived control, and consumer choice on perceived crowding and the moderating effects of emotion and retail setting.

### **Moderating Variables**

The retail crowding schema suggests that two factors potentially moderate some, perhaps all, of the effects of perceived crowding on retail behavior. More specifically, perceived crowding effects are moderated by the consumer's perceived functionality of the level of crowding and/or the consumer's mood at the point-of-purchase. Perceived density is evaluated as functional when the estimated level of density helps, or at the very least does not hinder, the attainment of consumer objectives. Dysfunctional density occurs when the

estimated level of density prevents or hinders the attainment of consumer goals.

The presence of the second moderating factor, shopper mood state, proposes that reactions to elements in retail environments are moderated by mood. Hui and Bateson (1991) provide support for the notion that the effects of perceived crowding on shopping behavior are moderated via shopper mood state. A more complete discussion of shopper mood and its role as a moderator in retail environments has been extended by Gardner (1985).

That the effects of perceived crowding on consumer behavior may be moderated via perceived functionality and/or mood is of vital importance to the retailer for several reasons. First, many of the antecedents to perceived crowding are beyond the influence of the retailer. For instance, while physical cues may be manipulated to a certain degree, the personal characteristics, expectations, and motives of shoppers are beyond the control of the retailer. The ability to influence moderating variables would offer retailers alternate methods for influencing retail behavior. More specifically, retailers may be able to influence (offset or enhance) perceptions of crowding in ways other than through the manipulation of physical cues.

Second, retailers may be able to offset (enhance) dysfunctional (functional) evaluations of retail density. However, some possible limitations should be noted. A consumer's evaluation of functional density is most likely dependent on the type of goods and services provided by the retailer (McClelland and Auslander 1978). A densely populated nightclub may be evaluated as "functional" whereas a densely populated supermarket may be evaluated as "dysfunctional" by the same consumer. Subsequently, attempts to directly influence functionality may be inherently difficult.

Third, and perhaps more significant, is the notion that retailers can potentially offset the negative effects of perceived crowding by influencing mood state at the point-of-purchase. More specifically, the negative effects of perceived crowding on behavior may be lessened by an offsetting increase in mood at the point-of-purchase. Potentially, this mood is influenced by a number of environmental factors (Gardner 1985). Background music (Milliman 1982; 1986), temperature (Griffith 1977), colors

(Bellizi, Crowley, and Hasty 1983), and ambience (Baker, Levy, and Grewal 1992) are just a few of the environmental factors capable of influencing mood.

## **PRACTICAL APPLICATIONS OF RETAIL CROWDING MODELS**

The value of any marketing model can be measured in terms of how well it can be applied and used in "real life" situations. Subsequently, for retail crowding models to be of any value to retailers, they must not only provide an adequate explanation of the phenomenon but also prescribe strategies which can be used to meet marketing objectives.

The consequences of retail crowding are quite often, though not always, negative. When the consequences are negative, retailers should attempt, whenever possible, to offset the factors that precede crowding. Many of the antecedents to retail crowding are beyond the control of the retailer. However, several components can be manipulated and therefore should be considered when developing retail strategies. Among the antecedent factors that seem to offer the most promise in terms of reducing perceptions of crowding are physical cues. One method would be to partition retail space in such a way as to obscure other prominent physical cues (Desor 1972). Many restaurants attempt to provide a measure of privacy by partitioning tables and booths. Supermarkets partition selling areas using SKUs and displays. Stokols (1972) suggests that the experience of crowding may be alleviated by decreasing the prominence of crowding cues in the environment. For instance, providing visual distractions (e.g., pictures, televised programs) could draw shoppers attention away from physical crowding cues (Worchel and Teddlie 1976). As an alternative to directly alleviating physical density, retailers may be able to increase customer satisfaction by helping the shopper to adapt to crowding. To this end, retailers could help shoppers adapt to crowding by manipulating the spacing of displays, merchandise, and store layout (Eroglu and Harrell 1986).

Retailers are somewhat limited in terms of the degree to which they can manipulate the physical components of the retail environment. Subsequently, retailers should seek alternative methods. The integrated model (Figure 1) suggests that some portion of the effects of

perceived crowding on shopping behavior is mediated via shopper mood state. Consequently, efforts to offset undesirable mood states (e.g., low levels of pleasure and extreme levels of arousal) brought about by negative evaluations of retail density may serve to temper the potentially negative consequences of perceived crowding. Some suggested strategies for offsetting undesirable mood states include providing pleasant scenery or background music, windows, mirrors, or televised entertainment.

#### RELATIONSHIPS TO BE TESTED OR CONFIRMED

Although most of the relationships posited in the crowding schema (Figure 1) have been tested at least once, several of the relationships are yet to be tested and most have not been replicated. The relationship between structural environmental cues (e.g., structural enclosure) and perceived density has been tested (Desor 1972), but not verified. The results of two published tests have been either non-significant (Baum and Koman 1976) or unclear (Worchel and Teddlie 1976). Further testing of this relationship should be undertaken. Tests of other physical environmental cues seems more promising. Desor (1972) found that partitioning an enclosed space reduces the perceptions of crowding in a simulated environment. In addition, the presence of pictures reduces the experience of crowding in close social interaction situations (Worchel and Teddlie 1976).

The novelty of the expanded model offered by Eroglu and Harrell (1986) is the proposed relationship between affective density and adaptation strategies and outcomes. Eroglu and Machleit (1990) attempts to test only a portion of the overall model and does not address verification of the proposed relationships between crowding constructs (i.e., perceived and affective density) or the influence of functional evaluations of affective density on adaptation strategies or outcomes. Additional testing will be necessary to confirm the viability of the construct of affective density.

The nature of the relationship among mood state (i.e., pleasure and arousal), perceived crowding, and shopping behavior is not clear. In one sense, mood state may serve as both an antecedent to perceived crowding and a mediator of the effects of the various antecedent

variables on perceived crowding (Gardner 1985). However, mood state can also be considered an outcome of the shopping experience in the sense that mood serves as a measure of a shopper's affective evaluation of the shopping experience. Subsequently, methodological issues regarding the timing and treatment of mood measures at the point-of-purchase need to be addressed.

One of the more recent contributions to the study of retail crowding (Hui and Bateson 1991) identifies what seems to be an important intermediating factor: the nature of the retail setting. More specifically, the nature of the retail setting may influence consumer perceptions of crowding. For instance, high-density (many customers, restricted movement) in a night club may not elicit the same level of negative evaluation as a high-density supermarket. Therefore, the affective evaluations of retail density may vary by retail setting. Future research designs should include the nature of the relationship between retail setting and consumers' perceptions of crowding.

#### REFERENCES

- Baker, Julie, Michael Levy, and Dhruv Grewal (1992), "An Experimental Approach to Making Retail Store Environmental Decisions," Journal of Retailing, 68 (Winter), 445-460.
- Baum, Andrew and Stuart Koman (1976), "Differential Response to Anticipated Crowding," Journal of Personality and Social Psychology, 34 (3), 526-536.
- Bellizi, Joseph A., Ayn E. Crowley, and Ronald W. Hasty (1983), "The Effects of Color in Store Design," Journal of Retailing, 59 (Spring), 21-45.
- Desor, J.A. (1972), "Toward a Psychological Theory of Crowding," Journal of Personality and Social Psychology, 21 (1), 79-83.
- Eroglu, Sevgin and Gilbert D. Harrell (1986), "Retail Crowding: Theoretical and Strategic Implications," Journal of Retailing, 62 (Winter), 346-363.
- Eroglu, Sevgin A. and Karen A. Machleit (1990), "An Empirical Study of Retail Crowding: Antecedents and Consequences," Journal of Retailing, 66 (Summer), 201-221.

- Gardner, Meryl P. (1985), "Mood States and Consumer Behavior: A Critical Review," Journal of Consumer Research, 12, 281-300.
- Griffith, William (1977), "Environmental Effects on Interpersonal Affective Behavior: Ambient Effective Temperature and Attraction," Journal of Personality and Social Psychology, 15 (3), 240-244.
- Grossbart S., R. Hampton, B. Rammohan, and R. S. Lapidus (1990), "Environmental Dispositions and Customer Response to Store Atmospherics," Journal of Business Research, 21, 225-241.
- Harrell, Gilbert D., Michael D. Hutt, and James C. Anderson (1980), "Path Analysis of Buyer Behavior Under Conditions of Crowding," Journal of Marketing Research, 17, 45-51.
- Hui, Michael K. and John E. G. Bateson (1991), "Perceived Control and the Effects of Crowding and Consumer Choice on the Service Experience," Journal of Consumer Research, 18 (September): 174-184.
- McClelland, Lou and Nathan Auslander (1978), "Perceptions of Crowding and Pleasantness in Public Settings," Environment and Behavior, 10 (4), 535-553.
- Mehrabian, Albert and James A. Russell (1974), An Approach to Environmental Psychology. Cambridge: MIT Press.
- Milliman, Ronald E. (1982), "Using Background Music to Affect the Behavior of Supermarket Shoppers," Journal of Marketing, 46 (Summer), 86-91.
- Stokols, Daniel (1972), "On the Distinction Between Density and Crowding: Some Implications for Future Research," Psychological Review, 79 (3), 275-277.
- Worchel, Stephen and Charles Teddlie (1976), "The Experience of Crowding: A Two-Factor Theory," Journal of Personality and Social Psychology, 34 (1), 30-40.

# MARKET SEGMENTATION BY CONTEXTUAL MEANING: AN APPLICATION TO THE MARKET SUPPORTING PHYSICAL ACTIVITY

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## ABSTRACT

Personal Investment Theory (PIT) uses the Meaning of the context as the basis for predicting behavior having long-term implications. Antecedents to Meaning proposed by PIT were used as covariates with groups representing four discrete market segments; five measures

of activity and purchase participation were the dependent variables submitted to MANCOVA. Findings showed both Meaning and Antecedents to Meaning were helpful in predicting and interpreting market-related behavior involving and supporting physical activity.

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## INTRODUCTION

For decades, marketing scholars have recognized the importance of segmenting markets to provide a discrete basis for formulating marketing strategy (Berrigan and Finkbeiner 1992). This study proposes a new and potentially profitable basis for segmentation, using contextual meaning for this purpose. Meaning is defined as the collection of perceptions, beliefs, and thoughts a person holds relevant to a given context (Maehr and Braskamp 1986); e.g., a purchase decision. Meaning represents cognitive involvement, which makes it important to a variety of decisions in the marketplace. The conceptual representation of Meaning used in this study is that of the Personal Investment Theory (PIT) of Maehr and Braskamp (1986).

The primary purpose of this study is to investigate the efficacy of forming discrete market segments on the basis of the Meaning their members create in the context of market-related decision-making. This study investigates a particular application of PIT, the Meaning created in the context of choosing activities, products, and services related to physical fitness. Thus, a secondary purpose of this study is to provide information about market segments in the industry that serves persons who engage in fitness activities.

## CONTEXTUAL MEANING

Working in the field of educational psychology, Maehr and Braskamp (1986) collected

research results involving many factors found to motivate human behavior and integrated them into a conceptual scheme for understanding behavior having long-term implications. The resulting PIT holds that certain behaviors function as an investment in the future well-being of the participant. For this reason, a person will select a given behavior (or behaviors) from the available alternatives because it is consistent with the Meaning that is evoked in the decision context. The PIT model features three segments: Meaning, Antecedents to Meaning, and Personal Investment.

The Meaning segment of the model features these three components, each of which comprises multiple sub-components or elements: Personal Incentives, Sense of Self, and Perceived Options. The first component of Meaning, Personal Incentives, comprises the benefits the participant associates with a given context; they are the carrot that draws the horse forward. Different patterns of individual incentives are salient motivators for different persons (personal investors). These patterns may reflect, for example, whether the investors are task oriented or socially oriented. PIT formally proposes four such Personal Incentives as elements of Meaning: Task incentives, Ego incentives, Social incentives, and Extrinsic rewards. The former two incentives are intrinsic in nature; they stem from the individual's inward orientation. The latter two are extrinsic; they involve interaction with other persons. Task incentives are the benefits expected from improving oneself through personal investment. Ego incentives

are the psychological gains found in performing well in comparison with others. Social incentives are the benefits of associating with others. Extrinsic rewards are the recognition that is received from others.

Sense of Self comprises four self-perceptions that capsulize the broad range of many such constructs used by researchers in the behavioral sciences: Sense of competence, Self-reliance, Goal-directedness, and Social identity. The Sense of competence element of Meaning is the participant's perception of being able to succeed; e.g., feeling. Self-reliance is the perceived ability to control one's own destiny, rather than being controlled by external forces. Goal-directedness is one's tendency to set goals and work toward their achievement. Social identity is the perceptual association with others who are held significant.

Perceived Options contains two elements of Meaning, one supportive of behavior and one opposing it. Perceived opportunities is the perception that a means exists for making a personal investment; e.g., knowing of a health spa in the vicinity. Perceived barriers is the perception of constraints on a desired behavior; e.g., feeling too overwhelmed by time or family commitments to exercise regularly.

Antecedents to Meaning are causal predecessors of Meaning. PIT holds this segment of the model to comprise these five components, some of which feature multiple elements: Performance Situation, Personal Experiences, Information, Age/Life Stage, and Socio-cultural Context. The Performance Situation component includes the elements of Task design and Social expectations. Task design is the notion that the characteristics of the investment itself have intrinsic appeal that affects the formation of Meaning; e.g., working on expensive, modern exercise equipment room may be pleasurable in itself. Social expectations is the normative influence of one's social group on the formation of Meaning.

Personal Experiences represent an accumulation of beliefs and perceptions formed over a lifetime; e.g., they reflect such habits as annually playing for a local softball team every spring. Information is the participant's attention to communications from various sources; e.g., watching tennis presentations on TV, perhaps for the purpose of improving one's own skills.

Age/Life Stage recognizes the powerful influence on Meaning that comes from chronological maturity. Socio-cultural context represents social influences that may range from one's membership group to one's culture; e.g., it subsumes such influences on Meaning as the nature of one's household. Many of these influences can also be measured as demographic characteristics. We choose to combine Age/Life stage and Socio-cultural Context into a single Demographics component of the Antecedents to Meaning segment of the model.

#### **SUPPORT FOR THE PIT CONSTRUCTS AS PREDICTORS OF PHYSICAL ACTIVITY**

The PIT of Maehr and Braskamp has received little attention from research involved in predicting participation in physical activity (but see Duda and Tappe 1988,1989; Duda, Smart and Tappe 1989). However, the individual elements or closely-related constructs have been used frequently. On this basis, research into physical activity will be briefly cited to support the use of the PIT constructs.

Participation in physical activity has been studied in such terms as the frequency, duration, and intensity of involvement, adherence and commitment to a program, and membership in a fitness organization, among others. Previous research has linked participation positively to what may be regarded as Task incentives (Duda and Tappe 1988; Duda, Smart and Tappe 1989), Social incentives, Ego incentives (Vealey and Campbell 1988), and Extrinsic rewards (Kendzierski and Lamastro 1988). Other studies have associated participation positively with constructs that are here called Sense of competence (Deeter 1988), Goal-directedness (Duda and Tappe 1989), Self-reliance (Hogan 1989), and Social identity (Donovan, Jessor and Costa 1991). Researchers have found participation related positively to the counterparts of Perceived opportunities (Wankel 1985) and negatively to Perceived barriers (King et al. 1990). Previous studies have examined direct, positive links to constructs allied to Task design, Social expectations, Personal Experiences, and Information (Lehman 1979), and both positive and negative links with such Demographics as age, gender, and income, education, and marital status (Kaplan and Lazarus 1991).

This research considers Participation as



occurring at two levels: (1) involvement in basic physical activity that is amenable to marketing support; specifically, regular exercise and playing competitive sports; (2a) purchase of supporting products, specifically, clothing and equipment; and (2b) purchase of a supporting service, specifically, membership in a commercial fitness club/health spa. Listed below are the hypotheses underlying the empirical portion of this study:

- H<sub>1</sub>: The pattern of Participation in five market-related activities is associated positively with the elements of Meaning proposed by PIT, except negatively with Perceived barriers.
- H<sub>2</sub>: The relationship between Participation and the elements of Meaning is further elaborated by the positive association of Participation with all the elements of Antecedents of Meaning except for certain Demographics, with which it is negatively associated.

## METHOD

Data came from a field survey conducted in a major western metropolitan area. The quota sampling scheme matched both age and gender characteristics of the sample to twelve Census categories descriptive of the population. The fifteen PIT constructs other than Demographics were measured using four Likert-type items. Standard items were used to measure the Demographics.

Hierarchical cluster analysis was used to create relatively homogeneous groupings of respondents based on the Meaning they find in the context of personal investment in behaviors related to physical activity. A four-group solution was selected as providing a range of groupings that was manageable for analysis and interpretation. Multiple discriminant analysis, supplemented by univariate ANOVA's, provided a description of the nature of the four clusters.

Inferentially, to test the first hypothesis, MANOVA was used to investigate the hypothesized relationship between the categorical measure of Meaning and the canonical pattern(s) in the five continuous measures of Participation (including dummy variables for Spa membership, Clothing purchase, and Equipment purchase). Discriminant analysis and univariate

ANOVA were used to help interpret the basic MANOVA. To test the second hypothesis, the continuous measures (including dummy variables) of Antecedents to Meaning were added and a covariance analysis was conducted using MANCOVA. Canonical correlation between the Antecedents and participation was used to supplement the basic MANCOVA. In interpreting the resulting canonical variates, those variables whose loadings reach an absolute value of .30 or greater will be considered to make an important contribution to the variate.

## RESULTS

Four clusters were created with cluster analysis. The three discriminant roots, labelled I through III, all help characterize the groupings. All ten items contribute importantly to at least one variate. Interpreted in terms of the variables having the highest loadings, the canonical variates represent, respectively, primarily the characteristics of being self-reliant, task-oriented, and other-oriented. Based on their centroids on these three canonical variates and their means on single items, the four groupings, labelled A through D, may be designated Inner-controlled (n=29), Other-controlled (n=80), Motivated (n=47), and Disinterested (n=55).

MANOVA was used to ascertain whether the data support H<sub>1</sub>; that is, to examine the nature of the relationship between Meaning and Participation. The multivariate test of a relationship between membership in a Meaning segment and the set of five Participation measures was significant at  $p = .000$ . Two significant Participation canonical variates were obtained. The findings provide strong statistical support for H<sub>1</sub>, which proposed a relationship between the five market-related activities and the ten elements of Meaning.

To learn whether the data support H<sub>2</sub>, that the Antecedents to Meaning could be used to augment prediction of Participation using Meaning alone, MANCOVA was used to examine the parallel findings with eight covariates added to the previous relationship. Thus, the form of multivariate analysis reported above was conducted again, but on the residual participation measures; that is, this time using the participation scores after the variance associated with the eight covariates was removed. The multivariate analysis was again significant at  $p = .000$ . However, with the variance in Participation

associated with the eight covariates removed, univariate ANOVA's showed only Exercise participation and Spa membership to have a significant relationship with group membership at  $p = .000$  and  $p = .033$ , respectively. The Roy-Bargman stepdown tests indicated Spa membership (and of course, Exercise participation, the first variable in the list) was uniquely predicted. The second hypothesis receives strong support; the Antecedents to Meaning serve to elaborate the relationship between Meaning and Participation.

## IMPLICATIONS

The groupings formed by clustering on the ten Meaning constructs portray market segments that are interpretable and suggestive of marketing strategy. In particular, the process highlights one grouping, the Motivated segment, that is especially attractive for marketers of fitness-related products and services. In addition, other segments apparently present opportunities for marketers, as examined below. On this basis, it is clear that the Meaning constructs can aid marketers, because all ten constructs aid the understanding of aspects of customers' psychological processes that have relevance to marketing strategy.

The most complete portrayal can be gained by joint use of both Meaning and its Antecedents to predict Participation. Where the necessary data can be collected, the complete PIT model should be used in empirical work designed to portray a market. The present findings do not suggest which constructs could be eliminated without loss in more constrained research. Conversely, the full model permits expansion (and alteration) of the specific elements that are used in a given investigation.

Four market segments were portrayed. Certainly, their potential profitability differs considerably, depending on the market offering in question. The Motivated segment should offer the greatest potential for marketing success. It is involved in both exercise and sports, and it purchases products and services to support this involvement. Its members are more likely to belong to a fitness spa and more likely to purchase clothing and equipment.

The stepdown statistical findings indicate Participation and purchase are more independent than might be expected. Marketers should

note mere participation in a physical activity (e.g., heavy exercise) may be an somewhat unreliable indicator of purchase (e.g., buying clothing). It may be that purchases for one purpose may lead to their primary consumption for another purpose (e.g., joining a spa to meet other people and using running shoes for not only exercise but casual wear, as well).

Meaning as conceptualized and measured here apparently best helps understand two forms of Participation, involvement in exercise and membership in a spa. The Antecedents to Meaning then elaborate their portrayal of the Participation activities. They show the role of youth, gender, and habit in characterizing those who participate in both sports and exercise and also purchase supporting products. They also qualify the portrayal by indicating that the reduced reliance of older exercisers on marketers to support their physical activity.

## REFERENCES

- Deeter, Thomas E. (1988), "Does Attitudinal Commitment Predict Physical Activity Participation?," Journal of Sport Behavior, 11 (December), 177-192.
- Donovan, John E., Richard Jessor and Frances M. Costa (1991), "Adolescent Health Behavior and Conventionality-Unconventionality: An Extension of Problem Behavior Therapy," Health Psychology, 10 (1), 52-61.
- Duda, Joan L. and Marlene K. Tappe (1988), "Predictors of Personal Investment in Physical Activity Among Middle-Aged and Older Adults," Perceptual and Motor Skills, 66 (April), 543-549.
- Duda, Joan L. and Marlene K. Tappe (1989), "Personal Investment in Exercise Among Adults: The Examination of Age and Gender-Related Differences in Motivational Orientation," in Aging and Motor Behavior, Andrew C. Ostrow, ed. Indianapolis, IN: Benchmark Press, 239-256.
- Duda, Joan L., Alison E. Smart and Marlene K. Tappe (1989), "Predictors of Adherence in the Rehabilitation of Athletic Injuries: An Application of Personal Investment Theory," Journal of Sport and Exercise Psychology, 11 (4), 367-381.



- Hogan, Joyce (1989), "Personality Correlates of Physical Fitness," Journal of Personality and Social Psychology, 56 (February), 284-288.
- Kaplan, George A. and Nancy B. Lazarus (1991), "Psychosocial Factors in the Natural History of Physical Activity," Preventative Medicine, 7 (January/February), 12-15.
- Kendzierski, Deborah and Valerie Davis Lamastro (1988), "Reconsidering the Role of Attitude on Exercise Behavior: A Decision Theoretic Approach," Journal of Applied Social Psychology, 18 (July), 737-759.
- King, Abby C., C. Barr Taylor, William L. Haskell and Robert F. DeBusk (1990), "Identifying Strategies for Increasing Employee Physical Activity Levels: Findings from the Stanford/Lockhead Exercise Survey," Health Education Quarterly, 17 (Fall), 185-191.
- Lehman, Phyllis (1979), Healthy People: The Surgeon General's Report on Health Promotion and Disease Prevention; Background Papers 1979, Washington, DC: U.S. Department of Health, Education and Welfare; Public Health Service.
- Maehr, Martin L. and Larry A. Braskamp (1986), The Motivation Factor: A Theory of Personal Investment, Lexington, MA: Lexington Books.
- Vealey, Robin S. and Julie L. Campbell (1988), "Achievement Goals of Adolescent Figure Skaters: Impact on Self-confidence, Anxiety, and Performance," Journal of Adolescent Research, 3 (Summer), 227-243.
- Wankel, Leonard M. (1985), "Personal and Situational Factors Affecting Exercise Involvement: The Importance of Enjoyment," Research Quarterly for Exercise and Sport, 56 (September), 275-282.

# THE BUSINESS OF ENTERTAINMENT MARKETING RESEARCH: PREDICTING COMPOSITE AUDIENCE PROFILES AND CONSUMER PERCEPTIONS OF MAJOR RECORDING ARTISTS

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## ABSTRACT

Using Kelly's (1964) Choice Corollary as a guideline and Q-technique as a method of research, the author developed a Q-sort of actual music recordings and a separate Q-sort of 36

descriptive characteristics. Ninety-eight respondents from 56 zip codes participated. Seven types of composite audience profiles and four types of image profiles were found.

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## INTRODUCTION

The goal of creative individuals in the music industry is to produce hit records. Yet, according to Billboard (1990), of the 507 singles and albums released in 1990, only 6.5% attained sales of .002% of the United States population of approximately 249 million. Fifteen recordings were certified gold (sales of 500,000 copies), and 18 were certified platinum (sales of 1,000,000 or more copies).

The creative and research processes in the music industry have not yet reached their full potential. Creative production is being hindered because music producers do not have a method that predicts the communicative and marketing relationship between recorded music and its potential audience's preferences. Record labels need to better understand the recorded music preferences of their potential audiences. Then, with an understanding of what the audience enjoys music producers, promoters, and marketers can hopefully provide the types of recording artists and recordings consumers will perceive as enjoyable.

## RESEARCH OBJECTIVES

Ultimately, the goal of consumer research is prediction. It is hoped that the methodology presented here will be of assistance to music record companies as they try to predict what markets will purchase specific product offerings. Lifestyle analysis appears to be particularly promising as a form of consumer research in the music industry.

Kelly's choice corollary offers an adaptable

theory for predicting consumer preferences of content and style in music recordings. He states:

A person chooses for himself that alternative in a dichotomized construct through which he anticipates the greater possibility of elaboration of his system (1964).

Kelly's theory provides a basis for variance in each individual's cognitive processes. Each of us is different or similar because of the constructs we use to determine our sense of validity. The author postulates that the individual choices consumers make in their preferences of music recordings are directly related to the individual's construct system. Theoretically, individuals may express similarities or differences in their preferences for various types of music recordings. The variance in respondents' selection patterns will depend on the ways in which the respondents construe the recordings.

## METHODS

When measuring attitudes, marketers have traditionally used Likert, semantic differential, and Stapel scales. The Q-sort technique provides an alternative methodology for gathering data and processing the information obtained. McKeown and Thomas (1988) state:

Q methodology encompasses a distinctive set of psychometric and operational principles that, when conjoined with specialized statistical applications of correlational and factor-analytical techniques, provides researchers a systematic and rigorously quantitative means for examining human subjectivity ... Subjectivity, in the lexicon of Q

methodology, means nothing more than a person's communication of his or her point of view ... the person's "internal" frame of reference.

For this specific study, Stephenson's (1988) Q-technique provides a rigorous method for researching the attitudes of the individual consumer's enjoyment (preferences) for various recording artists and music recordings. Here the method is tied to Kelly's Choice Corollary. Stephenson (1953) posits that Q-technique allows individuals to model for themselves what their attitude of mind is about topics and situations. Stephenson claims Q can be used to ...

Experiment upon certain attitudes of mind of any person we care to make the subject of inquiry. ... Aesthetics, attitudes, thinking behavior, self-reflections, and every conceivable form of human behavior, individual or group (1953).

Subjects are generally asked to sort statements into "piles" that represent the degree of desirability of each characteristic for the subject specifically. Q-sort scaling is then used to determine the relative ranking of stimuli by individuals, and to derive clusters of individuals who display similar preferences (Churchill 1987). Factor analysis is used to analyze the responses to identify these clusters.

The decisions individuals make are observable through the formats (types) of music recordings and recording artists they select as most or least enjoyable. The meaning is in the choices of the respondents and not in the objects (recordings or personality traits) of the Q-sort. In turn, inferences can be made from the observed behavior. The inferences are then available to provide a basis for predicting future choice patterns. This method presents an opportunity for the use of factor analysis in determining theoretical respondent types that may represent unique market segments. For the purposes of this research, a Q-factor is considered a theoretical type of consumer.

### **SAMPLE**

A stratified quota system was used to establish our sample of typical music consumers. A total of 98 respondents from 56 different zip codes participated, 45% male, 55% females. Fifty-six percent are between the ages of 18 and 34, 20% are 35 to 54, and 24% are over

55 years old. Forty percent are married, 47% are single, 6% are divorced, and 6% checked the other category. Forty-nine percent of the respondents make less than \$15,000 annually. Twenty-three percent make between \$15,000 and \$24,999, 5% make \$25,000 to \$34,999, 15% make \$35,000 to \$49,999, and 7% make more than \$50,000 annually. Twenty-one percent of the respondents have a high school education or less, 22% have high school plus some additional training, 38% have or are attending college, 16% are college graduates and 2% have graduate school degrees. Seven percent are in white collar occupations, 10% work as executives or in administrative positions, 21% work in professional and specialty occupations, 5% work in service occupations, 5% are blue collar workers, 8% consider themselves housewives, and 41% are not employed, current students, or retired.

### **SURVEY PROCEDURES**

Focus interviews and two test instruments were constructed, one consisting of 36 music recordings (most of which, were listed in the April 24, 1993, issue of Billboard magazine) and the other, 36 descriptive personality characteristics or terms.

### **DATA ANALYSIS**

The McQuitty and Systat varimax rotation analysis revealed similar patterns of relationships exist among the respondents. The results of the tests were correlated into Q-factors which allow researchers to determine the major patterns of relevant behaviors, attitudes, and preferences.

Respondents who selected the same recordings and ranked them in a similar mix with all of the other recordings (based on their own perceived levels of enjoyment or lack of enjoyment) are statistically perceived as Composite Audience Profiles. Respondents who selected the same descriptive terms to portray their perceptions of each of the five recording artists (based on their own perceptions of each artist) are statistically perceived as respondents who have a similar Composite Image Profile of the artists. Results represent the various types of Composite Audience and Image Profiles which exist in the general population. Normative studies will provide predictable estimates of market density. The level of significance of the factor

loadings exceeds three times the standard error of a zero correlation or .303.

## RESEARCH FINDINGS

Composite Image Profiles were found to exist among typical consumers. As an example one artist had four Image Profiles including (a) The Girl Next Door, (b) Glamorous & A Role Model, (c) Sexy & Attractive, and (d) Family.

Type One respondents appear to reflect the enormous range of Artist x's potential appeal. It consists of 70% of all respondents who appear to perceive her as the Girl Next Door. This perception also appears to be slowly changing to the Young Mature Modern Woman who used to be the Girl Next Door. Fifty-eight percent of Type One respondents are women. Forty-seven percent are 18 to 34 years old. Artist x's Girl Next Door image is also perceived by 25% of the respondents (of Type One) who are 55 years and older. Forty percent of the respondents hold positions in professional, executive, or administrative and management occupations. The key to Type One appears to be the respondents' education. Fifty-three percent have a high school education or some additional training. An additional 29% are currently in college. Type One respondents perceive Artist x as Energetic and Natural. They perceive her as a real person who has a Positive Attitude, is Smart, Attractive, Confident, and Charismatic. However, they perceive her as being only somewhat Sexy or Glamorous. Minor negative perceptions to be fully accepted and perceived as not being important.

Type Two respondents consists of 17% of the sample. The women respondents appear to perceive Artist x as a role model and mentor. They see past the Girl Next Door image of Type One respondents and are on the leading edge of where her image appears to be heading. They appear to see her as perceptive, Confident, Smart, Glamorous, Attractive, and a Real modern woman. Artist x is their hero and champion. They perceive her as having It All Together. The men appear to perceive her as Glamorous, Attractive, and somewhat Sexy. However, they also see her as somewhat Arrogant, Uncompromising, and Full of Herself. Men appear to perceive those traits as a negative, some of the women as a positive. Women appear to perceive the slightly arrogant and uncompromising attitude as a powerful sign of self respect.

Type Three is the only Composite Image Profile with more men respondents than women. They are 9% of the sample. Forty-three percent are 55 and older, another 43% are young, between the ages of 18-34. This type is split between respondents currently in college and respondents 55 and over who did not attend college. It is interesting to find such a common image of Artist x by respondents with 30 or more years between them. In addition, 71% make less than \$15,000, yet another 14% make more than \$50,000. Type Three respondents, both the men and women, appear to find Artist x a Natural, Sexy, Attractive woman. Other types rank these three attributes high; however, Type Three selected them as "most like" Artist x.

Type Four respondents make up 4% of the sample. They remind me of a family. The parents and brother who perceive Artist x as a Real, Confident, Together, Smart, and Sexy daughter or sister. They perceive her as Natural or human, just like everybody else. They perceive her as having some faults, minor Booze problems, being Demanding, and maybe even being a little Over Exposed. However, they like her in spite of her perceived minor faults. As one respondent said, "Hey, she may have her faults, but at least she can sing." They do not perceive her as having a Negative Attitude.

Placing the results into a matrix helps us to see the overall view of how consumers perceive Artist x's image. Each respondent selected 6 terms as most like and least like their perceptions of Artist x. Percentages will therefore not equal 100%. As an example, if the percentage is 50% it means that 50% of the respondents selected that specific term as one of the 6 terms that best represented their perceptions of Artist x. Type One respondents perceive Artist x as the Girl Next Door (49%) who is Natural (58%), Energetic (64%) and Real (44%).

## CONCLUSIONS

Musical recordings are produced in a studio, manufactured into merchandise (records, cassettes, and compact discs), marketed, sent to radio stations for airplay, and distributed to stores for consumer purchases. The production and distribution occurs before the public has an opportunity to hear the recordings (other than a live performance in a concert). Production and

distribution occurs before the music industry (who has created, produced, and paid for the recordings) can determine if the records will be successful. It is the consumers' personal selection, use, and enjoyment of the musical recordings which ultimately determine the financial success of the music recording industry. Therefore, having a lifestyle portrait of perspective consumers and knowing how they perceive the label's recording artists is valuable and marketable data.

Ultimately, the goal of consumer research is prediction. Lifestyle analysis appears to be particularly promising as a form of consumer research in the music industry. It is hoped that the methodology presented here will be of assistance to music record companies, as they try to predict what markets will purchase specific product offerings.

Marketing research firms can now provide entertainment media corporations with the types of information they need to predict consumer preferences. Research of consumers' perceptions of recording artists images can now be used to develop marketing strategies. Knowledge of the types of artists, songs, and music production most enjoyed by various types of music consumers allows record companies an opportunity to produce and market their recordings to niche markets. Businesses that offer record labels innovative methods of research provide data which can be used to react to market demands. This innovative methodology allows the labels to market music recordings to consumer lifestyles. To truly improve the marketing efforts of the music industry, we must be able to locate and reach these lifestyle segments. Kotler and Armstrong (1991) have noted that to be effective, segments must be measurable, accessible, substantial, and actionable. This research suggests a point of origin.

## REFERENCES

- Billboard, (ed). Lander, H. (1990), The Year in Music 1990, pp. ye6-ye23. BPI Communications.
- Billboard, The Hot Country Singles and Tracks (April 24, 1993). BPI Communications.
- Churchill, G.A. (1987), Marketing Research: Methodological Foundations, 4th edition. Chicago: Dryden Press.
- Kelly, G. (1964), "The Language of Hypothesis: Man's Psychological Instrument," Journal of Individual Psychology, 20, 137-152.
- Kelly, G. (1963), A Theory of Personality, New York: Norton & Company. 1-190.
- Kotler, P. and G. Armstrong (1991), Principles of Marketing, 5th edition, Englewood Cliffs, NJ: Prentice-Hall.
- McQuitty, L. (1957), "Elementary Linkage Analysis for Isolating Orthogonal and Oblique Types and Typal Relevancies," Educational and Psychological Measurement, 17, 207-229.
- McKeown, B. and D. Thomas (1988), Q Methodology (from the Series), Quantitative Applications in the Social Sciences, Sage Publications, Inc.
- Prentice, D. (1987), "Psychological Correspondence of Possessions, Attitudes, and Values," Journal of Personality and Social Psychology, 53, 6, 993-1002.
- Schlinger, M. (1965), "Cues On Q-Technique," Journal of Advertising, 53-58.
- Stephenson, W. (1988), The Play Theory of Mass Communication, Chicago: Chicago Press.
- Stephenson, W. (1953), The Study of Behavior: Q-technique and Its Methodology, Chicago: The University of Chicago Press.
- Wilkinson, L. (1989). SYSTAT: The System For Statistics, Evanston: SYSTAT, Inc.

# **PERCEPTIONS OF ETHICAL PROBLEMS AMONG ADVERTISING EXECUTIVES IN CHILE: A REPLICATION OF A U.S. STUDY**

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## **ABSTRACT**

Advertising executives have to deal with potential ethical dilemmas. In the U.S. two studies have addressed this issue. The first, done by Rotzoll and Christians (1980) and the second done by Hunt and Chonko (1987). Both studies found that executives faced several ethical problems in their daily work.

In LDCs, and particularly in Latin America we know of no specific study that has addressed this topic. This paper presents the results of a study done in Chile, with the double objective of finding out what Chilean advertising executives perceived in terms of ethical problems and also to perform a comparison between their problems and those reported by the U.S. advertising executives. In order to accomplish both tasks, we chose to replicate Hunt and Chonko's study.

The data was gathered in the last weeks of 1992, through a self-administered questionnaire targeted at top-level executives of the advertising agencies affiliated to ACHAP (Chilean Association of Advertising Agencies). The response rate was 69 percent. A Spanish translation of the same open-ended question was used. At the same time, the ethical problems reported by the local executives were coded according to the same categories used by Hunt and Chonko.

A comparative analysis of the responses of both countries' advertising executives showed a very similar pattern. Both the rank-order and the frequency of each problem were alike. The three major concerns were: treating clients fairly; difficulties in creating honest, non-misleading, socially desirable advertising and representing clients whose products or services are unhealthy, unneeded, useless or unethical.

However, under this apparent broad pattern of similarity, some differences were found as illustrated by the following two examples. The difficulty in creating honest, non-misleading, socially desirable advertising dealt in Chile with puffery. In the U.S., instead, the same ethical problem dealt with gender and racism concerns, two issues not mentioned at all by the Chilean executives. Representing clients whose products or services are unhealthy, unneeded, useless or unethical in the U.S. was associated with products such as tobacco, liquor, "junk foods," and political candidates. In Chile, there was no such association, but rather, it referred to the general issue of wasteful spending.

As a final remark, it is worth noting that both studies found that there were advertising executives who explicitly reported having no major ethical problems in their daily work.

# MANUFACTURING EXECUTIVES' VIEWS OF COMPETITIVE CHALLENGES THAT AFFECT INTERNATIONAL TRADE

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## ABSTRACT

United States competitiveness programs emphasize production, finance, and worker training but neglect marketing. This paper reviews data from 544 manufacturing executives regarding the challenges that face their companies and

the impacts of these challenges on international sales. The findings validate current policies but also reveal marketing issues that should be addressed in international competitiveness policies.

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## INTRODUCTION

Although United States' competitiveness policies range from technological innovation to reorganization of industrial alliances and restructuring our educational system, the role of marketing in creating competitive advantage and the marketing needs of organizations have been overlooked. This paper reviews competitive policies, and reports on a survey of 544 manufacturing executives in a major midwest metropolitan area regarding the importance of 34 key production, marketing, employee, and general business issues and the impacts of addressing these on overall sales and on international sales. The findings suggest that executives' perceptions are consistent with current policies but that greater attention should be paid to a variety of marketing issues.

## THE UNITED STATES INDUSTRIAL POLICY AGENDA

Current policy debates center on the internal organization of industries for competitive advantage (Porter 1990; Scott 1989) and government initiatives to facilitate competitive advantages in global markets. Proponents emphasize changing laws and regulations to encourage intra-industry cooperative ventures (Tyson, 1988), modifications of economic policy and tax laws to encourage research and development, capital investments and increased personal savings, government sponsorship of generic research, commercialization of technology (President's Commission on Competitiveness 1985; Young 1988a; Dornbusch, et al. 1988; Stix 1991). Others address worker training and retraining programs, changes in the educational system, new approaches to employer-employee relations (Young 1988b;

Kearns 1988), and product quality (Hauser and Clausing 1988; Dobyns and Crawford-Mason 1991). Still other writers caution against abandoning low end manufacturing (Cohen and Zysman, 1988).

A close review reveals that current competitive policies emphasize a "production orientation" rather than a "marketing orientation." While there are differences related to economic and political ideology (Ferguson 1988), anti-trust laws (Fried and Oviatt 1989), and targeting strategic industries (Tyson 1988), the focus of competitiveness proposals has been on production and administrative processes, manufacturing workers, and plant investments. Policy makers have given almost no attention to marketing programs, despite the marketing profession's own emphasis on strategic market planning, sales, and customer satisfaction.

Market success depends on a rational approach to identifying and exploiting opportunities (Narver and Slater 1990; Dickson 1992; Glazer 1991; Jacobson and Aaker 1987), but "production" emphases may overshadow market research and planning, competitor intelligence, sales supports, and related marketing issues. Two questions should be addressed:

- 1) To what extent do manufacturing executives perceive marketing issues as competitive challenges? and
- 2) How are perceptions of the importance of such issues related to expected increases in sales. Answers to these questions can suggest directions for competitiveness policies.

## THE MODERNIZATION ASSESSMENT STUDY

In 1989 the State of Illinois initiated the

Modernization Assessment Grant (MAG) program to support manufacturers wishing to assess their "competitive" position and invest in capital equipment. In the Fall of 1990 four community colleges and the Technology Commercialization Center of the University of Illinois-Chicago commissioned a survey of executive opinion to assess interest in the MAG program. This survey involved all manufacturers with ten or more employees in Cook, Lake, and Dupage counties, and northern Kane County. This area comprised the majority of the Chicago SMSA. A Dun and Bradstreet mailing list was obtained that contained the names of the highest ranking executive officer available in each of the listed companies. The mailing list was used to send a questionnaire, a cover letter, and a pre-addressed, postage-paid return envelope to each executive. Restrictions related to consortium policies and budgets prevented efforts to maximize response rates such as pre-notification of recipients and follow-up reminders.

The questionnaire sought information on the company's industry and number of employees, and it asked executives to "indicate how serious a business challenge or opportunity" each of 34 issues represented for their company. A three-point scale in which 1 represented "Not Serious," 2 "Serious," and 3 "Very Serious" was used. An open-ended item for other issues produced few responses. Executives were also asked to indicate on a scale of 1 to 5 how 10 business factors, including "sales" and "international sales," would be affected if the "competitive" issues they reported as serious or very serious were addressed. The scale used 1 to indicate a "large reduction," 2 "a moderate reduction," 3 "no change," 4 "a moderate increase," and 5 "a large increase." The questionnaire was validated using a focus group of executives.

Of the 5,133 questionnaires mailed, 107 were undeliverable. Of the 5,026 questionnaires assumed to be delivered, 544 were completed, for an overall response rate of 10.8%. Respondents were classified by two-digit SIC code and employee size category and compared to 1987 Census of Manufacturers data (U.S. Bureau of the Census 1989) to assess representativeness of the sample. Close correspondence was observed, suggesting that the respondent data set is essentially representative of the target population. Statistically significant differences

in the SIC distributions were that textile manufacturers were underrepresented by 1.4 percentage points and Industrial machinery manufacturers by 4.6 points, while transportation equipment manufacturers were overrepresented by 2.3 points and miscellaneous manufacturing by 4.5 points. Regarding employees, the only statistically significant deviations from the census were that the category 50 to 99 was underrepresented by 2.2 points, the category 500 to 549 was overrepresented by 1.6 points and the category 1000 or more by 1.9 points.

## FINDINGS

Table 1 reports the percentages of respondents classifying each competitive issue as "Serious" or "Very Serious." Percentages were used due to the ordinal nature of the data. Consistent with many policy proposals, these executives emphasized as serious such production issues as . . .

- 1) equipment modernization (82.2%),
- 2) quality control (78.4%),
- 3) limitations on production techniques (67.4%),
- 4) production scheduling and control (62.4%), and
- 5) costs for rework and modifications (61.2%).

Also consistent with policy proposals, these executives emphasized the following issues as serious . . .

- 1) employee training and skill upgrading (79.5%),
- 2) manufacturer worker training (73.7%), and
- 3) the availability of a skilled labor pool (67.2%).

Executives stressed such general business administration issues as . . .

- 1) long-term business planning (76.2%),
- 2) financial support to improve productivity (75.2%),
- 3) improved financial planning (65.9%), and
- 4) computer based information systems (60.7%).

The sensitivity of these executives (primarily CEOs and CFOs) to marketing issues is striking. Executives emphasized as serious issues . . .

- 1) pressures for lower cost (88.1%),
- 2) competitor intelligence (76.5%),
- 3) customer satisfaction and support (68.8%),
- 4) market planning and research (68.3%), and
- 5) improved lead systems (64.4%).



Our second concern is how perceptions of the importance of specific issues relate to expected increases in sales should these issues be addressed. While this does not demonstrate causality, the executives in this study do provide expert evidence for prioritizing policy recommendations.

- 1) Regarding overall sales, 41.0% expected large increases, and 50.4% modest increases. Six percent expected no change. About 1.3% expected a modest reduction and 1.3% expected a large reduction.
- 2) Regarding international sales, 21.8% expected large increases and 23.7% expected a modest increase. However, 52.4% expected no change. Approximately 0.6% expected a modest reduction and 1.6% expected a large reduction.

Though the impact on sales of each specific competitive issue was not projected by the respondents, statistical associations between projections of sales impacts and the reported seriousness of each listed issue indicate the importance of each issue to sales growth. These analyses are also reported in Table 2. Two ordinal measures of association were used. The Gamma statistic is reported because it is a distribution-free, ordinal measure of association for rectangular tables, varies from  $-1$  to  $+1$ , and is a proportionate reduction in the error statistic. Gamma values can be compared to suggest which issues have a stronger relationship to projected sales impacts. Because SPSS does not report a test of statistical significance for Gamma, the TAUc measure of association's test of statistical significance was also used. Because TAUc is not a distribution-free statistic, comparisons of TAUc are more uncertain. We have therefore used TAUc to verify the statistical significance of the observed associations and have reported Gamma to indicate the relative strengths of those associations.

The Gamma statistics reported in Table 1 validate current competitiveness policies by demonstrating the importance (in the perceptions of manufacturing executives) of investments in technology for production and product design, as well as in financial and worker training issues. Of the 34 competitive challenges and opportunities evaluated, 25 were significantly associated with expected improvements in total sales at the  $P < .05$  level, and 17

were significantly associated with expected improvements in international sales ( $P < .05$ ). The association between "international marketing efforts" as a competitive issue and expected increases in international sales produced a Gamma value of .82, thus suggesting the validity of this analytical approach.

The associations reported in Table 1 illustrate the importance of marketing investments. Of the ten marketing related issues, eight had statistically significant associations with expected overall sales improvements and seven with improvements in international sales. In order of strengths of associations with sales, the significant marketing issues include . . .

- "market planning and research" (Gamma = .337),
- "improved order entry systems" (.237),
- "lead generation and tracking" (.222),
- "international marketing efforts" (.217),
- "sales territory management" (.175),
- "physical distribution efficiencies" (.162),
- "competitor intelligence" (.149), and
- "customer satisfaction and support" (.147).

Aside from the "international marketing efforts" issue, the strongest Gamma associations with international sales were . . .

- "government procurement policies" (.472),
- "market planning and research" (.294),
- "physical distribution efficiencies" (.255),
- "sales territory management" (.217),
- "improved competitor intelligence" (.193), and
- "improved lead generation and tracking" (.165).

## CONCLUSIONS

United States competitiveness policies span a wide range of initiatives, but lack a clear marketing orientation. The opinions of manufacturing executives regarding the competitive challenges facing their companies, and the possible impacts that addressing these would have on overall sales and on international sales, have demonstrated the importance of a marketing orientation in competitive policy. Rank and file manufacturers recognize the importance of market research and intelligence and the need for systems to increase the efficiency of sales and sales support activities. Greater government support should be provided for research to better understand marketing environments, particularly international environments, customers'

needs and wants, and competitors' programs, and for systems to enhance lead generation and logistical aspects of sales and distribution. Finally, marketing professionals, both academic and practitioner, must actively work to move a marketing orientation to the forefront of industrial policy for international competitiveness.

## REFERENCES

- Cohen, S.S. and Zysman, J. (1988), "Puncture the Myths That Keep American Managers from Competing," Harvard Business Review, 88 (6) 98-102.
- Dickson, P. R. (1992), "Toward a General Theory of Competitive Rationality," Journal of Marketing, 56 (January) 69-83.
- Dobyns, L. and Crawford-Mason, C. (1991), Quality or Else - The Revolution in World Business, Boston, MA: Houghton Mifflin.
- Dornbusch, R., Porterba, J. M. and Summers, L. H. (1988), "Macroeconomic Policy Should Make Manufacturing More Competitive," Harvard Business Review, 88 (6), 76-80.
- Ferguson, C. H. (1988), "From the People Who Brought You Voodoo Economics," Harvard Business Review, 88 (3), 55-62.
- Fried, V. H., and Oviatt, B. M. (1989), "Michael Porter's Missing Chapter Risk of Antitrust Violations," The Academy of Management EXECUTIVE, 3 (1), 49-56.
- Glazer, R. (1991), "Marketing in an Information Intensive Environment: Strategic Implications of Knowledge as an Asset," Journal of Marketing, 55 (4), 1-19.
- Hauser, John R. and Don Clausing (1988), "The House of Quality," Harvard Business Review, 88 (3), 55-62.
- Jacobson, R. and Aaker, D. A. (1987), "The Strategic Role of Product Quality," Journal of Marketing, 51 (4), 31-44.
- Kearns, D. T. (1988), "Help Restructure Public Education from the Bottom Up," Harvard Business Review, 88 (6), 70-75.
- Narver, J. C. and Slater, S. F. (1990), "The Effect of a Market Orientation on Business Profitability," Journal of Marketing, 54 (4), 20-35.
- Porter, M. E. (1990), The Competitive Advantage of Nations. New York: The Free Press.
- President's Commission on Competitiveness (1985), Global Competition: The New Reality, Vol. 2. Washington, D.C.: Government Printing Office.
- Scott, B. R. (1989), "Competitiveness: Self Help for a Worsening Problem," Harvard Business Review, 89 (4), 115-121.
- Stix, G., "Changing Mission: Can the National Laboratories Tackle the Trade Wars?" Scientific American, 264 (February), 130-132.
- Tyson, L. D. (1988), "Ask the Right Tough Questions About America's Strategic Industries," Harvard Business Review, 88 (6), 103-107.
- U. S. Bureau of the Census (1989), County Business Patterns - 1987, Illinois. Washington, D.C.: U.S. Government Printing Office.
- Young, J. A. (1988a), "Technology and Competitiveness: A Key to the Economic Future of the United States," Science, 241 (4863), 313-315.
- Young, J. A. (1988b), "The Human Side of Industrial Competitiveness," Harvard Business Review, 88 (6), 74.

Table 1: Competitive Challenges and Associations with Sales Impacts.

| Issue Area                                | % Reporting             | Gamma Associations |             |
|-------------------------------------------|-------------------------|--------------------|-------------|
|                                           | Serious or Very Serious | Sales              | Int'l Sales |
| <u>Manufacturing Issues</u>               |                         |                    |             |
| Equipment Modernization                   | 82.2                    | .229*              | .047        |
| Improved Quality Control                  | 78.4                    | .159*              | .135*       |
| Limitations on Production Techniques      | 67.4                    | .234*              | .091        |
| Production Scheduling and Control         | 62.4                    | .205*              | .135*       |
| Costs for Rework and Modification         | 61.2                    | .116*              | .104*       |
| New Product Design Capacity               | 57.8                    | .305*              | .403*       |
| Materials and Inventory Management        | 55.8                    | .072               | .281*       |
| Capacity of Production Facilities         | 56.1                    | .229*              | .033        |
| Equipment Maintenance Planning            | 51.6                    | .117*              | -.011       |
| Machine Breakage Downtime                 | 50.1                    | .054               | -.065       |
| Inflexibility of the Production Line      | 33.9                    | .218*              | .256*       |
| <u>Marketing Environment Issues</u>       |                         |                    |             |
| Pressures for Lower Costs                 | 88.1                    | .059               | .041        |
| Improved Competitor Intelligence          | 76.5                    | .149*              | .193*       |
| Customer Satisfaction and Support         | 68.8                    | .147*              | .020        |
| Market Planning and Research              | 68.3                    | .337*              | .294*       |
| Improved Lead Generation or Tracking      | 64.4                    | .222*              | .165*       |
| Sales Territory Management                | 44.4                    | .175*              | .217*       |
| International Marketing Efforts           | 45.2                    | .217*              | .820*       |
| Improved Sales Order Entry Systems        | 40.1                    | .237*              | .092        |
| Physical Distribution Efficiencies        | 36.9                    | .162*              | .255*       |
| Government Procurement Procedures         | 38.1                    | .056               | .472*       |
| <u>General Administration Issues</u>      |                         |                    |             |
| Long Term Business Planning               | 76.2                    | .157*              | .124*       |
| Financial Support to Improve Productivity | 75.6                    | .432*              | .094        |
| Improved Financial Planning               | 65.9                    | .279*              | .116*       |
| Computer Based Information Systems        | 60.7                    | .125*              | .060        |
| General Administration Efficiencies       | 54.5                    | .254*              | .116*       |
| Organization and Job Design               | 55.0                    | .136*              | .149*       |
| Environmental Protection Systems          | 48.7                    | .047               | .046        |
| Energy Conservation                       | 49.9                    | .045               | .022        |
| <u>Employee Issues</u>                    |                         |                    |             |
| Employee Training and Skill Upgrading     | 79.5                    | .271*              | .063        |
| Manufacturing Worker Training             | 73.7                    | .147*              | .004        |
| Available Skilled Labor Pool              | 67.2                    | .103               | -.085       |
| Personnel Safety Planning                 | 53.9                    | .038               | -.089       |
| Labor Management Relations                | 45.2                    | .033               | -.147*      |

\*Indicates  $P < .05$  Based on TauC significance to support Gamma proportionate reduction in error coefficients reported above.

N's ranged from 520 to 544.

# COMPETITION IN EXECUTIVE EDUCATION: A GLOBAL MARKETING PERSPECTIVE\*

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## ABSTRACT

The development of executive education programs with an international focus constitutes a new strategic thrust for many U.S. business schools. Yet schools are discovering that market success is made difficult by well-established competitors, mainly in Europe. This paper

uses the case of an executive program in global marketing to investigate and compare the perceptions of American, Canadian, and European executives. Preferences for content and teaching delivery are explored and conclusions drawn for the successful positioning of such programs.

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## INTRODUCTION

Concurrent with U.S. political leadership of the Western Alliance, American business education became accepted as preeminent in the world. U.S. business schools were hailed as the cradle of the professionalization of commerce. Over time, the MBA emerged as the degree providing special powers to its holders and bestowing almost a form of substitute nobility on the profane activity of business. Worldwide, the obtaining of at least some limited "Amerika experience" became the equivalent of a visit to Italy for the medieval painter.

But at the same time as establishment of new MBA programs grew, and their enrollment as well, at unprecedented levels, dissenting voices began to be heard. Executives complained that the work carried out at business schools was less than helpful to corporate practice (Ricks and Czinkota, 1979), that the problems dealt with were not relevant to the real world (Parasuraman, 1981), and that much of the research work produced was never read by the business community (Fielden and Gibbons, 1991). In a world where many firms were increasingly exposed to global competition and encountered the struggle for survival, corporations demanded more relevance and more international orientation (Mann and Staudenmier, 1991).

Surveys indicate that "executives will participate in more internationally oriented courses in order to fully understand what their companies will need in order to thrive in the global market

place" (Mann and Staudenmier, 1991), and corporations will utilize executive development as a tool to facilitate competitiveness (Ulrich, 1989). Enrollment realities show that foreign executives are major participants in executive programs. For example, it has been reported that foreign executives constitute two-thirds of the students at Harvard's Advanced Management Program (AMP) and take up half the seats at advanced management courses at Stanford and Columbia (O'Reilly, 1993). In light of all these trends, a key strategy for the business school in the 1990's appears to be the establishment of executive programs which are international both in their content and their participant appeal.

Many schools contemplating this direction, however, experience that the global environment has changed, particularly where competition in this new area is concerned. Without much stealth, but still unnoticed by many, European schools have discovered the same niche, perhaps somewhat earlier. Luostarinen and Pulkkinen (1989) report about the existence of 197 international business programs in Europe. The authors found that 85 percent of European institutions of higher learning were offering international business education in 1990. More troublesome yet may be the fact that some European institutions appear to have employed a different strategy for growth than U.S. universities. Rather than expanding into executive education from a large MBA program base, they have concentrated mainly on executive education. As a result, many relatively small European MBA programs are giants in executive

education. For example Ashridge, which produces only 22 MBA's each year has annually 4,500 managers attend its corporate courses. IMD graduates 65 MBA's and 2,500 executives every year. The London Business School, offers 3,000 executive education places alongside its 300 MBA's (Economist, 1991). Oxford University even began developing its MBA program only after having successfully conducted executive management education for years (Oxford Academic Programme, 1991).

## **THE STUDY**

### **Focus**

This research concentrates on the issue of executive management education in a competitive global environment. Within that issue, it focuses on the specific field of global marketing. Even though executive education can cover myriads of fields, this narrowcasting approach was decided upon in order to delete confounding influences stemming from different perspectives of "states of the field."

### **Data Collection**

Three key prerequisites were defined for a successful data collection. One consisted of the definition of a population which would have a disposition towards interest in international marketing. A second requirement was that individuals would be at a professional standing which would make their own attendance at or the sending of subordinates to an executive seminar likely. Third, in order for programs in the United States to truly represent a viable alternative, individuals would have to speak English. These three conditions appeared to be satisfied by a list of names and addresses made available by the American Marketing Association (AMA), which comprised some 2,000-plus names and addresses of its executive members in various countries. From the total listing it was decided to select all the 96 European members, one half of the 200-plus Canadian members, and to take a random sample of the U.S. members. A mail questionnaire was then developed to query the sample.

Oversampling to get a sufficient number of returns, a total of 444 questionnaires were sent out in 1992. The mailing included a cover letter explaining the purpose and indicating the source of the name access. A dollar bill was

enclosed to induce cooperation, and to pay for the return postage (since an international survey makes pre-paid return envelopes cumbersome). Within three weeks of the mailout, about 120 questionnaires had been returned, a very encouraging response rate given the vagaries and time delays of the international mail system. For this report the sample comprises a set of 133 completed responses (response rate of 30%). Of the usable 133 returns, 46 came from European countries, 22 from Canada, and the rest from U.S. addresses. All respondents analyzed here have a college degree, most with some graduate work, especially MBAs. Over half (57%) have gone to American schools, and the average year of their highest degree is 1978. Most respondents speak at least two languages, and work for organizations designated as "global," and even more (78%) work in industries that are global. All are, again, members of the AMA.

## **FINDINGS**

### **Important Topics**

The average respondent has attended about 4 executive seminars in the past, and has sent subordinates to executive seminars on approximately three occasions. The questionnaire elicited importance ratings for a series of items designed to tap into the various topics which could potentially be part of an executive program in global marketing. For all three strata, "best practices" was the most important for content and "theoretical concepts" the least important. It would appear that respondents want to hear what others are doing rather than what academics are thinking.

### **Teaching Approach**

The questionnaire also elicited the respondents' importance ratings of various aspects related to the delivery of teaching in the seminars. Overall, the most important delivery feature seems to be the use of "top businessmen" and "class interaction." High scoring is also the "use of cases" and a diverse set of country representation. The Europeans, perhaps surprisingly, find cultural sensitivity of significantly less importance than others. Also, price is less of an object to them, and they certainly don't rate it important to stay close to home. They are also slightly less enthusiastic towards hearing top management, seeing good audio-visuals,

and listening to women. For the Canadians, one can detect a slight preference for cultural sensitivity but not country diversity, for the inclusion of women but not much networking, and for hard work and computer applications. The American subsample likes the networking idea, is a bit more concerned about expenses, wants a relaxing atmosphere, closer to home.

### Country Preferences

The second part of the study dealt with the preference of the respondents for various country locations for executive seminars. The pre-tests had shown that the perceptions of European and North-American programs in global marketing differed considerably, but also that these perceptions were cumbersome to elicit and sometimes too sensitive to divulge. As noted above, the strategy was then to get explicit measures of the importance weights, and the overall rating of a European versus a North-American style program. The characteristics of the two preference groups are displayed in [Table 1](#) which presents the mean values of the importance ratings for content.

Many differences are significant in this pairwise comparison. Those who prefer the European program are more interested in the political and social environment, standardization and entry questions, Eastern Europe, sensitive instructors and practical concepts. Those preferring the American program, by contrast, have no significant distinguishing interest in a particular topic or teaching approach with the weak exceptions of networking opportunities and geographic proximity.

### CONCLUSIONS

The decision by many U.S. universities to increase internationalization, relevance to business and to develop executive education programs with an international focus is a good one, judging by the response of the market place. But schools rushing into this market must be aware of several key issues.

First, it must be recognized that the market is not a newly emerging one without major players. Rather, some key players who have successfully capitalized on these needs already exist both in the United States and in Europe. It appears that the European programs score very well on the many dimensions important to executives. In the context of easy travel and an only minor importance of "closeness to

home" for program choice, European programs may well ring in a new era in the tradeability of services. In order to develop or maintain a successful executive education program, the overriding content requirements consist of "best practices" and "practical concepts." It is here where programs acquire differentiating quality. Leading edge as some theories may be, executives want to get the smell of the battlefield. Development of such a thrust is imperative, as is the communication of this strength to potential participants. In terms of delivery, direct business expertise, close interaction, cultural sensitivity and networking opportunities matter the most. Delivery of a geographically diverse set of participants with similar industry interests seems to be important as well - thus reaffirming the need for a global focus in the program. In spite of expressed market preference, schools may not be prepared to turn over executive education to quickly hired business executives alone. Yet, the idea of simply placing faculty members in the executive class room and asking them to offer an abbreviated introductory course seems ready for failure as well. Perhaps executive course development requires either the use of seasoned faculty with close industry contacts, or a collaborative effort between academics and practitioners.

To attract participants, the status of the sponsoring or organizing institution is important. This is particularly the case when one tries to attract participants from Europe. However, institutions seeking participants from different continents do have some innate advantage of prestige, merely due to the geographic distance involved, an advantage which should perhaps be played up more with executive decision makers. What still needs more exploration is the way in which institutional status perceptions are formed, particularly in light of the expressed preference for business practice. In addition, it may be well worth knowing whether institutional status can be overridden by niche status in specific fields. In an overall sense, it appears that U.S. programs in the executive field may be highly vulnerable. Currently much of their appeal is based on status, which, although important, is only one key dimension in program choice. Other dimensions like business speakers and leading edge content in the sense of "best practices" are additional key criteria. By relying on the traditional status appeal alone, U.S. institutions may be limiting their attractiveness. Furthermore, a



perception of high status already exists globally for European programs, particularly in the eyes of executives familiar with them. Therefore, the traditional global strength of U.S. programs, which consisted of uniqueness and status may no longer be sufficiently differentiating factors in the future to attract attendees from abroad or to keep U.S. participant from looking towards foreign programs.

When it comes to offering executive education in specific fields, an in-depth look at the existence of knowledge bloc preferences is required. As the case example of global marketing has shown, participants from different regions differ in their interests. For example, Americans and Canadians appear to be much more concerned about foreign market entry alternatives and the role of governments than their European counterparts. Therefore the adjustment of program topics suited to the audience is helpful, if it is remembered that a "best practices" approach is the most likely one to succeed. However, participants apparently do not look so much towards specific functional fields such as "advertising" or "product development." Rather, they appear to seek overarching contextual knowledge, i.e. training to see the forest rather than the trees. It may therefore behoove faculty who design their executive development courses to offer a coverage which transcends the narrow issue of functional operations and incorporates the strategic dimension of bridging the gap between functions. Finally, the entire issue of relevancy and internationalization should not only be seen in the outward context of executive education, but should rather be linked to existing programs. Faculty who have learned to spar with the best can bring much of this experience back into the "traditional" classroom. The development of a special "executive" faculty may therefore be inadvisable. Furthermore, it should not be forgotten that the executives who come to programs will be going back to their firm and have input into hiring decisions. A well-run executive program may also have a significant impact on future placement opportunities of full-time students.

## REFERENCES

- Fielden, John S. and Jean D. Gibbons, "Merit Myopia and Business School Faculty Publications," Business Horizons, March/April 1991: 8-12.
- Luostarinen, Reijo and Tuija Pulkkinen, International Business Education in European Universities in 1990, European International Business Association, Brussels, 1990.
- Mann, Robert W. and Julie M. Staudenmier, "Strategic Shifts in Executive Development," Training and Development, July 1991: 37-40.
- "Older, wiser: Executives need educating, too," The Economist, March 2, 1991, 16.
- O'Reilly, Brian, "How Execs Learn Now," Fortune, April 5, 1993: 52-58.
- Parasuraman, A., "Commercial Marketing Researchers' Evaluations of Academic Journals and Marketing Research Education," Journal of Marketing Education, Fall, 1981: 52-58.
- Ricks, David A. and Michael R. Czinkota, "International Business: An Examination of the Corporate Viewpoint," Journal of International Business Studies, Fall 1979: 97-100.
- The Academic Programme of the Proposed Oxford University Templeton School of Management: Structure and Financial Implications, Oxford University, 1991.
- Ulrich, D., "Executive Development for Competitiveness," in A.A. Vicere (ed.) Executive Education: Process, Practices and Evaluation, Princeton, Petersons, 1989.

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\* Thanks are due to the Max Bell Foundation for funding the data collection.

**TABLE 1: Mean Importance Ratings (content)**  
**for those preferring a North-American Program vs. those preferring a European Program**  
 (Significant differences at .05 levels are indicated by an asterisk)

|                                    | <b><u>PREFER<br/>NORTH-AMERICAN</u></b> | <b><u>PREFER<br/>EUROPEAN</u></b> |
|------------------------------------|-----------------------------------------|-----------------------------------|
| Theoretical concepts               | 2.93                                    | 2.85                              |
| Best practices                     | 4.36                                    | 4.64                              |
| Strategy information               | 4.26                                    | 4.47                              |
| Historical context                 | 2.66                                    | 3.06                              |
| Political context                  | 3.26*                                   | 3.85                              |
| Social responsibility of marketing | 2.93*                                   | 3.41                              |
| Product standardization            | 3.13*                                   | 3.64                              |
| Global advertising                 | 3.66                                    | 3.52                              |
| Foreign entry modes                | 4.00*                                   | 4.44                              |
| Role of governments                | 3.5*                                    | 4.20                              |
| Trade regions                      | 3.36                                    | 3.79                              |
| Developing countries               | 3.06                                    | 3.23                              |
| Japanese marketing                 | 3.66                                    | 3.94                              |
| EC and 1992                        | 4.46                                    | 4.52                              |
| Eastern Europe                     | 3.43*                                   | 4.14                              |
| Former Soviet Union                | 3.20*                                   | 3.97                              |
| Very practical concepts            | 4.26*                                   | 4.67                              |
| Sound business advice              | 4.20                                    | 4.20                              |
| Focus on people skills             | 3.63                                    | 3.73                              |
| Adapted to your firm               | 3.43                                    | 3.84                              |



# BUSINESS PERFORMANCE OUTCOMES OF SERVICE QUALITY: A CONCEPTUAL MODEL

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## ABSTRACT

Because existing models of service quality are based on consumer behavior theory, they are limited to a focus on the customer's evaluation of the service encounter and they ignore business performance as the desired outcome of service quality. A Model of the Business

Performance Outcome Process is introduced to explain the relationships between behavioral and financial outcomes that are encompassed in the business performance component of a service quality system.

## INTRODUCTION

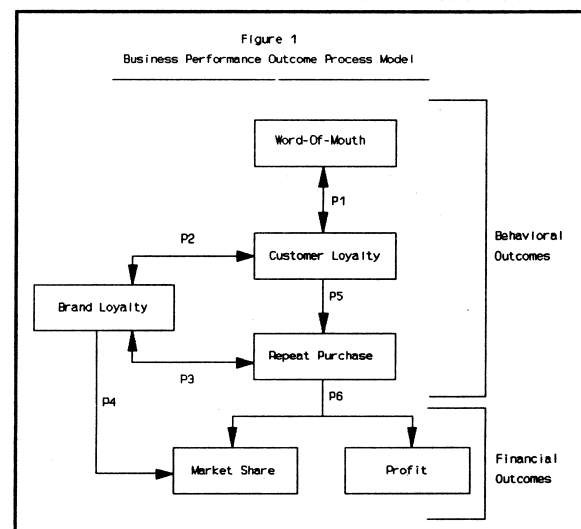
Existing models of service quality focus on the delivery of service and the customer's evaluation of the service encounter, but they do not include the outcome or result of the service quality delivery system. The outcome is *assumed* to be financial business performance. There is an abundance of anecdotes, references in the popular literature, and statements in research studies which assume service quality leads to business performance. However, there is a dearth of empirical studies that support this assumption. The purpose of this paper is to present a conceptualization of the business performance component of the service quality system and to develop propositions for future research in this area. The premise of the conceptualization is that business performance is a two-stage process. Service quality initially leads to desired behavioral outcomes which are the antecedents of the subsequent financial outcomes.

## BUSINESS PERFORMANCE OUTCOME PROCESS MODEL

Various models of service quality have been developed (Gronroos 1984; Parasuraman, Zeithaml and Berry 1985) which aid in the understanding of the concept. However, existing models do not include the *reason* for service quality. Why should marketers and other practitioners commit the human, financial and other resources necessary to deliver service quality? What is in it for them? Business performance outcomes, which are assumed to be the pay-back from service quality implementation, are obvious only in their omission from models of service quality. The need exists for research in

the service quality arena which will empirically link service quality with the business performance outcomes that proponents of service quality desire and assume to exist. It is the premise of the Business Performance Outcome Process Model (Figure 1) that customer responses cannot be separated from business performance outcomes, but are actually the first step in the two stage outcome process. The general proposition posited by this paper is:

The component of service quality labeled business performance encompasses a two stage process of first engendering desired customer behavioral outcomes which then lead to financial outcomes.



## Relationships Among Behavioral Outcomes

The initial relationship between customer behaviors in the Business Performance Outcome Process Model is between word-of-mouth communication and customer loyalty. The

association between these two postpurchase consumer behaviors is a reciprocal relationship. Murray's (1991) research explores the use of information sources by service customers. He concludes that word-of-mouth communication is an important source of information in the decision-making process associated with the purchase of services. Positive word-of-mouth achieved by service businesses provides the basis for continued service usage by loyal customers. The reverse relationship is advocated by Reichheld and Sasser (1990) and Heskett, Sasser and Hart (1990). These researchers report that loyal customers are the most vocal in telling other customers or prospective customers about their successful, long-standing relationships with service providers.

**P1:** Favorable (unfavorable) word-of-mouth communication from customers of service firms will correlate positively (negatively) with the customer loyalty to that service provider.

Brand loyalty has a major impact on the Business Performance Outcome Model. The literature indicates brand loyalty is linked to three other variables in the model--customer loyalty, repeat purchases and market share. In their discussion of performance outcomes, Day and Wensley (1988) describe customer loyalty as a measure of competitive advantage. The researchers claim that the depth and quality of the customer franchise, or customer loyalty, toward the firm's products is a response that precedes market share and profitability. They state that "strong brand loyalty is the most common indicator of a valuable customer franchise" (Day and Wensley, p. 15).

**P2:** Brand loyalty of customers of a service firm will correlate positively with the customer loyalty to that firm.

The relationship between brand loyalty and repeat purchases is supported in the literature. Indeed, there is a definitional link between the two variables; the term "loyalty" connotes behavior over time, and it is necessary to purchase over time (or repeat purchase) to be considered loyal behavior. Cohen and Houston (1972) refer to this condition of purchases over time in their study of toothpaste consumers. Brand loyalty leads to routinized behavior so the consumer can spend time and effort elsewhere. In other words, repeat purchases are a strategy used by consumers to reduce cognitive effort.

Jacoby and Kyner (1973) made a significant contribution to the theoretical link between brand loyalty and repeat purchasing behavior. Through their experimental study, they supported the hypothesis that although repeat purchasing behavior and brand loyalty appear to be one and the same, they are indeed separate constructs. The underlying dynamics of the two constructs are different. The researchers found that observation of behavior solely, with no consideration of attitude, is not a complete measure of brand loyalty. In his study of laundry detergent consumers, Hoyer (1984) found that brand loyalty is an antecedent to repeat purchases. Purchases made frequently over time are based on the judgments of brand satisfaction which occur in the post-purchase evaluation stage after usage. Resulting brand loyalty functions as a simple decision heuristic when the brand is repeatedly purchased. Although LaBarbera and Mazursky (1983) accept this assumption that the cognitive process, i.e. using heuristics, is important in predicting repurchase behavior, they assert that situational factors also mediate the relationship between brand loyalty and repeat purchase. These situational factors include coupons, sales, and consumers' prior experiences with the brand. In studying data from a consumer panel, they measured brand loyalty based on the number of successive purchases of the same brand. This operationalization of brand loyalty supports the interrelatedness of brand loyalty and repeat purchases, but differs from Jacoby and Kyner's (1973) assertion that brand loyalty and repeat purchases are separate constructs.

**P3:** Brand loyalty of customers of a service firm will correlate positively with the level of repeat purchases of those customers.

The third variable in the Business Performance Outcome Process Model that has been shown to be impacted by brand loyalty is market share. Raj (1985) concluded that there is a positive relationship between a brand's user share and its strength of brand loyalty. He proposed that brands which seek to improve their market share must be able to increase the number of share users and develop customer loyalty of those users.

**P4:** The greater the number of brand loyal customers of a service firm, the greater the market share of that service provider.

The involvement of brand loyalty in the Business Performance Outcome Model is clear.

Even though there is no consensus regarding the definitions of customer loyalty, repeat purchases, or even market share, there does seem to be agreement that brand loyalty plays a critical role in the process that results in financial outcomes. Based on his research in the food industry, Rothschild (1987) warns that while brand loyalty is still strong in certain categories, brand loyalty is slowly dying in other classes of products where the perceived difference is price. Marketers should be aware that they have conditioned consumers to seek a "deal" and to become more promotion loyal than brand loyal over time. This trend has implications for service providers. Because of the important role brand loyalty plays in the process leading to financial outcomes, service firms must develop strategies to create strong brand loyalty among its customers.

The literature moderately supports the assumption that the development of customer loyalty then leads to repeat purchases. The empirical testing of Oliva, Oliver and MacMillan's (1992) catastrophe model suggests that service quality affects customer loyalty which ultimately leads to repeat purchasing. The PIMS data (Buzzell and Gale 1987) imply that businesses with a superior service offering clearly outperform other firms on stronger customer loyalty and repeat purchases. Although Buzzell and Gale (1987) do not recognize a causal relationship as Oliva, Oliver and MacMillan (1992) do, they do imply that these behavioral outcomes precede financial outcomes. Because repeat purchases, or sales, function as the transition from behavioral outcomes to financial outcomes, further research is required to investigate the determinants of repeat purchasing and the direct effect customer loyalty has on repeat purchases.

**P5:** The stronger the loyalty of customers of a service provider, the greater the repeat purchases of those customers.

#### **Relationships Among Financial Outcomes**

The outcome process progresses from behavioral to financial outcomes at the point of transition from repeat purchases to market share. Data from PIMS businesses support the hypothesis that more repeat purchases from loyal customers lead to market share improvements. Surprenant (1977) based her experiment in customer satisfaction on the premise that

desirable consequences such as repeat purchases lead to increased market share. The relationship between market share and profitability is similar to that of customer satisfaction and service quality in that researchers seem to agree they are related but there is lack of consensus regarding the nature of the relationship. Early research by Catry and Chevalier (1974), supported by the Marketing Science Institute, found market share to be positively related to profitability. This finding derives from the concept of break-even--the higher the sales, the higher the profit. In 1975, however, Bloom and Kotler questioned this belief. They asserted that large market share can create *problems* for a company as well as *profits*, and that some companies may reach a point at which expected costs and risks of expanding market share actually outweigh the gains in profitability. In spite of the lack of agreement on the temporal and causal relationship between market share and profit, researchers and practitioners position the payoff of delivering superior customer service as market share and profitability (Day and Wensley 1988).

**P6:** The greater the repeat purchases of customers of a service firm, the greater the financial outcomes of the firm.

### **DISCUSSION**

Developing a conceptualization of the business performance outcome of service quality is important to both managers and researchers. In spite of numerous anecdotes and claims in the literature that service quality leads to profitability, market share and other financial outcomes, managers still lack hard evidence linking quality with the bottom line (Garvin 1983). By viewing business performance as a process, managers will be able to focus on the strategies that will be most effective in creating the behavioral outcomes that function as antecedents to the financial outcomes. Service providers should develop methods for measuring and improving the effectiveness of their strategies to engender positive word-of-mouth communication, customer loyalty, brand loyalty, and repeat purchases. By monitoring these outcomes, managers will be able to determine how effectively their service quality system is performing. Perhaps the results of their efforts are not evidenced in the bottom line in the early stages of service quality implementation. For this reason, during this period managers should not evaluate

their service quality on financial outcomes but on customer behavior criteria. Developing desired behaviors is the first, and necessary step, in the process.

Managers may have to be patient and continue to invest resources in the program with no *apparent* results. If managers realize business performance is a two stage process, they will be satisfied with accomplishing the first stage and be willing to wait for the second stage--financial outcomes. Gaining profitability and market share through service quality is a long term strategy. Often businesses "give up" on implementation of a service quality system too quickly because they are evaluating the success of the system based on financial criteria only. The efforts toward the successful implementation of a service quality system will be in vain if top management continues to reward solely in terms of short term profitability and rate of return measures (Webster 1988). Understanding business performance as a two step process must permeate the entire service organization, from the top down.

#### **DIRECTIONS FOR FUTURE RESEARCH**

Given today's interest in quality and the delivery of value, research regarding the business performance outcomes of service quality can make a valuable contribution to academicians and practitioners. The Marketing Science Institute (1992) has identified one of their research priorities areas for 1992-1994 research as the need to identify the links between a customer orientation and financial performance. Researchers in the area of service quality are challenged to close the gap between the claims that service quality leads to profitability in a firm and the lack of empirical evidence to support this claim.

Current studies purporting empirical support for the linkage between quality and financial outcomes usually are concerned with physical product quality, not service quality. There is a need for research in the specific area of service quality. For practitioners to "buy in" completely to the notion of service quality, researchers must provide evidence that businesses will get a financial return on their investment in implementing, measuring, and improving the level of service they provide their customers.

Managers of service firms need to develop

strategies for creating and strengthening the behavioral outcomes of positive word-of-mouth communications, customer loyalty, brand loyalty, store loyalty, and repeat purchases. Research focusing on these customer responses in a service setting could assist managers in this task. In addition, managers need systems for evaluating and improving these behaviors. Traditionally, businesses use financial outcomes as the measure of success of their service delivery because those figures are accessible and easy to evaluate. However, once managers realize that monitoring customer behaviors is the first step in evaluating their service delivery, they will need methods to measure customer response behaviors (e.g., word-of-mouth, repeat purchases).

#### **REFERENCES**

- Bloom, Paul and Philip Kotler (1975), "Strategies for High Market-Share Companies," Harvard Business Review, (November-December), 63-72.
- Buzzell, Robert and Bradley Gale (1987), The PIMS Principles: Linking Strategy to Performance, New York: The Free Press.
- Catry, Bernard and Michel Chevalier (1974), "Market Share Strategy and the Product Life Cycle," Journal of Marketing, 38 (October), 29-34.
- Cohen, Joel and Michael Houston (1972), "Cognitive Consequences of Brand Loyalty," Journal of Marketing Research, 9(February), 97-99.
- Day, George and Robin Wensley (1988), "Assessing Advantage: A Framework for Diagnosing Competitive Superiority," Journal of Marketing, 52 (April), 1-20.
- Garvin, David (1983), "Quality on the Line," Harvard Business Review, 61 (September-October), 65-73.
- \_\_\_\_\_, Managing Quality: The Strategic and Competitive Edge, Free Press: New York, 1988.
- Gronoos, Christian (1984), "A Service Quality Model and Its Marketing Implications," European Journal of Marketing, 18(4), 36-44.

- Heskett, James, W. Earl Sasser and Christopher Hart (1990), Service Breakthroughs: Changing the Rules of the Game, New York: The Free Press.
- Hoyer, Wayne D. (1984), "An Examination of Consumer Decision Making for a Common Repeat Purchase Product," Journal of Consumer Research, 11(December), 822-829.
- Jacoby, Jacob and David Kyner (1973), "Brand Loyalty Vs. Repeat Purchasing Behavior," Journal of Marketing Research, 10 (February), 1-9.
- LaBarbera, Priscilla and David Mazursky (1983), "A Longitudinal Assessment of Consumer Satisfaction/Dissatisfaction: The Dynamic Aspect of the Cognitive Process," Journal of Marketing Research, 20 (November), 393-404.
- Marketing Science Institute (1992), Research Priorities 1992-1994, Cambridge, MA: Author.
- Murray, Keith (1991), "A Test of Services Marketing Theory: Consumer Information Acquisition Activities," Journal of Marketing, 55 (January), 10-25.
- Oliva, Terence, Richard Oliver and Ian MacMillan (1992), "A Catastrophe Model for Developing Service Satisfaction Strategies," Journal of Marketing, 56 (July), 83-95.
- Parasuraman, A., Valarie Zeithaml and Leonard Berry (1985), "A Conceptual Model of Service Quality and Its Implications for Future Research," Journal of Marketing, 49 (Fall), 41-50.
- Raj, S. P. (1985), "Striking a Balance Between Brand 'Popularity' and Brand Loyalty," Journal of Marketing, 49 (Winter), 53-59.
- Reichheld, Frederick and W. Earl Sasser, Jr. (1990), "Zero Defections: Quality Comes to Services," Harvard Business Review, 68 (5), 105-111.
- Rothschild, Michael (1987), "A Behavioral View of Promotions Effects on Brand Loyalty," M. Wallendorf and P. Anderson, eds., Advances in Consumer Research, Vol. 14, 119-120.
- Surprenant, Carol (1977), "Product Satisfaction as a Function of Expectations and Performance," Ralph Day, ed., Journal of Customer Satisfaction/Dissatisfaction, Complaining Behavior, 36-37.
- Webster, Frederick, Jr. (1988), "The Rediscovery of the Marketing Concept," Business Horizons, 31 (May-June), 29-39.

# KAISEN: DEVELOPMENT AND MANAGERIAL USE OF A MULTIPLE-ITEM MEASURE OF EMPLOYEE PERCEPTIONS OF QUALITY IMPROVEMENT EFFORTS

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## ABSTRACT

*Kaisen*, or continuous improvement, has become the cornerstone of the quality movement. Measuring the changing perceptions of internal customers has been relatively unexplored, even though companies have increasingly embraced the tenets of Total Quality Management and its focus on customer satisfaction and continuous improvement. First, we report the development of a scale which measures efforts relating to internal customers' perceptions of the level of implementation of quality improvement principles. Second, we report on the use of the scale by decision-makers, including identification of employee subgroups that differ in their perceptions of the company's quality improvement efforts.

## DOMAIN SPECIFICATION AND INTENDED USE

The research team defined five major areas for measurement within this context: employee satisfaction; management credibility; employee participation and empowerment; employee expectations and communications, and the level of teamwork within the organization. As quality improvement principles are known to be evolutionary, not only will overall employee attitudes change subtly; employee segments within the organization which may change at a different rate, or even in another direction. In the following, we identify the following employee segments: managerial versus hourly employees, team versus non-team members, gender issues, and union versus non-union employees.

## SCALE DEVELOPMENT AND VALIDATION

Individual scale items were iteratively developed by members of the management team, various other employees and the academic investigators. Together, there were 30 specific statements designed to measure the five major areas. The sample frame of this study was all employees of an airline catering service com-

pany. To assess the correlations between the variables and the underlying dimensions of the KAISEN scale and the internal consistency of the scale, the employees who answered all 30 questions were first randomly split into two groups. The exploratory analysis data ( $n=495$ ) was first subjected to exploratory maximum-likelihood factor analysis. Five of the items either loaded on more than one factor, or did not load significantly on any factor. These items were eliminated, and a review of the factor matrix from a subsequent factor analysis indicated that instead of the five dimensions that were expected, a unidimensional scale emerged (Eigenvalue = 10.96, explained variance = 43.8%). The 25-item scale was then subjected to reliability analysis. The Cronbach alpha was 0.95. All items exhibited item-to-total correlations greater than the 0.50 level. To further assess the unidimensionality of the KAISEN scale, a confirmatory data analysis group ( $n=499$ ) was subjected to confirmatory factor analysis via LISREL VII. The Normed Fit Index, Normed Fit Index II, and the Tucker-Lewis Index were 0.85, 0.88, and 0.84 respectively.

## MANAGERIAL USES OF THE SCALE

Examination of individual items contained within the scale reveal significant differences between various groups of employees. Managers have more favorable impressions of the company's efforts to implement *kaisen* principles than hourly or non-exempt employees. Those employees who belong to improvement teams also have more positive perceptions of process improvement efforts. However, union employees have lower impressions of these efforts. Finally, though overall differences were found, male and female employees do not view the company's specific process improvement efforts as being significantly different.

# AN EXPLORATORY ANALYSIS OF THE ROLE OF GENDER IN THE DEVELOPMENT OF BUYER-SELLER RELATIONSHIPS

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## ABSTRACT

The advantages of relational rather than transactional marketing exchange strategies are now widely recognized in many markets. This has triggered research to establish the antecedents of relationship quality, with sales personnel's level of customer orientation, trust and ethical credibility receiving attention.

This study adds to previous research by analyzing the role of gender in the development of buyer-seller relationships. There has been much research examining in isolation the effects of gender on buyer behavior and on the effectiveness of sales personnel. However, the effect of gender on the interaction of buyer and seller, and its contribution to relationship development has received little attention.

A survey of 568 customers of financial services brokers compared dyads defined by the gender of both the customer and their broker. To analyze customers' perceptions of relationship quality, a survey based on the previously validated SOCO scale was used. Many of the underlying dimensions of the scale correspond to constructs frequently cited in both the social psychology and relationship marketing literature, especially empathy, customer orientation and selling orientation.

The study hypothesized that relationship quality as perceived by customers is higher where the seller is female rather than male. This is in accordance with the gender literature assertion that among feminine traits is a greater concern for others and resolution of conflict by compromise and negotiation, compared to male traits of self-seeking goal orientation and resolution of conflict by confrontation.

The results indicate that dyads do exhibit significant differences in terms of buyers' perceptions of some aspects of relationship quality, especially sellers' empathy and perceived pressure. However, the expected result that female sellers were perceived as showing more empathy and less selling pressure does not occur in a simple manner, with differences in these constructs relating more to the gender combination of buyer and seller. A number of reasons for this are suggested, including the possibility that female financial brokers are acting outside of their feminine role, resulting in disconfirmation of buyers' expectations. Also, gender *per se* may be a less useful basis for comparison than self-perceived gender schema.

For more information, contact either author.

# EFFECTS OF ACCULTURATION ON IMMIGRANT CONSUMERS' PERCEPTIONS OF ADVERTISEMENTS

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## ABSTRACT

The purpose of this study was to compare immigrant consumers' perceptions of ethnic versus American advertisements and to determine if these perceptions varied with the consumers' acculturation. While studies of ethnic minorities indicate that acculturation plays a role in buying, consumption, and media patterns, there has been very little research on their responses to specific advertisements. The immigrant group selected was first-generation Asian-Indian adults coming from India. Their high growth rate and very favorable socio-economic characteristics provide an opportunity to marketers.

Based on pretest results pairs of Indian and American shampoo and suit advertisements were chosen as the experimental manipulation. The data were collected under a structured sequence of advertisement exposure and self-administered questionnaires during social events of Asian-Indians sponsored by Asian-Indian Associations in three cities of upstate New York. 929 usable responses were obtained. Twelve advertisement treatment designs were created and each respondent saw a combination of two advertisements. Asian-Indian perceptions of advertisements were measured by attitude towards the advertisement (Aad). Seven items measuring the Aad were taken from Barban (1969) and Mitchell and Olson (1981) studies and their mean was used as the measure of individual respondent's Aad. Acculturation was measured by 20 behavioral related questions adapted from Szapocznik et al. (1978) scale and their mean score was used as a measure of respondent's degree of acculturation. Hypotheses were tested through T-test and the methodology of comparing two separate linear regression equations.

Our results show that when Asian-Indian immigrants are treated as a homogeneous group without considering their degree of acculturation, the preferences for ethnic versus American advertisements are mixed. But when examined from an acculturative perspective, our results show that as acculturation increased, subjects preferred American advertisements more, and ethnic advertisements less. In fact, the coefficient of determination ( $R^2$ ) between Aad and level of acculturation ranged between 0.14 and 0.31 depending on the advertisement. The results imply that immigrant consumers should not be treated as a homogeneous group; marketers must pay attention to cultural differences of immigrants and that the level of acculturation should be considered an important segmentation variable when developing an advertising strategy for immigrant consumers.

## REFERENCES

- Barban, Arnold M. (1969), "The Dilemma of Integrated Advertising," *Journal of Business*, 13 (October), 477-496.
- Mitchell, Andrew A. and Jerry C. Olson (1981), "Are Product Attribute Beliefs the Only Mediator of Advertising Effects on Brand Attitude?," *Journal of Marketing Research*, 18 (August), 318-332.
- Szapocznik, Jose, Mercedes Arca Scopetta, William Kurtiness and Marie de Los Angeles Arnalde (1978), "Theory and Measurement of Acculturation," *Interamerican Journal of Psychology*, 1(2), 113-130.



# THE ROLE OF PUBLIC RELATIONS MANAGERS IN CONSUMER PRODUCTS COMPANIES IN GREAT BRITAIN, IRELAND, FRANCE AND GREECE: A COMPARISON STUDY OF DEMOGRAPHIC INDIVIDUAL CHARACTERISTICS AND JOB-RELATED ATTITUDES

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## ABSTRACT

This comparative study investigated how public relations managers from four European countries viewed the importance of four basic roles that were found to describe their activities. Further, the cross-cultural differences of

British, Irish, French and Greek public relations managers were compared on demographic individual characteristics, rank importance of their work-related attitudes.

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## INTRODUCTION

The recent increase in the numbers of managers pursuing careers in public relations management in European firms has created a need to improve our understanding of the role, profile and job related attitudes of the European public relations manager. Despite the increasing popularity having public relations managers among European firms, little is known about the position and the characteristics of individual public relations managers.

## RESEARCH OBJECTIVES

Given this apparent void in the literature the purpose of this article was to empirically compare profiles of PR managers on demographic individual characteristics, role played, rank importance of their activities and behavioral attitudes (job related factors). Furthermore, the article intended to provide some current information and insight into this area by replicating and extending a number of studies in the product (Lysonski 1985, Panigyrakis et Glynn 1993, Cummings et al. 1989) and salesforce (Avlonitis et al. 1986, Jonston et al. 1988, Wotruba 1990, Ramaswami et al. 1993) management literature, following the call of researchers in these areas who have urged that the generalisability of their findings be tested by future studies. Clearly, the need for replicatory studies has been established for progress to be made in public relations research. However, few replicatory studies have been reported to date. While articles have been written explaining the major reasons of management's lack of attention to

public relations, identifying basic attitudes, measuring actual opinions, research about European Public Relations (EPR) managers is extremely limited.

### Hypothesis Development and Study Design: Data Collection Instrument and Procedures.

#### 1. Demographic individual characteristics.

H1: British, French, Irish and Greek PR managers have similar individual demographic characteristics.

#### 2. Role played-Rank of Importance of Activities.

H2: British, Irish French and Greek PR managers rank the order of the importance they attach to the various components presenting their overall role or function.

**3. Job-related factors.** Job-related factors have received considerable research attention in product and sales management studies, replicating studies from occupational and applied social science literature. Yet empirical research on environmental uncertainty, role conflict, role ambiguity, job satisfaction and propensity to leave is nonexistent in the PR literature.<sup>1</sup>

##### 3.1. Environmental uncertainty.

H3(a): British, Irish, French and Greek public relations managers are similar in environmental uncertainty.

##### 3.2. Role conflict.

H3(b): Nationality differences do not affect public relations managers in role conflict.

##### 3.3. Role Ambiguity.

H3(c): Nationality differences do not affect public relations managers in role ambiguity.

### 3.4. Job Satisfaction.

H3(d): There are no differences between British, Irish, French and Greek PR managers in the satisfactions reported for each of the six job components.

### 3.5. Propensity to leave.

H3(e): There is no cross-cultural differences between PR managers in propensity to leave.

A mail survey was adopted as the most efficient data gathering technique. The mailing list of three major international advertising agencies, a national executive recruitment agency specializing in marketing/communication placements, the national trade directories and the Marketing Association Membership in each country, provided a list of companies known to use PRs and in many cases their exact names. Four hundred eighty individuals, 120 from each country, were selected randomly and were sent the questionnaire. They represented an appreciable percentage of the consumer goods public relations managers at the time the list was prepared in the four countries in question. In all 157 usable responses were collected for a response rate of 39,25%. Response rates of this magnitude are not uncommon with samples of marketing executives. For instance, Ramaswami et al. 1993 and Singh 1993, obtained response rates of 30.3% and 25.5% respectively, in their surveys studying different aspects of marketing executives. Based on the reviewed literature, three different sets of variables were chosen for this analysis: demographic and other individual characteristics, (b) activities of the executives and their rank importance and (c) work-related factors. The job related constructs used in this study (e.g. job satisfaction, role ambiguity, role conflict) were measured using multi-item scales. As it can be seen from [table 1](#), the reliability coefficients for the variables in this study were all in excess of .6 that is generally accepted as a satisfactory indicator of scale reliability and therefore, acceptable for social research, Nunnally 1978. Further, these values compare favorably with those found by other researchers, Panigyrakis & Glynn 1993, Jonston & Futrell 1989.

- For the study of the environmental uncertainty an instrument with 12 interval-scaled items was used. This instrument was adapted from a scale developed by Duncan 1972 who identified the main dimensions of uncertainty in decision making.

- Role conflict was measured by using the eight-statement instrument developed by Rizzo, House, and Lirtzman 1970 role perception scales. These scales have been used extensively in previous research about product and sales managers roles. Rizzo et al. 1970 and Schuler et al. 1977 have reported on the psychometric soundness of the scale.

- Role ambiguity was measured with a 12-item scale developed by Ford & Churchill, 1976. The items ask how certain/uncertain one is with respect to limits of authority from ones role senders. The scale has been used successfully in a number of settings Churchill, Ford & Walker 1976.

- Job satisfaction was measured with a seven-item Likert scale. The first four items are those used by Pruden and Reese 1972 and the other three were designed explicitly for the specific requirements of this study.

- The propensity to leave index was developed by Donnelly and Ivancevich 1975. On a 3-point scale the respondent indicates one of the following: "prefer to work in this company", "undecided, or "prefer not to work in this company".

## RESULTS-DISCUSSION

### Characteristics of Respondents - PR Manager Profile.

**Age.** The average age of the public relations managers surveyed was 37.8 years of age. 57.5% of our sampling were under 36 years of age (81.7 are under 40).

**Education.** 91.5 % of the Public Relations managers surveyed were college graduates. According to our study, this level of education was the minimum requirement for advancing at this post. Only 8.5 % of Public Relations managers were able to advance to this position without a college degree. Of those who attended universities, only 13.4 % have post-graduate degrees (M.A., M.Sc., M.B.A., Ph.D.). 12% of managers held two college degrees. Managers under 33 were not significantly more educated than those over 33. There is some diversity in the type of college degree earned by Public Relations managers as a variety of undergraduate fields appeared in the public relations managers' educational background. The majority of the

respondents have degrees in social sciences and business (69.5 %). Clearly, marketing/communication education is viewed as an important component of the public relations manager's academic credentials. The value of advertising or communication experience is emphasized. As to personal skills, the managers surveyed underline the importance of communication, decision making and creativity skills.

**Employment History.** Public Relations management is seldom an entry level position for the recent graduate. Only about 7% of the respondents started out their working careers in public relations, usually at the assistant level. The first position in the public relations manager's career can be quite varied. Respondents indicated a large diversity of otherwise unclassified starting positions, beyond these, the most frequently cited first position is in journalism, marketing or advertising. The public relations manager is somewhat of a job-hopper on the way to his current position. Only 23 % of the respondents still worked for the company with which they started in public relations and 18 % had been with three or more companies. A management concern could be whether this practice continues. However, 70 % of the current public relations managers stated that they expected to continue in the same company. Descriptive statistics were calculated and significance tests were done to determine what variables differentiated between the four groups of PR managers. Results of T-test and chi square tests indicated no significant differences between the four groups with respect to age, gender, experience or education. A chi-square test produced the following:

Age:

$\chi^2 = 4.766$ ,  $df = 3$ ,  $p < 0.59$ ,

Gender:

$\chi^2 = 1.92$ ,  $df = 1$ ,  $p < 0.21$ ,

Total experience:

$\chi^2 = 4.41$ ,  $df = 3$ ,  $p < 0.08$ ,

Education level:

$\chi^2 = 6.99$ ,  $df = 3$ ,  $p < 0.057$ ,

Professional experience:

$\chi^2 = 5.86$ ,  $df = 6$ ,  $p < 0.54$ ,

Experience with current organization:

$\chi^2 = 6.88$ ,  $df = 2$ ,  $p < 0.048$ .

The four groups of PR managers (British, Irish, French, Greek) had virtually identical demographic characteristics and work histories. The findings are consistent with the reported results from other research on product or sales

managers. The lack of demographic differences can be explained by the fact that PR personnel are hired from a relatively homogeneous population.

**Roles of the Typical PR European Executive - Rank Importance.** The pattern of responses by survey participants strongly suggests that the public relations manager's position was a firmly established in their organizations for conducting many internal and external to the firm communication activities adding that their position would "definitely" or "probably" be kept and further developed in the near future. Past research indicates that the traditional view is that the typical PR's role involves fifteen principal activities (Greyser 1981).

**Mean Scores-Factor Analysis.** As a first look at the data and to explore differences in importance scores across the four samples, mean scores were calculated for each of the 15 elements of individual PR tasks for each sample. As a final step in the data analysis, principal components analysis was performed on the four sets of data with a varimax rotation was used to ascertain the number of underlying dimensions or roles of PRs on the four sets of data. This procedure was performed on the importance scores of the 15 individual PR tasks in the questionnaire. The roots criterion and scree test, Stewart (1981) was used to determine the number of factors to extract. Analysis of the British sample produced 10 factors with eigenvalues greater than 1.0 explaining 86.1% of the variance in the data. The analysis produced for the Irish, the French and the Greek sample the same 10 factors with eigenvalues greater than 1.0, explaining 87.4%, 85.7% and 81.9% of the variance of the data respectively. A multivariate analysis of variance showed an insignificant main effect of the source (nationality) of rating  $F = 4.97$ ,  $p < .001$  with a multivariate test-Wilks:  $F = 5.84$ . In order to get a more detailed picture, cluster analyses were performed on the collected data to develop a taxonomy of public relations manager's roles, considering their ten most important activities, considered in the previous analysis. Several different cluster analyses were performed, all generating a high level of consistency across the different clustering results, suggesting quite solid findings.

This study reports in detail only the analysis where all ranks were recorded in a binary form

(1 = an effect was ranked among the top five most important by a respondent, 0 = otherwise). Ranking of all two types of nationals were considered simultaneously in developing the taxonomy of objectives. The clustering algorithm used was CONCOR although other algorithms generated quite similar results. CONCOR results for these ranking data are presented in [Table 2](#). The application of various statistical tests suggested that four clusters adequately grouped the data in the present analysis. The resulting averages are presented in [table 3](#). The overall average of the importance of objectives for the four different types of nationals was 0.433 with a standard deviation of 0.351. A designation of "H" (for high) was given to any cell average that is one standard deviation or greater above the overall mean. A designation of "L" (for low) was given to any cell average one standard deviation or more below the overall mean. Averages with one standard deviation below or above the mean was designated by an "M" (for medium). When the rows were examined none of the contrasts was significant at the traditional acceptable levels (t-value), cluster One. The conclusion that we arrived was that there were no cross-cultural differences between British, Irish, French and Greek PR managers in the rank order of the importance they attach to the various components presenting their overall role or function.

**Differences in Environmental Uncertainty, Role Conflict, Role Uncertainty, Job Satisfaction and Propensity to Leave.** A chi-square test was used to test the hypotheses H3(a), (b), (c), (d) and (e). The data provided initial support for accepting all these hypotheses. In order to get a further insight of the results a multivariate analysis of variance (F-test) was used to assess homogeneity of variance assumption between the different nationals ([table 4](#)). The findings showed no significant main effect of source of rating (country of origin) with  $F = 15.61$ ,  $p < .001$  and were consistent with the hypothesized relationships. Only the Greek PR managers were not as clear on what they need to do on the job and how they were supposed to do their jobs. Also, they didn't believe the policies, rules, procedures and regulations of the company and their department were as clear as those of their colleagues in U.K., Ireland and France. No one of the contrasts of means was significant. In the case of the job satisfaction components the value of Spearman's rank correlation coefficient was  $r(s) = .976$  at  $\alpha = .01$ ,

indicating a high degree of similarity between the four groups public relations managers in the rank order of the importance they attach to job satisfaction components.

## CONCLUSIONS - IMPLICATIONS

This study has attempted to fill what appears to be a void in the public relations literature. Specifically, information has been provided on the backgrounds and career paths of PR managers and some insight has been gained into their opinions. The background variables consisted of demographic/individual characteristics, role played and behavioral factors. Although this study didn't neatly replicate previous research efforts because of different research objectives, a number of conclusions and implications can be drawn.

- The majority of PR managers obtained their positions primary on the basis of their education rather than on their mere experience.
- There was no disagreement among the four groups of PR of this study in defining the areas of activity concerned by them and the relative importance of each area.
- All of the hypotheses tested indicated that there British, Irish, French and Greek PR managers are quite similar in environmental uncertainty, role conflict, role ambiguity, job satisfaction components or propensity to leave the organization.
- Future research might focus productively on confirming the relationship of the behavioral variables used following the lines of sales and product management studies.

One limitation of the study is the singular focus on the PR manager's perceptions regarding his role. It is possible that superiors or peers may have different perceptions of his exact role. From these limitations, direction of future research emerge. First, a sampling frame must be developed which leads to a random sample of firms using PR managers in the countries concerned. Second the possible differing between PR managers and their superiors also need to be examined. In summary, the findings of this study prove PR managers in four European countries don't differ considerably in four EEC countries.

<sup>1</sup> To our knowledge, there is no trace of one piece of research in the ABI index, the index of Humanities Studies or the index of Applied Social Sciences (September 1993).

**Table 1. Behavioral Job Related Attitudes and Accompanying Reliability Analysis**

| Variable                         | Scale                     | No of items | Mean | SD  | Crombach Al. |
|----------------------------------|---------------------------|-------------|------|-----|--------------|
| Behavioral Job Related Attitudes | Environmental Uncertainty | 12          |      |     |              |
|                                  | Role Conflict             | 8           | 34.3 | 7.2 | .861         |
|                                  | Role Ambiguity            | 12          | 31.2 | 7.0 | .854         |
|                                  | Job Satisfaction          | 11          | 45.6 | 9.1 | .798         |
|                                  | Propensity to Leave       | 3           | 12.5 | 8.8 | .663         |

**Table 2. Clustering results.** Algorithm was CONCOR (Breiger et al., 1975). Alfa outoff was 0.90 . Data was binary. Ranking of all two types of executives (British and French) were considered simultaneously in developing the taxonomy of objectives.

| Cluster number | Objective numbers | Description of cluster (objectives) |
|----------------|-------------------|-------------------------------------|
| I              | 7,9               | Experts prescribers                 |
| II             | 2,3,6             | Communication technicians           |
| III            | 1,4,5             | Communication facilitator           |
| IV             | 8,10              | Problem solving process facilitator |

**Table 3. Fractions of times role activities of specific clusters are cited as important among British, Irish, French and Greek PR managers.**

| National samples | Objective cluster One | Objective cluster Two | Cluster Three | Cluster Four |
|------------------|-----------------------|-----------------------|---------------|--------------|
| U.K.             | 0.094<br>"L"          | 0.877<br>"H"          | 0.704<br>"M"  | 0.497<br>"M" |
| Ireland          | 0.469<br>"M"          | 0.711<br>"M"          | 0.646<br>"M"  | 0.515<br>"M" |
| France           | 0.084<br>"H"          | 0.692<br>"M"          | 0.579<br>"M"  | 0.588<br>"M" |
| Greece           | 0.487<br>"M"          | 0.555<br>"M"          | 0.608<br>"M"  | 0.471<br>"M" |

**Table 4. Mean, rank and MANOVA results cross-cultural contrasts of PR managers on environmental uncertainty, role conflict, role ambiguity, job satisfaction and propensity to leave.**

|                                  | U.K. |       | Ireland |       | France |       | Greece |       |          |
|----------------------------------|------|-------|---------|-------|--------|-------|--------|-------|----------|
|                                  | Rank | Mean  | Rank    | Mean  | Rank   | Mean  | Rank   | Mean  | F. Value |
| <u>Environmental uncertainty</u> |      |       |         |       |        |       |        |       |          |
| <u>Role conflict</u>             |      | 70.8  |         | 67.7  |        | 66.4  |        | 73.1  | 7.81     |
| <u>Role uncertainty</u>          |      | 17.1  |         | 14.9  |        | 12.3  |        | 21.3  | 9.77     |
| <u>Job satisfaction</u>          |      | 21.0  |         | 18.6  |        | 17.9  |        | 36.6  | 8.16     |
| -Work                            | 1    | 45.56 | 1       | 43.66 | 2      | 39.88 | 1      | 44.37 | 1.92     |
| -Company                         |      |       |         |       |        |       |        |       |          |
| policy & support                 | 3    | 37.14 | 2       | 41.32 | 1      | 42.75 | 3      | 35.66 | 1.14     |
| -Promotion &                     |      |       |         |       |        |       |        |       |          |
| Develop                          | 4    | 34.52 | 4       | 34.87 | 3      | 37.11 | 2      | 38.19 | 0.08     |
| -Pay                             | 2    | 40.05 | 3       | 37.90 | 4      | 34.22 | 4      | 36.31 | 1.24     |
| -Supervision                     | 5    | 33.40 | 5       | 32.17 | 5      | 33.74 | 5      | 31.85 | 0.58     |
| -Interfaces                      | 6    | 23.84 | 6       | 24.66 | 7      | 19.72 | 7      | 19.05 | 0.76     |
| -Fellow                          |      |       |         |       |        |       |        |       |          |
| Managers                         | 7    | 18.90 | 7       | 19.08 | 6      | 23.33 | 6      | 24.11 | 1.14     |
| <u>Propensity to leave</u>       |      | 22.4  |         | 18.8  |        | 17.4  |        | 19.5  | 0.87     |

Multivariate test (Wilks): F-value 15.62, d.f. 670, sig. 000.

## REFERENCES

- Avlonitis G., K. Boyle & A. Kouremenos (1986), "Matching Salesmen to the Selling Job", Industrial Marketing Management, 15, 45-54.
- Cummings T., D. Jackson D. et L. Ostrom (1989), "Examining Product Managers' Job Satisfaction and Performance Using Selected Organizational Behavioral Variables", Journal of the Academy of Marketing Science, vol. 7, 147-156.
- Donnelly J. and J. Ivancevish (1975), "Role Clarity and the Salesman", Journal of Marketing, 39, 71-74.
- Duncan R. (1972), "Characteristics of Organizational Environments and Perceived Environmental Uncertainty", Administrative Science Quarterly, 17, 313-329.
- Ford N, Walker O. and G. Churchill (1976), "Expectation-Specific Measures of the Inter-Sender Conflict and Role Ambiguity Experienced by Industrial Salesmen", Journal of Business Research, 3, April, 95-112.
- Grunig J. (1984), "What Type of Public Relations Do you Practice?" pr reporter, 27, April 9, 1.
- Habermann Peter et al. (1988), "Sequence Faculty Divided on PR Value Status and New Orientation", Journalism Quarterly, 65(2), Summer, 490-496.
- House R. and J. Rizzo (1972), "Role Conflict and Ambiguity as Critical Variables in a Model of Organizational Behavior", Organizational Behavior and Human Performance, 7, 467-505.
- Jonston M. & C. Futrell (1989), "Functional Salesforce Turnover An Empirical Investigation into the Positive Effects of Turnover", Journal of Business Research, 18, 141-157.
- Jonston Mark et al. (1988), "Performance and Job satisfaction Effects on Salesperson Turnover", Journal of Business Research, 16 (1): 67-83.
- Lyonski S. (1985), "A Boundary Theory Investigation of the Product Manager's Role", Journal of Marketing, (Winter): 26-40.

Nunnally Jum (1978), Psychometric Theory. New York: McGraw Hill.

Panigyrakis G. (1989), "Le Profil du Chef de Produit Francais", Revue Francais de Gestion, September-October, 23-31.

Panigyrakis G. and Glynn L. (1993), "Women as Consumer Product Managers in France", in M. Baker (eds) Perspectives on Marketing Management, J. Wiley, vol. 2.

Pruden H. and R. Reese (1972), "Interorganizational Role-Set Relations and the Performance and Satisfaction of Industrial Salesmen", Administrative Science Quarterly, 17, Dec., 601-609.

Ramaswami S., S. Agarwal and M. Bhargava (1993), "Work Allienation of the Marketing Employees: Influence of Task, Supervisory, and Organizational Structure Factors", Journal of the Academy of Marketing Science, vol. 21, no 3, 179-193.

Singh J. (1993), "Boundary Role Ambiguity: Facets, Determinants and Impacts", Journal of Marketing, Vol. 57, April. 17.

Wotruba T. (1990), "The Relationship of Job Image, Performance, and job Satisfaction to Inactivity-Proneness of Direct Salespeople", Journal of Academy of Marketing Science, 18, nov. 2, 113-121.



# THE ROLE OF WOMEN IN TELEVISION ADVERTISING IN GREAT BRITAIN: A CONTENT ANALYSIS

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## ABSTRACT

A great deal of debate has centered on the role of television advertising. The two dominant positions in this debate have been the "mold" and "mirror" theories. The "mold" theory states that advertising leads societal attitudes, values, and beliefs while the "mirror" theory suggests the opposite. The majority of work supporting these positions comes from studies conducted in the United States. However, this study sought to test the validity of the "mirror" by examining the portrayal of women in British television advertising, and comparing results with those of an earlier U.S. television advertising study. Due to long shared histories and numerous societal commonalities, television commercials aired in Great Britain were chosen for comparison. This study hypothesized these societies should exhibit similarities in the manner in which television advertising portrays demographic groups. In particular, the current work focused on the portrayed roles of women in British advertising. The reasons for this decision were twofold. First, an increase in the study of sexual stereotyping provided strong background support and documentation. Second, this focus allowed replication of a previous study to compare results (Ferrante, Haynes, and Kingsley, 1988).

The method of research used in the current as well as the replicated study was content analysis. This investigation examined three elements: voice-over, on-camera representative, and background characters. The original categories were followed as closely as possible to ensure a high rate of inter-judge reliability. A review of each commercial attempted to determine the following: (a) the gender of the off-camera announcer (voice-over); (b) the gender of the on-camera representative; (c) the location of the commercial (setting); (d) the occupation of the characters portrayed; and

(e) the age of the portrayed. The null hypothesis stated that a significant increase (or decrease) between each U.S. category and the current research category did not exist. The alternative hypothesis was that a significant increase (or decrease) between the results of each study did exist.

The sample was drawn from commercials (all time slots) which aired from July 31, 1992 to August 20, 1992 on the major British television networks (BBC1, BBC2, ITV/LTV, and Channel 4). The sample encompassed 258 commercials. The research results of each category were compared to the U.S. study of Ferrante, Haynes, and Kingsley (1988) using a one-tailed t-test. The results of the current study found commercials airing on British television portrayed women's occupational roles, settings, and age in a stereotypical manner.

Finally, the lag effects present in both television commercials airing in Great Britain and the U.S. study extended the validity of Holbrook's "advertising as a mirror" theory. While the lag detracts from Pollary's "advertising as a mold" position, it also shows Holbrook's mirror to be somewhat blurry. Whether or not advertising will ever catch up with society as a whole is a matter for further debate. Additionally, future longitudinal research will be necessary to track changes in advertising's attempts and ability to truthfully mirror society. Continued cross-cultural inquiries can further test the societal limits of Holbrook's mirror.

References are available upon request.

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# **ANOTHER LOOK AT RETAIL DIVERSIFICATION: SOME EVIDENCE AND SOME CONTRADICTIONS**

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## **ABSTRACT**

The current study focuses on two specific groups of retailers: those firms that became less diversified over a five year period, and those firms that remained diversified over the same five year period. The goal is to see if there is a relationship between either strategy and the operating profits-to-sales ratios for the business segments of the firms involved. The current study makes a secondary contribution by utilizing an entropy measure to determine the degree of retail diversification. The entropy measure has proven more reliable than other classification schemes but has yet to be applied to retail firms.

Motivations for a diversification strategy range from non-operating accounting and financial benefits, to company-wide risk reduction through portfolio ownership, to economies of scope and scale. This research considers differences in operating profits-to-sales ratios in order to minimize the effect of non-operating financial gains that might result from diversification. Should a relationship between diversification strategy and operating-to-sales ratios be observed, this study will provide motivation for future research into retail diversification.

The entropy model was used to measure the degree of diversification of all retail firms in the COMPUSTAT data base that reported operations from 1986 through 1990. Diversified retailers were those firms reporting separate financial information for more than one business segment. Each business segment represents business activity within a single four-digit SIC area. Six retail firms became less diversified from 1986 to 1990. Twenty six diversified retailers maintained their level of diversification, reporting no significant changes in the composition of their business segments throughout the five-year period.

To control for industry-wide change, the operating profits-to-sales ratio for each business segment reported by the thirty two firms in the sample were compared to the average operating profits-to-sales ratio for all firms operating in each business segment. If diversification has a negative impact on business segment operations then the firm-to-industry comparison will improve as the firm becomes less diversified. On the other hand should retailers benefit from diversification, the business segments of those retailers that maintained a diversified strategy will report an operating profits-to-sales ratio that is greater than the industry average.

At the end of the five year period the six less diversified firms reported data on a total of ten business segments. Eight of the ten business segments ended the period with a higher firm-to-industry operating profits-to-sales ratio index. That is, the operating profits-to-sales ratio for eight of the ten business segments in the sample improved relative to the industry average as each firm became less diversified.

The twenty-six firms that maintained a diversified strategy reported results for sixty-one business segments. Twenty-four business segments had an operating profits-to-sales ratio significantly higher than the industry average for the five-year period. Thirty-two business segments reported an operating profits-to-sales ratio that was not significantly different from the industry average. Only five business segments reported an operating profits-to-sales ratio that was significantly less than the industry average for the period. The contradictions suggest that some forms of retail diversification may be beneficial while others are not.

# GENERALIZATION AND APPLICATION OF A REDUCED INDSALES SCALE TO THE RETAIL ENVIRONMENT: A STRUCTURAL EQUATION MODELING APPROACH

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## ABSTRACT

The purpose of this paper is to revise, extend, update, and apply the Indsales instrument (Churchill 1974) using LISREL 8 techniques. The revised scale was tested in a retail

environment, thus extending it beyond the original domain of industrial salespeople. Nomological validity with job involvement and organizational commitment were also tested.

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## INTRODUCTION

Marketing researchers of the past and many today rely on techniques like Cronbach's alpha, exploratory factor analysis, etc. to test the reliability and validity of a construct (Cronbach 1951). While these techniques still have their merits, we believe that marketing would be better served with the use of widely available computer packages such as those for structural equation modeling (Joreskog and Sorbom 1993). While marketing researchers have been using LISREL for over a decade now, it's recognition as a legitimate technique for construct testing and development is still approached with caution. The purpose of this paper is twofold: First, to reduce an existing scale (Indsales) to a more manageable level and second, to test its applicability for use in the area of retail sales. Also, every attempt was made to ensure that the items on the resulting scale were actionable by management, both in the long and short term.

## LITERATURE REVIEW

Most retail sales managers are concerned with justifying their firm's investment in the sales force. With the cost, time, and energy requirements of operating a salesforce at record levels, one of today's top concerns of sales managers is salesperson turnover. When the costs of recruiting, relocation, physical examinations, and training, coupled with cost of management working in the field with the new hire, are added to the opportunity cost of lost business due to an empty sales territory and unrealized sales potential during the transition,

total costs for some firms can range from \$50,000 to \$75,000 per salesperson (Futrell and Parasuraman 1984).

Companies are beginning to realize that job satisfaction is a sleeping giant, inconspicuously swallowing a significant portion of their productivity and profits through increases in employee turnover. Managers are starting to examine the attitudes of their salespeople relative to decision to stay with or leave the firm. Through the measurement and analysis process, some firms are recognizing that preventative action and dealing with employee morale can alleviate problems.

Traditionally, job satisfaction has been defined as an emotional state reflecting an affective response to the job situation (Locke 1974). According to Lawler (1970), job satisfaction is determined by the difference between what individuals expect to get out of their jobs and what the job actually offers. A person will have a high level of job satisfaction when an individual generally likes and values his/her job highly and feels positively towards it. Therefore, satisfaction, by definition, is a work attitude that the individual "evaluates" relative to his/her frame of reference.

Measuring instruments that capture the extent to which people are satisfied with their jobs consist of two general types: those scales which assess overall job satisfaction and those which assess specific facets of satisfaction. This distinction is based upon the reasoning that attitudes can be viewed at several levels of abstractness, ranging from an overall evaluation

of the attitude object, to very specific reactions, to limited features of that object. Scales for the measurement of job satisfaction have been developed by, among others, Churchill et al. (1974) for industrial salespeople; Wood et al. (1986) for marketing practitioners; and Ironson et al. (1989) for general purposes. Within these scales, over fourteen facets of job satisfactions have been identified. Among these are supervision, the company coworkers, working conditions, career progress, promotion prospects, subordinates pay, job security, kind of work, amount of work, personal growth, extrinsic, intrinsic, and others. The type of satisfactions present in a particular work situation depends on the type of job, the position an individual holds, and the work environment.

The Indsales instrument has received widespread acceptance in the marketing literature (Churchill et al 1974; Childers et al 1980). However, only a few efforts at reevaluation or generalization of the scale have taken place since its original development. Childers et al. (1980) reduced the Indsales scale to 61 items in an attempt to develop an more parsimonious construct. Scales need to be reexamined periodically to ensure their continuing validity with regard to time (Roznowsk 1989). Also, scales are sometimes applied to situations for which they have not been validated. This paper will examine a reduced item Indsales scale and test it for use in a retail context.

In addition to testing the facets of the Indsales instrument for retail salespeople, a major objective of this paper is to keep the number of items that measure the construct to a minimum. Various collections of invalidated scales are being used with increasing frequency to assess job satisfaction. The use of invalidated instruments is probably due to the lack of availability of shorter, easier to administer instruments. When using the full instrument is not possible, specific facets of job satisfaction that are of interest to the study have been used. However, using a lengthy instrument severely limits the researcher from adding additional questions to the overall questionnaire without risking a large reduction in response rates.

## **METHODOLOGY**

### **Sample**

A questionnaire was completed by 100 professional retail salespersons in North Dallas

area, of which 93 questionnaires were usable. It covered four basic topics: 1) respondents' perception of job satisfaction; 2) their degree of job involvement; 3) their organizational commitment; and 4) salient demographic information. Respondents recorded their responses to these items on a 7 point semantic differential scale ranging from strongly agree to strongly disagree.

### **Questionnaire Development**

A questionnaire was designed to reduce perceived redundancies in the Indsales instrument. A total of fifteen questions were selected from five underlying constructs. Items that measured the CUSTOMERS and PAY facets of the Indsales instrument were dropped. The CUSTOMERS facet was dropped because of the existence of more thorough scales available to measure this construct (Michaels and Day 1985). Also, this facet measures job characteristics that are beyond the control of most managers. The PAY aspect of the scales was removed due to questions in the literature regarding the relationship between pay and job satisfaction.

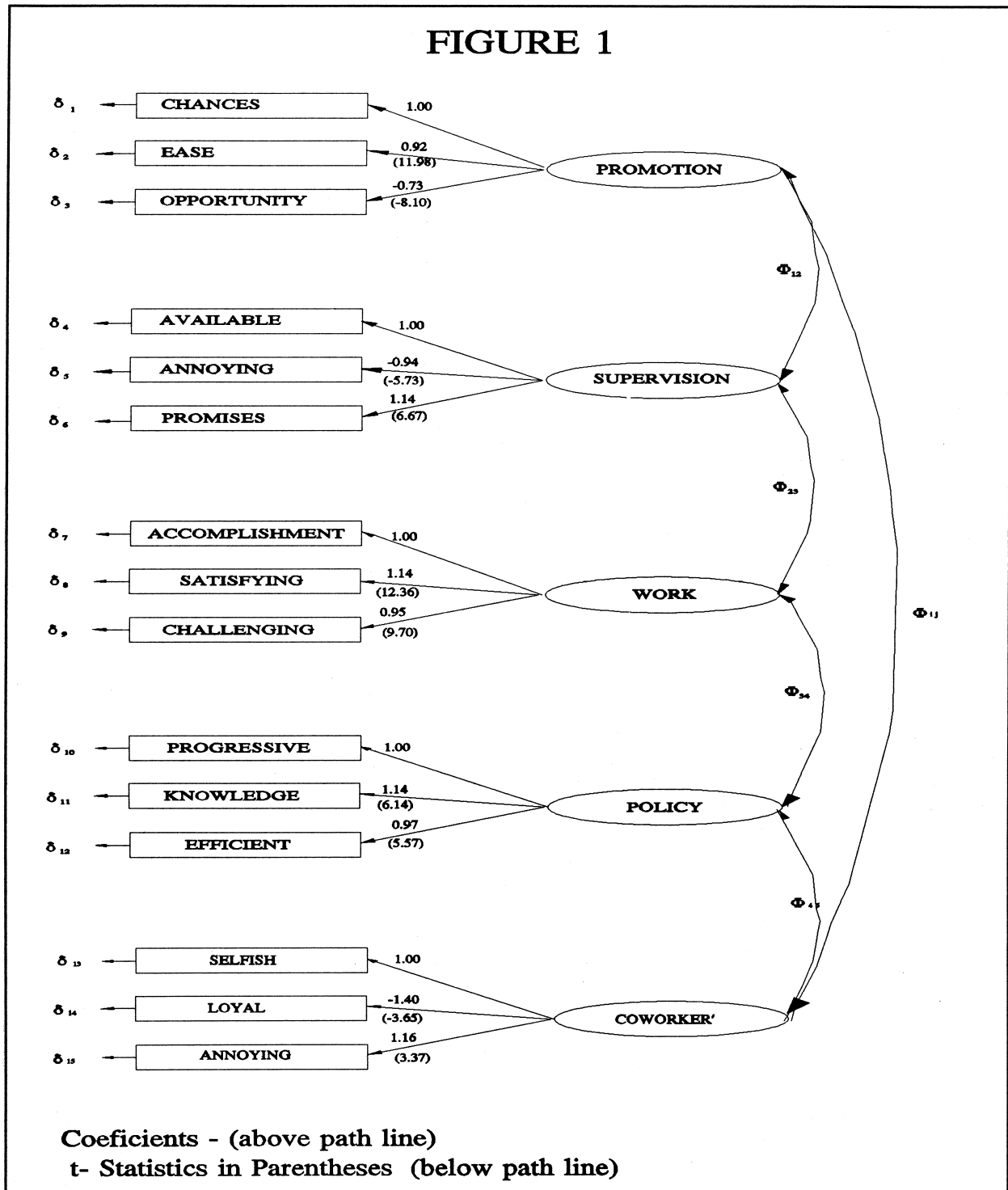
The original scale was thus reduced to five sub-constructs: PROMOTION; FELLOW WORKERS, (hereafter COWORKER); SUPERVISION; THE JOB, (hereafter WORK); and COMPANY POLICY AND SUPPORT, (hereafter POLICY). All of these are within managerial control in the short run. For instance, PROMOTION can be affected by either changing the perception of the employee or restructuring positions. COWORKER can be affected by moving employees to different departments or the removal of employees. SUPERVISION can be affected by changes in managerial behavior or changes in management. The WORK construct can be influenced by changes in the work environment or position responsibilities. Lastly, POLICY can be affected by either moderate changes in managerial policy or better communication of existing policies.

The original items from the Indsales questionnaire concerning the five sub-constructs were used to develop a reduced version that was applicable to retail salespersons. Thirty-seven items from Childers et al. (1980) reduced version of the Indsales survey were used to further reduce the scale to a more parsimonious level.

The principle of internal consistency was used to evaluate and reduce the number of items from the initial pool. Each of the items were assigned a priori to one of the five hypothesized dimensions of job satisfaction, and the reliability for each of these facets were evaluated by calculating coefficient alpha. The item-to-total correlation for each item was also calculated for each facet of job satisfaction.

Finally, the scales were reduced to a total of fifteen items.

Final internal analysis of the reduced scale was conducted by using LISREL 8 software for the analysis of latent variable structural equations (Joreskog and Sorbom 1993). The measurement model is shown in [Figure 1](#) (below).



## Validity

Discriminant validity between the factors was tested with both LISREL 8 and by estimating correlations between the factors. Also, nomological validity was tested for the complete scale by estimating the correlations between the total score on the reduced job satisfaction scale and measures of both job involvement and organizational commitment. The scales used for job involvement and organizational commitment were developed by Michaels et al. (1988) and Dubinsky et al. (1986), respectively.

## RESULTS

The resultant estimates of the analysis are shown in [Figure 1](#) (above). As can be seen, the coefficients are all highly significant ( $p < 0.0001$ ) and of the expected sign. This is a vital, if somewhat easily satisfied, indication of construct validity. The chi-square value is not significant ( $p = 0.075$ ), thus indicating a reasonable fit of the model to the data. The RMSEA point estimate is near (0.051) the 0.05 cutoff indicated by Brown and Cudeck (1993) for a close fit and well below the 0.08 suggested for reasonable approximation. Also the lower bound of the confidence interval is well below 0.05 and the upper bound only slightly above (0.081) the recommended 0.08 limit suggested by Brown and Cudeck (1993). Finally, the probability value ( $p = 0.47$ ) for the test for close fit, indicates that a good fit cannot be rejected.

Traditionally the GFI and RMR have been used as indicators of well fit models, where the GFI is similar to the  $R^2$  of the general linear model (Tanaka 1993). Bagozzi and Yi (1988) suggest that the GFI be above 0.90 and the RMR below 0.50. The model estimates are only slightly beyond these tolerances (GFI = 0.88 & RMR = 0.056). The authors feel these minor deviations are acceptable, given the purpose of this paper, especially when considered that these figures represent only a rule-of-thumb, and not statistical significance. Further, Anderson and Gerbing (1984) determined in their Monte Carlo simulation that GFI between 0.805 and 0.939 (depending on the sample size; 50-400) were considered reasonable.

Gerbing and Anderson (1993) suggest a Normed Fit Index value between 0.8 and 0.95.

The result (0.87) is well within these bounds. Further, Bentler (1990) suggests a Comparative Fit Index of approximately 0.98-0.99, only marginally higher than the 0.97 estimated for this model.

Overall the model fit is acceptable, although not as good as the authors would have wished. A good fit is indicative that the model structure is appropriate given the data. However, further analysis is warranted to validate the scale. Coefficients of reliability (Cronbach's alpha) and correlations provide some evidence of the reliability of the scale. The reliability coefficients are PROMOTION = 0.8960, COWORKER = 0.6059, SUPERVISOR = 0.7224, WORK = 0.9092, POLICY = 0.7696. These values indicate a reasonable degree of reliability using the approximations suggested by Nunnally (1978).

Finally, a test of nomological validity was conducted with two additional constructs. Correlations between the total score on the reduced job satisfaction scale and measures of both job involvement and organizational commitment. The scales used to measure job involvement and organizational commitment were developed by Michaels et al. (1988) and Dubinsky et al. (1986), respectively. The correlation for job involvement and organizational commitment were 0.5040 and 0.5415 respectively. Both are positive, as expected, and significant at the 0.001 level. This indicates reasonably strong nomological validity.

## DISCUSSION

The purpose of this paper was to develop a scale that: 1) is parsimonious in nature, 2) could be used in a retail context, and 3) resulted in information to management that was actionable. The first objective was met by the reduction of the Indsales scale from a 95 item scale to a 15 item scale without deterioration of the constructs measured. The resultant scale was tested for reliability and validity using a sample of retail salespeople, thus meeting the second objective. Lastly, the study concentrated efforts on creating a scale that managers could use to identify, prevent, and correct problems. Thus, unactionable facets of the original scale were discarded, leaving only items on which management could take immediate action to correct.

## REFERENCES

- Anderson, James C. and David W. Gerbing (1984), "The Effect of Sampling Error on Convergence, Improper Solutions, and Goodness-of-Fit Indices for Maximum Likelihood Confirmatory Factor Analysis," Psychometrika, 49, 155-73.
- Bagozzi, Richard P. and Youjae Yi (1988), "On the Evaluation of Structural Models," Journal of the Academy of Marketing Science, 16 (Spring), 74-94.
- Bentler, P. M. (1990), "Comparative Fit Indexes in Structural Models," Psychological Bulletin, 107, 238-246.
- Brown, Michael W. and Robert Cudeck (1993), "Alternative Ways of Assessing Model Fit," in Testing Structural Equation Models, Sage Publications, Bollen and Long (eds), 136-62.
- Childers, Terry L., Gilbert A. Churchill, Neil M. Ford, and Orville C. Walker (1980), "Towards a More Parsimonious Measurement of Job Satisfaction for the Industrial Salesforce," AMA Educator's Conference Proceedings, Richard P. Bagozzi et al. (eds), 344-349.
- Churchill, Gilbert A., Niel M. Ford, and Orville C. Walker (1974), "Measuring the Job Satisfaction of Industrial Salesmen" Journal of Marketing Research, Vol. 11 (August): 254-260.
- Cronbach L. J. (1951), "Coefficient Alpha and the Internal Structure of Tests," Psychometrika, 16, 297-334.
- Dubinsky, Alan J., Roy D. Howell, Thomas N. Ingram, and Danny Bellenger (1986), "Salesforce Socialization," Journal of Marketing, 50 (Oct), 192-207.
- Futrell, Charles M. and A. Parasuraman (1984), "The Relationship of Satisfaction and Performance to Salesforce Turnover," Journal of Marketing, Vol. 48 (Fall): 33-40.
- Gerbing, David W. and James C. Anderson (1993), "Monte Carlo Evaluations of Goodness-of-Fit Indices for Structural Equation Models," in Testing Structural Equation Models, Sage Publications, Bollen and Long (eds), 41-65.
- Ironson G. H., P. C. Smith, M. T. Brannick, W. M. Gibson, and K. B. Paul (1989), "Construction of a Job in General Scale: A Comparison of Global, Composite, and Specific Measures," Journal of Applied Psychology, Vol. 74, No 2, 193-200.
- Joreskog, Karl and Dag Sorbom (1993), LISREL 8, Chicago: International Education Service.
- Lawler, E. E. and Hall, D. T. (1970), "Relationship of Job Characteristics to Job Involvement, Satisfaction and Intrinsic Motivation," Journal of Applied Psychology, Vol. 54 (October): 305-312.
- Locke, E. A. (1974), The Nature and Cause of Job Satisfaction, Handbook of Industrial and Organizational Psychology (Dunnette): 1293-1349.
- Michaels, Ronald E., William L. Cron, Alan J. Dubinsky, and Eric A. Joachimsthaler (1988), "Influence of Formalization on the Organizational Commitment and Work Alienation of Salespeople and Industrial Buyers," Journal of Marketing Research, 25 (Nov), 376-83.
- Michaels, Ronald E. and Ralph L. Day (1985), "Measuring Customer Orientation of Salespeople: A Replication with Industrial Buyers," Journal of Marketing Research, Vol. 5, Iss. 22 (November), 443-446.
- Nunnally, J. C. (1978), Psychometric Theory (2nd ed), New York: McGraw-Hill.
- Roznowski, Mary (1989), "Examination of the Measurement Properties of the Job Descriptive Index with Experimental Items," Journal of Applied Psychology, Vol. 74 (April), 805-814.
- Tanaka, Jeff S. (1993), "Multifaceted Conceptions of Fit in Structural Equation Models," in Testing Structural Equation Models, Sage Publications, Bollen and Long (eds), 11-39.
- Wood, Van R., Lawrence B. Chonko, and Shelby Hunt (1986), "Social Responsibility and Personal Success: Are they Incompatible?" Journal of Business Research, 19 (June), 195-212.

# EFFECTS OF REALISTIC JOB INFORMATION AND INTERVIEWER AFFECT ON RETAIL EMPLOYEE TURNOVER

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## ABSTRACT

Employee turnover has been one of the major concerns of retailers for a very long time. When the costs of recruitment and training are taken into consideration, the impact of employee turnover on the retail organization is considerable. Perhaps even more significant, however, are the opportunity costs of having hired the wrong person while allowing a better applicant to slip through the selection net.

Most of the studies relating to employee turnover reported in the marketing literature in general and retailing in particular have investigated relationships between turnover and other variables (job satisfaction, tenure, performance, etc.) from the perspective of existing personnel in the organization (performance, motivation and work environment) rather than prior to entry (recruitment). The focus in these studies has essentially been from the point of view of the organization selecting a person for a retail position rather than to look at situations from the perspective of individual applicant selecting the organization. The present study is an attempt to understand retail employee turnover from the perspective of recruitment - individual applicant selecting the organization.

With nearly one in six of the total labour force employed in retail firms, retailing is one of the largest and growing industries. A retailing job is no doubt an attractive proposition to the potential incumbent because of the limitless opportunities for career progression, challenges, avenues for meeting people, attractive financial rewards and its capacity to offer a high level of job security to the capable individual. However, a retailing job has also a number of less attrac-

tive attributes, such as need to work extra hours to get ready for busy seasons and sometimes work Saturdays and evenings, travel for several days on buying trips, responsibility for profit margins in difficult competitive market conditions, awkward customers to mention but a few. The obvious question facing retail organizations in this regard is thus: If applicants for a retail position perceive that they have been given realistic information concerning the job and have more favourable perceptions of the interviewer, will they be less likely to leave the job in the short term than those who feel they have only been given a cursory view of the job and have less favourable perceptions of the interviewer? The present study was designed to investigate the combined effects of realistic job information and interviewer affect (extent to which job applicants like the interviewer and perceive him or her as trustworthy, knowledgeable, and credible) on retail employee turnover. The study focuses on the effect of providing job candidates in retail organizations with a realistic view of the job during the recruitment process on turnover.

The important conclusion suggested by this study is that accurate, relevant and detailed job information play a significant role in reducing retail employees' decision to leave the job, and that simple information "glut" alone will not solve the problem. The results of this study did not reach the conventional level of significance for the role of interviewer credibility on turnover suggesting that general interviewer affect by itself does not contribute to reducing retail employees' decision to quit the job.



# TOTAL QUALITY MANAGEMENT AND THE SALES ORGANIZATION: INTEGRATING THE NEW BUSINESS PHILOSOPHIES

## *Special Session Panel:*

Stephen J. Miller, Oklahoma State University - *Co-Chair*

Greg W. Marshall, University of South Florida - *Co-Chair*

Jerry R. Goolsby, University of South Florida

Raymond W. LaForge, University of Louisville

Michael R. Williams, Illinois State University

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## ABSTRACT

The philosophy known as Total Quality Management (or "continuous process improvement") has fast become a central operating theme in many American businesses. The 1993 AMS Conference included a panel discussion of impact on sales organizations when a firm embraces a TQM philosophy. In particular, issues of salesperson/sales manager role, motivation, reward, performance evaluation, control, and broad implications of corporate culture were discussed in the context of sales organizations engaged in implementing quality improvement.

This special session is a continuation of last year's panel discussion, and moves the topical area beyond basic issues of TQM to other more avant-garde approaches that have been suggested within the quality improvement paradigm. The following topics are addressed:

- 1) Organizational Learning. Peter Senge's book, *The Fifth Discipline*, has provided a potent call to arms for managers to focus on optimization of organizational systems rather than succumb to organizational fragmentation resulting from separately initiated MBO programs, quotas, incentive pay, business plans, and the like. Senge argues that most organizational teams operate below the level of the lowest performer in the group. The result is "skilled incompetence," in which people in groups grow incredibly efficient at keeping themselves from learning. Traditionally, sales organizations have been particularly reliant on objective-based approaches and team effort. What does Senge's philosophy say for the future of personal selling and sales management?
- 2) Organizational Reengineering. In their book, *Reengineering the Corporation*, Michael Hammer and James Champy add to Senge's

call for fundamental organizational change by urging firms to abandon the most basic notions on which the modern organization is founded. They build a firm case that these notions-division of labor, need for elaborate controls, managerial hierarchy-no longer work in a world of global competition and unrelenting change. Hammer and Champy advocate a process orientation, concentrating on and rethinking end-to-end activities that create value for customers. Abandonment of prior work shibboleths for a refocus on process leaves the sales organization with a new set of questions about its role in the overall organizational value chain.

- 3) Organizational Culture as an Agent of Change. Emphasizing the creation of added value for the customer as a means for creating and sustaining competitive advantage, a TQM philosophy focuses on the importance of an unrelenting commitment to meeting and/or exceeding the needs of both internal and external customers. The notion of building value through the process of satisfying customers, as opposed to churning out sales volume in response to production and sales objectives, sheds new light on the decisive role the salesforce plays in quality improvement. Concurrently, sales management must revise its operating philosophy to one that stresses the positive potential of creative and proactive change in response to customer expectations -- managers within sales organizations must engender a work environment that is conducive to such change. A key question becomes, how can organizational culture change be accomplished without losing those existing sales organizational characteristics that have proven to be successful?



# DIFFERENTIATING HMOs THROUGH CUSTOMER RETENTION STRATEGY: AN EMPIRICAL EXAMINATION

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## ABSTRACT

In an increasingly competitive health-care services environment, HMO profitability is becoming important and difficult to achieve. We draw forth a theory of increased profitability through higher market share that is achieved through the strategy of retaining existing customers by increasing overall satisfaction. We

then propose and test differences in the delivery of service quality between high-customer retention and low-customer retention HMOs. Specifically, we show that high-retention HMOs have attractive physical facilities, are perceived as caring, have competent employees, are responsive, and overall have satisfied customers.

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## INTRODUCTION

Beginning with the work of the Boston Consulting Group (1970), market share has been held to be of prime importance in determining profitability. This line of thought was tied directly to strategic planning and management through the development of the P.I.M.S. (Profit Impact of Market Strategy) principles (cf. Buzzell and Gale 1987). The relationship of market share and profitability has been extended empirically to more industries by Catto (1980), and its stability over time has been supported by Venkatraman and Prescott (1990). Indeed, Catto (1980) and Buzzell and Wiersema (1981) go so far as to suggest that market share exerts a causal effect on profitability. While this view has been challenged (Jacobson and Aaker 1985; Kuzma and Shanklin 1992), the importance of the role of market share in profitability remains widely accepted. Two basic strategies have been proposed for building market share: 1) the traditional strategy of attracting new customers, and 2) a strategy which suggests that focusing on retaining existing customers is more productive (Jackson 1985; Mckanna 1991). In the HMO industry, where demand by consumers has historically outstripped the supply of HMOs available to supply health care services, firms have tended toward the simpler skimming-type strategy of attracting new customers. Now, in light of the increasingly large menu of both HMO and non-HMO health-care choices available to consumers, HMO firms are reevaluating the effectiveness of this

strategy. They are increasingly finding that the costs of serving short-time customers (especially in terms of paperwork and recordkeeping) outweigh the benefits (revenue) received therefrom. This has prompted a closer look at the strategy of customer retention.

Jackson (1985) has developed a paradigm in industrial marketing which classifies these two share-building strategies as transactional (analogous to the traditional strategy; every exchange should be viewed as new and separate) or relational (analogous to the strategy of retaining existing customers; in which each exchange is viewed as a building-block in a longer-term relationship). Jackson (1985) also has developed a schema for determining which approach is appropriate in a given situation. She argues that the transactional approach is correct when: 1) products are essentially commodities (that is, that their specifications are well-defined and that the products have little differentiation and/or value-added); 2) risk to the customer (financial, performance, or social) is low; and 3) switching costs are low. Absent these conditions, firms should pursue a relational strategy to maximize long-term profits (see also Mckanna 1991). Clearly, HMOs belong on the relational end of the spectrum since: 1) they try to differentiate their products and services; 2) customer risk may not be low (Berki and Ashcraft 1980); and 3) switching costs may not be low (at least for families; see Donthu and Sibley 1993). The purpose of these relational behaviors is, in fact, to build a relationship with the customer--that is, to retain

existing customers. In some cases, this means that each exchange does not produce the maximum profit in and of itself, but that it serves to differentiate the product or lower customer risk or switching costs--thereby maximizing long-term profits.

Several researchers have attempted to quantify the results possible through efforts aimed at retaining customers. Dawkins and Reichheld (1990), in a study for a bank credit card company, found that a 5-point gain in the rate at which the company retains customers can yield a 75% increase in value of a customer. They conclude, "small shifts in customer retention rates can have a powerful impact on profits...(p.42)." Rust and Zahorick (1993), using logit analysis, model the impact of customer retention on profitability. Their model indicates that likelihood of return is directly related to customer satisfaction. Srivastava (1992), in developing a framework for measuring customer value in a services environment, suggests that earnings may be expressed simply as a product of number of customers and earnings per customer. Simply stated, customer satisfaction will lead to customer retention, which will lead to higher earnings through more customers and more revenue from each of these customers. A 10% loss rate (90% retention rate) would result in corporate earnings that are less than half what they would be at a 0% loss rate (100% retention rate) within seven years. Moreover, he expects a 20% loss rate (80% retention rate) would yield earnings that are about a quarter of the 0% loss rate (100% retention rate) figure in the same seven year time-span.

In the face of increasing empirical evidence of the importance of customer retention to long-term profitability, some managers are attempting to make their HMOs more attractive to consumers. Yet, as Travis, Russell, and Cronin (1989) state, "disenrollment is a continuing problem for HMOs (p.75)." The key to customer retention is customer satisfaction based upon meeting customers' expectations of service quality. However, discovering customer expectations may be difficult since the choice task facing HMO customers is exceedingly complex. Berki and Ashcraft, in their seminal 1980 work, argue that "enrollment in an HMO is a simultaneous choice of both insurance coverage of the cost of medical services and their system of delivery. (p.590)" Moreover, they maintain,

the decision unit in HMO choice is either the individual or the "family" (the individual and one or more dependents, including any spouse) since consumers must enroll in and pay for HMO services either as individuals or as families. This results in additional complexity in the choice task. Empirical findings (Donthu and Sibley 1993) suggest--at least in so far as Berki and Ashcraft's (1980) "system of delivery" of medical services--that individuals and families have different decision criteria. Since HMOs heretofore have not segmented the market by type of decision unit, it is understandable that customer expectations are disconfirmed and customers choose to disenroll from the "offending" HMO. This line of reasoning is supported by Scotti, Bonner, and Wiman (1986), who found that "quality of care" was the foremost reason--ahead of cost--in planned disenrollment.

## HYPOTHESES

Scotti et al. (1986) and Travis et al. (1989) have confirmed the importance of the system of delivery to the choice task facing potential enrollees. Berki and Ashcraft (1980) enumerate the dimensions of the system of delivery as: 1) access; 2) continuity of care; 3) comprehensiveness; 4) clinical quality; and 5) social quality. Among these dimensions, we expect to find characteristics that differentiate high-customer retention HMOs from low-customer retention HMOs. According to Berki and Ashcraft (1980), "the clinical quality of delivery characteristics encompasses the clinical appropriateness and effectiveness of the care pattern. (p.600)" Moreover, since "few if any patients have sufficient experience and clinical information to assess for themselves the competence levels of various providers (Berki and Ashcraft 1980 p. 600)," most patients are likely to take their cues of clinical quality (leading to overall satisfaction) from other areas of the HMO operation. Among these other cues are several aspects of the dimension of social quality, which they conceive as capturing "the elements of the delivery system that, although not objectively related to other delivery characteristics, are perceived by potential enrollees as relevant (p. 601)." Physical attractiveness of the HMO facilities and humane concerns are among the aspects of social quality (Donthu 1991), thus:

**H1:** High-customer retention HMOs are more likely to have physically attractive facilities than low-customer retention HMOs.

**H2:** High-customer retention HMOs are more likely to give customers the perception that they care about them than are low-customer retention HMOs.

Berki and Ashcraft (1980) define the temporal aspect of the access dimension as "the time lag between the patient's first attempt at establishing contact with a provider and its actualization. Under non-emergency conditions, waiting time required to get an appointment and waiting time in the office comprise the basic elements of temporal access (p. 597)." Moreover, customers often read briskness and efficiency of employees as surrogates for employee competence. Consequently, we hypothesize:

**H3:** High-customer retention HMOs are more likely to be temporally responsive to customers than are low-customer retention HMOs.

**H4:** High-customer retention HMOs are more likely to give customers the perception that their employees perform well than are low-customer retention HMOs.

## DATA

To test the above hypotheses, an empirical study was conducted at a mid-size state university in the southeastern United States. The university offered health plans through five competing HMOs. The study included all teaching, nonteaching, and support staff of the university who were enrolled in one of these five HMO plans. A questionnaire was mailed to all of the approximately 1300 employees of the university. From the 1300 questionnaires that were sent out, 499 were returned with complete information and were usable. This represented a response rate of 38%. The high response rate was attributed to the fact that this survey had personal relevance to the employees as it concerned their health benefit program, and the survey had the approval of the Personnel Department of the university and the covering letter was mailed on their stationery. Moreover, the respondents were only required to return their survey by campus mail.

Using enrollment data from the last five years it was determined that 2 of the 5 HMOs had relatively high average customer retention records (82 and 75 percent). The other three

HMOs had retention records of 54, 50, and 49 percent. Hence, the 5 HMOs were grouped into 2 groups: group A, with 2 HMOs, as the high-retention group; and group B, with 3 HMOs, as the low-retention group. Of the 499 respondents who provided usable data, 211 were enrolled in group A and the remaining 288 were enrolled in group B. The questionnaire contained three sections. First, respondent history with HMOs was investigated. This included questions regarding their overall satisfaction, number of years enrolled in HMOs, switching between HMOs, etc. In the second section respondents were asked to evaluate their HMO on several dimensions, including those used in this study. Statements in this section (all using a five point Likert scale ranging from 5 = strongly agree to 1 = strongly disagree) included: "My HMO has very attractive physical facilities"; "My HMO provides prompt service"; "The employees of my HMO are very competent"; and "My HMO really cares." Finally, some demographic information (such as age, income, and employment information) also were collected.

## RESULTS

There was no statistical difference in the demographics of enrollees of group A and group B HMOs. Moreover, the monthly charges for all HMOs were about the same. Hence, we safely can rule out that these external factors are driving the difference in the retention rate of these two groups of HMOs. The results are presented in [Table 1](#), which summarizes the statistical tests performed to test all of the hypotheses. Clearly, we have empirical support for all of the hypotheses. Specifically:

High-customer retention HMOs are more likely to have physically attractive facilities than are low-customer retention HMOs. Customers of HMOs in group A rated their HMO higher on physical attractiveness than customers of HMOs in group B rated their HMO (mean score of 4.1 vs. 3.2;  $p < 0.05$ ).

High-customer retention HMOs are more likely to give customers the perception that they care about them than are low-customer retention HMOs. Customers of HMOs in group A rated their HMO higher on "caring" dimension than customers of HMOs in group B rated their HMO (mean score of 3.8 vs. 3.0;  $p < 0.05$ ).

High-customer retention HMOs are more likely to be temporally responsive to customers than are low-customer retention HMOs. Customers of HMOs in group A rated their HMO higher on giving prompt response than customers of HMOs in group B rated their HMO (mean score of 4.0 vs. 3.4;  $p < 0.05$ ).

High-customer retention HMOs are more likely to give customers the perception that their employees perform well than are low-customer retention HMOs. Customers of HMOs in group A rated their HMO higher on employee competence than customers of HMOs in group B rated their HMO (mean score of 3.9 vs. 3.1;  $p < 0.05$ ).

Finally, the overall satisfaction for HMOs in group A was significantly higher than that of customers of group B (mean score of 4.2 vs. 3.3;  $p < 0.05$ ). Thus we can complete the linkage between factors that drive satisfaction (physical appearance, timeliness of service, perception of caring, competence of employees) and its correlation with high customer retention in the health care services industry.

### CONCLUSIONS

Our results indicate that there are at least four areas in which high-customer retention HMOs differentiate themselves from the low-customer retention HMOs. Given the Berki and Ashcraft (1980) notion that HMO customers are unable to directly gauge HMO service quality, these four areas (physical appearance, timeliness of service, perception of caring, and competence of employees) serve as surrogate measures that enable customers to form expectations of and judgments about service quality and satisfaction. This, in turn, should enable HMO managers to build market share and, hence, profitability. Further research is needed to discover other attributes that consumers may employ to indirectly judge HMO service quality. Another important area of enquiry would be at the other end of the theoretical chain we have drawn--an empirical examination as to whether this approach, in fact, leads to greater market share and higher profitability.

### REFERENCES

- Berki, S. E. and M. L. F. Ashcraft (1980), "HMO Enrollment: Who Joins and Why: A Review of the Literature," Milbank Memorial Fund Quarterly/Health and Society, 58 (Fall), 588-632.
- Boston Consulting Group (1970), Perspectives on Experience. Boston: Boston Consulting Group.
- Buzzell, R. D. and B. T. Gale (1987), The P.I.M.S. Principles: Linking Strategy to Performance. New York: The Free Press.
- Buzzell, R. D. and F. D. Wiersema, (1981), "Modeling Changes in Market Share: A Cross-Sectional Analysis," Strategic Management Journal, 2 (Jan.-Mar.), 27-42.
- Catto, (1980), "Market Share and Profits," Business Economics, 15 (May), 39-44.
- Dawkins, P. M. and F. F. Reichheld (1990), "Customer Retention as a Competitive Weapon," Directors & Boards, 14 (Summer), 42-47.
- Donthu, N. (1991), "Quality Control in Services Industry," Journal of Professional Services Marketing, 7 (1), 31-55.
- Donthu, N. and R. E. Sibley (1993), "HMO Selection Criteria: An Exploration of Differences Between Family and Individual Enrollees," Academy of Marketing Science Proceedings, 401-404.
- Kuzma, A. T. and W. L. Shanklin (1992), "How Medium-Market-Share Companies Achieve Superior Profitability," Journal of Consumer Marketing, 9 (Winter), 39-49.
- Jackson, B. B. (1985), Winning and Keeping Industrial Customers: The Dynamics of Customer Relationships. Lexington, MA: Lexington Books.
- Jacobson, R. and D. A. Aaker (1985), "Is Market Share All That It's Cracked Up to Be," Journal of Marketing, 49 (Fall), 11-22.
- Mckanna, R. (1991), Relationship Marketing, Reading, MA: Addison-Wesley.
- Rust, R. T. and A. Zahorik (1993), "Customer Satisfaction, Customer Retention, and Market Share," Journal of Retailing, 69 (2), 193-215.
- Scotti, D. J., P. G. Bonner, and A. R. Wiman (1986), "An Analysis of the Determinants of HMO Re-enrollment Behavior: Implications for Theory and Policy," Journal of Health Care Marketing, 6 (June), 7-16.

Srivastava, R. (1992), "Framework for Creating and Measuring Customer Value," presentation at AMA Services Marketing Workshop.

Travis, M., G. Russell, and S. Cronin (1989), "Determinants of Voluntary HMO Disenrollment: An Examination of Consumer Behavior," Journal of Health Care Marketing, 9 (March), 75-76.

Venkatraman, N. and J. E. Prescott (1990), "The Market Share-Profitability Relationship: Testing Temporal Stability Across Business Cycles," Journal of Management, 16 (Dec.), 783-805.

**TABLE 1**

**Statistical Analysis of Data to Test Hypotheses**

| Hypothesis               | Group A<br>(High-<br>retention) | Group B<br>(Low-<br>retention) | Difference<br>Significant at<br>0.05 level? |
|--------------------------|---------------------------------|--------------------------------|---------------------------------------------|
| 1. Physical Appearance   | 4.1                             | 3.2                            | Yes                                         |
| 2. Caring                | 3.8                             | 3.0                            | Yes                                         |
| 3. Timeliness of Service | 4.0                             | 3.4                            | Yes                                         |
| 4. Employee Competence   | 3.9                             | 3.1                            | Yes                                         |
| Overall Satisfaction     | 4.3                             | 3.3                            | Yes                                         |
| Mean Customer Retention  | 78.5%                           | 51%                            | Yes                                         |

# **CUSTOMER SATISFACTION AND CUSTOMER RETENTION: AN EXAMINATION OF SMALL BUSINESSES AND THEIR BANKS IN THE UK<sup>1</sup>**

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## **ABSTRACT**

Within the area of marketing, the ability to retain existing customers is increasingly seen as central to successful performance. This is particularly true in the service sector, where it is often argued that customer attraction costs are

significantly higher than customer retention costs. This paper examines customer satisfaction and retention in banking, where a key strategy is the building and maintenance of a loyal customer base.

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## **INTRODUCTION**

The relative costs of customer acquisition and customer retention have resulted in a growing interest in the issues surrounding the building and maintenance of long term customer relationships as a route to improved profitability. A key issue in understanding customer retention and satisfaction is the understanding of customer defection. This paper examines the issue of satisfaction and defection in the context of UK banks and their small business customers. The paper proceeds first by discussing customer satisfaction and retention and then considers these issues in the context of UK banks and small businesses. A preliminary model is presented and the results of empirical testing are discussed.

## **CUSTOMER SATISFACTION AND RETENTION**

The growing interest in customer retention derives from a simple cost benefit equation. The costs of customer acquisition are generally higher than costs of retention (Reichheld and Kenny, 1990) and this is particularly so in the service sector. Small reductions in customer defection rates can therefore produce significant improvements in both profitability and market share (Rust and Zahorik, 1993). It is generally argued that customer loyalty and retention depend on customer satisfaction (Bitner, 1990). Customer satisfaction or dissatisfaction and the quality of the overall product offer are related and empirical evidence suggests a link between product/service performance and satisfaction

(Bolton and Drew, 1991) and between satisfaction and loyalty (La Barbera and Mazursky, 1983). More formally, the concept of satisfaction can be considered within the framework provided by the confirmation/disconfirmation paradigm in which satisfaction depends on the customers comparison of what was expected with what was actually delivered. Empirical testing of the framework has produced a variety of results according to the specific situation and formulation of the model (see for example Churchill and Suprenant, 1982; Cadotte, Woodruff and Jenkins, 1987). Most recently, there is growing evidence to suggest that the expectations element may be less important than the perceived quality element (Tse and Wilton, 1988) or of no relevance at all (Anderson and Sullivan, 1993) with satisfaction entirely dependent on perceived quality.

## **MODELLING SATISFACTION IN THE BANKING SECTOR**

Unlike the US, the UK banking sector is dominated by a small number of large banks providing retail and corporate services both nationally and internationally. From the perspective of the banks, the small business segment is of particular importance because of the profit and revenue opportunities it presents. This segment, however, has not been an easy one for the main banks to target; and a number of studies have highlighted gaps in service provision and problems regarding service quality (Ennew, Reed and Binks, 1993). Despite developments in product ranges, the people component of the

banking relationship continues to be of considerable importance to customers and difficult to manage for the banks. The banking relationship is arguably of particular importance in the small business segment because it provides a means of reducing many of the difficulties that arise as a consequence of information asymmetries (Binks, Ennew and Reed, 1992).

Despite the evidence of dissatisfaction with banks amongst small businesses, the banks typically have a high customer retention rate. This low defection rate is generally attributed to an element of inertia, high switching costs and a belief that there may be little difference between banks. Indeed this situation is consistent with the view expressed by Zeithaml (1981) that higher degrees of brand loyalty were likely to be seen in services because of the difficulties in evaluating a new service provided *ex ante* and the costs of changing. However, though actual defection rates are low, dissatisfaction seems to be rather higher and is indicative of potentially higher defection rates. Potential defectors can be thought of as those who are dissatisfied with the current service offered and are willing to consider changing from their existing bank although they may not actually do so because of switching costs, inertia etc.

Thus, in attempting to specify a model which addresses the issue of retentions and defections, we focus not on actual defectors but rather on potential defectors and on the factors which distinguish the non-defectors (more satisfied) from the potential defectors (less satisfied). In addressing the factors which distinguish the retained from the potential defectors or the satisfied from the dissatisfied we draw on the distinction between functional and technical quality as well as recognising the importance of the concept of integrating quality service and marketing across the relationship. Consequently we identify three broad categories of variables which are of relevance. The first consists of the specific features of the product provided and it is anticipated that the retained/satisfied customers generally receive a product that is more appropriate to their needs than is the case with potential defectors. The second concerns the service delivery process and it would be expected that the satisfied/retained customers are distinct in that they perceive that they experience higher quality of service provision. The third focuses on the overall relationship with satisfied customers

expected to experience a much better relationship than potential defectors. Finally, given the possibility that some banks may pursue a focused strategy which involves attempting to attract some types of business while being willing to lose others the analysis should control for customer characteristics.

## **MODEL SPECIFICATION, DATA COLLECTION, AND MEASUREMENT**

Data used for the empirical analysis were obtained from a survey conducted among its members by the Forum of Private Business (FPB) in spring/summer 1992 (Binks, Ennew and Reed, 1993). Approximately 16000 questionnaires were distributed to the entire membership, along with a follow-up reminder after three weeks. This resulted in 6101 usable responses which represents a response rate of 37.5%. A comparison of the sample with the national population of small businesses revealed some biases in relation to geographic and sectoral distribution. However none of these biases was considered substantial enough to invalidate the use of the data set. Given the available data, the variables for subsequent analysis were operationalised as follows:

### **Satisfied/Dissatisfied Customers**

The dissatisfied customers/potential defectors were identified as those who had considered changing banks during the previous year based on a simple yes/no response. Approximately 52% of respondents indicated they had considered changing bank in the previous year.

### **Product Characteristics**

Although banks provide a range of products to small businesses, the core product is the provision of finance and most commonly this is in the form of overdrafts (lines of credit). A number of variables relating to overdraft funding were used as indicators of the characteristics of the core product, namely rate of interest (percentage points above base), collateral ratio (in relation to overdraft limit) and extent of overdraft usage.

### **The Quality of Service Provision**

Quality of service provision was measured using the list of attributes shown in the appendix. A factor analysis of respondents' percep-



tions of quality of provision for each attribute suggested that three underlying dimensions were present based on knowledge, personalisation and product characteristics. These factors accounted for 74% of the variance in the original data set. The reliability of these scales was considered acceptable with Cronbach's alphas of 0.90, 0.75 and 0.86 respectively.

### **The Nature of the Banking Relationship**

Two specific and two broad aspects of the banking relationship were measured. The two specific measures were perceived value for money from the bank (measured on a 5 point scale) and perceived support provided by the bank in the event of financial difficulties. This latter variable took a value of 0 for firms which had not experienced difficulties and a value from 1 to 5 for the firm which had, with a higher value indicating a more positive attitude on the part of the bank.

For the first of the two broad relationship variables, respondents were asked to score seven aspects of bank practice which might constrain their business, (collateral requirements, interest rates, availability of credit, charges, competence of manager, speed of service and term of loan). These items were combined to form a scale which measured at an aggregate level, the degree to which respondents believed that their business was constrained by banking practice. Cronbach's alpha of 0.86 indicated that this scale was reliable. Aspects of the relationship between the business and the bank manager were also measured. Respondents were asked to rate 11 aspects of the relationship (see appendix) and factor analysis suggested 3 underlying dimensions which accounted for 60% of the variance in the original data. The first was concerned with the absence of trust/confidence from the relationship with higher scores indicative of a lack of trust/confidence. The second concerned the degree of approachability and equality in the relationship with higher scores indicating that managers were more approachable. The final factor concerned information flows with higher scores on this factor indicating a reluctance to provide information on the part of respondents. Cronbach's alphas for these scales were 0.82, 0.71 and 0.43 respectively. Although the reliability of the third scale (Information) was questionable it was retained in subsequent analysis for completeness.

### **Customer Characteristics**

Three firm-specific characteristics, were identified as potentially relevant to the analysis. Age of firm entered the model directly as a continuous variable as did profitability. Size of business entered the model as an ordinal variables covering 9 size categories.

### **ESTIMATION**

The premise of the analysis is that the set of variables outlined above can be used to distinguish between the satisfied and non-satisfied customers. Since our focus on the ability of the set of explanatory variables to distinguish between the satisfied and dissatisfied customers, multivariate discriminant analysis was used to test the framework outlined in the previous section. A stepwise procedure using Mahalanobis  $D^2$  was employed to assist in identifying the variables which possessed greatest discriminating power. Missing variables reduced the original data set from 6101 to 2414. The results of this analysis are presented in [Table 1](#).

The model was estimated using a 50% random sample and the validity of the discriminant function was evaluated using classification results for the hold out sample. The percentage of correct classification for the estimation sample was fractionally over 70% and for the hold out sample, fractionally under 70%. Of the relationship variables, constraints, value for money, information and absence of trust are all significant discriminators. Given the group centroids, the signs on the loadings are consistent with what would be expected. Customers are more likely to be dissatisfied/considering a change of bank if they believe their business is constrained, if they perceive a lack of trust in the relationship and if they are unwilling to share information. Of the variables relating to quality, all the measures of perceived quality of provision were identified as significant discriminators and higher levels of perceived quality are more likely to result in satisfied customers as would be expected. Rate of interest and levels of overdraft use are also significant with the expected signs although the loadings are low. The firm specific variables have only a minor impact on the function. However, it is apparent from the pattern of the loadings in the discriminant function that the broad relationship variables and the quality variables are rather more important than the product specific variables.



## CONCLUSIONS

Customer retention is an issue of increasing importance for all businesses but is of particular relevance to service such as banking in which building and maintaining long-term customer relationship is seen as central to improved busi-

ness performance. This paper has examined customer retention in the case of UK small businesses. The results of a discriminant analysis suggested that the key factors distinguishing retained (satisfied) customers from potential defectors (dissatisfied) are relationship measures and perceptions of quality of service delivery.

**Table 1: Discriminant Analysis Results**

| Variable                       | Entry Order | Coefficient     | Loading             |
|--------------------------------|-------------|-----------------|---------------------|
| CONSTRAINT                     | 1           | 0.39            | 0.78                |
| LACK OF TRUST                  | 3           | 0.30            | 0.78                |
| APPROACHABILITY                | -           | -               | -0.61               |
| INFORMATION                    | 6           | -0.13           | 0.08                |
| VALUE FOR MONEY                | 5           | -0.07           | -0.32               |
| SUPPORT                        | 11          | -0.07           | -0.15               |
| KNOWLEDGE                      | 2           | -0.22           | -0.75               |
| PERSONALISATION                | 7           | -0.15           | -0.71               |
| PRODUCT                        | 4           | -0.13           | -0.61               |
| RATE OF INTEREST (% over base) | 8           | 0.11            | 0.36                |
| OVERDRAFT USE (%)              | 9           | 0.11            | 0.02                |
| COLLATERAL (coverage ratio)    | -           | -               | 0.03                |
| TURNOVER                       | -           | -               | -0.11               |
| PROFIT                         | 10          | -0.07           | -0.02               |
| AGE                            | -           | -               | -0.12               |
| Eigenvalue                     | 0.27        | Group Centroids | Satisfied = -0.53   |
| Canonical Correlation          | 0.46        |                 | Dissatisfied = 0.50 |

## APPENDIX: SCALES USED IN MEASURING THE BANKING RELATIONSHIP

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p><b>Quality of Service Provision</b><br/>(1 = very poor to 5 = very good).</p> <p><b>Knowledge</b><br/>Knows your business<br/>Understands your industry<br/>Understands your market<br/>Offers helpful business advice</p> <p><b>Product</b><br/>Offers wide range of services<br/>Competitive interest rates<br/>Competitive/predictable charges</p> <p><b>Personalisation</b><br/>Speed of decision<br/>Tailors finance to needs to business<br/>One person deals with all credit needs<br/>Easy access to loan officer</p> | <p><b>Relationship with Bank Manager</b><br/>(1 = strongly agree to 5 = strongly disagree)</p> <p><b>Lack of Trust</b><br/>My bank manager is always available to help in a crisis.<br/>My manager often makes suggestions to help my business.<br/>I am confident in the advice I get from my manager.<br/>I am confident my bank understands small businesses.<br/>I can rely on my bank manager to find ways of meeting my business's changing financial needs.</p> <p><b>Approachability</b><br/>I prefer to avoid contact with my bank manager.<br/>My manager is not really interested in my business.<br/>I feel intimidated when dealing with my bank.<br/>My manager is only prepared to offer standard products.</p> <p><b>Information</b><br/>It is important to provide my bank manager with timely and regular management information.<br/>It is important to discuss in advance potential excesses over agreed borrowing limits.</p> |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

<sup>1</sup> Thanks to Mike Wright for helpful comments on an earlier draft and to the Forum of Private Business (FPB) for the provision of the database. Thanks also to two anonymous AMS referees for helpful comments on an earlier draft.

## REFERENCES

- Anderson, Eugene W. and Mary W. Sullivan (1993), "The Antecedents and Consequences of Customer Satisfaction for Firms", Marketing Science, vol. 12 (2), 125-143.
- Binks, M. R., C. T. Ennew, and G. V. Reed (1992), "Information Asymmetries and the Provision of Finance to Small Firms", International Journal of Small Business, vol. 11 (1), 35-46.
- Binks, M. R., C. T. Ennew, and G. V. Reed (1993), Small Businesses and their Banks, Report to the Forum of Private Business.
- Bitner, M.J. (1990), "Evaluating Service Encounters: The Effects of Physical Surroundings and Employee Responses", Journal of Marketing, vol. 54 (April), 69-82.
- Bolton, R.N. and J. Drew (1991), "A Multistage Model of Consumers Assessments of Service Quality and Value", Journal of Consumer Research, vol. 17 (March), 375-384.
- Cadotte, E. R., R. B. Woodruff, and J. L. Jenkins (1987), "Expectations and Norms in Models of Consumer Satisfaction", Journal of Marketing Research, vol. 24 (August), 305-14.
- Churchill, G. A. and C. Suprenant (1982), "An Investigation into the Determinants of Customer Satisfaction", Journal of Marketing Research, vol. 19 (August), 491-504.
- LaBarbera, P.A. and D. Mazursky (1983), "A Longitudinal Assessment of Consumer Satisfaction/Dissatisfaction: The Dynamic Aspect of the Cognitive Process", Journal of Marketing Research, vol. 20 (November), 393-404.
- Reichheld, F. F. and D. W. Kenny (1990), "The Hidden Advantages of Customer Retention", Journal of Retail Banking, Vol. 12 (4).
- Rust, R.T. and A. J. Zahorik (1993), "Customer Satisfaction, Customer Retention and Market Share", Journal of Retailing, vol. 69, 193.
- Tse, D. K. and P. C. Wilton (1988), "Models of Consumer Satisfaction Formation: An Extension", Journal of Marketing Research, vol. 25 (May), 204-217.
- Zeithaml, V. A. (1981), "How Consumer Evaluation Processes Differ Between Goods and Services", eds. J. H. Donnelly and W. R. George, Marketing of Services, Chicago: AMA.

# RESTAURANT SERVICE FAILURE AND RECOVERY ANALYSIS

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## ABSTRACT

Analyzing service failures and service recovery strategies is an extremely useful management tool. By systematically categorizing consumer complaints, a hierarchy of criteria evolve that reflect the consumer's perspective of effective performance. Despite the importance of analyzing service failures and recovery strategies, little empirical research exists which examines the subject.

The purpose of this research is to shed light on the nature of service failures and recoveries in the restaurant industry. Critical Incident Technique was employed to collect 373 critical incidents. Each critical incident was systematically categorized through a deductive sorting process into one of three major failure classes developed by Bitner, Booms, and Tetreault (1990). Each of the three major classes was then sorted into subclass failures. Recovery strategies associated with subclass failures were also sorted and categorized.

The sorting process resulted in the identification of 11 unique subclass failure types and 8 different recovery strategies. Additional findings regarding failure magnitude, recovery rating, lapsed time since the event, and customer retention rates were also presented and

discussed. Managers might use this information when designing service delivery systems and procedures, establishing policies regarding service recovery, and selecting and training service personnel.

Future research should consider the generalizability of the present typology in other service industries. In addition to investigating types of failures and recoveries, researchers might consider possible antecedents and consequences of service failure/recovery incidents. For example, researchers might consider organizational antecedents (e.g., organizational structure, leadership, and empowerment), employee-related antecedents (e.g., job satisfaction, organizational commitment, and motivation), and customer-related antecedents (e.g., customer expectations, a priori brand loyalty, and complaining behavior) to the implementation of effective service recoveries.

## REFERENCES

- Bitner, Mary Jo, Bernard H. Booms and Mary Stanfield Tetreault (1990), "The Service Encounter: Diagnosing Favorable and Unfavorable Incidents," Journal of Marketing, 54, 1, 71-84.

# AUTOMOBILE RECALL DATA TREATMENT: TREND ANALYSIS AND PURCHASE IMPACT

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## ABSTRACT

As a consequence of the National Highway Traffic Safety Act of 1966, there exists a complete data set of safety-related automobile recalls in the US. Attempts to use these data in marketing-related studies have proven to be

marginally successful. A data transformation is described that permits better use of this information, and its application is illustrated for treating industry trends and subsequent impact on domestic/import sales.

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## INTRODUCTION

As a consequence of the National Highway Traffic Safety Act of 1966 there exists a complete data set of safety related automobile recalls in the US, which start from September 1996. The National Highway Traffic Safety Administration (NHTSA) was established to not only establish standards in performance, construction, components, and materials but to provide remedy for deviations, usually recall. A file thus exists of every recall campaign conducted in the US by make of automobile, nature of defect, date initiated and number of vehicles affected and these data are available in annual publications from NHTSA.

Attempts have been made to utilize this information in marketing related studies. One might hypothesize, for instance, that the defects mandating recall and their publicity might have adverse effects on subsequent sales of vehicles. Studies to date have shown, however, that attempts to associate recall with subsequent sales had statistically insignificant relationships (Swan, Pratt and Box 1975; Wynne and Hofer 1976; Page and Wilson 1976; Wilson and Page 1993). Further, results illustrating industry's ability to cope with recall shows a declining trend, albeit one with considerable scatter in results (Wilson and Page 1993).

Contributing to these results may be a general weakness secondary data possess -- they were really collected for another purpose. That is, they were collected to place on file the date and significance of individual recall campaigns. They were not collected to illustrate

how many times a given model vehicle may have been recalled. This result may have more significance in an individual's propensity to repurchase the same manufacturer's brand, or to illustrate how successful manufacturers have become in dealing with safety related defects. This study was therefore initiated to transform safety related recall data from a calendar year basis to a model year basis. Results were then applied to illustrate recall campaign trends through 1988 and to analyze some changes in automobile sales during the same time period.

## METHODOLOGY

Safety recalls in the U.S. automobile industry are relatively easy to study at the macro level because of the availability of data collected on them by government agencies. Data on individual mandated motor vehicle safety recalls are compiled quarterly in NHTSA annual issues. This information includes the date of recall campaign, manufacturer and make of automobile, model year(s) recalled, a brief description of the defect, and the number of vehicles recalled. Furthermore, annual production and sales data are available from trade associations and independent publishers. For this study these data were obtained from annual issues of The Market Data Book of Automotive News, Ward's Automotive Yearbook, and Figures of the Motor Vehicle Manufacturers Association of the United States.

Relevant data on sales and recalls were collected from these secondary sources by year, compiled and analyzed. The recalls that were studied covered the twenty-one years

from September 1966, when mandated motor vehicle recall commenced, to 1986 and were for automobiles only. The small number of recall campaigns that included both cars and trucks in the same recall were not included in this study because of the inability to determine the numbers of vehicles in the recall that were cars and those that were trucks. It is believed that the results would be similar had it been possible to include all data.

Some adjustment of information was required to get meaningful time series data. Recall information, as published, is presented in terms of calendar year recall; that is, information is tabulated in terms of the year in which the recall occurred, regardless of when the automobiles were produced and sold. More meaningful treatment of time series for this paper was associated with sales years. Thus, calendar recalls were transformed to sales years' recall information. This treatment was appreciable; approximately eighty percent of the data had to be transformed to sales year data.

The other adjustment was not as extensive, but deserves mention. A parameter, recall index, is referred to extensively in this paper. It is defined as

$$\text{Recall Index} = \frac{\text{No. of Automobiles Recalled from a Model Year}}{\text{No. of Automobiles Sold in a Model Year}}$$

It is believed that this term is related to manufacturing quality, and this association is discussed above. Significant portions of recalls occurred as much as ten years after sales occurred. Thus, if total recalls were to be included into recall index calculations, nine years of most recent calculations would be missing. Some choices in information treatment was required -- especially because it is more recent trends that are perhaps more interesting. All recall indices therefore were calculated for the model year plus two subsequent years of information. Analysis of industry information indicated that over half (55%) of recalls were included in this period, and association with complete recalls was at the 73 percent level ( $R^2$  of Recall Index versus Total Recall Ratios = 0.73). Treatment of information in this manner greatly simplified sorting -- 2061 recalls had to be sorted into 21 years for each manufacturer in the seven countries considered in this study. The one area in which recall indices were not used was in treatment of

industry data. Here all recalls were sorted, and percentage of automobiles sold that had to be recalled are called "recall ratios".

## RESULTS

### Industry Observations

A summary of industry information used in this study is shown in [Table 1](#). Columns 1 and 2 show model year recall data and sales respectively. Annual recall ratios, i.e., the total number of automobiles recalled from a model year divided by the number of automobiles sold, are shown in column 3. It may be observed that these ratios start at about 0.34 in 1966, the first year of mandated recall, and approach a peak of 1.14 in 1978 before declining to about 0.10 in 1986. These results are in tentative agreement with Wilson and Page's (1993) observations on calendar year results, which suggested a three stage model of recall history -- increase -- turbulence -- decline. To these stages, which are actually clearer with model year information, a fourth stage would be added, which occurred in 1978 to 1980. During this period, each automobile manufactured, on average, tended to be recalled at least once.

The recent decline in recall ratios may be somewhat artificial. Observations on recall from earlier production years indicated that vehicles were still being recalled as much as ten years after production. In 1972, for instance, nearly 2 million automobiles were recalled ten years after models were introduced. These results would indicate that data from latter years were incomplete. Cumulative percentages of recalled automobiles were thus calculated for early years and this information is shown in [Table 2](#).

This table should be read "of 1966 automobiles recalled, 5.34 percent were recalled by the end of the 1966 model year, 18.50 by the end of 1967, etc. Composite averages were calculated from this information to "correct" latter years. Results would indicate, for instance, that 1986 recalls have been only 26.3 percent complete, 1985 recalls 43.5 percent complete, etc. at the time this table was constructed. Adjusted results are therefore shown in column 4 of [Table 2](#), and these results are illustrated in [Figure 1](#). The quality improvement in treating model year data might be compared with calendar year data scatter in Wilson and Page's earlier treatment.

**Figure 1** might be inspected for content. From 1966 to 1972 recall percentages increased at a rate of about 5 percent per year. Starting in 1972, a turbulent period developed in which recall percentages continued to rise albeit in a somewhat erratic manner. This behavior is shown as the shaded area in **Figure 1**. In the time period from 1978 to 1980, each automobile, on average, was recalled at least once. This period would be the "pits" as far as recall quality control was concerned for the industry. Subsequently, recall ratios, even when corrected for anticipated developments, have declined. The industry appears to have leveled off at a recall ratio of about 0.4, or, in other words, 4 cars in 10 presently are recalled industry wide over the life of the vehicle.

### Results by Country of Origin

This portion of the study was initiated, in part, by the Wilson-Page comments on recall share and market share. They noted that recall share and market share were closely related for the 21 years studied -- the slope of the best straight line relating recall to sales was very close to 1.0, which indicated neither increasing nor decreasing returns to scale existed in manufacturing control. Variations did exist, however, and in particular Japanese recall share was only 0.4 times market share (emphasis added). Thus, although a typical automobile sold in the United States had a 0.58 probability of recall, Japanese vehicles had a 0.21 chance of recall for the same 21 year aggregate period. Recall results for automobiles produced in Germany, England, Sweden, France, and Italy, as well as Japan, therefore have been compared with domestic results for the same period in this study to determine overall response to this quality related factor in the marketing environment.

A zero intercept, best straight line through all points for historical data, fit the data well ( $R^2 = 0.82$ ). It should be noted, however, that the ratio for Japanese performance was the only point that fell below the 45 degree slope line. The relative ratios of recall share to market share were 1.36 for England, 1.20 for Germany, 1.98 for Sweden, 1.66 for France, and 1.17 for Italy. These figures may be compared to the corresponding figure of 1.28 for domestic manufacturers. It was thus concluded that of all manufacturers selling in the U.S., only the Japanese have been able to consistently

produce an automobile that has been relatively resistant to recall.

### Country of Origin Market Share Trends

The late 80s distribution of market shares in the U.S. market was about a 70 percent domestic, 22 percent Japanese, 8 percent miscellaneous split. This situation had evolved over the same period that coincided with the history of safety-related recalls. In 1966, the U.S. market was very much a "Snow White" and six dwarf market in which the domestics held a 95 percent share and the import dwarfs held the rest. At that point, the more important of the dwarfs was the German imports. The Japanese had just entered the marketplace, and even England was exporting more automobiles into the U.S. than Japan did that year. It was not until 1972 -1973 that the Japanese finally surpassed the Germans in imports.

During these first six or seven years, the growth of Japanese imports in market share was largely at the expense of other imports, specifically the Germans, British and French, as the Japanese became positioned as the best of the imports for the "import" segment. Only within the ten year period of 1973 to 1982 did the Japanese appear to go head to head with the domestics and gain major share at their expense. During this whole time period, the English, Swedes, French and Italian imports were never much of a factor in the U.S. market. Only rarely had any one country held even a one percent share, and just as infrequently had all four in total held two percent share as a group -- although the Swedish imports have shown a gain in popularity lately.

### Association of Market Share with Recall Indices

If buying behavior is associated with safety-related recall, then market share and recall should be related. Previous attempts to relate sales and recall, however, have not been successful (Swan, Pratt and Box 1975; Wynne and Hofer 1976; Page and Wilson 1976; Wilson and Page 1993). In interpreting these results it may be said fairly conclusively that the immediate consequence of calendar year recalls is not to impact sales within that year, or (apparently) subsequent years.

The availability of recall information with a model year base permits testing of a different,



and perhaps a more applicable, model -- the rebuy situation. In this model, purchase decisions are made, in part, as a consequence of prior experience with the product. If actual experience corresponded with expected experience, i.e., if the product was a "quality" product as evidenced by a good recall record,<sup>1</sup> then the customer would repurchase the same product. If the experience was a "bad" one, then the individual becomes a candidate to switch to another brand, and word-of-mouth or other form of communication on quality becomes important.

A model that builds in purchase with a lag term in recall and considers other manufacturers' results was thus thought appropriate. A multiple regression approach with these features was therefore used to test this model. In this model a measure of buying propensity was assumed to be associated with

100 - Recall Index (as a %)

that is, the fewer automobiles recalled in a model year, the higher the propensity to buy and vice versa. This term was called a "recall quality index" for an automobile year. Appropriate lag terms naturally were associated with the time period that first owners normally trade-in their automobiles. For the twenty years covered, this time period started at three years and has extended to five or six years. Experimentation with both simple and multiple regression results indicated that a four year lag best fit these data, which probably compares with the average first ownership of US vehicles during this period (Carey and Baumann 1994).

This model was tested and results are shown in Table 3. Confirmation of the model was modestly successful. That is, for the two major imports, Japan and Germany, signs for the major terms (domestic, Japanese, and German recall quality) tended to be as expected and coefficients tended to be significant. The explanatory power of the relationship, were in the 0.7 to 0.9 range for the three major manufacturers, which indicated that the relations have some use. Some problems naturally exist and these problems are apparent in the domestic results where the coefficient for the German recall quality is both positive and significant. Outside of this result, developments were rather satisfactory, and the authors take some consolidation in finally developing a model that

indicates sales tend to be adversely affected by recall.

## DISCUSSION AND CONCLUSIONS

An observation that can be made from this study is that safety related recalls have not affected all manufacturers equally. Further, impact is undoubtedly affected by quality control considerations. The Japanese, in particular who are well known for their quality concerns, have done best in dealing with recall. In fact, they have been the only nation of manufacturers that has produced a relatively defect-free automobile. The data supporting this conclusion are generally available and fit the time frame in which domestic quality was questioned and import quality was recognized as improved.

It is outside the scope of this paper to ascertain what was instrumental in causing these results. It is known, however, that Quality Function Deployment, an operating mechanism designed to transform customer expectations in manufacturing requirements, has been utilized in Japan since the early 70's. One manufacturer, in particular, has utilized this system since 1977 (Sullivan 1986; Kogure 1983). One claim for this system is that warranty claims can be reduced up to 50 percent (Fortuna 1988). Rather interesting is the knowledge that this system was adopted at a major domestic manufacturer in 1985 (Sullivan 1988).

Is it possible to expect a defect-free vehicle? This possibility is intriguing because it is clearly difficult when a third party (NHTSA) is setting standards, after the fact, and with an agenda that may not comply with either customer or producer priorities. At the manufacturers' level, defect-free automobiles have been produced and in appreciable numbers. One Japanese firm, the one referred above as adopting QFD, had six straight years without a recall, and another firm had a period of seven years in which five were recall-free.

A model that suggests that with an appropriate lag term and appropriate treatment of recall data, it can be shown that recall does affect subsequent sales. Instead of a model of "adverse publicity", a rebuy model thus appears more appropriate in interpreting these results. The explanatory power of this model is modest, but two factors undoubtedly affect results.

First, the purchase decision affecting automobile buying is perhaps as complex as any that is dealt with in the U.S. marketplace. Social-psychological influences are known to be common, important factors in these purchases. Therefore, any one factor model, even if it is a quality model, can be expected to be incomplete. Second, recall quality is recognized as being only one portion of the quality relationship as discussed previously. Overall manufacturing quality and perceptual quality are recognized as being other contributors to the "quality" that automobile owners recognize. Thus, even the one factor that is used in this model is but an indicator, and the explaining power must necessarily be partial. The authors take some pride, however, in determining, that after twenty years of dealing with these data, some relationship that relates adverse sales with recall can be established.

<sup>1</sup> It might be noted that we have made an implicit association of recall record with quality here. Some justification for taking this approach may be given by considering an ad for Chrysler in the February 22, 1988 Newsweek, which compared their favorable 1982-1986 recall record with Mercedes, Nissan, GM, Mazda, and Ford. On the facing page was quoted the favorable J.D. Power findings on product quality; clearly Chrysler was making a similar association. Correctly, however, recall is but an indication of mechanical quality; some of the aesthetic aspects of quality such as design and solidly closing doors would not obviously be associated with recall statistics.

## REFERENCES

Automotive News: Market Data Book (Annual Issues), Detroit, MI: Crain Communications.

Bohn, J. (1984), "How Power Rates Owner Satisfaction," Automotive News, September 17, 29-34.

Carey, Anne R. and Marty Baumann (1994), "We're Driving 'em Longer," USA Today (January 25), C-1.

Facts and Figures '87 (1987), Detroit, MI: Motor Vehicle Manufacturers' Association of the United States, Inc.

Fortuna, R. (1988), "Beyond Quality: Taking SPC Upstream," Quality Progress, June, 23-28.

Kogure, M. (1983), "Quality Function Deployment and CWQC in Japan," Quality Progress, October, 25-29.

Page, A.L. and T.L. Wilson (1976), "The Effect of Product Recall on the Marketing Environment in the U.S. Automobile Industry," in Proceedings of the 1976 American Marketing Association Educator's Conference, 417-421.

Safety Related Recall Campaigns for Motor Vehicle Equipment, Including Tires (1966-1987), Washington, DC: U.S. Department of Transportation, National Highway Traffic Safety Administration.

Sullivan, L. (1986), "Quality Function Deployment," Quality Progress, June, 39-50.

Sullivan, L. (1988), "Policy Management Through Quality Function Deployment," Quality Progress, June, 18-20.

Swan, D., E.R. Pratt and T. Box (1975), "Automobile Recall: A Multivariate Study of Consumer Reactions," in Proceedings of the Seventh Annual AIDS Meeting, 120-125.

Ward's Automotive Yearbook (Annual Issues) Detroit, MI: Ward's Communication Inc.

Wilson, T.L. and A.L. Page, "Mandated Safety Recalls in the U.S. Automobile Industry - Twenty Years of Industry Experience," World Marketing Congress, VI (1993), 9.

Wynne, J.A. and G.E. Hoffer (1976), "Auto Recalls: Do They Affect Market Share?," Applied Economics Vol. 8, 157-163.



Table 1 - Selected Recall Calculations

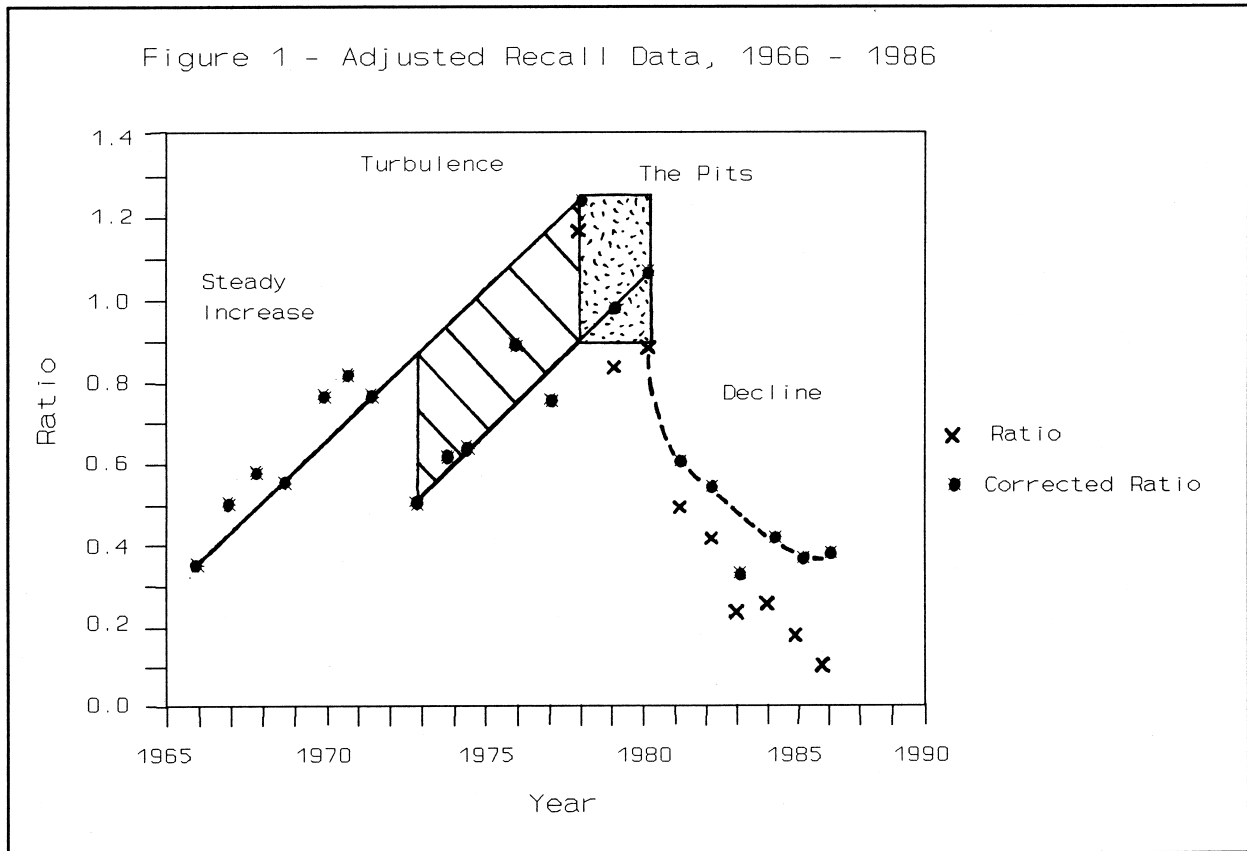
| <u>Model<br/>Year</u> | <u>Automobiles<br/>Recalled</u> | <u>Automobiles<br/>Sold</u> | <u>Recall<br/>Ratio</u> | <u>Corrected<br/>Ratio</u> |
|-----------------------|---------------------------------|-----------------------------|-------------------------|----------------------------|
| 1966                  | 3,078,689                       | 8,987,772                   | 0.342                   | 0.342                      |
| 1967                  | 4,126,894                       | 8,337,246                   | 0.495                   | 0.495                      |
| 1968                  | 5,358,562                       | 9,408,008                   | 0.570                   | 0.570                      |
| 1969                  | 5,234,723                       | 9,458,972                   | 0.553                   | 0.553                      |
| 1970                  | 6,318,710                       | 8,471,382                   | 0.746                   | 0.746                      |
| 1971                  | 8,398,607                       | 10,141,070                  | 0.828                   | 0.828                      |
| 1972                  | 8,367,544                       | 10,661,149                  | 0.785                   | 0.785                      |
| 1973                  | 5,718,501                       | 11,506,137                  | 0.497                   | 0.497                      |
| 1974                  | 5,408,630                       | 8,830,544                   | 0.612                   | 0.612                      |
| 1975                  | 5,526,830                       | 8,447,124                   | 0.654                   | 0.654                      |
| 1976                  | 9,189,035                       | 9,931,467                   | 0.925                   | 0.925                      |
| 1977                  | 7,830,235                       | 10,995,071                  | 0.712                   | 0.743                      |
| 1978                  | 12,645,055                      | 11,056,803                  | 1.144                   | 1.224                      |
| 1979                  | 8,978,263                       | 10,451,026                  | 0.859                   | 0.964                      |
| 1980                  | 8,035,780                       | 8,844,651                   | 0.908                   | 1.084                      |
| 1981                  | 4,162,572                       | 8,563,034                   | 0.486                   | 0.622                      |
| 1982                  | 3,190,910                       | 7,992,195                   | 0.399                   | 0.562                      |
| 1983                  | 1,790,549                       | 9,230,986                   | 0.194                   | 0.303                      |
| 1984                  | 2,481,156                       | 10,554,368                  | 0.235                   | 0.427                      |
| 1985                  | 1,817,233                       | 11,277,479                  | 0.161                   | 0.367                      |
| 1986                  | 1,139,942                       | 11,733,067                  | 0.097                   | 0.368                      |

Table 2 - Cumulative Recall Ratios 1966 - 1978

| <u>Year</u> | <u>Same</u> | <u>+1 Yr</u> | <u>+2 Yr</u> | <u>+3 Yr</u> | <u>+4 Yr</u> | <u>+5 Yr</u> | <u>+6 Yr</u> | <u>+7 Yr</u> | <u>+8 Yr</u> | <u>+9 Yr</u> |        |
|-------------|-------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------|
| 1966        | 5.34        |              | 18.50        | 18.50        | 49.27        | 49.98        | 89.34        | 95.46        | 95.51        | 99.28        | 100.00 |
| 1967        | 48.54       |              | 48.66        | 61.67        | 62.22        | 91.90        | 95.54        | 96.65        | 99.46        | 100.00       | 100.00 |
| 1968        | 23.77       |              | 62.76        | 64.56        | 87.85        | 91.52        | 92.02        | 92.12        | 92.14        | 94.30        | 100.00 |
| 1969        | 58.31       |              | 62.40        | 86.23        | 90.01        | 90.53        | 90.77        | 90.77        | 92.99        | 99.66        | 100.00 |
| 1970        | 7.72        |              | 29.61        | 62.64        | 63.23        | 63.52        | 63.52        | 65.36        | 68.33        | 68.62        | 68.87  |
| 1971        | 8.21        |              | 41.77        | 67.27        | 67.75        | 67.99        | 69.50        | 70.97        | 74.81        | 76.46        | 76.94  |
| 1972        | 28.53       |              | 54.40        | 55.27        | 57.68        | 59.30        | 69.86        | 74.17        | 75.64        | 76.85        | 100.00 |
| 1973        | 37.39       |              | 41.45        | 41.88        | 43.60        | 50.93        | 57.79        | 59.27        | 63.79        | 100.00       | 100.00 |
| 1974        | 31.77       |              | 37.60        | 39.18        | 40.88        | 50.17        | 52.91        | 60.50        | 98.79        | 98.79        | 100.00 |
| 1975        | 18.41       |              | 23.87        | 36.74        | 51.61        | 58.93        | 59.45        | 96.42        | 96.42        | 99.99        | 100.00 |
| 1976        | 17.49       |              | 53.21        | 70.76        | 74.58        | 75.37        | 97.85        | 97.85        | 100.00       | 100.00       | 100.00 |
| 1977        | 29.32       |              | 46.26        | 57.77        | 61.81        | 90.09        | 90.11        | 96.00        | 99.62        | 100.00       | 100.00 |
| 1978        | 27.45       |              | 50.37        | 52.93        | 82.04        | 82.21        | 86.41        | 92.82        | 99.92        | 99.92        | 99.92  |
| Ave.        | 26.33       |              | 43.91        | 55.03        | 64.04        | 70.96        | 78.08        | 83.78        | 89.03        | 93.40        | 95.82  |

Table 3 - Regression Coefficients for Four-Year Lag, Multiple Regression

| Country     | Intr. | U.S.    | Japan   | Germ.   | Engl.   | Swed.   | Fran.   | Italy   | R2   |
|-------------|-------|---------|---------|---------|---------|---------|---------|---------|------|
| U.S.        | 68.00 | 0.0700  | -0.0150 | 0.1400  | 0.0300  | 0.0300  | 0.0145  | -0.0800 | 0.86 |
| (std. err.) |       | 0.0500  | 0.0248  | 0.0278  | 0.0300  | 0.0164  | 0.0200  | 0.0300  |      |
| Japan       | 28.78 | -0.0890 | 0.0400  | -0.1780 | -0.0430 | -0.0340 | -0.0270 | -0.0700 | 0.85 |
|             |       | 0.0710  | 0.0330  | 0.0370  | 0.0410  | 0.0220  | 0.0290  | 0.0450  |      |
| Germany     | 3.17  | 0.0080  | -0.0160 | 0.0200  | 0.0040  | 0.0018  | 0.0095  | -0.002  | 0.72 |
|             |       | 0.0168  | 0.0078  | 0.0088  | 0.0098  | 0.0052  | 0.0069  | 0.0100  |      |
| England     | 0.08  | 0.0027  | -0.0010 | 0.0046  | 0.0002  | 0.0006  | 0.0006  | -0.0010 | 0.61 |
|             |       | 0.0034  | 0.0015  | 0.0017  | 0.0019  | 0.0010  | 0.0014  | 0.0021  |      |
| Sweden      | 1.55  | -0.0070 | 0.0000  | -0.0060 | -0.0010 | -0.0010 | 0.0009  | 0.0041  | 0.84 |
|             |       | 0.0028  | 0.0013  | 0.0014  | 0.0016  | 0.0008  | 0.0011  | 0.0017  |      |
| France      | 0.55  | -0.0030 | 0.0013  | -0.0010 | -0.0010 | 0.0000  | 0.0001  | -0.0003 | 0.48 |
|             |       | 0.0028  | 0.0013  | 0.0014  | 0.0016  | 0.0008  | 0.0011  | 0.0018  |      |
| Italy       | 0.06  | 0.0030  | 0.0000  | 0.0068  | -0.0020 | 0.0006  | 0.0009  | -0.0013 | 0.50 |
|             |       | 0.0056  | 0.0026  | 0.0029  | 0.0032  | 0.0017  | 0.0023  | 0.0035  |      |



# TURNOVER INTENTIONS OF MARKETING MANAGERS

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## ABSTRACT

The purpose of the current study was to test how procedural justice and role stress impact pay satisfaction, promotional satisfaction, supervisor satisfaction, and organizational

commitment. Overall, the results indicate that procedural justice and role stress play an important role in the intent to turnover process and needs to be investigated further.

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## INTRODUCTION

Few areas have been studied in organizational behavior and industrial/organizational psychology like that of turnover behaviors. Several models exist that explain the turnover process (Bluedorn 1982; Mobley, Horner, and Hollingsworth 1978; Price and Mueller 1986). It has been shown that job satisfaction is a major component of turnover models (Mobley, Horner, and Hollingsworth 1978; Price and Mueller 1986). Although job satisfaction has been found to be important to an employee's decision to leave an organization (Hom, Caranikas-Walker, Prussia, and Griffeth 1992), Bluedorn's (1982) model indicates that the relationship between job satisfaction and withdrawal cognition is mediated by organizational commitment. Recent studies support this relationship (Price and Mueller 1986; Shore, Newton, and Thornton 1990). In the present research, a structural equation model approach will be used to test an overall model of the turnover process. The purpose is to use the Bluedorn (1982) turnover model as a base and to test how procedural justice and role stress impact the different facets of job satisfaction in the turnover process.

## THEORETICAL FRAMEWORK

It is expected that employees' organizational commitment will lead to their withdrawal cognitions. Research suggests that this is the case (e.g., Bluedorn 1982). Organizational commitment also is expected to mediate the relationship between job satisfaction and withdrawal cognitions (Johnston, Parasuraman, Futrell, and Black 1990; Shore, Newton, and Thornton 1990). However, some confusion exists for the causal ordering of job satisfaction and

organizational commitment. Although a few researchers have analyzed organizational commitment as a predictor of job satisfaction (e.g., Bateman and Strasser 1984), most researchers have analyzed job satisfaction as an antecedent to organizational commitment (e.g., Johnston, Parasuraman, Futrell, and Black 1990). Job satisfaction appears to be a significant predictor of organizational commitment while the reverse causal relationship is not as significant.

When analyzing the relationship between job satisfaction and turnover, many researchers have used a global measure of satisfaction. Much research exists that suggests the different facets of job satisfaction should be used as predictors of turnover. For example, Telly, French, and Scott (1971) indicated that employees' feelings of inequity may lead to turnover. Inequity may manifest itself in the rewards in which employees receive. Therefore, pay satisfaction again may be important to the turnover decision. Also, Scholl, Cooper, and McKenna (1987) found that pay satisfaction was highly correlated with employees' intent to remain with an organization. Finally, Leigh, Lucas, and Woodman (1988) reported significant correlations between intention to change jobs and satisfaction with pay, satisfaction with promotion, and satisfaction with supervision. In the present study, it is expected that the different facets of job satisfaction will impact withdrawal cognitions indirectly through organizational commitment.

Procedural justice refers to the perceived fairness concerning the means used to determine the amount of punishment or rewards employees receive (Folger 1977). The procedural justice perspective indicates that procedural justice should be more highly related to

employees' institutional evaluations that require a long term perspective versus the satisfaction with specific outcomes (Folger and Konovsky 1989). For example, Folger and Konovsky (1989) found that procedural justice was very important when explaining an employee's trust in supervision and his/her organizational commitment. The research suggests that a strong link should exist between employees' perceptions of procedural justice and their satisfaction with their supervisor.

Role stress represents the amount of stress employees may feel because of characteristics of the jobs they perform. Role stress is generally discussed in terms of role conflict and role ambiguity (Jackson and Schuler 1985; Mathieu 1991). Role stress has been found to be correlated with both job satisfaction and organizational commitment (Mathieu and Zajac 1990). Jackson and Schuler (1985) found that both role ambiguity and role conflict were negatively correlated with both general job satisfaction and the different facets of job satisfaction. Mathieu (1991) also found role conflict and role ambiguity to be important in the satisfaction/organizational commitment link but indicated that the influences of role stress on organizational commitment were completely mediated by job satisfaction. In this study, role stress is expected to impact organizational commitment indirectly through the different facets of job satisfaction.

## METHOD

### Sample and procedure

Questionnaires were mailed to 1,000 marketing managers. Responses were received from 221 marketing managers. The demographic profile of the sample was as follows: the average age of the respondents was 41 years; they had worked for their present employers for 9.1 years; males comprised 58.2 percent of the sample; most of the respondents were employed in either middle or upper level management positions (87.6 %); seventy-three percent of the respondents were married; and the average household income was approximately \$70,000.

### Measures

Except for distributive justice, all scale items were measured using 5-point Likert scales. Distributive justice was measured using a 5-point

scale ranging from very unfair (1) to very fair (5). Withdrawal cognitions were measured using two scales developed for this study. A three item scale was used to measure a respondent's *intention to leave* ( $\alpha = .80$ ). *Intention to search* was measured with two items ( $\alpha = .96$ ). In his model of turnover, Bluedorn (1982) hypothesized that *intention to search* and *intention to leave* were separate constructs. The results of two recent studies using structural equation modeling, however, provide empirical support for measuring *intention to search* and *intention to leave* as indicators of an unmeasured latent factor--withdrawal cognitions (Hom, Caranikas-Walker, Prussia, and Griffeth 1992; Jaros, Jermier, Kowhler, and Sincich 1993). Jaros, Jermier, Kowhler, and Sincich (1993) tested eight versions of a turnover model. The model with the best overall fit was one where withdrawal variables were used as measures of an unmeasured latent factor. *Organizational commitment* was measured using the 9-item version of the scale developed by Porter, Steers, Mowday, and Boulian ( $\alpha = .89$ ). Four indexes of job satisfaction were measured. *Pay satisfaction* was measured by two scales: a four item scale ( $\alpha = .86$ ) developed for this study and the distributive justice scale developed by Price and Mueller (1986) ( $\alpha = .94$ ). In this study pay satisfaction and distributive justice were both used to measure the latent construct. In the past the scales used to measure the two constructs have contained similar items. Therefore, theoretical justification appears to exist to use both scales as measures of pay satisfaction. The correlation between the two scales in this study also provides support for this decision ( $r = .75$ ). *Promotional satisfaction* was measured using a four item scale developed for this study ( $\alpha = .90$ ). Supervisor satisfaction was measured using the planning, feedback, and recourse factors developed by Folgers and Konovsky (1989:  $\alpha = .89, .88$ , and  $.94$  respectively). *Role stress* was measured using the role ambiguity ( $\alpha = .79$ ) and role conflict scales ( $\alpha = .80$ ) taken from the psychological climate inventory developed by James, Jones, and colleagues (cf. James and Sells 1981).

### Analytic Strategy

The LISREL VII program developed by Joreskog and Sorbom (1989) was used to evaluate the fit of the models. Three measures were used to assess the fit of the structural models: goodness-of-fit index (GFI) as provided by the

LISREL program (Joreskog and Sorbom 1989); Bentler and Bonett's normed fit index (NFI); and the parsimonious normed fit index (PFI) developed by James, Mulaik, and Brett (1982).

*Promotional satisfaction, supervisor satisfaction, and organizational commitment* were estimated with single measures. Since the measures were not perfectly reliable, a method was needed to account for measurement error. Following the procedure used by Williams and Hazer (1986), the path linking the construct to the latent variable was fixed to the square root of the construct's coefficient alpha reliability. The measurement error was fixed to the value of 1 minus the alpha coefficient.

## RESULTS

### Confirmatory Factor Model

The results of the confirmatory factor analysis model indicated a good model fit,  $\chi^2 = 56.60$  (21 df,  $N = 221$ ,  $p < .001$ ) (GFI .949). The relationship between the indicator variables and their respective latent variables was statistically significant.

### Structural Models

The first analysis of the structural models involved comparing the null model with the measurement model. The comparison of the two models indicated a highly significant difference in  $\chi^2 = 1909.19$  (20 df,  $N = 221$ ,  $p < .001$ ). Since the null and measurement models were significantly different, the theoretical model was analyzed. The results indicated a good model fit. The hypothesized model differed significantly from the measurement model,  $\chi^2 = 9.17$  (2 df,  $N = 221$ ,  $p < .01$ ).

Other fit measures provide further support for the hypothesized model. Though the normed fit index dropped from .936 to .931, the value still meets the .90 criterion established by Bentler and Bonnet (1980). Both GFI and AGFI values were not very different from the measurement and the hypothesized models (GFI, .914 to .907 and AGFI, .854 to .848). The PFI was better in the hypothesized model (.677) as compared to the measurement model (.652).

## CONCLUSIONS

The purpose of this study was to develop and test a model of turnover intentions of marketing managers. Specifically, the study examined the effect of role stress and procedural

justice on different facets of job satisfaction. In addition, this study examined the mediating influence of job satisfaction and organizational commitment in the turnover process.

Various fit indices provided support for the hypothesized model. The hypothesized relationships were significant in the anticipated direction. The results supported both the proposed relationships and Mathieu's (1991) findings in that influence of role stress on organizational commitment is mediated by job satisfaction.

Another important finding was the influence of procedural justice on supervisor satisfaction. The results indicated that procedural justice had a major impact on employees' satisfaction with their supervisors, which then had a significant influence on organizational commitment. The results in respect to role stress and procedural justice indicate the importance of using different facets of job satisfaction rather than a global measure of job satisfaction.

Several recommendations can be made with respect to future research. First, the model needs to be tested using multiple samples. Results may differ depending on employees sampled. Second, the model must be tested using a longitudinal framework -- a longitudinal assessment of the model may provide a better understanding of how or if turnover intentions change over time. Third, future studies need to apply multiple measures of all constructs if true structural equation modeling is used.

## REFERENCES

- Bateman, T. S. and S. Strasser (1984), "A Longitudinal Analysis of the Antecedents of Organizational Commitment," Academy of Management Journal, 27 (March), 95-112.
- Bentler, P. M. and D. G. Bonett (1980), "Significance Tests and Goodness of Fit in the Analysis of Covariance Structures," Psychological Bulletin, 88, 588-606.
- Bluedorn, A. C. (1982), "A Unified Model of Turnover From Organizations," Human Relations, 35 (February), 135-153.
- Folger, R. (1977), "Distributive and Procedural Justice: Combined Impact of 'Voice' and Improvement on Experienced Inequity," Journal of Personality and Social Psychology, 35 (January), 108-119.

- Folger, R. and M. A. Konovsky (1989), "Effects of Procedural and Distributive Justice on Reactions to Pay Raise Decisions," Academy of Management Journal, 32 (March), 115-130.
- Hom, P. W., F. Caranikas-Walker, G. E. Prussia, and R. W. Griffeth (1992), "A Meta-Analytic Structural Equations Analysis of a Model of Employee Turnover," Journal of Applied Psychology, 77 (December), 890-909.
- Jackson, S. E. and R. S. Schuler (1985), "A Meta-Analysis and Conceptual Critique of Research on Role Ambiguity and Role Conflict in Work Settings," Organizational Behavior and Human Decision Processes, 36 (August), 16-78.
- James, L. R., S. A. Mulaik, and J. M. Brett (1982), Causal Analysis: Assumptions, Models, and Data. SAGE Publications: Beverly Hills, CA.
- James, L. R. and S. B. Sells (1981), "Psychological Climate: Theoretical Perspectives and Empirical Research," in D. Magnusson (ed.), Toward a Psychology of Situations: An Interactional Perspective (275-295), Hillsdale, NJ: Erlbaum.
- Jaros, S. J., J. M. Jermier, J. W. Koehler, and T. Sincich (1993), "Effects of Continuance, Affective, and Moral Commitment on the Withdrawal Process: An Evaluation of Eight Structural Equation Models," Academy of Management Journal, 36 (5), 951-995.
- Johnston, M. W., A. Parasuraman, C. M. Futrell, and W. C. Black (1990), "A Longitudinal Assessment of the Impact of Selected Influences on Salespeople's Organizational Commitment During Early Employment," Journal of Marketing Research, 27 (3), 333-344.
- Joreskog, K. G. and D. Sorbom (1989), LISREL 7 User's Reference Guide, Chicago, IL: Scientific Software.
- Leigh, J. H., G. H. Lucas, Jr., and R. W. Woodman (1988), "Effects of Perceived Organizational Factors on Role Stress-Job Attitude Relationships," Journal of Management, 14 (March), 41-58.
- Mathieu, J. E. (1991), "A Cross-Level Non-recursive Model of the Antecedents of Organizational Commitment and Satisfaction," Journal of Applied Psychology, 76 (October), 607-618.
- Mathieu, J. E. and D. M. Zajac (1990), "A Review and Meta-Analysis of the Antecedents, Correlates, and Consequences of Organizational Commitment," Psychological Bulletin, 108 (September), 171-194.
- Mobley, W. H., S. O. Horner, and A. T. Hollingsworth (1978), "An Evaluation of Precursors of Hospital Employee Turnover," Journal of Applied Psychology, 63 (August), 408-414.
- Porter, L. W., R. M. Steers, R. M. Mowday, and P. V. Boulian (1974), "Organizational Commitment, Job Satisfaction, and Turnover Among Psychiatric Technicians," Journal of Applied Psychology, (59), 603-609.
- Price, J. L. and C. W. Mueller (1986), Absenteeism and Turnover Among Hospital Employees. Greenwich, CT: JAI Press.
- Scholl, R. W., E. A. Cooper, and J. F. McKenna (1987), "Referent Selection in Determining Equity Perceptions: Differential Effects on Behavioral and Attitudinal Outcomes," Personnel Psychology, 40 (Spring), 113-124.
- Shore, L. M., L. A. Newton and G. C. Thornton III (1990), "Job and Organizational Attitudes in Relation to Employee Behavioral Intention," Journal of Organizational Behavior, 11, 57-67.
- Telly, C. S., W. L. French, and W. G. Scott (1971), "The Relationship of Inequity to Turnover Among Hourly Workers," Administrative Science Quarterly, 16 (June), 164-172.
- Williams, L. J. and J. T. Hazer (1986), "Antecedents and Consequences of Satisfaction and Commitment in Turnover Models: A Reanalysis Using Latent Variable Structural Equation Methods," Journal of Applied Psychology, 71 (May), 219-231.

# USING A MARKETING APPROACH TO IMPROVE CONGREGATIONAL WORSHIP

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## ABSTRACT

This is an empirical study, which employs factor analysis, regression analysis, and analysis of variance to identify attributes which determine worshippers' satisfaction in a church.

**Introduction.** The understanding of the worshippers' perception of a good service and the extent the church is meeting their expectations is important in that it gives recognition to all worshippers as partners in the experience of encountering God. The purpose of this exploratory study is to: (a) Assist churches in identifying the attitudes of the worshippers and in gaining a better understanding of the lay persons' view of worship, (b) Determine empirically the attributes which determine worshippers' satisfaction, and (c) To assess the implications of the determinants of worshippers' satisfaction.

### Hypothesis.

- H<sub>1</sub>: There is no significant difference between the means of the attitude scores in each of the following categories (marital status, income), but there is a significant difference between the means of the attitude scores in each of the following categories (age, attendance).
- H<sub>2</sub>: There is no significant difference between the means of the scores of the overall satisfaction with the worship service in each of the following categories (marital status, number of children), but there is a significant difference between the means of the scores of the overall satisfaction with the worship service in each of the following categories (religious preference, gender).
- H<sub>3</sub>: There is a positive correlation between the congregation's attitude toward the church and worship and the level of worship satisfaction.

**Methodology.** Barry and Gullledge (1977) suggested several attributes and classified them into four components, namely Church Environment (location, decor, etc), Pulpit Ministry

(quality/relevance of message, guest speakers, etc), Music Ministry (choir, musicians, etc), Congregational Participation (time for meditation, personal interaction, etc). Our questionnaire was organized into three sections (respondent's ratings of the important attributes, their satisfaction of each of the attributes, demographic information).

**Data Analysis.** (a) Reliability analysis of each scale to determine if the items in the scale truly measure the construct which they were intended to measure. (b) Factoring of the attitude scale and the attribute importance scales to conceptualize the grouping of these variables. (c) Regression analysis to determine if: (1) the overall satisfaction with each component of worship is a function of the satisfaction with each attribute in that component, (2) the overall satisfaction with the worship service is a function of the overall satisfaction with each component. (d) A one-way ANOVA between the demographic variables and the sum total scores of attitudes in section two of the questionnaire and the overall satisfaction with the entire worship service to find out if there are any major differences among the subgroups in each demographic variables.

**Conclusions.** Based on a sample of 319 respondents, the following are some of our recommendations: (1) Churches should recruit better trained musicians and choir singers. (2) Churches should give worshippers opportunities to attend services outside regular hours. (3) The sermon should be tailored to a more "singles" type crowd. (4) Churches should concentrate on the message in terms of both relevance and quality. (5) Steps should be taken to provide comfortable temperatures, friendly congregation, etc.

### References.

- Barry J. C. and J. Gullledge (1977), "Evaluating and Improving Congregational Worship" Ideas for Effective Worship Services, New York: Conventional Press, 67-81.

**THIRD PARTY ENDORSEMENT VIA  
EVALUATIVE CERTIFICATION AS A METHOD  
FOR INCREASING MAIL SURVEY RESPONSE RATES:  
A FIELD EXPERIMENT**

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**ABSTRACT**

This paper investigates the use of third party endorsement via evaluative certification as a technique for improving mail survey response rates. The study was carried out using

a field test, testing only two conditions: endorsed and non-endorsed. The result of the study suggests that evaluative certification does not enhance mail survey response rates.



# WHERE, WHEN, AND HOW TO TEACH INTEGRATED MARKETING COMMUNICATIONS

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## ABSTRACT

Whether brought on by the splintering of markets, the rise of mass advertising rates, the proliferation of new media, or simply by the maturing of an industry growing in its level of complexity, there's no denying that professionals and academics alike from both the marketing and the communications disciplines are searching for a new approach to promotion. This movement has brought together many formerly distinct forms of promotion and communications under the rubric of **Integrated Marketing Communications**.

On the one hand, most professionals recognize the need for synergy and coordination among the subdisciplines within the promotion industry; on the other hand, few know how to approach this complex topic from any but their own perspectives. For example, individuals trained in schools of business and marketing approach promotions from one point of view, while those trained in schools of communication approach it from yet another viewpoint.

Further, the interdisciplinary nature of advertising and the other forms of promotion and communication management made responding to business's mandate to "*. . . bring it all together effectively and efficiently*" an onerous and often risky task.

So how do we address this important issue at the university level? Does it belong in the Marketing curriculum or in the Communications Department? Graduate or undergraduate level? How do we include it in our current courses? **This special session included the following panelists with these topics:**

Moderator: **Kerri Acheson**, Moorhead State University, Moorhead, MN 56563

**Tom Duncan**, Director, Integrated Marketing Communications Graduate Program, University of Colorado at Boulder: ***Graduate IMC Programs***

**Sandra Moriarty**, Professor, University of Colorado at Boulder: ***How IMC fits into the Advertising Course***

**George Manross**, Associate Professor, School of Communication, California State University, Fullerton: ***Where IMC fits into Advertising Programs***

**Kerri Acheson**, Associate Professor of Marketing, Moorhead State University: ***How IMC fits into Undergraduate Marketing Programs***

# COMPARING FORECASTING BEHAVIOR BETWEEN INDUSTRIAL-PRODUCT FIRMS AND CONSUMER-PRODUCT FIRMS

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## ABSTRACT

This paper examines and compares the forecasting behavior of industrial-products firms to that of consumer-products firms to determine

differences in their respective forecasting behavior. We also analyze why the found differences would be so and provide implications.

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## INTRODUCTION

Woody Hayes, former Ohio State football coach, when asked why he believed in the "three yards and a pile of dust" rushing attack replied, "Because, when you pass the football three things can happen, two of which are bad." Managers have the same dread of forecasting that Woody had of the pass: three things can happen when one forecasts two of which are bad, one can overforecast or one can underforecast. Looking at forecasting at a time when they may need good forecasts more than ever, many managers are downplaying their importance. One reason may be that-like many other things-when forecasts are right, you don't hear about them. But when they're wrong."

Forecasting is predicting, projecting, or estimating some future event or condition which is outside of an organization's control and provides a basis for managerial planning. Organizations forecast so they can plan their future. Forecasting is a crucial input for planning in almost all companies. Forecasts are major components of the business decision-making process. When accurate, estimates of future economic activity associated with specific courses of action can correctly guide corporate strategy in an uncertain environment; when inaccurate, they can bankrupt.

Forecasting plays an important role in every major functional area of business management. More companies probably undertake some form of forward estimation of their markets and their sales than of any other aspect of their activities. The estimates produced may then be used

in a variety of ways, such as in production planning, planning the sales force, setting advertising appropriations, estimating cash flow, assessing the need for innovation or diversification, and in considering the general position of the company in the future. In the area of marketing, forecasting is doubly important; not only does it have a central role in marketing itself, but marketing-developed forecasts play a key role in the planning of production, finance, and other areas of corporate activity. The importance of forecasting has become more widely acknowledged in the recent past due to substantial changes in the economic environment.

In general, the following beliefs can be made about forecasting:

1. The Time Horizons of Forecasting. The longer the time horizon of the forecasts, the greater the chance that established patterns and relationships, will change, invalidating forecasts. Specifically, the more time competitors have to react to predicted events or the predictions themselves, the more able they will be to influence future events for their own benefit. Thus, all else being equal, forecasting accuracy decreases as the time horizons increase.
2. Technological Change. The higher the rate of technological change in a given industry, all other things being equal, the greater the chance that established patterns and relationships will change, and the greater the chance that competitors will be able to influence the industry through technological innovation. An excellent example is high-tech

industries, where forecasting is almost impossible as firms strive to create the future according to their own conceptions. By bringing out new technologies, they hope to shape the future in desired directions in order to achieve competitive advantage. Thus, forecasting accuracy decreases as the rate of technological change increases.

3. Barriers to Entry. The fewer the barriers to entry, all other things being equal, the more inaccurate the forecasting as new competitors -- both domestic and foreign -- can drastically change established patterns and relationships in their quest to gain competitive advantage.
4. Dissemination of Information. The faster the dissemination of information, all other things being equal, the less useful the value of forecasting, as everyone will have the same information and can arrive at similar predictions. In such a case it becomes impossible to gain advantages from accurate forecasting, as everyone else will also attempt to do so. This means that accurate forecasts are not necessarily useful, a point which is not always understood or accepted, although examples abound. The growth in mainframes and microcomputers was correctly predicted, but few gains resulted, as many companies that used such accurate forecasts went bankrupt.
5. Elasticity of Demand. The more elastic the demand, all other things being equal, the less accurate the forecasts. Thus, demand for necessities (for example, food items) can be predicted with a higher degree of accuracy than for non-necessities (such as vacationing). Obviously, people must eat and acquire necessities, which are given priority over other purchases in case of income reduction.
6. Consumer Versus Industrial Products. Forecasts for consumer products, all other things being equal, are more accurate than those for industrial products. Industrial products are sold to a few customers. If only one of those customers is lost, the resulting error can represent a substantial proportion of sales because of the large quantities, or sales value, such customers buy. Those customers are well-informed and can receive offers of bargain terms from competitors because of

the large quantities or value amounts they buy (Makridakis 1990).

## METHODOLOGY

Data for this study was collected by mail survey with telephone follow-up to enhance sample size. A cover letter with the university letterhead was utilized to provide legitimacy. The surveys were addressed to "Forecasting/Marketing" Manager to guide it to the most relevant respondent within the company. One thousand surveys were mailed to a sample of functioning entities. This sample included 200 each chosen randomly from the leading 500 U.S. industrial concerns (from Business Week 500), Fortune's Services 500, the Forbes 200 Top Small Businesses, 200 companies from the 500 Largest U.S. based Multinationals (foreign headquarters) and 200 from the largest national non-profit/governmental affiliates. A second mailing (of 500) was made after 60 days. This mailing was to non-respondents with particular attention paid to undersample groups. This was followed by a random phone survey of non-respondents after an additional thirty days. One hundred and sixty-five (165) responses were received, of which 150 were usable for a response rate of 15%.

Information requested included type of business, customer type, geographic area served, number of employees, company revenues, number of offices or plants, years in business, and years of forecasting experience for individual being surveyed. Questions asked included who is involved in the preparation of forecasts for the surveyed company, type and frequency of forecast, importance and usage of forecasting techniques, uses of forecasted data within the company, number of iterations in the forecasting cycle, duration between forecast and availability of results, usage of more than one forecasting technique, and who from a company is typically involved in a forecasting cycle. The questions were predominantly answered on an 7 point interval scale or by checking the appropriate box. The data was tabulated and graphed per response for each question. Chi square analysis was used to assess differences between consumer-products firms and industrial-products firms.

## RESULTS

**Table 1** illustrates the organizational profile of the respondents.

**TABLE 1**  
**Respondent Characteristics**

|                             | <u>All</u> | <u>Industrial</u> | <u>Consumer</u> |
|-----------------------------|------------|-------------------|-----------------|
| Number of Respondents       | 150        | 55                | 75              |
| Size of Firm: \$ Revenues   |            |                   |                 |
| < \$10 Million              | 10         | 5                 | 2               |
| \$10-100 M                  | 35         | 13                | 15              |
| \$100-500 M                 | 31         | 12                | 14              |
| > \$500 Million             | 66         | 22                | 42              |
| Number of Employees         |            |                   |                 |
| 1-100 Small                 | 8          | 7                 | 1               |
| 100-500 Mid                 | 32         | 14                | 15              |
| 500-1000 Med                | 15         | 1                 | 9               |
| 1000-5000 Large             | 41         | 17                | 20              |
| > 5000 Very Large           | 46         | 16                | 30              |
| Sites: Offices/Plants       |            |                   |                 |
| 1 (Single Site)             | 15         | 7                 | 6               |
| 2-10                        | 52         | 23                | 23              |
| 11-50                       | 32         | 13                | 16              |
| 50-500                      | 32         | 7                 | 23              |
| > 500                       | 12         | 5                 | 7               |
| Years of Operation for Firm |            |                   | 8               |
| > 10                        | 15         | 5                 | 25              |
| 10-40                       | 51         | 23                | 30              |
| 40-100                      | 55         | 19                | 11              |
| > 100                       | 21         | 7                 |                 |

Note 1: Columns do not necessarily add up due to non-response.

Note 2: Differences between Total Sample and Consumer-Industrial firms are due to other categories not included (non-profit).

We had expected to see great differences in the forecasting behavior between industrial product firms and consumer product firms. This was not the case in that more similarities than differences were observed.

The first area of similarity is how respondents viewed their overall forecasting process. The factor analysis (principal components no rotation) performed on respondents' rating of their forecasting process produced two identical dimensions. The first labeled 'Efficacy' grouped simplicity, meaningfulness, effectiveness, timeliness, accuracy, and satisfaction. The second factor labeled "Ease of Usage" grouped simplicity, understandability, and overall easy to use.

**Table 2**, at right, illustrates the results of this factor analysis.

| <b>TABLE 2</b><br><b>Results of Factor Analysis*</b>                                                                                                                                                                       |                 |                 |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|-----------------|
| <u>Variable</u>                                                                                                                                                                                                            | <u>Factor 1</u> | <u>Factor 2</u> |
| Simplicity                                                                                                                                                                                                                 | 0.592*          | 0.463*          |
| Understandability                                                                                                                                                                                                          | -0.087          | 0.870*          |
| Ease of Use                                                                                                                                                                                                                | -0.118          | 0.852*          |
| Meaningfulness                                                                                                                                                                                                             | 0.845*          | 0.052           |
| Effectiveness                                                                                                                                                                                                              | 0.846*          | -0.010          |
| Timeliness                                                                                                                                                                                                                 | 0.561*          | -0.280          |
| Accuracy                                                                                                                                                                                                                   | 0.747*          | 0.053           |
| Satisfaction                                                                                                                                                                                                               | 0.746*          | -0.023          |
| Eigenvalues                                                                                                                                                                                                                | 3.096           | 1.918           |
| % Variance Explained                                                                                                                                                                                                       | 38.69           | 23.97           |
| * This factor analysis was for the entire sample. Part factor analyses compiled on the consumer-product sub-sample and the industrial-product sub-sample agreed on factor loadings with the entire sample factor analysis. |                 |                 |

Beyond the factor analysis we observed that the number of people involved and their levels within the company tend to be similar for both consumer products firms and industrial products firms. Both groups indicated similar number of iterations in their forecasting process as well as a similar duration before feedback results were available to users. The level of subjectivity within the forecasting process and general overall level of satisfaction with the forecasting processes were similar.

However, several significant differences between the two groups were found. Using Chi-square analysis, the following results were significant at the  $p < .02$  level. Consumer products firms believe their forecasting processes exhibit greater accuracy than do industrial product firms. Consumer product firms put lower importance on exponential smoothing. Consumer product firms do not use Sales Force Composite as often as do industrial products firms. Consumer firms do not competitively forecast nor do they forecast industry trends as often as do industrial firms.

Industrial-products firms, on the other hand, rated Sales Force Composite much higher in importance and usage than did consumer firms. Competitive forecasting is done more often and considered more important by industrial products firms than by consumer firms. Forecasting industry trends tends to be more often used and more highly rated by industrial products firms than by consumer firms. Industrial firms tend to forecast more by application than do consumer firms. Industrial firms rated their forecasting process as more easier to understand than did consumer firms.

## CONCLUSIONS

As expected, differences were seen between the two groups in the forecasting techniques preferred. Industrial firms predominantly used Sales Force Composite and Jury of Executive Opinion, confirming previous research. Industrial firms were found to more often use and value more highly forecasting by industrial trends, competitive analysis, and applications. Consumer firms believe their forecasting accuracy is higher than industrial firms, confirming previous research.

The most surprising finding was the high level of agreement in most questions between consumer products firms and industrial products firms. We would expect to see considerable contrast due to the different classes of customers. This, though, was not so. In virtually every other category, no differences between the groups were noted. A discriminant analysis (not significant) run between the two group provided only one marginally significant variable (number of forecasting uses), confirming our finding of similarity between the two groups. Perhaps, contrary to popular opinion as it might be, the two groups might be more similar in forecasting behavior than differences.

## REFERENCES

- Cox, James E., Jr. (1989) "Approaches for Improving Salespersons' Forecast," Industrial Marketing Management, Vol: 18, Iss:4, pgs: 307-311.
- Dalrymple, Douglas J. (1975), "Sales Forecasting Methods and Accuracy," Business Horizons, December, 69-73.
- Makridakis, Spyros G. and Steven C. Wheelwright (1977), "Forecasting: Issues and Challenges for Marketing Management," Journal of Marketing, October, 24-37
- Makridakis, Spyros G. (1990), Forecasting: Planning and Strategy for the 21st Century, New York: Free Press.
- Reilly, Robert F. (1980), "Developing a Sales Forecasting System," Managerial Planning, (July/August), 24-26.
- Rothe, James T. (1978), "Effectiveness of sales forecasting methods," Industrial Marketing Management, vol. 7, 114-118.
- Sales Management (1987), "Sales Forecasting: is five percent error good enough?" December 15, 41-48.
- Wheelwright, S.C. and D. Clarke (1976), "Corporate Forecasting: Promise and Reality", Harvard Business Review (November/December).

# PERSONAL STAKE AS A CAUSAL DETERMINANT OF INFLUENCE TACTICS IN INDUSTRIAL BUYING

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## ABSTRACT

The relationship between perceived personal stake in the purchase decision and the importance of five influence tactics is investigated. The personal stake variables are Extrinsic Rewards, Intrinsic Rewards, Departmental Stake,

Peer Credibility, and Superior Credibility. The five influence tactics are Reason & Logic, Simple Request, Bargaining, going to a Higher Authority, and forming Coalitions.

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## INTRODUCTION

Each member of a buying group will bring to the decision process a different combination of experience, demands, and expectations, and will form their preferences as how the product will contribute to primary job task (Anderson and Chambers 1985, McQuiston and Walters 1989). Research has proposed that individuals having a 'personal stake' in a decision can provide a partial explanation why some members are more influential in the decision process (Ghingold and Wilson 1985; Patchen 1974). Although often accepted as conventional wisdom in organizational buying behavior, there is a paucity of empirical evidence to support this premise. The purpose of this study is to propose and test a causal model that will examine the relationship between perceived personal stake in the decision outcome and the tactics employed to influence others in a decision making unit.

## THE PERSONAL STAKE DOMAIN

Organizations typically provide the opportunity for two forms of rewards: extrinsic (those awarded by the organization) and intrinsic (satisfaction from achieving internal performance expectations). Anderson and Chambers (1985) state that an individual's pursuit of extrinsic rewards will be directed towards achieving favorable ratings on the indexes an organization employs to measure performance. They also contend that even though intrinsic rewards are not distributed directly by the organization, their realization is affected by the design and structure of the organizational

environment. Further, in situations where extrinsic rewards may not be sufficient or take too long to receive, individuals will often turn to intrinsic rewards as a means for achievement satisfaction (McConkie and Boss 1986).

Members of the decision making unit typically come from a number of different departments within an organization, and each of these departments will have its own set of goals and interests that may or may not coincide with those of other departments. Each department is able to exert a significant influence on behavior, preferences, attitudes, and values of their members. As a result, members of the decision making unit will be subject to a variety of formal and informal pressures to conform to the commitments and values of the department that serves as their primary work group (Anderson 1982). Thus, the concept of a department stake becomes an important element in the purchase decision due to the potential impact on an individual's standing in the department.

Individuals involved in industrial purchasing are concerned about credibility from superiors and peers (Kipness, Schmidt, and Wilkinson 1980, Patchen 1974). Individuals want their performance to look good to superiors, resulting in positive job evaluation (Corey 1983) and enhancement of their credibility with peers (McQuiston and Dickson 1990). In industrial buying behavior, conceptual frameworks (e.g., Webster 1965) and some anecdotal evidence (e.g., Jackson 1985) suggest that an individual who is responsible for the outcome of the decision will have greater concern with perceived peer credibility.

In this study, the variables that define the personal stake domain are 1) Extrinsic Rewards, 2) Intrinsic Rewards, 3) Departmental Stake, 4) Peer Credibility, and 5) Superior Credibility. The following causal relations are hypothesized:

- H<sub>1</sub>: Extrinsic Rewards has a direct positive effect on Peer Credibility.
- H<sub>2</sub>: Extrinsic Rewards has a direct positive effect on Superior Credibility.
- H<sub>3</sub>: Intrinsic Rewards has a direct positive effect on Peer Credibility.
- H<sub>4</sub>: Intrinsic Rewards has a direct negative effect on Superior Credibility.
- H<sub>5</sub>: Department Stake has a direct positive effect on Peer Credibility.

### INFLUENCE TACTICS

Limited attempts have been made to examine the tactics used by individuals to influence others in an organizational decision group. The most inclusive work in this area is by Kipness, Schmidt and Wilkinson (1980). Their work has resulted in the development of the Profiles of Organizational Influence Strategies (POIS) scales, with separate scales used to determine tactics for influencing one's superior, subordinate, and co-worker. Other work by Cyert and March (1963), Patchen (1974), Kotter (1977), Bagozzi (1978), Anderson (1982), Frazier and Summers (1984), and Anderson and Chambers (1985) contributed to the selection of the influence tactics and the resulting hypotheses.

The five influence tactics included in this study are Reason & Logic, Simple Request, Bargaining, going to a Higher Authority, and forming Coalitions. The hypothesized effects of the personal stake variables on the importance of the a primary influence tactics are:

- H<sub>6</sub>: Peer Credibility has a direct positive effect on Reason & Logic.
- H<sub>7</sub>: Superior Credibility has a direct positive effect on Reason & Logic.
- H<sub>8</sub>: Peer Credibility has a direct positive effect on Bargaining.
- H<sub>9</sub>: Superior Credibility has a direct positive effect on Bargaining.
- H<sub>10</sub>: Peer Credibility has a direct positive effect on Coalitions.
- H<sub>11</sub>: Peer Credibility has a direct positive effect on Higher Authority.
- H<sub>12</sub>: Peer Credibility has a direct positive effect on Simple Request.

### METHODOLOGY

The sample is 189 members of industrial buying groups for non-routine purchases such as customized manufacturing equipment, computer system upgrades, and consulting services. Non-routine purchases were studied to increase the likelihood of a diverse buying group being formed to make the buying decision. The respondent profile showed 42 percent were employed by firms with 500 or more employees; 27 percent worked in purchasing and 27 percent were in general management; and 51 percent had over ten years of experience.

Each of the five constructs in the personal stake domain has two indicators measured on five point scales. The influence tactics also have two measured indicators each, with the exception of Simple Request which has a single indicator. The selected influence tactics measures are a subset of the POIS scales.

The model fitting involves three related stages of analysis. First, the personal stake domain and the influence tactics domain are assessed for measurement adequacy and the hypothesized structural relationships. The second stage of the analysis is to estimate the structural coefficients linking the personal stake constructs to the influence tactics. This assessment is made by comparing structural relationships estimated by both limited information procedures, using the estimates from the first stage, and full information procedures. The results from the two estimation methods are then compared for substantive differences. The third stage of the analysis is to assess the relative importance of influence tactics under varying assumptions of the personal stake environment. The derived equations of stage two of the analysis are used to simulate eight different scenarios of personal stake, and assess the resulting importance of influence tactics. All models at each stage of the analysis incorporate structured means in the context of the Bentler-Weeks model using the EQS structural equations program (Bentler 1989).

### FINDINGS

The first stage of the analysis, investigation of linkages within the personal stake domain, showed the covariances between Extrinsic



Rewards and Intrinsic Rewards, and between Extrinsic Rewards and Department Stake are not significantly different from zero. Hypotheses  $H_1$ ,  $H_2$ , and  $H_3$  are supported, i.e., greater Extrinsic Rewards leads to greater perceived credibility among both superiors and peers, and Intrinsic Rewards has a positive direct effect on Peer Credibility. However, the structural coefficients linking Intrinsic Rewards to Superior Credibility, and Department Stake to Peer Credibility are not significant, resulting in the rejection of  $H_4$  and  $H_5$ . Further, the covariance between the structural residuals of Peer Credibility and Superior Credibility is significant. The model was modified in light of these findings, which resulted in an acceptable statistical fit ( $\chi^2=41.10$ ,  $df=36$ ,  $prob.=.257$ ), with a high goodness-of-fit index (Comparative Fit Index = .982). Next, a confirmatory factor analysis of the influence tactics indicators was found to yield an acceptable statistical fit ( $\chi^2=25.20$ ,  $df=25$ ,  $prob.=.451$ ), and a high goodness-of-fit index (Comparative Fit Index = .988).

The second stage of the analysis, both full information and limited information procedures, indicated that modifications must be made to the model to obtain an acceptable fit. The hypothesized relationship between Peer Credibility and Reason & Logic,  $H_6$ , as well as the linkage between Peer Credibility and Bargaining,  $H_8$ , cannot be supported. The effect of Superior Credibility on Reason & Logic,  $H_7$ , is hypothesized to be positive, but is found to be negative. The hypothesized effects of Superior Credibility on Bargaining,  $H_9$ , and Peer Credibility on Coalitions,  $H_{10}$ , are supported. Further, the influence tactics of Higher Authority and Simple Request are unrelated to any of the personal stake constructs, thus rejecting  $H_{11}$  and  $H_{12}$ . The analysis showed a negative linkage from Intrinsic Rewards to Bargaining, and a positive linkage from Department Stake to Reason & Logic are necessary from an acceptable fitting model. These modifications are not in serious conflict with existing theory since questions of direct effects versus indirect effects of the personal stake variables on the influence tactics have not been addressed in the literature. The modifications result in an acceptable statistical fit using limited information procedures, i.e., all parameters in the personal stake domain are fixed to the values estimated in step one, ( $\chi^2=126.55$ ,  $df=129$ ,  $prob.=.545$ ). The full information approach that estimates all parameters simultaneously

also showed an acceptable statistical fit ( $\chi^2=123.48$ ,  $df=101$ ,  $prob.=.064$ ), with a high goodness-of-fit index (Comparative Fit Index = .967).

The modified model reflects the effects of Intrinsic Rewards and Department Stake on some of the influence tactics are direct rather than being mediated by credibility constructs. An interesting difference between observed and hypothesized is the effect of Superior Credibility on Reason & Logic was hypothesized to be positive, but is found to be negative. This is interpreted as the personal stake in Superior Credibility increases, the use of the influence tactic of Reason & Logic decreases. Another interesting finding is the negative effect Intrinsic Rewards has on Bargaining. This implies if the Intrinsic Rewards are low, Bargaining is a more likely influence tactic than when the rewards are high. These issues are addressed more completely by the results of the third step of the analysis.

The third stage of analysis is concerned with influence tactics importance. Since the hierarchy of influence tactic preferences is a function of the combination of levels of Intrinsic Rewards, Extrinsic Rewards, and Department Stake, it is possible to assess changes in the order of importance of influence tactics given different personal stake environments. Eight scenarios of alternative personal stake are simulated by setting high and low levels of Intrinsic Rewards, Extrinsic Rewards, and Department Stake, then applying the estimated construct equations to yield an expected value for each influence tactic.

Reason & Logic is found to be the predominant tactic for both high and low levels of Extrinsic and Intrinsic Rewards when Department Stake are high. When Department Stake is low, Simple Request is the dominant tactic under the varying conditions Extrinsic and Intrinsic Rewards. Bargaining is the least likely influence tactic under the conditions of low Extrinsic Rewards and high Intrinsic Rewards regardless of Departmental Stake importance. Bargaining does become important when Extrinsic Rewards are high and Intrinsic Rewards are low. Higher Authority becomes more important when both Extrinsic and Intrinsic Rewards are high. Coalition is found to be relatively low in importance in each of the scenarios.



In summary, the proposed model required modification primarily in terms of the role of the mediating variables, Peer Credibility and Superior Credibility. The initial model assumed that the linkages of all three variables in the personal stake domain would be mediated by the credibility variables and thus have only indirect effects of the influence tactics. This was not supported by the data. Instead, it was found that Department Stake had a direct positive effect on the Reason & Logic tactic, but no causal effects on any other influence tactics. Intrinsic Rewards had a direct negative effect on the Bargaining tactic, an indirect effect on Coalition, but did not have a causal effect on Reason & Logic. The effects of Extrinsic Rewards are mediated by the credibility constructs on Reason & Logic, Bargaining, and Coalition. The scenario analysis shows influence tactic importance varies under different personal stake settings, thus there is no simple answer as to which tactic is most important.

## REFERENCES

- Anderson, P.F. (1982), "Marketing, Strategic Planning and the Theory of the Firm," Journal of Marketing, 46 (Spring) 15-26.
- \_\_\_\_\_, and T.M. Chambers (1985), "A Reward/Measurement Model of Organizational Buying Behavior," The Journal of Marketing, 49 (Spring) 7-23.
- Bentler, P.M. (1989), EQS: Structural Equations Program Manual, Los Angeles: BMDP Statistical Software.
- Corey, E.R. (1978), Procurement Management, Boston: CBI.
- Cyert, R.M. and J. March (1963), A Behavioral Theory of the Firm, Englewood Cliffs, NJ: Prentice Hall.
- Frazier, G.L. and J.O. Summers (1984), "Inter-firm Influence Strategies and Their Application within Distribution Channels," Journal of Marketing, 48 (Summer) 43-55.
- Ghingold, M. and D.T. Wilson (1985), "Buying Center Structure: An Extended Framework for Research," in A Strategic Approach to Business Marketing, Wilson, D. and Spekman, R. eds., Chicago: American Marketing Association, 180-193.
- Jackson, B.B. (1985), Winning and Keeping Industrial Customers: The Dynamics of Customer Relationships, Lexington, MA: Lexington Books.
- Kipness, D., S. Schmidt and I. Wilkinson (1980), "Intraorganizational Influence Tactics: Explorations in Getting One's Way," Journal of Applied Psychology, 65 (August) 440-452.
- McConkie, M.L. and R.W. Boss (1986), "Organizational Stories: One Means of Moving the Informal Organization during Change Efforts," Public Administration Quarterly, 10 (Summer) 189-205.
- McQuiston, D.H. and P.R. Dickson (1990), "The Effect of Perceived Personal Consequences on Participation and Influence in Organizational Buying," Working Paper Series, Indiana University.
- \_\_\_\_\_, and R.G. Walters (1989), "The Evaluative Criteria of Industrial Buyers: Implications for Sales Training," Journal of Business and Industrial Marketing, 4 (Summer/Fall) 65-75.
- Patchen, M. (1974), "The Locus and Basis of Influence in Organizational Decisions," Organizational Behavior and Human Performance, 11, 195-221.
- Webster, F. (1965), "Modeling the Industrial Buying Process," Journal of Marketing Research, 2 (August) 370-376.

# THE INFLUENCE OF BUSINESS CONCENTRATION ON MOVEMENT AWAY FROM DECLINING MARKETS: A STUDY OF OHIO-BASED DEFENSE FIRMS

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## ABSTRACT

This paper examines how Ohio firms with differing sales concentrations in the defense industry have responded to discontinuous change in that industry since fiscal year (FY)

1990. The distinctive characteristics associated with firms having different levels of sales concentrations within the defense industry are identified. Strategic implications are drawn.

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## INTRODUCTION

The relationships between a firm's concentration of sales in a particular market and the firm's strategy, performance, and ability to move from that market have received little attention. The topic is related to the concept of mobility barriers as discussed in industrial economics and strategic management research. Mobility barriers, including those related to structure, strategy, and managerial orientation, impede a firm's ability to move from one market to another on a timely basis and at an acceptable cost. Additionally, investment barriers such as those in capital and human resources, as well as product and product lines, can impede the movement to other lines of business.

Sales concentration is concerned with the percentage of a given company's revenues that derive from a single market or set of customers. While corporate strategy researchers warn against over-dependence on single markets and encourage some degree of diversification, there is also evidence that firms who focus in this manner can be highly successful (e.g., Simon, 1992). However, it is less apparent how the success of sales dependent firms is affected by turbulence or discontinuity in their markets, and whether rapid diversification is the appropriate strategic response.

## RESEARCH PROPOSITIONS

When a firm's sales are heavily concentrated in one industry, the traditional strategic planning paradigm would find management

gaining an awareness of the industry's environment, identifying how to best serve the potential customers within that industry, and arranging their personnel and processes accordingly. In contrast, a company that seeks to compete in more than one industry confronts much more diversity in terms of competitors and potential customers and must then learn to apply existing resources more efficiently or acquire additional resources. The firm must also be able to respond to varying degrees of volatility and rates of change within the selected industries (Bourgeois and Eisenhardt 1987). This would seem to place a premium on effective long-term capital allocation decisions for low concentration firms. **P1: Because of the importance of integrating a variety of resource needs, industry directions, and customer bases, firms with low industry sales concentration will adopt a more long-term emphasis in their strategic planning and orientation than will firms with a high sales concentration in one particular industry.**

The strategic management paradigm suggests that an organization will achieve its best performance when a good fit exists between strategy and environment (Venkatraman 1989b). When a firm attempts to find a fit within a multiple-industry environment, there may be some advantages that may not be experienced by firms with high sales concentrations within a single industry. For instance, the need for knowledge of a variety of industries could allow the firm to utilize operational techniques in one industry which give them an advantage when competing in some other industry. They may also find it possible to adapt products in

a similar manner. Alternatively, firms with high sales concentrations might be expected to develop strategy around a basic competence that reflects the needs of customers in their single market. Preoccupation with this competence may lead to more of an internal than external orientation, and a tendency not to alter strategy when turbulence occurs (Gronhaug and Falkenberg, 1989). As a result, it would seem reasonable to expect that a firm with low sales concentration in a particular industry would be pursuing more opportunities than firms with high sales concentrations. **P2: Firms with low sales concentration will place more emphasis on identifying and pursuing new growth opportunities than firms with high sales concentrations.**

Firms with low sales concentrations will be in a much less precarious position than high concentration firms if there is a decline in the industry. Their diversified customer base would allow them to maintain or increase overall sales or to exit the industry more quickly should conditions dictate. Smith, et al. (1989) suggest that response time to changing conditions will likely be slower for firms that are more dependent on certain customers and have developed more of an internal focus. **P3: During industry decline, firms with low sales concentrations will experience higher overall sales growth than firms with high sales concentrations.**

## RESEARCH METHODOLOGY

The data base for this study consisted of 135 Ohio firms and subsidiaries that had contracts with the Department of Defense (DOD) in FY 1990. A letter soliciting participation in the study was sent to 411 Ohio firms identified as 1990 defense contractors by the Greater Cleveland Government Business Office. Those firms that responded positively to the letter were interviewed by telephone. The firms which did not respond to the letter were contacted a second time to solicit their participation. One hundred thirty-five firms ultimately participated in the study for an overall response rate of 33 percent. Interviews were conducted with the CEO or senior executive in charge of the firm's defense business. Non-response bias was tested by comparing the mean and median dollar values of FY 1990 DOD contracts. No significant differences were found between the respondents and the non-respondents.

The questionnaire consisted of three sections. Section one attempted to measure a firm's strategic posture using an adapted version of Venkatraman's (1989a) Strategic Orientation of Business Enterprises (STROBE) instrument. The scale was modified to reflect unique characteristics of the defense industry. The instrument consists of twenty-nine items which operationalize strategy along six dimensions: (1) Aggressiveness, (2) Analysis, (3) Defensiveness, (4) Futurity, (5) Proactiveness, and (6) Riskiness. The futurity and proactiveness dimensions are of particular interest for this study. The futurity dimension refers to the organization's relative emphasis on long-term versus short-term considerations. Proactiveness identifies the organization's tendency to participate in emerging industries and search for new market opportunities. Respondents characterized their firms on each item using a seven-point Likert-type scale (1 = no emphasis, 7 = strong emphasis). In section two, they were asked whether they were still doing business with DOD, whether they had or were developing commercial applications of their defense technologies, and the change in DOD sales as a percentage of total sales from FY 1990 to FY 1993. Open-ended response scales were provided. In part three, company performance was measured in two ways. First, perceptual measures of company sales and profitability relative to the firm's competitors were employed, with respondents rating performance on a seven-point scale (1 = low, 7 = high). In addition, they indicated the percentage change in sales and profits their firms had experienced since FY 1990.

## RESULTS

The largest group of respondents (56.3%) were involved in manufacturing, followed by engineering and management services (19.3%). Most of the firms were still involved with DOD sales at the time of the survey (end of FY93). On average, DOD sales constituted just over half of company revenues in 1990, although considerable variability existed in the data. Sales and profitability since 1990 also demonstrated extensive variability, reflecting the turbulence in the defense industry.

Further examination of the data revealed two separate sub-populations. For 36.6 percent of the respondents, DOD sales were 25 percent

or less of their total sales in FY 1990. Conversely, 44.8 percent of the respondents had FY 1990 DOD sales of 75 percent or greater of total sales. Thus, greater than 80 percent of the sample clustered around the high and low ends of the distribution. For the purposes of further analysis, the firms were separated into two groups: those with DOD sales that were greater than and less than 50 percent of their total FY 1990 sales (see [Table 1](#)). Both groups of firms had a strong presence in rubber products, fabricated metal, general machinery, and transportation equipment manufacturing (SIC 30-39). In fact, these groups made up almost two-thirds of the low concentration sample. The high concentration firms were also well represented in the business service and engineering and management services industries. The two sub-samples differed significantly ( $p = .05$ ) in terms of industry representation, with low concentration firms operating more in manufacturing and high concentration firms operating more in service industries. It was expected that firms with a low concentration of DOD sales would be actively involved in developing commercial applications of their defense-based technologies. However, a t-test comparing the percentage of firms with defense-based commercial applications found no significant differences between the concentration levels.

A series of t-tests were next used to test the propositions presented earlier. Proposition 1 was tested using the futurity dimension of the STROBE instrument. Cronbach alpha for this dimension was .75. The low concentration firms scored significantly higher on this dimension, supporting proposition 1. Proposition 2 was tested using the proactiveness dimension of the STROBE instrument. Cronbach alpha was .76 for this dimension. This proposition was also supported at the 0.05 significance level, with low concentration firms demonstrating more proactiveness. Proposition 3 was tested with two measures: the perceptual measure of the firm's sales growth relative to its competitors and the self-reported percentage change in total sales from FY 1990 to FY 1993. The results here are mixed. Relative to their competitors, the low concentration firms reported significantly higher growth performance. However, in terms of percentage of sales growth, there was no significant difference between the groups. One possible explanation may be related to the economic recession that occurred during most of the data collection period. Low

concentration firms most likely have more competitors since they operate in multiple industry settings, whereas high concentration firms often are the sole source or compete with a few other firms in their area of expertise (Markusen and Yudken 1992). In recessionary times, the low concentration firms would most likely have more competitors and therefore be more likely to be aware of competitors that have problems and thus rate themselves higher. However, it should be remembered that sales growth over the three year period was less than 20 percent for both groups.

## SUMMARY AND CONCLUSIONS

Firms with a low concentration of sales in the defense industry placed more emphasis on long-term considerations and were more likely to emphasize identifying and pursuing new opportunities in existing and new markets than firms with high sales concentration. Conversely, high concentration firms tended to respond to environmental discontinuity by focusing heavily on existing approaches and operations, perhaps reflecting an attempt to "hunker down" and wait for better times.

It may be that concentration either delimits management's flexibility or obscures management's ability to recognize the need to diversify. In either case, it would seem to be a moderating variable between the organization and its environment. The tendency to concentrate sales is a marketing decision, and doing so in spite of significant environmental change may be reflective of an under-developed marketing function or, alternatively, a overly technically-driven company orientation. Further, sales concentration may be closely tied to the core competency of the organization, such that firms refuse to examine any market except that which fits well with what they have always done best. Thus, concentration becomes symptomatic of a myopic approach to one's competency, and is indicative of a refusal to develop, extend, and complement the firm's skills and processes.

A number of suggestions can be made for further research. Even where a firm concentrates in a given market, it is very important to further delineate the dynamics within that market. For instance, the extent to which the market consists of many or few customers, the frequency with which customers enter and

leave the market, the degree of heterogeneity in customer requirements, the length of the buying and consumption cycles, and ultimately buyer bargaining power would seem to impact on the strategic and performance implications of sales concentration. Research should also be directed at identifying relationships between sales concentration and both company structure and culture. Do structures that are more hierarchical tend to reinforce concentration in particular markets? From a cultural standpoint, is sales concentration causally associated with

a tendency to be internally-oriented, technically-driven, or reactive? Do firms with a stronger marketing orientation tend to demonstrate either lower sales concentration or an ability to rapidly capitalize on new opportunities when confronted with discontinuities in traditional markets? Finally, research on the concentration-performance link should incorporate a longitudinal perspective. It may be that the longer-term payoffs for sales concentration differ depending on the interactions among concentration level and other strategic variables.

**TABLE 1 Sales Patterns for High and Low Concentration Firms**

| High concentration firms (n = 70)                                  | No.         | Percentage       |
|--------------------------------------------------------------------|-------------|------------------|
| Still doing business with DOD                                      | 69          | 98.6             |
| Developing commercial applications from defense-based technologies | 47          | 67.1             |
|                                                                    | <b>Mean</b> | <b>Std. Dev.</b> |
| \$ value of 1990 contracts (mill)                                  | 5.77        | 10.06            |
| DOD sales as % of FY 1990 sales                                    | 88.87       | 12.48            |
| % change in sales since 1990                                       | 19.09       | 72.5             |
| % change in profits sales since 1990                               | 23.46       | 113.1            |
| Low concentration firms (n = 35)                                   | No.         | Percentage       |
| Still doing business with DOD                                      | 58          | 89.2             |
| Developing commercial applications from defense-based technologies | 34          | 52.3             |
|                                                                    | <b>Mean</b> | <b>Std. Dev.</b> |
| \$ value of 1990 contracts (in mill.)                              | 2.15        | 6.32             |
| DOD sales as % of total FY 1990 sales                              | 15.63       | 15.03            |
| % change in sales since 1990                                       | 17.04       | 46.07            |
| % change in profits since 1990                                     | 34.3        | 133.81           |

## REFERENCES

- Bourgeois, L. Jay, and Kathleen M. Eisenhardt, (1987). "Strategic Decisions Processes in Silicon Valley: The Anatomy of a 'Living Dead'," California Management Review 30 (Fall): 143-159.
- Gronhaug, K. and J.S. Falkenberg (1989), "Exploring Strategy Perceptions in Changing Environments," Journal of Management Studies, 26, 4 (July), 349-359.
- Markusen, Ann and Joel Yudken (1992), Dismantling the Cold War Economy. Basic Books.
- Miles, Raymond E. and Charles C. Snow, (1978), Organizational Strategy, Structure, and Process. New York: McGraw-Hill.

- Simon, H. (1992), "Lessons from Germany's Mid-Size Giants", Harvard Business Review, 70, 2 (March-April), 115-125.
- Smith, K.G., C.M. Grimm, M.J. Chen, and M.J. Gannon (1989), "Predictors of Response Time to Competitive Strategic Actions: Preliminary Theory and Evidence," Journal of Business Research, 18,245-258.
- Venkatraman, N. (1989a). "Strategic Orientation of Business Enterprises: The Construct, Dimensionality, and Measurement," Management Science, 35 (August):942-963.
- Venkatraman, N. (1989b). "The Concept of Fit in Strategy Research: Toward Verbal and Statistical Correspondence," Academy of Management Review, 14 (July): 423-444.

# THE NATID SCALE: CONSTRUCTION OF A NATIONAL IDENTITY SCALE FOR APPLICATION IN INTERNATIONAL MARKETING RESEARCH

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## ABSTRACT

The NATID scale is designed to explicate the degree to which respondents identify with their unique cultural characteristics. Measuring a culture's national identity will benefit marketing

researchers by providing an instrument useful for theory building in international marketing as well as providing the practitioner a tool for guiding international decision-making.

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## INTRODUCTION

The field of international marketing is replete with research outlining various similarities and differences which exist across cultures and national boundaries. What is needed is some insight into the degree to which these differences are considered important by a given culture. The purpose of this paper is to develop a measurement instrument designed to explicate the degree to which respondents identify with their own unique national identity.

### THE CLASH OF NATIONS AND INTERNATIONAL MARKETING

The fundamental source of global conflict in the 1990's will be culturally-based with the principal conflicts emerging across differing religious, historical, cultural, and social dimensions (Huntington 1993). Huntington (1993) argues that there are several reasons why these conflicts will characterize global relations in the 1990's. The primary reason is that these differences are fundamental to national and cultural identity. An individual's membership with his or her social, cultural, and national group are all determined by these elements, making it unlikely that people will be willing to engage in behavior, or accept changes, which require compromises in these areas. The NATID (National Identity) scale is designed to fill a gap in international marketing research by providing an empirically sound instrument through which a given culture or nation's national identity can be measured. Conceptually, the scale differs from other

approaches in its focus on the degree to which the respondents "identify" with their unique cultural/national background. While other research (e.g. Hofstede 1980) has tended to focus on similarities and differences in an international context, we are proposing that the more relevant issue, in a marketing context, is the extent to which a unique sense of culture exists. In an international environment where dissimilarities exist, but are not of paramount importance to the players, a standardized marketing strategy may be viable. On the other hand, in an international setting where at least one of the players has a strong cultural or national identity, an adapted or even specialized marketing strategy may need to be adopted. The NATID scale attempts to "capture" the relevant aspects of culture based on an adaptation of Huntington's (1993) elements of civilization (i.e. religion, history, customs, and social institutions).

Specifically, NATID is composed of four dimensions derived from these elements: belief structure, national heritage, cultural homogeneity, and ethnocentrism. The belief structure dimension was designed to measure the degree to which individual beliefs are incorporated into overall social structure. A belief systems role in culture is multifaceted and includes: the promotion of cultural participation, a conflict resolution mechanism, and a means through which psychological tensions and distortions can be reduced (Spiro 1967). Thus, the items were focused on the importance of religious beliefs as defining elements of a particular nationality. The national heritage and cultural homogeneity



items were developed in an attempt to explicate the degree to which respondents identify their given culture's social institutions as being unique, as well as the institutions importance to the respondent's sense of national identity. Theoretically, these two dimensions are closely tied together. Items contained in the national heritage dimension focus on the overall importance of a historical identity, while those placed under the cultural homogeneity dimension addressed the cultural uniqueness of this national heritage. By adopting this theoretical conceptualization, it is possible to bridge the concepts of "culture" and "nation" which is a common perceptual difficulty in international research. Finally, ethnocentrism was utilized as a means of addressing the importance of maintaining culturally centered consumption patterns (Shimp and Sharma 1987). A strong predisposition toward domestically manufactured products, and away from those which are foreign-made, would be one indication that a culture has a high degree of national identity. This particular dimension was measured using the CETSCALE (Shimp and Sharma 1987).

### A NATIONAL IDENTITY SCALE

The procedure used to develop a measure of national identity largely follows the guidelines recommended by Nunnally (1978) and Churchill (1979). The literature was surveyed and the concept of national identity was investigated further by reviewing past scales dealing with the four dimensions included in the NATID scale. With the exception of the CETSCALE these items were adapted to correspond to the objective of the present research. Editing of redundant statements reduced the initial pool from 97 to 73 items. Six expert judges with extensive experience in cultural research evaluated the 73 items for clarity and appropriateness in capturing the intended national identity dimension. An a priori decision rule specified retaining an item only if at least five of the judges considered the item to be both "clear" and capturing only the assigned dimension. 53 items satisfied the rule.

The questionnaire, which consisted of 53 Likert-type statements, was administered to a convenience sample of 169 business administration students (84 males and 80 females) from two universities in the south and midwest United States. 167 usable questionnaires were returned. The scale was comprised of items

worded both positively and negatively to control for acquiescence bias (Nunnally 1978). In addition to the 53 statements that satisfied the initial screening and editing the 17-item CETSCALE (Shimp and Sharma 1987) comprising the ethnocentrism dimension of national identity was included in the questionnaire. These sample items were ordered randomly as 7-point Likert-type statements.

The 53 national identity items, and the CETSCALE items, were subjected to a combination of maximum-likelihood factor analysis with oblique rotation (Anderson and Gerbing 1988) and reliability assessment (Churchill 1979). Because the objective was to examine the postulated dimensions, and to reduce the relatively large number of items to a more tractable number, a moderately stringent decision rule deleting all items loading  $< .5$  on any factor (Shimp and Sharma 1987) was employed. In addition, a corrected item-to-total correlation equal to or greater than  $.35$  (Saxe and Weitz 1982) was also applied. Utilizing these criteria resulted in the deletion of 38 items. The CETSCALE items all satisfied the  $.5$  and  $.35$  decision rules. The remaining 32 items loaded on five factors. The 7 belief structure items loaded on two factors (3 items on the first factor and 4 items on the second factor). The three national heritage items, and the five cultural homogeneity items, loaded on a single factor while the CETSCALE items loaded on two separate factors. Given that the national heritage and cultural homogeneity items loaded on a single factor, a specified 2-factor analysis was performed in order to distinguish the two proposed dimensions. This analysis supported the premise that national heritage and cultural homogeneity are separate but interrelated constructs. Thus, 32 items were retained for reliability and validity assessment. The 15 non-CETSCALE items were of primary concern. The items forming the belief structure, cultural homogeneity, and national heritage dimensions are listed in [Table 1](#).

The reliabilities for the individual dimensions all meet the  $.7$  criteria proposed by Nunnally (1978), with a range of  $.74$  to  $.79$ . The overall scale reliability of the three dimensions minus the CETSCALE was also favorable, with an alpha of  $.81$ . Including all three dimensions and the CETSCALE into the complete initial NATID scale produced a favorable reliability of  $\alpha = .91$ .

**TABLE 1**  
**Items Included in the National Identity Scale (NATID)**

- B1 A specific religious philosophy is what makes a person uniquely American.
- B2 It is impossible for an individual to be truly "American" without taking part in some form religious activity.
- B3 Religion is not an important cultural component in the U.S.
- B4 Actively taking part in religious activities does not help to build a person's sense of being American.
- B5 Religious education is essential to preserve the cohesiveness of the American society.
- B6 A specific religious philosophy is not an important part of being an American.
- B7 A true American would never reject their religious beliefs.
- C1 An American possesses certain cultural attributes that other people do not possess.
- C2 Americans in general feel that they come from a common historical background.
- C3 Americans are proud of their nationality.
- C4 People frequently engage in activities that identify them as "American."
- C5 Based on daily behavior pattern, there is not a distinct difference between Americans and Foreigners.
- N1 Important people from the country's past are admired by people today.
- N2 One of America's strengths is that it emphasizes events of historical importance.
- N3 The U.S. has a strong historical heritage.
- B = Belief Structure  
C = Cultural Homogeneity  
N = National Heritage

The determination of the NATID scale's validity properties was performed from both an exploratory and a confirmatory perspective utilizing SPSS and LISREL 7. Initially, an exploratory factor analysis using SPSS was employed for the three dimensions individually. National heritage and cultural homogeneity each produced a one-factor solution with factor loadings -- in the case of national heritage ranging from .55 to .89, and of cultural homogeneity ranging from .51 to .78. All meet or exceed the >.5 criteria (Shimp and Sharma 1987). The variance accounted for by these two dimensions was 53.2% for national heritage and 38.3% for cul-

tural homogeneity. The individual factor analysis for the belief structure dimension achieved a two-factor solution, with three of the seven indicators loading on one factor with loading scores ranging from .65 to .67. The remaining four loaded on a second factor with loading scores between .51 and .78. A review of the items showed that these can be explained as addressing issues related to both general beliefs regarding religion and respondent's religious activity. The variance accounted for by these two factors was 82.0% with a correlation between the two of .60.



Having achieved initial exploratory results supporting the validity of the NATID scale, an overall factor analysis was performed. The data showed that belief structure again loaded on two factors, with factor loadings ranging from .51 to .69; but the national heritage and cultural homogeneity dimensions loaded on a third, single, factor. An additional factor solution was then obtained including only those items related to national heritage and cultural homogeneity. The resulting two factor solution produced a national heritage dimension with factor loadings between .54 and .92 and a cultural homogeneity dimension with loadings from .51 to .70.

Given the support provided by the exploratory factor analysis for the NATID scale, in terms of reliability and validity, a confirmatory factor analysis was performed using LISREL 7. The goodness-of-fit (GFI) obtained was equal to .91, while the adjusted-goodness-of-fit (AGFI) statistic was .88. These tend to lend support to the notion that the NATID scale has the potential to be a stable instrument. Additional fit indices were computed to ascertain whether the model could be substantially improved as well as the parsimony of the model. A second generation normed fit index (NFI-2) equal to .95 was obtained. This exceeds the accepted criteria of .90 (Mulaik et.al. 1989) for substantial model improvement. Finally the parsimonious fit index (PFI) was computed to be .68. Determination of discriminant and convergent validity, in a confirmatory setting, was performed using a pairwise approach (Howell 1987). In comparing the belief structure dimension with the cultural homogeneity dimension, a correlation of 0.28 was obtained. Belief structure and the national heritage dimension also showed a similarly low correlation -- 0.27. Cultural homogeneity and national heritage were relatively highly correlated (0.74) as suggested by the theoretical conceptualization, but the t-values showed significant discrimination between the two dimensions. Finally the coefficient of determination, in the confirmatory setting, for the three individual items ranged from .78 to .84 providing additional support for the construct validity of the NATID scale.

## CONCLUSIONS

Much of the international marketing literature has focused on similarities and differences across cultures. It is our contention that a more critical phenomena is the degree to which cultural similarities and differences are important

to the individuals involved in an international marketing encounter. To that end, this paper has attempted to illustrate that an empirical tool (i.e. the NATID scale) can be developed to measure a given culture's "national identity". There are indications that a given culture's national identity can be empirically measured based on the measurement properties obtained here. The proposed conceptualization of national identity, and its measurement through the use of the developed NATID scale, seem to represent an advancement in international marketing research by providing a means for determining the extent to which a culture may identify with its own unique characteristics.

However, several limitations should be noted. One may be the conceptualization of national identity characteristics as "traits" rather than "states" (Nurge 1975). A number of events could occur which may serve to accentuate, or reduce, a culture's sense of national identity. For example, during the Gulf War, a high level of "patriotism" existed in America but this subsequently subsided following the resolution of the conflict. A further limitation is the difficulty associated with one culture's attempt to "interpret" another. It has been argued that it is impossible for a given culture to understand another culture without, in the process, distorting what it means to its own people (Johnson 1978). The scale, as represented here, was developed by relying heavily on the researcher's rather than the respondent's frame of reference which may make the identification of defining cultural elements problematic. This initial representation of the scale may be limited, based on a restricted number of items, in its ability to tap into national identity. Future iterations of the scale will focus on a closer review of the theoretical foundation in terms of the re-wording of current items, as well as possible future item additions, in order to further improve the scale. In addition the nature of the data set (i.e. a student sample) may represent some difficulties. Finally, the measure awaits further validations in terms of its association with a number of outcome variables in the international marketing domain.

## REFERENCES

- Anderson, J.C. and D.W. Gerbing (1988), "Structural Equation Modeling in Practice: A Review and Recommended Two-Step Approach," Psychological Bulletin, 103 (3), 411-423.

- Churchill, Gilbert A. (1979), "A Paradigm for Developing Better Measures of Marketing Constructs," Journal of Marketing Research, 16 (February), 64-73.
- Hofstede, Geert (1980), Culture's Consequences. Newbury Park, CA: Sage Publications.
- Howell, Roy D. (1987), "Covariance Structure Modeling and Measurement Issues: A Note on 'Interrelations Among a Channel Entity's Power Sources'," Journal of Marketing Research, 24(February), 119-126.
- Huntington, Samuel P. (1993), "The Clash of Civilizations?," Foreign Affairs, 72 (3), 22-49.
- Johnson, Allen (1978), Quantification in Cultural Anthropology, Stanford, CA: Stanford University Press.
- Mulaik, James, et.al. (1989), "Evaluation of Goodness-of-Fit Indices for Structural Equation Models," Psychological Bulletin, 105 (3), 430-445.
- Nunnally, J.C. (1978), Psychometric Theory, New York: McGraw-Hill, Inc.
- Nurge, Ethel (1975), "Some Depictions of German Cultural Character," in The New Ethnicity: Perspectives from Ethnology, John W. Bennett, ed., New York: West Publishing, 217-257.
- Saxe, Robert and Barton A. Weitz (1982), "The SOCO Scale: A Measure of the Customer Orientation of Salespeople," Journal of Marketing Research, (August), 343-351.
- Shimp, Terence A. and Subhash Sharma (1987), "Consumer Ethnocentrism: Construction and Validation of the CETSCALE," Journal of Marketing Research, 24(August), 280-9.
- Spiro, Melford E. (1967), "Religious Systems as Culturally Constituted Defense Mechanisms," in Culture and Consciousness, Gloria B. Levitas, ed., New York: George Braziller, 274-290.

# COUNTRY-OF-ORIGIN AND TECHNOLOGY LEVEL EFFECTS ON PRODUCT PREFERENCES: A PILOT RESPONSE SURFACE INVESTIGATION

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## ABSTRACT

A number of attempts have been made to characterize the relationship between the country of origin of a product and consumer preferences for the product. One possible method not previously attempted is to visually examine the relationship via response surface methodology.

This paper reports on a heuristic study designed to determine whether response surface methodology, shows promise in helping researchers understand the complex relationships found in country-of-origin research.

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## INTRODUCTION

An impressive amount of research over the last two decades has established that country of origin has an impact on buyer evaluations of products (for reviews see Bilkey and Nes 1982, Özsomer and Cavusgil 1991, and Baughn and Yaprak 1993). A number of shortcomings in the country-of-origin (COO) literature have been noted by Bilkey and Nes (1982) and amplified by others. The use of country-of-origin as a single factor may tend to enhance the apparent effect size of the stimulus (Bilkey and Nes 1982; Özsomer and Cavusgil 1991). The use of verbal product references in COO studies could corrupt the results since the image created by the description is unclear (Bilkey and Nes 1982). The use of students could threaten external validity (Özsomer and Cavusgil 1991). A "within-subject" design could allow subjects to guess the purpose of the study and provide the researcher's desired response. The lack of a theoretical perspective and explanation of the COO-product preference relationship have limited the value of COO studies (Baughn and Yaprak, 1993; Liefeld, 1993; Han and Qualls, 1985; Obermiller and Spangenberg, 1989). Studies have often dealt with a very limited number of countries of origin. For example, Han and Terpstra (1988) used three foreign countries (Japan, Korea, and Germany): Han (1989) used two, as did Johansson, Douglas and Nonaka (1985).

This paper addresses certain of these shortcomings. Multiple countries and a range of

products are examined. A variable (product technology level) which may moderate the country-of-origin-product preference relationship is introduced (Eroglu and Machleit 1989; Minor and Hodges 1993). We attempt to advance the study of the COO-preference relationship by introducing the adaptation-level of consumer behavior (the butterfly effect) which may describe the relationship. Finally, we employ a technique (response surfaces) to examine the relationship which has shown early promise in marketing applications but has seldom been used.

An interesting approach to investigating the relationship between product preference and country of origin presents itself in the "butterfly curve" effect suggested by Fleming Hanson (1972; see also Mowen 1993). The butterfly curve effect draws on research in optimal arousal, the effects of repeated exposure, and particularly the adaptation-level theory of McClelland *et al.* (1953). According to McClelland, stimulus patterns with no surprise or novelty (or too much) are less rewarding than those with moderate novelty, surprise, or complexity. The butterfly curve argument is that preference for a stimulus (such as a product) is highest at a point just higher or lower than the adaptation level; however, as the level of the stimulus moves too far from the adaptation level, preference begins to decrease. Somewhat more rigorously put is our proposition:

**P1:** A curvilinear relationship exists between the perception of the foreignness of a country and preferences for its products.

Country-of-origin is not the only factor which can influence preferences toward foreign products. Of several factors which might influence these preferences, we propose that the level of technical complexity of the product will also influence preferences. Further, we assume that the level of technology will moderate the relationship between country-of-origin and product preferences. For example, while preferences for a high-technology product might be high if the product was from Japan, the same relationship between country-of-origin and preference might not exist for a low-technology product from Japan (Roth and Romeo, 1992). Therefore, we assume that the preference will be the greatest for products with the highest level of complexity and lowest level of foreignness.

Response surfaces have not been used to examine the country-of-origin phenomenon. A systematic scanning of the primary journals in the marketing and management literature shows that this technique has seldom been exploited for data exploration and analysis. The few exceptions are Batsell (1980), Batsell and Lodish (1981), Hussey, Myers and Houch (1987), and Roberson (1990).

## METHODOLOGY

Response Surface Methodology (RSM) uses a series of experiments to estimate the levels of a group of predictors that will optimize the response (dependent) variable. (Khuri and Cornell 1987). Although RSM is frequently applied to industrial research problems (Myers 1976), it has not been used in marketing research. However, the visual presentation of marketing data using response surfaces has been used to facilitate its interpretation and understanding (Batsell 1980; Roberson 1990). In these studies response surface is based on one experiment rather than a series as in RSM. The response surface is used for interpretation rather than optimization.

When two predictors are used, a plot of the three-dimensional response surface lends itself to an evaluation of the relationship between the response and predictors. The visualization aids in the evaluation of the contribution of each predictor to the response (Batsell 1980).

In this study product preference responses were used to generate prediction equations which were plotted and analyzed to describe

the effect of perceived foreignness of the country of origin and level of technology on preference for a product. Our interest is not in the optimization of preference, but in describing preference as a response to foreignness and technology.

## RESEARCH INSTRUMENT

A two-part instrument was designed. The first part of the instrument asked each respondent to scale a list of 25 countries on the countries' degree of "foreignness" from the U.S., on a scale of 1 to 100. The country scale was anchored by 1 = "very similar to the U.S." to 100 = "very different from the U.S." The list of countries is available from the authors. Each respondent thus scaled each of the twenty-five countries according to the foreignness of each country, as perceived by the respondent. The changes in countries that have occurred since these data were collected should not affect the analysis of the COO and product preference relationships.

In the second part of the instrument, respondents were asked to rate their preferences, on a scale of 1 to 10 (1 = good product; 10 = bad product), for four different products (described as a decorative wall hanging; an electronic camera; a 10-speed bicycle; and blue jeans) for each of the 25 foreign countries, plus the same type of product made in the U.S. Thus, each respondent provided 104 responses (4 products x 26 countries). We used the four product types to present a range of products in terms of increasing technological sophistication (a decorative wall hanging, blue jeans, a ten-speed bicycle, and an electronic camera, respectively).

In the second part of the instrument, both the order of the country list and the order of the product list were randomly reversed to control for order effects. For ease of analysis the product preferences were reverse-coded so that increasing scores indicated increasing preference for the product. The result for each subject is a scale of countries by degree of foreignness from 1 to 100, and a preference for the products by country on a scale of 1 to 10.

The instrument was administered as a pilot study to 28 students in a capstone marketing strategy class. All but two, a graduate student and a junior, were senior marketing majors.

Two instruments were returned incomplete and were discarded, leaving a total of 26 usable responses.

## RESULTS

For each subject, 100 sets of perception of foreignness and level of technology combined with a preference for the four products. The four products were ranked by the authors from 1 to 4 on a scale of increasing technical complexity. Each subject's responses were used to generate a prediction equation and a response surface.

Each of the twenty-six response surfaces was evaluated for the influence of foreignness and technology. The relative influence of foreignness and technology were estimated by viewing the response surface from the axis of one independent variable while ignoring the other independent variable. When the response surface primarily shows a curve when viewed from the foreignness-axis we conclude that the subject primarily attended to foreignness.

When the response surface primarily shows curvature from the technology-axis, we con-

clude that the subject primarily attended to technology.

When a response surface shows curvature from both axes, the independent variable producing the greatest curve or change in preference indicates greater attention from the subject.

Using these notions about the influence of the independent variables, the response surfaces were sorted into groups "based on the visual similarity of their surfaces" (Batsell 1980, p. 105). This in effect grouped the subjects by their attention to foreignness and technology.

## DISCUSSION

The evaluation of the groups is summarized in Table 1. In Table 1 we see that the butterfly curve effect appears in eight response surfaces and to a lesser degree in three more. Foreignness has the greatest influence on preference in all but four of the twenty-six response surfaces. Little evidence exists for the proposition that these respondents have greater preference for products with greater levels of technology from countries with lower levels of foreignness.

**Table 1**  
**Characteristics of the Groups of Response Surfaces**

| Group | Greatest Contribution |            | Butterfly Curve | Number in Group |
|-------|-----------------------|------------|-----------------|-----------------|
|       | Foreignness           | Technology |                 |                 |
| 1     | ✓                     |            | ✓               | 6               |
| 2     | ✓                     | ✓          | ✓               | 2 <sup>1</sup>  |
| 3     | ✓                     |            | ✓               | 3               |
| 4     | ✓                     |            |                 | 9               |
| 5     |                       | ✓          |                 | 2               |
| 6     | ✓                     |            |                 | 1               |
| 7     | ✓                     |            |                 | 1               |
| 8     | ✓                     | ✓          |                 | 2 <sup>1</sup>  |

<sup>1</sup> Foreignness dominates for one subject and technology dominates for one subject.

We found that the butterfly effect is a useful description of the COO-preference relationship for slightly less than half of the respondents (42%). This result does not offer strong support

for either accepting or rejecting the butterfly curve effect as a heuristic for the COO-preference relationship. The response surfaces did not support our assumption that preference

would be greatest for products with the highest level of complexity and the lowest level of foreignness. The effects of using response surfaces in consumer behavior studies are somewhat clearer. This methodology is a useful exploratory tool for examining complex relationships, but has not been utilized.

Several issues need to be addressed in future efforts. First, the sample is small, and there are always questions when students are used as respondents. At the same time, in a theory testing study, using student subjects has certain advantages over more representative populations. Second, the operationalization of technology utilized is problematic, both as to its operationalization and the metric properties of that operationalization.

At the same time, we propose that the research suggests the following three possibilities. First, in almost half of the cases a curvilinear effect appears between product preference and country of origin. Response surfaces may be suitable for investigating the non-linear relationship between country of origin and product preference. Second, this relationship clearly can be moderated or altered by other variables (such as the technological sophistication of the product type) and response surfaces may lend themselves to such investigations. Third, the study suggests that surface response methodology is an appropriate tool for exploring complex relationships between marketing variables.

## REFERENCES

- Batsell, Richard R. (1980), "On the Use of Hidden Surface Routines in the Analysis of Marketing Data," Journal of Marketing 44 (Summer), 102-106.
- \_\_\_\_\_, and Leonard M. Lodish (1981), "A Model and Measurement Methodology for Predicting Individual Consumer Choice," Journal of Marketing Research 18 (February), 1-12.
- Baughn, C. Christopher and Attila Yaprak (1993), "Mapping The Country-of-Origin Literature: Recent Developments and Emerging Avenues," in Product-Country Images: Impact and Role in International Marketing, Papadopoulos, N. and N. A. Heslop, eds. New York: International Business Press.
- Bilkey, Warren J. and Eric Nes (1982), "Country-of-Origin Effects on Product Evaluations," Journal of International Business Studies 13 (Spring), 89-99.
- Eroglu, Michael J. and Karen A. Machleit (1989), "Country of Origin as a Product Quality Cue: An Improved Methodological Perspective," International Marketing Review, 6 (6), 27-41.
- Han, C. Min (1989), "Country Image: Halo or Summary Construct?," Journal of Marketing Research 26 (May), 222-229.
- \_\_\_\_\_, and Vern Terpstra (1988), "Country-of-Origin Effect for Uni-National and Bi-National Products," Journal of International Business Studies (Summer), 235-56.
- \_\_\_\_\_, and William J. Qualls (1985), "Country-of-Origin Effects and their Impact Upon Consumers' Perception of Quality," eds. C. T. Tan and J. Sheth, Historical Perspectives in Consumer Research: National and International Perspectives (Association for Consumer Research, School of Management, University of Singapore).
- Hanson, Flemming (1972), Consumer Choice Behavior, New York: Collier Macmillan.
- Hussey, Raymond M., Raymond H. Myers and Ernest C. Houch (1987), "Correlated Simulation Experiments in First-Order Response Surface Design," Operations Research 35 (September-October), 744-758.
- Johannson, Johnny K., Susan P. Douglas and Ikujiro Nonaka (1985), "Assessing the Impact of Country of Origin on Product Evaluation: A New Methodological Perspective," Journal of Marketing Research 22 (November), 388-396.
- Khuri, Andre I. and John A. Cornell (1987), Response Surfaces: Designs and Analyses. New York: Marcel Dekker, Inc.
- Liefeld, John P. (1993), "Experiments on Country-of-Origin Effects: Review and Meta-Analysis of Effect Size," The Country-of-Origin Literature: Recent Developments and Emerging Avenues," in Product-Country Images: Impact and Role in International Marketing, Papadopoulos, N. and N. A. Heslop, eds. New York: International Business Press.

- McClelland, David Clarence, John W. Atkinson, R.A. Clark and E.L. Tewel (1953), The Achievement Motive (NY: Appleton-Century-Crofts).
- Minor, Michael and DeWayne Hodges (1993), "Country-of-Origin Effects on Product Preferences: A Flexible Regression Approach." Michael Levy and Dhruv Grewal, eds., Developments in Marketing Science, Volume XVI. Coral Gables, FL: Academy of Marketing Science.
- Mowen, John C. (1993), Consumer Behavior, New York: Macmillan.
- Myers, Raymond H. (1976), Response Surface Methodology. Ann Arbor: Edwards Brothers (distributors).
- Obermiller, Carl and Eric Spangenberg (1989), "Exploring the Effects of Country of Origin Labels: An Information Processing Framework." in Thomas K. Srull, ed., Advances in Consumer Research, vol. 16, Provo, UT: Association for Consumer Research) 454-459.
- Olney, Thomas J., Morris B. Holbrook and Rajeev Batra (1991), "Consumer Responses to Advertising: The Effects of Ad Content, Emotions and Attitude Toward the Ad on Viewing Time," Journal of Consumer Research, 17 (March), 440-453.
- Özsomer, Aysegül and S. Tamer Cavusgil (1991), "Country-of-Origin Effects on Product Evaluations: A Sequel to Bilkey and Nes Review," in Enhancing Knowledge Development in Marketing, Mary C. Gilly et. al., eds. Chicago: AMA.
- Roberson, Bruce F. (1990), "Product Optimization Leads to Superior Products," Marketing News 24 (January 8), 16-17.
- Roth, Martin S., and Jean B. Romeo. "Matching Product Category and Country Image Perceptions: A Framework for Managing Country-of-Origin Effects." Journal of International Business Studies 23, no. 3 (1992), 477-97.

# A METHODOLOGICAL ASSESSMENT OF EMPIRICAL STUDIES IN CROSS-CULTURAL ADVERTISING

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## ABSTRACT

This study examines empirical studies in cross-cultural advertising from a methodological perspective. Cross-cultural methodologies involve many critical facets that do not surface in single-culture designs. A sharp focus on cross-cultural research in advertising is desirable because it has received greater attention from international marketing scholars than other facets of the marketing plan. Cross-cultural advertising research was virtually nonexistent before the 1980s and the studies reviewed are indicative of the increasing importance associated with cross-cultural comparisons of advertising issues.

Eighteen publications which are widely recognized as better outlets in marketing and/or international business were surveyed for the 1980-92 period. The majority of published research encountered in the literature is focused on single countries or cultures rather than on examining cross-cultural or international perspectives. Interestingly, the single-country studies have concentrated on only a handful of countries, such as the U.K. and Japan, as well as a limited number of topics, such as role portrayal, information cues, and attitudes toward advertising. Twenty-four articles that satisfy the criteria set for this study were identified. Although the number of studies identified is smaller than had been expected, these studies clearly represent an important trend in advertising research as a whole. These studies were examined with regard to their units of analysis, countries studies, treatment of culture, and media and advertising copy selection. Methodological issues pertaining to content analysis, reliability, emic versus etic instruments, translation considerations, extreme response style, and methods of analysis are addressed.

The literature in cross-cultural advertising can be divided into three groups: (1) the majority of studies ( $n = 14$ ) which focus on the advertising content, (2) studies which probe

attitudes and/or perception toward advertising, and (3) studies that investigate standardization issues across cultures. The majority of studies ( $n = 13$ ) covered only two cultures. Seven studies involved three cultures each and two others examined more than four cultures each. Many studies tend to limit their research to English-speaking countries, developed countries, or those that are within close geographical proximity. The frequency of selecting an English-speaking country in the studies covered is 92 percent ( $n = 22$ ) and the U.S. was included in 63 percent of the studies ( $n = 15$ ). Japan is the second most frequently studied culture and was included in 7 studies. The frequency of including a developing nation is only 13 percent ( $n = 3$ ), though NICs are included in 33 percent of the studies examined ( $n = 8$ ). Studies reviewed typically dealt with samples that represent only one segment within cultures of interest (e.g., students or advertising executives). Furthermore, greater care has been taken in selecting large enough sample sizes in studies involving human subjects than in those dealing with advertising content.

It is apparent from this review that our understanding and knowledge of cross-cultural advertising has been significantly enhanced as a result of research in the field. The scholarly contribution of these studies notwithstanding, it is also evident that only limited use of cross-cultural methodology has been made in these studies and that much more work needs to be done to increase the validity and reliability of future cross-cultural studies. A rich body of literature in cross-cultural methodology has evolved since the early 1970s which should guide the design, implementation, and analysis of future cross-cultural studies. Also, a number of researchers from various fields have suggested that a combination of methods be used in each stage of the research process. A multi-method study may include several data collec-



tion methods (qualitative interviews, surveys, experiments, participant observation), translation methods (committee, bilinguals, pretest procedures, back translation), analytical techniques (content analysis, multivariate analyses), and so on. Research based on multiple methods

will lead, both conceptually and methodologically, to more meaningful results than that which is dependent on one method. This approach will also assist in reducing biases that typically infiltrate cross-cultural studies.

# SOCIAL CONTROL IN MARKETING CHANNEL SYSTEMS

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## ABSTRACT

Interest in the behavioral dimensions of marketing channel systems has existed for decades. One aspect of channel member behavior which has received relatively little attention is how social control is used within a channel

system. This paper makes a start in that direction by specifying the constructs of interest and providing a preliminary model showing the relationships between these constructs.

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## INTRODUCTION

Marketing theorists have, from time to time, shown an interest in examining relationships between members of a marketing channel system from a sociological perspective. This interest in channels reflects that of other theorists studying the social dynamics resulting from the interactions of organizations. Interorganizational relations (IOR), of which channel systems are a subset, have been investigated by marketing theorists, organizational theorists, sociologists, and economists, among others. The sociological analysis of organizational social relations in general and marketing channels in particular, arises from the belief that certain groupings of organizations have the characteristics of complex social organizations, or what has been referred to as interorganizational collectivities (Van de Ven, Emmett, Koenig 1974) or social action systems (Van de Ven 1976). A social action system is claimed to exhibit the basic elements of an organized form of collective behavior, which are: a) activities among members which are aimed at attaining both collective and self-interest goals; b) a division of functions and tasks resulting in interdependent processes; c) integrated actions taking place which results in the system developing a unique identity separate from its members. These characteristics would seem to describe a large number of marketing channel systems.

The interdependencies (part b above) that exist between the organizations in a social action system cause the issue of social control to become of paramount importance to an understanding of the social structure of such systems. It is because organizations are wrapped in a web of interdependencies with other organizations that some means of controlling their

actions is required. The activities of one actor have significant consequences for other actors in the system, and when such actions cannot be controlled via hierarchical rules and regulations, social control is needed. As expressed by Pfeffer and Salancik (1978): "Social coordination of interdependent actors is possible as a means for managing mutual interdependence." The purpose of this paper is to propose an explanation of how the behavior of firms in a marketing channel system is regulated by social control processes. A model will be presented which hypothesizes how control originates and how it may influence certain sociopolitical processes between organizations.

## OVERVIEW OF MODEL

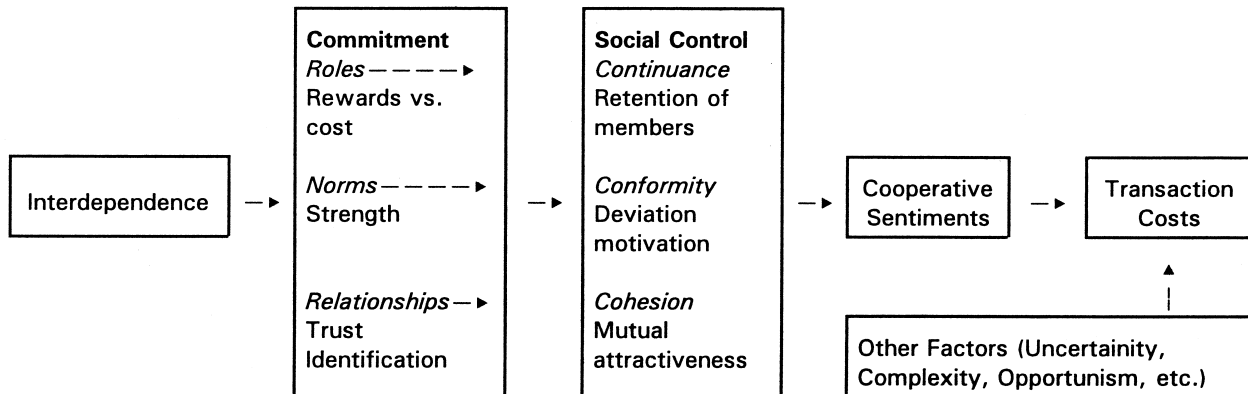
The concept of social control, while deemed a "central concept" of sociology (Janowitz 1975) and expressed as an issue of "paramount importance" (Zald 1978) in the study of the social organization of industries, has received relatively little attention by interorganizational theorists (c.f. Larson 1992) or marketing channel theorists despite the expressed need for such an investigation (John 1981). Recent interest among channel theorists in influence strategies (Boyle, et al. 1992) focuses on the "active" means by which channel partners control other member's activities. Social control, as we discuss it here, is concerned with the more "passive" ways by which channel members' behavior is influenced via continuance, conformity, and cohesion.

The new concern for delineating the parameters of social control in marketing channels or other IOR systems has, to some degree, been a byproduct of the transaction cost approach (Williamson 1975) to the study of how organizations seek to complete transactions

efficiently. Of the various elements constructing Williamson's transaction cost approach, the one understood the least is perhaps that of *atmosphere*. According to Williamson "Reference to atmosphere is intended to make allowance for attitudinal interactions and the systems consequences that are associated therewith" (1975: 37). By understanding the process of social

control in IOR systems we will increase our knowledge of how organizations cope with interdependency through cooperation and, ultimately, achieve greater transaction efficiency. The elements of the social control model are presented in Figure 1. The remainder of this paper is given to a further explication of these variables.

**FIGURE 1**  
Model of Social Control in Interorganizational Social Action Systems  
(i.e., Marketing Channel System)



### A. Interdependence

In social systems, "interdependence exists whenever one actor does not entirely control all of the conditions necessary for the achievement of an action or for obtaining the outcome desired from the action" (Pfeffer & Salancik 1978:40). Within marketing channel systems specialization and functional differentiation lead to interdependency among channel members relative to their task performance. The degree of interdependence varies from loose arrangements to tightly bound associations. This interdependency among organizations demands cooperation from the organizations yet include the seeds of conflict. The strain between cooperation and conflict is the result of each organization's strain for autonomy and the need to reduce environmental uncertainty by coordinating their activities with other organizations to obtain needed resources. To deal with problems of interdependence and uncertainty, firms must coordinate their activities with their partners, which means increasing the mutual control over each other's activities. Stabilizing the transactions through coordinative processes can involve a variety of mechanisms (cooptation, trade associations, cartels, reciprocal trade agreements, social norms, etc.). One function of these mechanisms is to link the organizations

in such a way that uncertainty is reduced for each organization by obtaining a social commitment that their relationship has a future. Thus, increasing interdependence provides a drive towards increasing social commitment on the part of each party.

### B. Commitment

Arndt (1979) maintains that transactions conducted within "a group of companies committed to long-term cooperation" have the advantage of reducing uncertainties and transaction costs over transactions characterized by open, competitive markets. How can we know when a group of companies could be characterized by having a commitment to long-term cooperation? What, in fact, does the term commitment mean when we apply it to IOR systems such as marketing channels?

In an extensive investigation of commitment in social systems, Kanter (1968) proposes that commitment of social actors can be said to be comprised of three axes: cognitive, cathectic, and evaluative orientations. Cognitive orientations discriminate among objects, describing their possibilities for gratification (rewards) or deprivation (costs), and distinguishing their location (position) and characteristics. Cathectic

orientations represent an emotional state with respect to objects, the kind and amount of feeling they generate. Evaluative orientations refer to normative standards of judgment: good or bad, right or wrong.

The three orientations have objects of commitment which link the individual social actor to the social system. As expressed by Kanter, a cognitive orientation based on rewards and costs is a commitment to social roles, or to positions in social systems. A cathectic orientation based on emotional attachment is a commitment to social relationships. An evaluative orientation based on standards of judgement is a commitment to norms (see [Figure 1](#)). Each of these objects of commitment will be discussed below, with emphasis on how these forms of commitment relate to actors in a channel of distribution system.

## 1. Roles

Roles describe specific forms of behavior associated with given positions, originally developing from task requirements. A position refers to the location of a social actor in a system of social relationships. As expressed by Gill and Stern (1969:23):

Roles are the unifying factors relating persons or groups of persons to positions in a social system, in that they define appropriate behavior for the occupant of each position. To the extent an occupant of a given position conforms to prescribed behavior, others with whom he interacts are able to anticipate his behavior. This ability to predict behavior allows the position-occupants to cooperate, or to function collectively as an integrated unit. Role theory emphasizes the nature of behavioral interaction in a social system.

Of particular interest to us is the part played by roles in gaining the commitment of actors to a social system and how this commitment in turn is translated into an element of social control. This can be done via an examination of rewards and costs to a role incumbent for his position in a social system. In marketing terminology, channel membership is based on the expectations of any given channel member that he will achieve greater reward through collective as opposed to independent action. Mutual rewards, or cooperative systems, and where the rewards exceed the costs of participation are predicted to be examples of more stable

role relationships. Therefore, a social actor would be expected to be more highly committed to a role where he perceived a positive reward-cost balance and would tend to remain a member of such a social system or channel. Social control is manifested in terms of continuance, or retention of system members.

## 2. Norms

Behavioral norms arise in response to the need for regulation of relationships among interdependent actors. Roles differentiate one position from another while norms integrate behavior by specifying the general expectations of a demand character for all incumbents of a system or subsystem. Norms develop under conditions of uncertainty to increase the predictability of relationships for the mutual advantage of those involved (Pfeffer & Salancik 1978). Commitment to the relevant norms in a social action system provides for consistency in behavior of social actors. The more highly committed a social actor is to a norm, the less likely a deviant motivation is to arise in that actor. Commitment to norms is a function of a combination of three aspects of what constitutes a norm: 1) a collective evaluation of behavior in terms of what it ought to be; and/or; 2) a collective expectation as to what behavior will be and/or; 3) particular reactions to behavior, including attempts to apply sanctions or otherwise induce a particular kind of conduct.

A social system which has developed norms which are consensually believed ought to be followed, or will be followed, and which is capable of applying sanctions against deviants, can exercise a strong social control variable of conformity upon those members who are not motivated to deviate from these norms. Actors highly committed to such norms are likely to have conforming motivations for such norms. It has been empirically shown that norms are more likely to be adhered to when future interaction is expected between parties. Therefore, channel systems of mutually interdependent actors who are highly committed to a continuing relationship and to the norms arising out of such a relationship are likely to be subject to greater social control through conformity.

## 3. Relationships

"Emotional" commitment, according to Kanter, is commitment to a set of social relationships. This commitment stems from participation in and identification with other actors

and with the system as a whole. Identification involves a desire for "oneness" on the part of actors who identify with other actors in the system or with the system as a whole. According to Raven and Kruglanski (1970): "...the perception of similarity and identification will lead [B] to moving toward positive interaction with A. Where one is concerned about continued positive interpersonal relationships, there seem to be clear advantages for referent influence [based on actor's identification with each other]."

Another cathectic based orientation for a relationship commitment is that of trust. Interpersonal trust has been defined as "a reliance upon information received from another person about uncertain environmental states and their accompanying outcomes in a risky situation" (Schlenker, et al. 1973). As reported by Mccaulay (1963), businessmen often prefer to rely on a person's word "in a brief letter, a handshake, or common honesty and decency" rather than enforce a contract, even when the transaction involves exposure to serious risks. Why is trust such an important part of a cathectic based commitment to social relationships? Again according to Mccaulay: "Not only do the particular business units in a given exchange want to deal with each other again, they also want to deal with other business units in the future. And the way one behaves in a particular transaction, or a series of transactions will color his general business reputation." (1963:64)

Thus, commitment to social relationships is based to some degree on the degree of trust an actor manifests toward other actors in the system as he contemplates future exchanges. The degree of commitment to social relationships as manifested in perceived trust and identification between social actors can exert social control on actors through a sense of cohesion among the actors. Cohesion can be expressed as the degree of mutual attractiveness among the actors in a social system based on such trust and identification.

In summary, commitment to roles results in social control by continuance of members in those committed roles. Commitment to norms results in social control by conformity of members to those system norms to which they are committed. Commitment to social relationships results in social control by obtaining member-

ship cohesion. Commitment can also be thought of as each of the three variables (roles, relationships, norms) corresponding to a commitment to the continued association among the social actors (i.e., the channel members are committed to continuing the association among each other or between themselves and the channel system).

### C. Cooperation

Cooperation can be represented as joint striving towards an object; the process of coalescing with others for a good, goal, or value of mutual benefit (Stern 1971). Cooperative behavior within a marketing channel system or other IOR system has several determinants. Young and Mack (1965) observe that cooperation can exist only if the individuals or organizations interacting: 1) are directly motivated to seek a goal that may be shared; 2) acquire some knowledge of the benefits of such activity; 3) acquire a favorable attitude toward sharing both the work and the rewards involved; and 4) equip themselves with the skills necessary to make the cooperative plan work. Therefore, it is possible that social systems with little social control over members may exhibit a high level of cooperation at some point in time because the members see the overwhelming benefits of such action, even though they are not committed on a long term basis to a continuation of their association. Conversely, it is possible that a social system characterized by highly committed members may not exhibit cooperative action because of a lack of skills necessary to make the cooperative plan work. However, the desire or motivation to cooperate and the attitude toward sharing both work and rewards can be hypothesized to be greater when a higher degree of social control is present among committed actors than when less social control is evident. The motivation to cooperate and the attitude toward sharing both the work and the rewards of cooperative effort, rather than cooperative effort itself, is then the dependent variable of the social control model.

### APPLICATIONS OF THE MODEL

One of the more interesting applications of the social control model in respect to marketing channels is its use for both vertical and horizontal social action systems. Social control involves the regulation of behavior by members of a channel system not only by the actors in

that vertical system but also by constituents on the same level. The constructs of interdependence, commitment via roles, norms, and relationships, and social control via continuance, conformity, and cohesion would seem to be just as valid for horizontal social systems as for vertical. Kriesberg's (1955) analysis of social control among steel distributors during the Korean War exemplifies the dimensions of both horizontal and vertical control. An "insider's" desire to remain in their present position of the distribution system by not selling gray market steel because "customers expected certain restraints from them" represents commitment to vertical roles. Insiders who did not wish to "offend the mills by selling in the gray market" is an example of commitment to vertical relationships based on identification. Fear of future sanctions (not buying their product) by customers exemplifies a commitment to vertical norms of offering "just prices" and making only a "fair" profit. Horizontally, social control was exhibited by insider's desires to retain the respect of their colleagues (relationship), not lose their position as a reputable distributor (role), and fear of colleagues refusing to trade material (norm sanctions). Members of other social systems in the steel distribution system had differing degrees of commitment to these roles, relationships, and norms and therefore exhibited differing degrees of social control and cooperative sentiments. While the study of the gray steel market exemplifies a consistency in vertical and horizontal social control, this is not always the case in all situations or in all industries (c.f. Kriesberg 1953-54).

### SUMMARY

Viewing marketing channels as social action systems provides opportunities to better understand why channel members act in ways difficult to explain by strictly economic models. A model was presented which indicates that interdependence leads to various forms of commitment between channel members, which in turn leads to various manifestations of social control over channel members. Future research can profitably explore the various components of such a model.

### REFERENCES

- Aldrich, H. and D.A. Whetten (1981), "Organization-sets, Action-sets, and Networks: Making the Most of Simplicity," in Handbook of Organizational Design, Ed. P.C. Nystrom and W.H. Starbuck, Vol 1, Oxford, England: Oxford University Press: 385-408.
- Arndt, Johan (1979), "Toward A Concept of Domesticated Markets," Journal of Marketing, 43 (Fall): 69-75.
- Assael, Henry (1969), "Constructive Role of Interorganizational Conflict," Administrative Science Quarterly, 14 (Dec.): 573-582.
- Boyle, Brett, et al. (1992), "Influence Strategies in Marketing Channels: Measures and Use in Different Relationships Structures," Journal of Marketing Research, 29 (Nov.): 462-471.
- Gill, Lynn and Louis W. Stern (1969), "Roles and Role Theory In Distribution Channel Systems," In Distribution Channels: Behavioral Dimensions, Ed. Louis W. Stern, Boston: Houghton Mifflin Co.
- Janowitz, Morris (1975), "Sociological Theory and Social Control," American Journal of Sociology, Vol. 81 (July): 82-108.
- John, G. (1981), "Interorganizational Coordination in Marketing Channels: An Investigation of Opportunism and Involvement Orientation as Mediators of the Process," Unpublished Ph.d. Dissertation, Northwestern University, Evanston, IL.
- Kanter, R.M. (1968), "Commitment and Social Organization: A Study of Commitment Mechanisms in Utopian Communities," American Sociological Review, 33 (Aug.): 499-517.
- Kriesberg, L. (1955), "Occupational Control Among Steel Distributors," American Journal of Sociology, (November): 203-212.

- Kriesberg, Louis (1953-54), "Customer Versus Colleague Ties Among Retail Furriers," Journal of Retailing, 29 (Winter): 173-177.
- Larson, Andrea (1992), "Network Dyads in Entrepreneurial Settings: A Study of the Governance of Exchange Relationships," Administrative Science Quarterly, 37 (March): 76-104.
- Macaulay, S. (1963), "Non-Contractual Relations in Business," American Sociological Review, 28 (1): 55-70.
- Pfeffer, J. and G.R. Salancik (1978), The External Control of Organizations: A Resource Dependence Perspective, New York: Harper and Row.
- Raven, B.H. and A.W. Kruglanski (1970), "Conflict and Power," in The Structure of Conflict, Ed. P. Swingle, New York: Academic Press: 69-109.
- Schlenker, Barry R., Bob Helm, and James T. Tedeschi (1973), "The Effects of Personality and Situational Variables on Behavioral Trust," Journal of Personality and Social Psychology, Vol 25 (3): 419-427.
- Stern, Louis W. (1971), "Antitrust Implications of a Sociological Interpretation of Competition, Conflict, and Cooperation in the Marketplace," The Antitrust Bulletin, 16 (Fall): 509-530.
- Van de Ven, A.H. (1976), "On the Nature, Formation, and Maintenance of Relations Among Organizations," Academy of Management Review, Vol. 1. (4): 24-36.
- Van de Ven, A.H., D.C. Emmett, and R. Koenig, Jr. (1974), "Frameworks for Inter-organizational Analysis," Organizations and Administrative Sciences, Vol. 5(1):113-129.
- Williamson, O.E. (1975), Markets and Hierarchies: Analysis and Antitrust Implications, New York: Free Press.
- Young, Kimball and Raymond Mack (1965), Sociology and Social Life 3rd ed., New York: American Book Co.: 117-118.
- Zald, Mayer N. (1978), "On The Social Control of Industries," Social Forces, Vol. 57 (Sept.): 79-102.



# THE ACTIVATION PROCESS THEORY OF POWER: AN INTEGRATIVE FRAMEWORK FOR POWER IN THE CHANNELS SETTING

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## ABSTRACT

Power exists in sociological and the channels setting as an implied operant. This has posed much difficulty among researchers in its conceptualization and measurement. This paper

is an attempt to transcend some of the conceptual problems and position power as the degree to which performance varies from expectations.

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## INTRODUCTION

The various bases of power are an integral part of the processes used to govern, control and manage the distribution of goods and services. Power, when judiciously employed, can be a management tool useful in many channel programs. Power could also be used to help manage the conflict which so inevitably develops in channel situations. The inappropriate use of power can sow the seeds of conflict. The use of a different power base could potentially have avoided this conflict or could serve to assuage the conflict once activated (Kasulis and Spekman 1979).

El-Ansary and Robicheaux (1974) defined power as . . .

. . . one channel member's ability to affect the probability of another channel member's compliance (Mentzer and Hunt 1985, p. 105).

This is the definition of power adopted here. Writers in the organizational theory and organizational development areas have long called for a shift in emphasis away from the elimination of conflict and towards its constructive management (Thomas 1976).

To improve the management of conflict, an enhanced understanding is needed of what uses of the various bases of power in combination are most likely to lead to constructive outcomes and to inproductive outcomes. Anand and Stern (1985), in research parallel to that proposed here, used attribution theory to investigate why channel members relinquish control of variables legitimately within their latitude to control. The attributes resulted in performance

expectations held by franchisees. Perceived performance in light of these expectations resulted in the decision to retain, share or relinquish control or to maintain the status quo. In the present research, the relationship of performance expectations with the power aftermath, "sentiment," will be examined.

The theory and scales to be developed in this paper will focus on the supplier-wholesaler dyad in the distribution channel of physical products. The power under scrutiny originates with the supplier and impacts on the wholesaler. For clarity and brevity the supplier will be referred to as the channel captain and the wholesaler as the power target.

In this paper, the Bases of Power and the Power-Dependence theories of power will be examined in turn. This will be followed by a presentation of the Activation Process Theory Of Power. An attempt will be made to dovetail the two previous theories, to show how the new theory subsumes them, while incorporating the ideas of positive sanctions and baseline of expectations from Baldwin (1971). Finally, the relationship of the theory presented here to the works of Gaski (1984 and 1985) will be presented along with the resulting positive/negative interpretation of the power dichotomy.

## "THE BASES OF POWER" THEORY OF POWER

This theory originates in the work of Dahl (1957) and its various elements are considered sequentially below, while delineating an example from the Marketing channels setting.

The first element, the bases of power (Figure 1), remains passive until it is exploited in



some way to alter or change the behavior of another (others).

The instrument or means (Figure 1) is some mediating action by actor A (the wielder of power or channel captain) which has an effect on actor B (the recipient of power or target). Examples would include the elements of a promotional campaign.

The scope of responses by channel members and consumers (Figure 1) in the example could include participation characterized as enthusiastic, somewhat willing, non-committal, with reservations or begrudging?

There must be sufficient power utilized for the base of power exploited to work through the instrument to accomplish the desired scope (behavior change) which was the original intent. The amount of power is a stated probability of outcome (scope) resulting from a stated level of power means utilized. What levels of reward (bases of power) within the promotions campaign (instrument) will result in behavioral change (scope).

### THE POWER-DEPENDENCE THEORY OF POWER

The Power-Dependence Theory of power from Emerson (1962) suggests that the dependence of one party on the other become the basis of power of the first party.

Cadotte and Stern (1979) quote from Thompson (1967) . . .

. . . organization B has power relative to A to the extent that B has the capacity to satisfy the needs of A and to the extent that B monopolizes that capacity. B's capacity is determined by the resources it possesses or is attributed to possess which A perceives as being necessary for its goal attainment. Therefore, the sources of A's dependence on B are simultaneously the sources of B's power over A (p. 142).

### THE ACTIVATION PROCESS THEORY OF POWER

Domain is the area an organization stakes out for itself in 1) range of products, 2) populations served, and 3) services and functions fulfilled (Thompson 1967).

. . . defines a set of expectations for members of

an organization and for others with whom they interact, about what the organization will or will not do. It provides, although imperfectly, an image of the organization's role in a larger system, which, in turn, serves as a guide for the ordering of action in certain directions and not in others (p. 29).

Thus, expectations play a central role in domain consensus/dissensus. A comparison of performance in light of these expectations is here posited to measure the inferred operant, power, through surrogate aftermath measures.

The two foregoing theories of power support the empirically useful Activation Process Theory of power. It also shows power to be an inferred operant (see Fig. 2). In this theory, the bases of power are seen as latent in the sociological setting, to be activated by some instrument in the relationship. The integrative nature of this theory flows from dependence acting through the bases of power.

The writer has adopted the model of Dahl (1957) and its terminology to offer this construal of power. The instrument (Figure 2) is some phenomenon inherent in the sociological setting which when used or sometimes when merely present but not used results in some base(s) of power being activated.

The bases (sources) refer to whatever bases of power are activated by the instrument and include those from French and Raven (1959) and later expanded. Once a base(s) have been evoked by an instrument, activated power exists (Figure 2). Scope (range) of power is the response of the target to the use or abstinence of use of power.

To better comprehend the last three components of this theory, the ideas of positive and negative sanctions and baseline of expectations from Baldwin (1971) are necessary.

Some things take the form of positive sanctions, but actually are not: e.g., giving a bonus of \$100. to a man who was expecting a bonus of \$200., or promising not to kill a man who never expected to be killed in the first place. Likewise, some things take the form of negative sanctions, but actually are not: e.g., a threat to cut by \$100., the salary of a man who expected his salary to be cut by \$200., a threat to punch in the nose, a man who knows he will be hanged at sunrise, or the beating of a masochist. Is withholding a reward ever a punishment? Always a

punishment? Is withholding a punishment ever a reward? Always a reward? (p. 23).

The answer depends on the baseline of expectations.

Returning to [Figure 2](#), the perception of power and interpretation become the target's judgment concerning the appropriateness, frequency and intensity of the use or of the non-use of a power base(s) in light of the target's expectations relative to the situation. Is it in accord with expectations (unchanged relationship) or nonaccordant with expectations (positive or negative sanction)?

The last element in the model is outcomes. A use of power in accord with expectations would maintain the prevalent ambiance. A use seen as a reward or positive sanction would tend to result in positive sentiment and enhanced channel performance; one seen as a punishment or negative sanction in negative sentiment and lower performance.

There are two additional points to be considered from Gaski's seminal 1984 article. The exercised-unexercised bifurcations of both sources of power and of power itself.

The exercised/unexercised bases of power issue is predicated on a power source exerting an influence whether it is activated or not. Influences from both exercised and unexercised power bases operate through the comparison with expectations, so their exercise or non-exercise is not seen to impact differently.

The exercised/unexercised division of power remains. Gaski states the following:

One distinction needs to be made between the exercise of power and the exercise of power sources. The exercise of power sources refers to an activity: the granting of rewards or imposition of punishments. The exercise of power refers to a result or outcome: the alteration of another's behavior, irrespective of the means used to accomplish it (1984, p.24).

Sources of power, then, are those abilities that allow specific activities such as rewards and punishments. Power refers to the capacity for some accomplishment in the social setting.

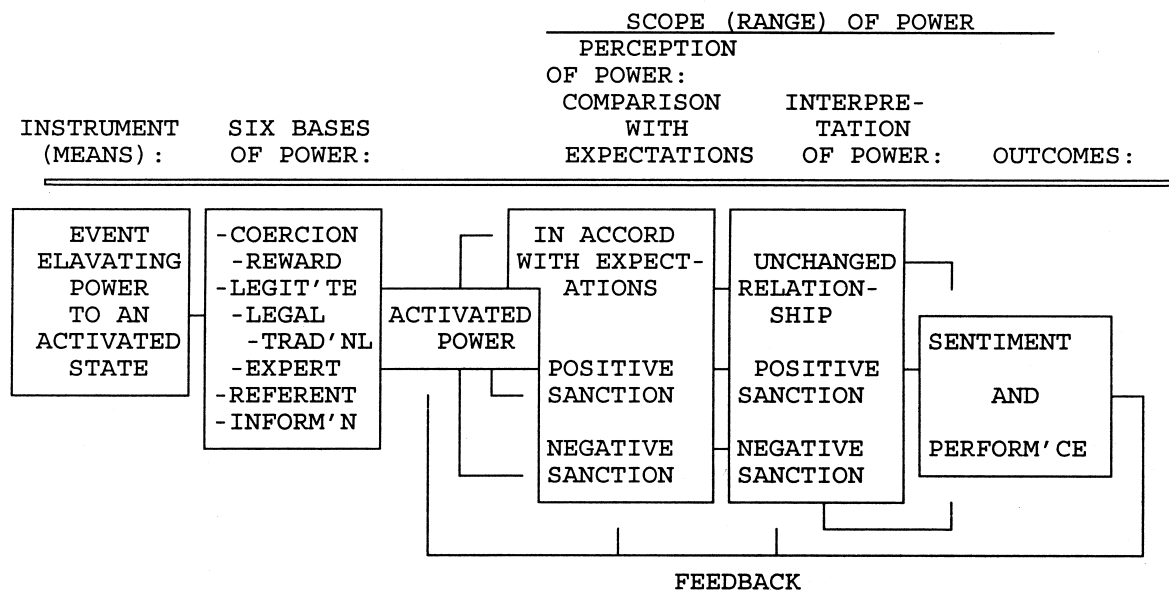
The Activation Process Theory of power resolves the exercised-unexercised power question through the theory's baseline of expectations. If use or non-use is seen as accordant with expectations an unchanged relationship results; if more benevolent, a positive sanction; more malevolent, a negative sanction.

The Activation Process Theory of power appears to address both the exercised/unexercised dichotomies outlined by Gaski. It also integrates the Sources of Power and Power-Dependence Theories, and leads to an interpretation of power or power sources as either an unchanged relationship or a positive or negative sanction.

A table to be handed out shows suggested scales to measure first, power, and, second, power sources. They are derived mainly from scales suggested by Gaski (1985) and are still in generic form.

| <b>FIGURE 1: THE BASES OF POWER MODEL OF POWER</b><br><b>(Adapted from Dahl, 1957)</b>                                                                                                                                                                            |                                                                                                 |                                                                                                                                                                            |                                                                                                          |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------|
| BASES<br>(Sources)<br>OF POWER                                                                                                                                                                                                                                    | MEANS<br>(Instruments)<br>OF POWER                                                              | SCOPE (Range)<br>OF POWER<br>(Behavioral change)                                                                                                                           | AMOUNT OF<br>POWER                                                                                       |
| <ul style="list-style-type: none"> <li>○ COERCION</li> <li>○ REWARD</li> <li>○ LEGITIMATE               <ul style="list-style-type: none"> <li>○ LEGAL</li> <li>○ TRADITIONAL</li> </ul> </li> <li>○ EXPERT</li> <li>○ INFORMATION</li> <li>○ REFERENT</li> </ul> | RUNNING A<br>PROMOTIONAL<br>CAMPAIGN TO<br>ENHANCE CHANNEL<br>PARTICIPATION AND<br>MARKET SHARE | <b>RESPONSES:</b> <ul style="list-style-type: none"> <li>○ ENTHUSIASM</li> <li>○ WILLINGNESS</li> <li>○ NONCOMMITMENT</li> <li>○ RESERVED</li> <li>○ BEGRUDGING</li> </ul> | STATEMENT<br>RELATING THE<br>PROBABILITY OF<br>OUTCOME (SCOPE)<br>WITH THE LEVEL<br>OF POWER<br>UTILIZED |

**FIGURE 2: PROPOSED ACTIVATION PROCESS THEORY OF POWER**



## REFERENCES

- Anand, Punam (1987), "Inducing Franchisees to Relinquish Control: An Attribution Analysis," Journal of Marketing Research, Vol. 24 (May), 215-21.
- Anand, Punam, and Louis W. Stern (1985), "A Sociopsychological Explanation for Why Marketing Channel Members Relinquish Control," Journal of Marketing Research, Vol. 22 (November), 365-76.
- Baldwin, D. A. (1971), "The Power of Positive Sanctions," World Politics, Vol. 24 (October), 19-38.
- Brown, J. R., and G. L. Frazier (1978), "The Application of Channel Power: Its Effects and Connotations," in Research Frontiers in Marketing, Subhash S. Jain, editor. Chicago: American Marketing Association: 266-270.
- Cadotte, Earnest R., and Louis W. Stern (1979), "A Process Model Of Interorganizational Relations in Marketing Channels," in Research in Marketing, Volume II, Jagdish N. Sheth, ed., Greenwich, CT: JAI Press, Inc.
- Dahl, R. A. (1957), "The Concept of Power," Behavioral Science, Vol. 2 (July): 201-215.
- El-Ansary, Adel I. and Louis W. Stern (1972), "Power Measurement in the Distribution Channel," Journal of Marketing Research, Vol. 9, (February), 47-52.
- Emerson, Richard M. (1962), "Power-Dependence Relations," American Sociological Review, Vol. 7, No. 1 (February), 31-41.
- Frazier, Gary L. (1983), "On the Measurement of Interfirm Power in Channels of Distribution," Journal of Marketing Research, Vol. 20 (May), 158-66.
- French, John R. P. Jr., and B. Raven (1959), "the Bases of Social Power," in Studies in Social Power, Darwin Cartwright, editor, Ann Arbor, Mich.: University of Michigan Press: 150-67.
- Gaski, J. F. (1984), "The Theory of Power and Conflict in Channels of Distribution," Journal of Marketing, Vol. 48 (Summer): 9-29.
- Hunt, S. D. and J. R. Nevin (1974), "Power in a Channel of Distribution: Sources and Consequences," Journal of Marketing Research, Vol. 11 (May): 186-193.
- Johnson, J. L., H. K. Koenig and J. R. Brown (1985), "The Bases of Marketing Channel Power: An Exploration and Confirmation of Their Underlying Dimensions," Proceedings of the 1985 American Marketing Association Educators Conference, Chicago: 160-165.
- Lusch, R. F. (1976b), "Sources of Power: Their Impact on Interchannel Conflict," Journal of Marketing Research, (November): 382-390.
- Oliver, Richard L. and John E. Swan (1989), "Consumer Perceptions of Interpersonal Equity and Satisfaction in Transactions: A Field Survey Approach," Journal of Marketing, Vol. 53 (April): 21-35.
- Swan, John E. and I. Frederick Trawick (1993), "Consumer Satisfaction Research: 1983-1992; Accomplishments and Future Directions," in Proceedings of the 1993 Consumer Satisfaction, Dissatisfaction and Complaining Behavior Conference, Knoxville.
- Thomas, Kenneth (1976), "Chapter 17, Conflict and Conflict Management," in Handbook of Industrial and Organizational Psychology, M.D. Dunnette, editor, Chicago: Rand-McNally, pp. 889-935.

# INCENTIVES AND WELFARE IMPLICATIONS OF RECYCLING IN THE REVERSE CHANNEL OF DISTRIBUTION

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## ABSTRACT

Recycling disposed off products has increasingly become more important as the landfill sites have diminished and the reality of exhaustible resources has become evident. Using the reverse logistics channel to recycle some of the waste produced by consumers has been recognized for a few decades. However, there has been no attempt to develop a theoretical analysis of the incentives in the reverse distribution channel which would encourage the channel members to recycle. In addition, marketers have not formally studied the welfare implications of recycling on producers, retailers, and consumers of products. Also, there has been no analysis of the effects of waste disposal on the welfare of people external to the marketing channel.

This article systematically analyzes the incentives in the distribution channel to recycle and the welfare implications of recycling on the channel members and the society at large. The paper integrates some of the important conceptual and empirical literature with the analysis presented here. More specifically, this article evaluates the costs and benefits of recycling to the channel members and presents a theoretical framework to analyze these issues.

Cost-benefit and utility-disutility analyses show that there are no incentives within the market system for the channel members to recycle. Since recycling of disposed off products is an externality for the channel members, there

is a need for either the use of strategic alliances within the channel members to spread fixed costs and risks among multiple partners and/or regulation by government to encourage channel members to recycle.

## SELECTED REFERENCES

- Ginter, Peter M. and Jack M. Starling (1978), "Reverse Distribution Channels for Recycling," California Management Review, 22 (3), 72-82.
- Guiltinan, J. R., and N. Nwokoye (1975), "Developing Distribution Channels and Systems in the Emerging Recycling Industries," International Journal of Physical Distribution & Logistics Management, 6(1), 28-38.
- Pohlen, Terrance L., and M. Theodore Farris II (1992), "Reverse Logistics in Plastics Recycling," International Journal of Physical Distribution & Logistics Management, 22(7), 35-47.
- Vining, Joanne and Angela Ebreo (1990), "What Makes a Recycler?" Environment and Behavior, 22 (1), 55-73.
- Zikmund, William G. and William J. Stanton (1971), "Recycling Solid Wastes: A Channels-of-Distribution Problem," Journal of Marketing, 35 (July), 34-39.

# **ENHANCING TEAM BUILDING AND PRESENTATION SKILLS: A TEAM CASE PRESENTATION APPROACH**

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## **ABSTRACT**

Team building and oral presentation skills are vitally important to success in today's business climate. The flattening of the organization and the delegation of responsibilities to teams, rather than through hierarchical levels, calls for accomplished interpersonal, small group, and communication skills, especially those used in team building and oral presentations.

This paper describes a team case approach that has worked effectively in building oral presentation and team building skills. Specific learning objectives for oral presentation and team building skills are developed. Oral presentation objectives relate to organization, content, visual aids, fear reduction, and personal presentation style. Team building objectives concern cooperation, collaboration, peer evaluation, leadership, responsibility and preparation.

To accomplish the learning objectives, healthy group processes and a clear definition of the assignment are vital. Important group variables are elaborated which include size, composition, awareness of interpersonal needs and expectations, method of selection, and logistical compatibility. To successfully implement the team case presentation assignment, a five step approach is presented.

An important aspect of the team case presentation assignment is the development of a positive, professional and objective process of assessment. A process of assessment is described which evaluates organization and content, presentation effectiveness, individual contribution and the presentation skills of the individual and the team. The use and relevance of peer evaluations is stressed.

The paper concludes with a summary of advantages, potential problems, and workable solutions. Some benefits of the team case presentation assignment include experiential learning of new interpersonal team building and improved oral presentation skills. Further benefits arise from the case method itself. Students gain experience in integrating, applying, and presenting material from various business disciplines. Problem topics include unequal effort, social loafing, and team dysfunction. Workable solutions are offered for each problem. A major advantage of the team case presentation assignment is the very favorable response of the students. The course is highly rated by their evaluations. Also, student comments and surveys, as well as instructor observation, indicate that student oral presentation and team building skills significantly improve using the team case presentation approach presented in this article.

# RECRUITMENT WITHOUT RESPONSIBILITY: THE PROBLEM OF SOJOURNER ADAPTATION

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## ABSTRACT

U.S. business schools are enrolling increasing numbers of foreign students without consideration of their needs. This practice is not educationally sound, nor is it responsible on the

part of our institutions or among the individuals involved in instruction. This paper suggests some strategies that can aid in solving the problem.

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## INTRODUCTION

According to the Institute of International Education, 419,585 students from foreign countries attended U.S. institutions in the 1991-92 academic year. This figure represented a 3 percent increase over the 1990-91 academic year and represents an all-time high for foreign enrollment in U.S. colleges and universities. For the third consecutive year, the most popular field of study for foreign students was business and management, which is about 20 percent of the foreign students attending U.S. institutions (Watkins 1992, Dodge 1991).

This growth is good news for U.S. business schools. Shrinking domestic enrollments have caused serious concern in recent years. The recruitment of foreign students to replace domestic students does, however, raise this question: To what extent are U.S. business schools responsible for considering the distinct states of personal adjustment foreign students go through when living abroad? These distinct states are referred to as sojourner adaptation (Nash 1991).

The purpose of this paper is to examine the trend toward increasing foreign enrollment, explore the impediments to assimilation faced by the student sojourner to U.S. business schools, and to consider appropriate strategies to support foreign students in U.S. business programs. The implications for marketing education are threefold. First, aggressive recruitment is likely to accelerate in the coming years. Second, marketing educators can play an important role in the development of enrollment manage-

ment strategies. Third, marketing educators can develop courses and approaches to teaching considering the increased numbers of foreign students.

## FOREIGN STUDENTS: THE PANACEA FOR U.S. BUSINESS SCHOOLS?

For thirty years, from 1960 to 1990, overall enrollment in U.S. business schools grew. In the peak year of 1990, a quarter of a million business degrees were granted at institutions across the United States (Tooley 1993). In the last three years, however, the decline, both at the undergraduate and graduate levels, has been dramatic. A more competitive job market and recessionary times have contributed to the decline. It may be equally true, as stated by Charles Hickman, Director of projects at the AACSB, that "rightly or wrongly, business has been perceived as a more materialistic, self-centered major, and the current generation is less materialistic" (Tooley 1993). In the face of these declines, many U.S. business schools have begun to view foreign student recruitment as a viable market development strategy to reverse the downward spiral.

## THE ADAPTATION OF STUDENT SOJOURNERS TO U.S. BUSINESS SCHOOLS

The profile of foreign students in U.S. institutions in 1991-92 is heavily composed of Asian students. Asian students totaled 246,296 representing 58.7 percent of all foreign students attending U.S. colleges and universities. China was the leading country of origin with 42,940 students.

In total, sixty-five countries worldwide had at least one thousand students in U.S. institutions of higher education during the 1991-92 academic year (Watkins 1992). The five states with the largest numbers of foreign students in 1991-92 were California, New York, Texas, Massachusetts, and Illinois (Watkins 1992). Foreign students are more likely to attend public universities, although some private institutions have a large proportion of their total enrollments composed of foreign students.

With some institutions already facing foreign student enrollments of more than 20 percent, and aggressive recruitment likely to be the norm, U.S. business schools should better understand and respond to the numerous challenges faced by the student sojourner. These challenges include language problems, culture shock, loneliness, conflict, and economic concerns.

### **IMPEDIMENTS WHICH EXIST FOR FOREIGN STUDENTS**

#### **Language Problems**

We may all wonder how a student with weak English skills can possibly handle the load of a particular business course. The administrators of business schools must recognize that many faculty members do not have the time nor the inclination to teach foreign students English, particularly if classes are large. Foreign students need resources to develop their language skills before they enroll in business courses like marketing. Stronger English skills increase the confidence of students to speak up in class. Incorrect stereotypes of foreign students can be abolished with improved language skills. It is not, for example, true that all Asian students are shy. A Taiwanese student commented, "foreign students usually don't volunteer to speak in class because they are afraid their halting English may be ridiculed."

Language can be a particular problem in marketing because of the extent to which much of the material covered and examples used are part of the "pop culture" of the United States. Even foreign students with excellent English skills have difficulty with slang expressions that may be commonly used in a marketing class. A French student, for instance, didn't understand her professor's comment about consumers "nuking" products in our fast-paced society.

Language difficulties cause problems for the student sojourner not only in the classroom but in other aspects of university life as well. A recent study of primarily Asian students found that insufficient English proficiency caused problems for students attempting to use American university libraries (Liu 1993).

While it is true that sojourners must be encouraged and given opportunities to improve their language skills, it is also true that business faculty must determine if perfect English composition and speaking are necessary to successfully master a business course. Business faculty can be insensitive to ideas expressed by foreign students simply because they have a different accent, imperfect inflection, or lack of understanding of verb tenses. Insensitive faculty affect their foreign students by not valuing their comments and positions and by transmitting insensitivity to others, thereby creating a climate of insensitivity to those who speak or write differently.

#### **Culture Shock**

U.S. business schools recruit foreign students and often ignore their cultures. Only if foreign students know they can bring their heritage with them, do they feel secure enough to fully enter the new U.S. and university cultures (Sullivan 1991). International food offerings and social and cultural events with international themes are helpful in reducing foreign students' feelings of alienation and loneliness. Asian students, in particular, seem to appreciate the existence of culturally based student groups that can provide them with an anchor in a sea of cultural difference. These offerings and events also expose American students to different cultures, which helps to internationalize the curriculum and the institution, as well as build tolerance (Blum 1991).

#### **Loneliness**

Foreign students arrive at American universities not knowing anyone. Often they will not see family members or loved ones for many years, which contributes greatly to negative feelings. This stranger anxiety is associated with constriction (Heiss and Nash 1967; Nash 1979), which results in the student sojourner blocking out the new environment.

Loneliness is a significant problem for



foreign students from diverse cultural backgrounds. It is not easy for sojourners to make friends, which only adds to their loneliness. An Indian student commented, "American students want to keep their distance, they're friendly in class or when working on group projects but the few times I suggested moving an acquaintance beyond that I was always rejected. I don't try anymore." A French student concurs, "American students are superficially friendly but just when I begin to think I'm making a friend, they barely say hello. It can be very lonely. I seek other international students to make friends with."

### **Conflict**

Ethnic slurs, discrimination, and hate crimes result in institutions where no effort is made to introduce the positive aspects of a culturally diverse campus. This issue appears to be the biggest challenge faced by student sojourners. Though most have not experienced blatant discrimination from American students, or been the targets of hate crimes, students interviewed for this paper have felt the insensitivity of American students. A Taiwanese student states that, "foreign students don't want to talk up in class not because they think the professor won't be supportive but because we've all seen other students roll their eyes when we tried to talk." A French student feels that "American students don't want to work with foreign students on group projects or cases. I guess they think we won't be able to do our share of writing or something. Finally, an Indian student believes that "discrimination comes far more often from other students than from faculty or staff."

### **Economic Concerns**

Seventy-five percent of foreign students studying in the U.S. use funds from family or other non-U.S. resources (Watkins 1992). The students may come to U.S. business schools from countries that have non-convertible currencies or countries that permit their students to take only a small amount of money with them when they leave (Kneedler 1991). Students from those countries may have no funds to meet obligations or emergency needs while in the U.S. Administrators need to accept the responsibility for aiding these students in locating appropriate financial resources (e.g., loans, grants, etc.).

## **STRATEGIES REQUIRED TO SUPPORT RECRUITMENT**

In addition to the desire to compensate for declining U.S. enrollments, as noted earlier, many U.S. business schools have actively recruited foreign students to help "internationalize" their institutions (Blum 1991). These objectives are appropriate ones for business schools in the U.S. However, the strategies used to achieve these objectives are often not well developed.

Universities and business schools should communicate to sojourners through their promotional efforts the types of challenges that they are likely to face. It will help if they can also describe what the school offers to help students overcome these challenges.

Putting sojourners in touch with foreign student organizations can help to alleviate feelings of loneliness. The organization may also be able to help the student adapt to culture shock problems. Beyond the broader based aid that can be supplied by student organizations, business schools might consider assigning new students cohorts when they begin their studies. One should be from the student's country of origin, but further along in studies. This cohort provides a guaranteed friend and source of information to the new sojourner. The second cohort should be an American student who is also just beginning studies. This relationship can serve to benefit both the sojourner and the domestic student who will each have the opportunity to learn about a different culture. An added benefit of this approach is that conflict should be reduced as American students begin to see their foreign counterparts as real people.

This "buddy system" should be explained and promoted through all recruitment literature and when speaking to potential sojourner recruits. Such a strategy could provide a business school with a significant differential advantage in a competitive market.

## **STRATEGIES IN SUPPORT OF EDUCATION**

### **At the Institutional Level**

U.S. business schools should develop partnerships with other colleges and departments in their institutions to help prepare their students. A short course in American culture prior to the

beginning of a student's studies could be offered. The focus should be on the specific aspects of culture that the student is most likely to face in the first weeks and months. This would also be an excellent time to have foreign students discuss the concerns they have and the stereotypes they bring with them. Such an airing may uncover inaccurate views that could hamper a student if not confronted. Institutions must, of course, offer English as Second Language programs to foreign students, but should also offer appropriate foreign languages to students and faculty interested in interacting with foreign students. Moreover, faculty and students should be given incentives to take the foreign language courses. Course reductions for faculty or elective credit for students could be offered. Ultimately faculty and student exchange programs in other countries can help to create a greater sensitivity to diverse cultures and languages (Blum 1991).

Communications sent to foreign students might be sent in the student's native language initially to help the students in their early adaptation stages. In addition to the cohort system described earlier, host families with similar foreign backgrounds or experiences might be contacted as sponsors for foreign students to minimize the culture shock. Common gathering places need to be provided for foreign students on university grounds.

Discrimination by, and conflict with, American students appear to be significant problems for sojourners. Efforts must be made to bring American and foreign students together. Foreign students should share housing with American students; and, these students should be counterparts in dining, social, and academic situations according to Kneedler (1991).

Special support services are essential for the student sojourner. An organization like Metro International, a not-for-profit program affiliated with many universities and colleges, helps foreign students to find apartments, provides them with safety-related travel tips, and even offers home visits with American families (Moeller 1990). Equally important are financial and legal services for foreign students. Universities who recruit foreign students are also responsible for their daily needs.

#### **At the Faculty Level**

Faculty members in U.S. business schools

need to closely examine their instructional materials to determine if they are "user friendly" to foreign students. Slang, cliches, and complex terms need to be eliminated from materials if foreign students are going to be better served. Ideally faculty might seek input from foreign students regarding these issues. Foreign students should be encouraged to ask when confronted with unfamiliar terms or phrases.

In marketing we often use everyday examples to illustrate points. It is much easier to make the material "real" for students through the use of examples. Many of us use current and past marketing examples like Burger King's battles with McDonald's as illustrative of issues we may wish to highlight. These examples may be unknown to some of our foreign students. The problem may be compounded by using these sorts of U.S. examples in our exams.

This issue goes beyond the concern today over adopting a multinational orientation in our classes. What is required is a concentration on the fundamental process of effective communication with our classes. Business schools, in conjunction with other departments and colleges, should consider developing materials and workshops that increase the cultural sensitivity of faculty, staff, and American students.

### **CONCLUSIONS**

If we seek foreign students for our schools, we have an obligation to provide a sound product. Recruitment efforts should be enthusiastic but also realistic in portraying the product being sold. Institutions have an obligation to be sure that sojourners are not isolated and lost. As faculty we can play a role in urging our schools to act, and in assisting in planning. Our primary action, however, needs to be in the classroom. We must insure that we are not part of the problem. Language, examples, and concepts must all be universal, or explained and clarified so as to become universal. In short, we must accept responsibility for the instruction of those accepted for instruction.

### **REFERENCES**

- Blum, Debra E. (1991), "Ohio U., 'Reaching Out' to World, Develops Strong Reputation Among Foreign Students," The Chronicle of Higher Education, 38(November 20), A43-A44.

Dodge, Susan (1991), "Surge of Students from Asia and Eastern Europe Lifts Foreign Enrollments in U.S. to Record 407,500," The Chronicle of Higher Education, 38 (October 23), A39, A41.

Heiss, J. and Dennison Nash (1967), "The Stranger in Laboratory Culture Revisited," Human Organization, 26, 47-51.

Kneedler, Richard (1991), "American Colleges Should Become More Accessible to Foreign Students," The Chronicle of Higher Education, 37(March 27), B2.

Liu, Ziming (1993), "Difficulties and Characteristics of Students Developing Countries in Using American Libraries," College & Research Libraries, January 1993, 25-31.

Moeller, Robert (1990), "Period of Adjustment," The Atlantic (Supplement), 266 (September), 32.

Nash, Dennison (1970), A Community in Limbo: An Anthropological Study of an American Community Abroad, Bloomington, IN: Indiana University Press.

Sullivan, Anne McCrary (1991), "Mingling Languages and Literatures," in "Foreign Students and Recent Immigrants in the English Classroom," English Journal, 80 (November), 84-86.

Tooley, Jo Ann (1993), "From Boom to Bust," U.S. News & World Report, (October 4), 120-121.

Watkins, Beverly T. (1992), "Foreign Enrollment at U.S. Colleges and Universities Totaled 419,585 in 1991-92, an All-Time High," The Chronicle of Higher Education, November 25, A28-29.

# GRAMMATICAL ERRORS IN AD COPY: EFFECT ON ATTITUDE TOWARDS THE AD AND RECALL

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## ABSTRACT

Two studies investigated the effect of a grammatical error in ad copy on attitude towards the ad (Aad) and recall. Study 1 hypothesized more negative Aad and higher recall of copy with a grammatical error, and Study 2

examined the effect of specific types of grammatical errors. Overall, the findings suggest that people tend not to notice grammatical errors when reading ad copy under normal conditions.

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## INTRODUCTION

One of the more central guidelines for advertising copy creation is that ad copy be designed so that most adults with average language skills can understand it (Lowrey 1992). Today's common speech, however, often incorporates incorrect grammar. The question thus arises whether grammatical errors in ads affect people's response to the ads. The research reported here consists of two studies which examine the relationship between grammatical errors in ad copy and consumer attitude toward the ad and recall. Both studies evaluate these relationships under high and low advertisement involvement conditions.

## LITERATURE REVIEW

Since most consumers learn English language grammar in their primary and secondary schooling, most people should be capable of detecting and responding to **grammatical errors** in ads. However, information processing does not always work this way. Wang (1970), for example, found that it is possible to remember and repeat sentences without actually comprehending them: people may listen and remember, but not process the words they hear, and consequently not perceive grammatical errors.

With respect to **attitude towards the ad (Aad)**, Gorn (1982) has found that ad liking significantly sways choices of two very similar choice alternatives; individuals in his study were more likely to choose the brand whose ad they liked. These findings suggest that the reactions evoked by advertising could affect the

actual purchase of a product and that, consequently, advertisers must consider whether grammar plays a part in these reactions. Zaichkowsky (1985) found that a greater level of **involvement** with ads leads to the creation of more counter-arguments to the ad. The level of consumer involvement plays a significant role in information processing and Aad as well; and thus, it may influence the likelihood of an individual noticing a grammatical error present in ad copy.

Differences in **cognitive styles** among subjects in the present study could affect level of awareness of grammatical errors. Need for cognition (NC), a measure of an individual's inherent tendency to enjoy thinking (Haugtvedt and Petty 1987), and cognitive clarity (CC), the extent to which a person is made uncomfortable by ambiguity and incongruity and is motivated to restore a state of mind in which different elements fit together and make sense (Kelman and Cohler 1975), are examined in the present study. Previous research suggests that people with high NC's process ad copy more thoroughly, and consequently should detect grammatical errors in ad copy more frequently than those with low NC's. Because individuals with a high need for cognitive clarity will react more strongly to a situation that challenges their cognitive structure, it is expected that they will also respond more strongly to grammatical errors in ads. Lastly, involvement, Aad and implicitly, ability and motivation to process, are affected by one's underlying **attitude towards advertising in general (AG)** (Andrews 1989; Muehling 1987) .

## STUDY ONE

Two versions of an ad were created, one with a grammatical error in the copy heading and one without an error. Subjects were exposed to one of the treatment ads under either a high or low involvement condition. Negative reactions to the presence of a grammatical error in ad copy were expected to occur because respondents would perceive the ad to have less credibility, to be less professional and to be less convincing. An increased rate of recall would result due to these negative reactions. It was hypothesized that (1) subjects will have increased recall and a more negative Aad when a grammatical error is present in the ad copy; and (2) these effects will be stronger under high involvement conditions. With respect to cognitive style, it was hypothesized that (3) subjects with a strong need for cognition will be more likely to recognize the grammatical error and therefore exhibit the expected Aad and recall responses than those with a low NC, and (4) high levels of cognitive clarity will be associated with more negative levels of Aad and higher levels of recall than will low levels of cognitive clarity.

### Research Methodology and Measures

Grammar and level of ad involvement were manipulated by exposing subjects to ad copy with or without a grammatical error and by requesting high involvement subjects to read the test booklets as though they were going to purchase the product featured in the ad in a week or two. Order effects were tested for by varying ad placement within each treatment condition. Pretests were performed to select the most appropriate product ads. The highest levels of involvement were found for televisions and 35mm cameras. Grammatical errors were pretested to determine ones with a high probability of detection, leading to the inappropriate use of an apostrophe in *it's* being chosen for inclusion in the study (see [Table](#)). Sixty-nine undergraduate business students at a private college in the northeast U.S. participated in the study. The students were given seven minutes (identified in pretests as sufficient time) to browse through booklets containing lifestyle and trend articles as well as the experimental ad. The booklets were then retrieved; students completed a brief mathematical distraction task designed to clear short-term memory and then were led through the questionnaire. Lastly, subjects were debriefed.

Subjects first completed Petty and Cacioppo's (1982) Need for Cognition (NC) scale. This instrument was designed to measure the tendency for an individual to engage in and enjoy thinking, and has been found to exhibit satisfactory convergent and discriminant validity. Subjects then completed measures of attitude towards the ad, ad recall, and ad involvement for each ad. They then responded to a second measure of cognitive style, the "Situational Response Test," designed to measure cognitive clarity. The instrument consisted of eight brief scenarios followed by the statement, "You would act this way..." and five responses ranging from "Always" to "Never" (O'Connor 1952). Lastly, subjects indicated their attitude towards advertising in general (AG; similar to Aad measure) and responded to a number of classification items (age, sex, education, birth language and citizenship). They also completed a 14-item "grammar" test that included both the correct and incorrect slogans from the treatment ads.

### Results and Discussion

Comparison of means of dependent variables between groups by analysis of variance and t-tests demonstrated an absence of order effects. There was no significant difference between involvement means for the TV ad, but the involvement manipulation was successful for the camera ad (high involvement mean = 83.7, low involvement mean = 56.7,  $p < .01$ ). Analysis of variance and tests of means revealed no significant differences in Aad scores and recall scores across the different experimental situations for the camera ad.

When booklets were grouped according to the treatment situation, analysis of variance of the Aad and recall variables revealed a significant difference only for AadTV (attitude towards the ad for the TV). The difference occurred between the control group, with a mean of 10.1, and the group in which the TV ad contained a grammatical error, with a mean of 7.3 ( $p < .05$ ; lower scores indicate more positive Aad). Contrary to our hypothesis, this reveals a less positive Aad for the control situation than for the situation in which the TV ad has a grammatical error. Further analysis revealed that when an apostrophe was present in the ad copy (even correct ad copy), Aad was more negative and recall was higher. This suggested an adverse reaction to the apostrophe, which

we tentatively dubbed "apostrophe anxiety." Its presence could have confounded the responses of our control group, and could also have confused subjects with weak grammatical skills and muddled the overall results.

Correlation analysis of the cognitive style variables did not support hypotheses 3 or 4. Finally, respondents' awareness of the grammatical error in the TV and camera ads was indirectly tested by looking at their responses to the items on the grammar test which duplicated the incorrect versions of the ad slogans. These responses were compared with the respondents' Aad towards the TV and the camera as well as the verbal and visual recall measures. No statistically significant relationships were detected.

There are several possible explanations for the failure of the camera ad grammar manipulation. The television ad may have been more engaging and simpler than the camera ad, leading to more pronounced reactions from subjects. Hypothesis 2 stated that reactions to the ads would be more pronounced in the high involvement situation, and there were significant differences among attitudes and recall for the television. However, our analysis revealed that subjects' Aad for the television actually became more positive in the presence of a grammatical error. Further, their recall of the ad actually decreased. Trying to understand this finding, we noted that students had consistently low to moderate levels of need for cognition. Relating this low NC to the grammatical manipulation, we reasoned as follows: in the control group, there was an apostrophe present in the "it's" of the ad copy. The low NC, combined with anxiety about the appropriateness of the apostrophe, could have led to a more negative Aad. In the error treatment, the apostrophe was absent and subjects experienced no anxiety and thus more positive Aad and lower recall.

## STUDY TWO

In the second study, we hypothesized that (1) ad copy containing an apostrophe will elicit higher recall but more negative Aad than the same ad copy which does not contain an apostrophe; (2) copy containing a grammatical error will elicit higher recall but more negative Aad than the same copy which does not contain a grammatical error; and (3) copy containing a grammatical error involving misuse of an

apostrophe will elicit higher recall and more negative Aad than the same ad copy which contains a grammatical error that does not involve an apostrophe. Several alterations were made to the booklet and questionnaire design, including use of an "intolerance of ambiguity" (Budner 1962) scale instead of the "cognitive clarity" scale, and abbreviated versions of the need for cognition (Cacioppo and Petty 1982) and involvement (Zaichkowsky 1990) measures. This led to additional hypotheses: (4) Individuals with a high NC will be more likely to recognize the grammatical error and thus will be more likely to exhibit a more negative Aad and higher recall than those with a low NC; and (5) Individuals with a high intolerance of ambiguity will be more likely to notice the grammatical error and exhibit more negative Aad and higher recall than those with a low intolerance of ambiguity. The booklet and questionnaire were distributed to 54 students and administered as described in Study One.

## Results and Discussion

A t-test of involvement scores between the high and low involvement groups revealed no statistically significant difference. T-tests also indicated no significant difference between high and low involvement groups on Aad and the verbal recall measure. However, for the visual recall measure, the mean score for the high involvement group was 3.04, while the score for the low involvement group was 2.81 ( $p < .01$ ). Correlation analysis revealed a positive relationship between involvement and Aad ( $r = .70$ ,  $p < .01$ ) and visual and verbal recall measures ( $r = .31$ ,  $p < .05$ ). These findings suggest that, while the involvement manipulation was at best marginally successful, most respondents were exposed to the treatment ad under conditions that would make it more likely that they would attend to it.

Analyses of Aad and visual and verbal recall revealed no statistically significant differences among the grammar conditions: neither the presence/absence of an apostrophe nor the presence/absence of a grammatical error affected attitude toward the ad or recall. This finding is consistent with students' responses to an informal survey during debriefing: when asked whether they were aware of the purpose of the study, and more specifically, whether they had noticed anything wrong with the ad copy, only one student of the 54 surveyed had

recognized the grammatical error in the ad. One possible reason for lack of recognition of the grammatical error in the ad is poor knowledge of grammar. The results of the grammar test administered at the end of the experiment rule out that explanation: 88% (48 subjects) recognized the grammatical errors that had been incorporated in the copy of the watch ad. Twenty-four of these subjects had received booklets with an error and 24 had received booklets without an error. Manova and t-tests revealed that the group of subjects who had recognized the error in the test had a higher verbal recall score (2.21) for the experimental ad than those who had failed to recognize the error in the test (1.33; significant at  $p < .05$ ). Thus, despite having higher recall of the ad copy than those who did not recognize the error in the grammar test, the subjects who recognized the error in the grammar test **still** did not recognize the error when it was present in the ad copy itself. The grammatical content of the ad copy these subjects were exposed to did not affect either their attitude towards the ad, or their recall of the ad.

### CONCLUSIONS AND DIRECTIONS FOR FUTURE RESEARCH

Why were the grammar errors recognized on the test, but not on the ad copy? One possibility is that encountering them in the copy, while not resulting in conscious recognition, nonetheless sensitized respondents to recognize the same error when it was later encountered again. If this were true, however, we would expect to see a difference in grammar scores by treatment -- and this was not detected. Another possible explanation for the findings is that respondents failed to pay enough attention to the ad to detect the grammatical error, or that

they had insufficient time to process the information presented in the study booklet. These explanations also lack support. Respondents' involvement levels with the ads were fairly high, and they had sufficient time to examine the booklet and ad. Lastly, respondents' recall of the ads was fairly good -- many respondents recalled intricate details of the watch ad.

Though involvement levels were reasonably high, respondents still may have approached the booklet task and the grammar test task differently. If subjects believed the cover story -- and there is no evidence to suggest they did not -- they read the experiment booklet in a manner similar to the way they would browse through a magazine. The grammar test, however, was presented as just that -- a test -- and may have evoked a more deliberate, business-like approach to processing the information it contained. If this explanation is true, then correct grammar in ad copy, while desirable, is not crucial. People may focus more on "gestalt" or "image" in processing ads, and may be much less likely to notice or respond to grammar errors in this context.

The use of student subjects is a limitation of this research, as is the failure of the involvement manipulations. It is also possible that the effect of grammatical errors in ads would become more evident if the blatancy and quantity of the errors were increased. Future research should remedy these limitations. More important, however, future research should directly examine issues of language correctness and its effect or lack of effect on consumer attitudes. The present study seems to indicate that consumers do not notice grammatical errors in ad copy, nor are their attitude towards the ad and recall affected by these errors.

**TABLE**

Ad Copy and Manipulations  
For Study One and Two

|           | No Error                               | Error                                    |
|-----------|----------------------------------------|------------------------------------------|
| Study One | Canon...so advanced it's simple        | Canon...so advanced its simple           |
| Study Two | They are proud of their accomplishment | They are proud of there accomplishment   |
|           | They're proud of their accomplishment* | They are proud of they're accomplishment |

\* This copy is grammatically correct but manipulates the use of the apostrophe.

## REFERENCES

- Andrews, J.Craig (1989), "The Dimensionality of Beliefs Toward Advertising in General," Journal of Advertising, 18 (1), 26-35.
- Budner, Stanley (1962), "Intolerance of Ambiguity as a Personality Variable," Journal of Personality, 30, 28-50.
- Cacioppo, John T. and Richard E. Petty (1982), "The Need for Cognition," Journal of Personality and Social Psychology, 42 (1), 116-131.
- Gorn, Gerald J. (1982), "The Effects of Music in Advertising on Choice Behavior: A Classical Conditioning Approach," Journal of Marketing, 46 (Winter), 94-101.
- Haugtvedt, Curt and Richard Petty (1987), "Personality and Ad Effectiveness: Exploring the Utility of Need for Cognition," in Advances in Consumer Research. Vol. 15., Michael J. Houston, ed., Provo, UT: Association for Consumer Research, 209-212.
- Kelman, H.C. and Jonas Cohler (1975), "Reactions to Persuasive Communications as a Function of Cognitive Needs and Styles," paper read at the 30th annual meetings of the Eastern Psychology Association, Atlantic City, NJ.
- O'Connor, Patricia (1952), "Ethnocentrism, intolerance of ambiguity and abstract reasoning ability," Journal of Abnormal Social Psychology (47), 526-530.
- Olshavsky, Richard W. and D. Granbois (1979), "Consumer Decision Making - Fact or Fiction?" Journal of Consumer Research, 6 (September), 93-100.
- Wang, Marilyn D. (1970), "Role of Syntactic Complexity as a Determiner of Comprehensibility," Journal of Verbal Learning and Verbal Behavior (9), 398-404.
- Zaichkowsky, Judith L. (1985), "Measuring the Involvement Construct," Journal of Consumer Research (12), 341-352.
- \_\_\_\_\_ (1990), "The Personal Involvement Inventory: Reduction and Application to Advertising," unpublished working paper, Burnaby, British Columbia: Simon Fraser University.



# POPULAR MUSIC IN ADVERTISING: DOES POPULAR MUSIC IN ADVERTISING INFLUENCE CONSUMPTION CHOICES?

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## ABSTRACT

This study empirically investigated the relationship between attitudes toward popular music in advertising, attitudes toward changing the lyrics to popular songs, and demographics with purchase behavior. Two of three hypothe-

sized relationships found statistical significance. Attitudes toward changing the lyrics to popular songs and demographics provided insight into segmenting the market for products that use popular music in advertising schemes.

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## INTRODUCTION

Advertisers encompass many different elements into each creative endeavor. The goal of the advertiser is to set their product apart from other competing products, and ultimately to influence the purchase behaviors of targeted consumers. To accomplish this goal, advertisers frequently turn to one of the most commonly used elements in advertising: music (Farmer, Stannard and Stewart 1990). More specifically, advertisers are relying on popular/contemporary music from well known performers to sell their products (New York Times 1989).

Today's advertisements utilize all genres of music: new wave music is represented by the Red Hot Chili Peppers' "Fight Like a Brave" (Nike); classic rock by Lou Reed's "Walk on the Wild Side" (Honda Motor Scooter); jazz by Nat King Cole's "Unforgettable" (Revlon); and finally, rap is represented by M. C. Hammer's "U Can't Touch This" (British Knight).

Many advertisements that incorporate popular music have been very successful. For example, in the early 1980s Lincoln-Mercury wanted their new line of cars to appeal to a younger target market. To accomplish this goal, Lincoln-Mercury turned to Marvin Gay's "Ain't No Mountain High Enough" and the Beatles' "Help." The results of this advertising campaign were impressive. The average age of the Cougar buyer dropped from 45 years to 35 years, and Lincoln-Mercury's market share increased from 5.5% to 6.5% (Sherrid 1985). Another success story involved Sprint and Stevie Wonder's "I Just Called To Say I Love You." Three days after the airing of the commercial, calls to Sprint's telemarketing center rose 25% (Sherrid 1985).

Advertising research indicates that music can reach consumers in several ways. Music can attract the attention of consumers, it can communicate a message, it can create a specific mood, and it can serve as an effective retrieval cue (Farmer, Stannard and Stewart 1990). Additionally, Scott (1990) suggests that music can perform many rhetorical tasks such as: supporting arguments, demonstrating claims, building a ground for mutual confidence, catching and holding attention, and providing a catalysis for repetition and memory. Finally, Park and Young (1986) found that music contributes to brand attitudes. The potential for music to affect the consumer is considerable; however, research is unclear as to the magnitude of the impact that music has on consumers purchase decision.

## Problem

Despite the preponderance of music in advertising, academic research on its effects is "much less extensive than research on other executional factors such as fear or humor" (Yalch 1991 p. 268). Additionally, when research is available, it is often found to have conflicting findings. Gorn (1982) found product choice was related to consumers' liking/disliking of music that accompanied an advertisement. A 1988 study by Stout and Leckenby also found evidence that supported findings similar to Gorn's (Farmer, Stennard and Stewart 1990). In 1988, Abratt and Pitt replicated Gorn's earlier classical conditioning experiment and found that his findings were not supported. "In the marketing communication process, the product itself may so dominate that any attempts at conditioning may prove futile" (p. 136).

Therefore, no common frame of reference has surfaced among researchers regarding the effectiveness of music, specifically popular music, in advertising. The purpose of this study is to establish an empirical relationship between advertisements that utilize popular music and consumer purchase behavior.

The establishment of this relationship is important for several reasons. Advertisers continue to spend a large amount of money on royalties and publishers' fees for the use of popular songs. Advertising agencies must be able to justify the above expenses to their clients. For the recording artist, support for the above relationship could have impressive financial implications for the artist (Demkowych 1986). Finally, the results of this study may be interesting to the most commonly targeted consumer group: the baby boomers. Due to dominant spending of this demographic group, advertisers are likely to continue using popular songs of the 50s and 60s to influence these consumers.

## **CONCEPTUAL BACKGROUND**

There are several variables (as mentioned above) that may affect the relationship between advertisements which utilizes popular music and the purchase behavior of consumers. This study will specifically concentrate on the relationship between the attitudes of consumers toward the use of popular music in advertising, demographics, and the attitudes of consumers toward changing the lyrics of a popular song to fit a particular product or brand (e.g., changing Cole Porter's "Anything Goes" to "Everything Goes" - Chrysler-Plymouth Dealers Association) with purchase behavior.

### **Attitudes Toward Popular Music in Advertising**

Despite the fact that there has been little research to support the effectiveness of using popular songs in advertising, advertisers continue to use this advertising tool. Advertisers believe that the use of a popular song is a necessary tool that sways the viewer toward a product by conjuring up the good feeling a consumer has for a popular song (Sherrid 1993). Scott (1990) suggests that more favorable buying behavior is correlated with musical preference. Advertisers, as well as selected researchers, feel this transfer of emotion is positively received by consumers. However, a

1984 poll in Marketing and Media Decision indicated consumers tend to avoid purchasing products that are associated with people that are well known. This contradiction of beliefs leads us to the first hypothesis that there is a relationship between attitudes towards using popular music in advertising and purchase behavior. It is expected that positive attitudes or feelings about the music should influence purchase, whereas negative feelings about the music should inhibit purchase behavior.

### **Attitudes Toward Changes in the Lyrics of a Popular Song**

Technically, music is "a matter of sound waves produced by vibrations in the air" (Dunbar 1990). However, this definition does not take into account the amount of emotions involved with music. Many people develop an emotional bond with songs that are important to them (Ryan 1985). For this reason, advertisers need to be aware of these loyalties before they change the lyrics that are coveted by a particular group of people. Many creative people in the field of advertising indicate that consumers get upset when the words to someone's favorite song are changed (Sherrid 1993). In light of this discussion, it is hypothesized that consumers' negative attitudes of changing lyrics to a popular song should adversely affect their purchase behavior.

### **Demographics**

For advertisers, the target market and their corresponding demographics dictate what type of music will be effective. A recent study completed by Holbrook and Schindler (1990) indicates that people are most nostalgic about songs popular in late adolescence and early adulthood. More specifically, "Maximum musical preferences attached to a consumer's belief system is the popular music when respondents were 23.47 years old" (Economist 1990, p. 78). Beyond determining what type of music will be most effective for a certain age group, one age group may be more influenced by the music of his/her preference. Adolescence and young adults (the MTV generation) may be more in tune to music, and thus may be more influenced by music. Additionally, it is believed that females are more likely than males to purchase products advertised by popular songs because females are more often than not the primary shoppers for a household. The above

indicates that demographic variables are an important consideration when choosing a song to influence consumer behavior; hence, the third hypothesis is this: Women should be influenced more than males by popular music in their purchase behavior, and the fourth hypothesis: younger consumers may be more influenced by music with regard to purchase behavior.

## METHOD

A systematic random area cluster sample of households in a medium-sized southwestern city was employed for the study. The total population of the sampling area was broken down into eighteen zip codes, and with the use of a random numbers table, six areas were ultimately chosen that provided an accurate representation of the total population. Within the selected areas, the actual households selected were chosen by a systematic random sample. Specifically, every fourth house on every fourth street was chosen in the randomly selected zip code areas. The total sample size was 146.

Anyone over the age of 18 was permitted to answer the questionnaire. In the event there was no one available to answer the questionnaire, the questionnaire administrator proceeded to the next scheduled place of residence. This method resulted in only a 5% refusal rate to respond to the survey. The instrument was a pencil and paper self-administered questionnaire. Data collectors stayed with the respondent to answer any questions that the respondent might have and to insure completeness in filling out the questionnaire.

The survey was broken down into four sections. The dependent variable consisted of four questions measuring the frequency of and dollars spent on products purchased that used music in their advertising. The independent variables consisted of two Likert scales ranging from Strongly Disagree to Strongly Agree, which measured attitudes toward the use of popular music in advertising (9 items) and the attitudes toward changing the lyrics of popular music to fit the advertised product (6 items). The third independent variable consisted of nine demographics items.

## RESULTS

### Analysis of Data

The collected data were analyzed using

canonical correlation analysis. This particular type of analysis was selected because the dependent variable (purchase behavior) was measured using a continuous scale and the independent variables (demographics, attitudes toward the use of popular music in advertising, and attitudes toward lyric changes) were measured using continuous rating scales.

When canonical analysis was used to compare the dependent variable purchase behavior and the independent variable attitude toward using popular songs in advertisements, the analysis produced no significant functions ( $p > .0754$ ). [Table I](#) presents the analysis between purchase behavior and the independent variable attitude toward changing the lyrics of popular songs for advertisement use. This analysis produced two significant functions. Root A was statistically significant at  $p > .000$ , with five variables found to be important with the arbitrary cut-off point of  $\pm .30$  or greater. These variables are: (1) avoidance of purchasing products that use popular music, (2) frequency that popular music influences one to purchase a product, (3) singing the original lyrics to an advertisement even if the lyrics have been changed, (4) advertisers should change the lyrics to match the product, and (5) lyrical changes ruin the emotional impact of a song.

The second significant function (Root B,  $p > .004$ ) had seven important variables: (1) the frequency of purchase, (2) the money spent on purchases, (3) the frequency that popular music influences one to purchase a product, (4) singing the original lyrics to an advertisement that had changed the lyrics, (5) advertisers should change the lyrics to match the product, (6) I get upset when lyrics to a song are changed, and (7) concentrate on the changes of the song and not the product itself.

The last analysis in this study is presented in [Table II](#). The analysis is between demographics and purchase behavior. This analysis produced one significant function ( $p > .051$ ). Included in this function were six important variables: (1) frequency of purchase, (2) money spent on purchases, (3) frequency that popular music influences one to purchase a product, (4) gender, (5) television viewership, and (6) income.

## DISCUSSION

Considering the results presented in [Table I](#),

the first significant function between attitude toward lyrical changes and purchase behavior shows that the attitude toward changing the lyrics of a song has an effect on purchase behavior. Specifically, those consumers who avoided purchasing products that incorporated music into the advertising theme reported that they "sing the original lyrics to a song, even if the lyrics have been changed for advertising purposes" and "changes that are made to popular songs ruin the emotional impact of a song."

The second function described a slightly different segment. The consumers who were not frequent purchasers of products that used popular music did not spend great deals of money on products that were advertised with popular music, and were not influenced by popular music in advertising sites.

The results presented in [Table II](#) relate purchase behavior to demographics. The results of the significant findings indicated that females who have a relatively higher income level and who watch relatively less television have higher purchase frequencies, spend more money on products advertised with popular songs, and are more influenced by popular music in advertising.

### **Relation of Results to the Hypotheses**

The first hypothesis, which stated that there would be a relationship between purchase behavior and attitudes toward using popular music in advertising, was not supported. There are several factors that may have contributed to the lack of statistical significance. First, consumers may not be aware they are purchasing products that utilize popular music in their advertisement themes because they have not heard the specific advertisements. If consumers are unaware of this frequency, purchase behavior may be understated. Second, consumers may actually be indifferent to the use of popular music in advertising.

The second hypothesis that consumers negative attitudes toward changing the lyrics of popular music should affect their purchase behavior was supported. The results suggested that consumers who avoid purchasing products that use popular music to advertise will sing the original lyrics to the songs and feel that the changes ruin the emotional impact of a song. The lack of purchase behavior could be ex-

plained several ways. First, if consumers are singing the original lyrics to a song, they are more than likely not paying attention to the actual product that is being advertised, thus the commercial is unable to effectively communicate to the consumer to purchase the product. Secondly, consumers may avoid purchasing products that use popular music because they are offended by the fact that the advertisement (which reflects on the product) has changed the emotional impact of the song.

The third hypothesis that women should be influenced more than males by popular music in their purchase behavior was supported. The analysis indicated consumers who purchase more, spend more money and are more influenced by popular music in advertising are females with higher income and who watch relatively less television. Age was not as an important factor as expected. This may be due to the fact that all age groups are influenced equally by music. Thus, the fourth hypothesis was not supported.

### **Implications for Marketing Practitioners**

One of the findings in this study indicates that consumers do not like the lyrics of popular music to be changed. This should be an important consideration for practitioners. Marketing managers should try to locate popular music that fits the product they would like to advertise. If a suitable popular song cannot be found, a manager may be better off going to an original jingle.

A second important factor is that females are more influenced by popular music than males. An advertiser may want to use popular songs to advertise products that are traditionally aimed at females. In addition, managers may want to use popular music to advertise products that are not traditionally purchased by females. The emotional impact of a popular song may influence a female consumer to purchase a product she would not have purchased without the use of a popular song.

Finally, managers should not eliminate the use of contemporary songs for advertising purposes. Though there was no significance found between purchase behavior and attitudes toward using popular music in advertising, the lack of significance could be important. As stated earlier, consumers may not realize they

are purchasing a product that is promoted with a popular song. Consumers may not be aware of the impact that a popular song has on them; and if advertisers eliminate the use of popular songs, it may hurt sales and market share.

Future research could be done in at least three areas. A study could be conducted to determine which types of popular music are effective for different age groups. Second, a study should be done to determine if certain products are more conducive to the use of popular songs. Finally, research could be done to find out if there are benefits to having the singer of the popular song appear in the advertisement.

## REFERENCES

- Abratt, Russell and Leyland Pitt (1988), "Music in Advertising for Unmentionable Products: A Classical Conditioning Experiment," International Journal of Advertising (Spring), p. 130-138.
- Advertising Age, "Now Pepsi Ads Turn to Humor." February 27, 1984, p. 74.
- Barzey, Rachel D. (1986), "Mega Music's Don Dannemann: 'All They Have to Do in the Film Business is Change Their Attitude,'" Back Stage 27 (December), p. 24B.
- Demkowych, Christine (1986), "Music on the Upswing in Advertising," Advertising Age 57 (March), p. S5.
- Dunbar, David S. and Walter J. Thompson (1990), "Music and Advertising," International Journal of Advertising 9 (Summer), p. 197-203.
- The Economist, "Remembrance of Tunes Past." November 10, 1990, p.62.
- Farmer, Kenneth M., Charles I. Stannard, and David W. Steward (1990), "Music as a Recognition Cue in Advertising-Tracking Studies," Journal of Advertising Research 30 (August/September), p. 39-49.
- Gorn, Gerald (1982), "The Effects of Music in Advertising on Choice Behavior: A Classical Conditioning Approach," Journal of Marketing 46 (Winter), p. 94-100.
- Mandes, Joe (1993), "Home Improvement Wins \$ Race," Advertising Age, (September), p. 3, 26.
- Marketing and Media Decision (1988), "Can Celebrities Really Sell Products?" September, p. 24.
- New York Times (1989), "Fewer Ad Jingles are Heard as Madison Avenue Shifts Beat." June 19, p. 37-39.
- Park, Whan C. and Mark S. Young (1986), "Consumer Response to Television Commercials: The Impact of Involvement and Background Music on Brand Attitude Formation," Journal of Marketing Research 23 (February), p. 11-24.
- Ryan, Thomas B. (1985), "Reaching the Heart via Demographically Targeted Music," Television/Radio Age 33 (December), p. 119.
- Scott, Linda M. (1990), "Understanding Jingles and Needledrop: A Rhetorical Approach to Music in Advertising," Journal of Consumer Research 17 (September), p. 223-236.
- Sherrid, Pamela (1993), "Emotional Shorthand," Forbes 144 (November), p. 244-256.
- Yalch, Richard E. (1991), "Memory in a Jingle Jungle: Music as a Mnemonic Device in Communicating Advertising Slogans," Journal of Applied Psychology 76 (April), p. 268-275.

TABLE I  
A Canonical Correlation of Purchase Behavior and Attitudes Toward  
Changing the Lyrics of Songs for Advertising Purposes

| Purchase Behavior                                          | Root A  | <u>Loadings</u><br>Root B |
|------------------------------------------------------------|---------|---------------------------|
| <u>Purchase Behavior</u>                                   |         |                           |
| Frequency of Purchases                                     | 0.2476  | -0.7493                   |
| Money Spent on Purchases                                   | -0.0118 | -0.9501                   |
| Frequency of Avoidance                                     | -0.5585 | -0.2979                   |
| Frequency of Influence                                     | 0.6419  | -0.5303                   |
| <u>Attitudes Toward Lyric Changes</u>                      |         |                           |
| Sing the Original Lyrics                                   | -0.3573 | 0.6471                    |
| Change Lyrics to Match the Product                         | 0.4915  | 0.4255                    |
| Changes Ruin the Emotional Impact<br>of a Song             | -0.6257 | 0.2839                    |
| Upset When Lyrics are Changed                              | -0.2553 | 0.3326                    |
| Pay More Attention to Songs with<br>Lyrics Changed         | 0.2041  | 0.2695                    |
| Concentrate on the Changes of the Song,<br>Not the Product | 0.2247  | 0.4190                    |

Canonical Correlation Significant for Root A:  $p = .000$

Canonical Correlation Significant for Root B:  $p = .004$

TABLE II  
A Canonical Correlation of Purchase Behavior and Demographics

| Purchase Behavior          | <u>Loading</u><br>Root A |
|----------------------------|--------------------------|
| <u>Purchase Behavior</u>   |                          |
| Frequency of Purchases     | 0.3499                   |
| Money Spent on Purchases   | 0.9292                   |
| Frequency of Avoidance     | 0.1807                   |
| Frequency of Influence     | 0.3915                   |
| <u>Demographics</u>        |                          |
| Gender                     | 0.3080                   |
| Marital Status             | -0.0450                  |
| Age                        | 0.2793                   |
| Household Size (persons)   | -0.2195                  |
| Education Level            | -0.0392                  |
| TV Viewership (Hours/Week) | -0.5832                  |
| Radio (Hours/Week)         | -0.2121                  |
| Occupation (Duncan Scale)  | -0.0622                  |
| Income                     | 0.3518                   |

Canonical Correlation Significant for Root A:  $p = .051$

# A PRELIMINARY STUDY OF THE PROMOTIONAL IMPLICATIONS ASSOCIATED WITH THE INFLUENCE OF DIVERGENT PROBABILITY AND CONSEQUENCE LEVELS ON RISKY CONSUMER DECISIONS

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## ABSTRACT

The manner in which consumers considering risky alternatives weigh their evaluations of the probabilities and consequences of loss as not been addressed in a field setting. A two-product classification scheme grounded in prospect theory is developed that transposes the levels of probability and consequences of loss. A proposition that consumers will weigh the probabilities of loss more heavily in decisions involving High Probability/Low Consequences products is supported; a proposition that consequences will be weighed more heavily for Low Probability/High Consequences products is not. Promotional implications that are associated with these outcomes are discussed.

## INTRODUCTION

Whether risky choices involve a decision to go to war, marry or engage in other similarly hazardous pursuits, they are made without certain knowledge of the ultimate consequences. Choices between uncertain alternatives involves two components of risk: uncertainty about the outcome and the consequences associated with any undesirable outcome. Prospect theory provides the dominant framework describing the consumer processes associated with evaluating and choosing among risky alternatives (Kahneman and Tversky 1984). Prospect theory suggests consumers combine estimates of the probability of loss and consequences of loss to gauge the relative attractiveness of risky alternatives. The theory does not, however, speculate on the comparative influence that consumer evaluations of the probability and consequences of loss has on their decision outcomes.

Differences in products influence the level and type of risk perceived by consumers (Mowen and Mowen 1991). For instance, when considering the purchase of a new grocery item, consumers are exposed to what may be

labeled as High-Probability/Low-Consequences (HPLC) risk (Diamond 1988). The likelihood that losses resulting from adopting a new item will involve severe consequences is limited in this setting, however, the probability that some type of loss may result is comparatively higher. Low-Probability/High Consequences (LPHC) risk is present in consumer decisions associated with potentially cataclysmic outcomes such as losing one's life or job (Bauer 1960). Air travel is a LPHC "product." While the probability of loss from flight travel is low, the consequences of any loss can be extreme. The drop in ticket sales that results after airline mishaps illustrates how LPHC risk can influence market behavior (Dahl and Cohen 1985).

For LPHC products, prospect theory suggests that if consumers believe there will not be a negative outcome associated with selecting a particular alternative, the probability of loss is given correspondingly lesser weight in the decision. That is, the probability of loss should be weighted less heavily than the perception of the consequences for LPHC products. An antithetical set of evaluative criteria may be used by consumers when HPLC alternatives are considered (Diamond 1988). Though the probabilities of loss associated with most HPLC decisions can not viewed as "high" in an absolute sense, the likelihood of loss is several times greater than that associated with LPHC decisions. Prospect theory suggests that in decisions involving HPLC alternatives, considerations of the probability of loss will occur should occupy a more prominent position within consumers' evaluative processes than their consideration of the consequences of loss.

## RESEARCH OBJECTIVE

Divergent levels of the probability and consequences of loss associated with hypothetical



automotive choices have been observed to influence consumer judgments in an experimental setting (Diamond 1988). Although experimental manipulations of risk yield relatively more precise measures of probabilities, the study of hypothetical choices inevitably raises questions concerning the generalizability of the findings. While field studies do not permit measurement as precise as those obtained experimentally, they allow actual consumer choice processes to be observed.

The influence of differing levels of the probability and consequences of risky alternatives has not been empirically examined in a setting involving actual market decisions. Moreover, researchers examining these issues have yet to disaggregate risk into its various components. Such disaggregation should contribute a clearer picture of the underlying risk structure and relative influence of each risk dimension on the decision. The probability and consequences of loss associated with certain risk components may exert more influence on consumer adoption processes than do other dimensions. If such insights were developed with respect to specific HPLC and LPHC products, they may contribute to more effective promotion management.

The influence that promotions-driven communications have on the successful introduction of new products is usually substantial. One must focus on the communication process to fully understand *any* change occurring within a market setting, including changes triggered by the introduction of new products. The value of promotional communications in reducing the risks perceived by potential adopters of new products is considerable (Shanklin and Ryans 1984).

Given these implicit parameters, the present objective is to contrast consumer evaluations of the probability and consequences of the risk associated with two distinct (HPLC vs. LPHC) products across the five generally accepted components of overall risk. Characterizing the differences in consumers' risk perceptions that exist between HPLC and LPHC products should yield initial insight as to whether the probability and consequences of loss should be considered separately or coincidentally by those charged with developing marketing mix programs for such products. Examining these issues across a set of risk components should contribute to

development of communications efforts aimed at reducing risk perceptions for those products.

## METHOD

### Sample

A homogeneous sample was desirable since the research tests propositions concerned with differences among products. With this in mind, 1000 self-administered instruments were mailed to a disproportionately stratified, randomly selected sample (N=256, response rate = 25.6%). To promote the sample's homogeneity, the frame of potential respondents was limited to the subscription list of an upscale, regionally circulated magazine (in a major southeastern U.S. city). This sample frame specification yielded a sample that was relatively homogeneous with respect to age (generally 40 years and above), income (typically upper-middle class or higher) and education (mostly college-educated). To ensure congruence with the sample's demographic composition, the population of products chosen for study are targeted toward or appropriate for consumption by members of such a sample frame.

### Product Category Development

Products may be classified based on the type and intensity of risk they evoke (Zikmund and Scott 1977). Consequently, prior to the development of the instrument, two focus group interviews were conducted to determine which products from a set of six candidates might evoke adoption circumstances that could appropriately be specified as HPLC or LPHC. Because the "newness" of a product inherently creates risk (Folkes 1988), only recent innovations or product extensions were evaluated. The focus groups were composed of individuals whose demographic/psychographic profiles were broadly consistent with that of the anticipated final sample. The focus groups agreed that two of the six products could be properly assigned to opposing ends of a HPLC/LPHC continuum. Generic drugs were designated as a product characterized by LPHC risk, while special phones (phones which are cordless, or can be used in cars, have emergency features, etc.) were seen as likely to invoke HPLC risk.

### Operationalization of Independent Measures

Perceived risk is a function of two



components: the probability of a loss occurring, and the consequences of the loss if it occurs. Perceived risk has been conceptualized as a multidimensional construct comprised of financial, performance, physical, psychological and social risk (Jacoby and Kaplan 1972). They considered these five dimensions to be functionally independent such that if one were to increase, the other dimensions could either increase, decrease, or remain undisturbed. Since as a set they are thought to address the domain of relevant risk dimensions (Dunn, Murphy and Skelly 1986), the present study investigates these five dimensions.

Those consumers sampled responded to two operational statements addressing their estimate of the probability that a loss would be associated with adopting/using each of the respective products and the importance (consequence) of that loss for each risk component associated with the respective products.

## RESULTS

### LPHC Product

MANOVA permitted a test of differences in the importance that users assigned to the probability and consequence components of their overall risk perceptions associated with each product. MANOVA is appropriate where there are multiple intervally scaled criterion variables (the risk dimensions) and a single categorical predictor variable (the probability or consequence components). If an overall multivariate difference is present, further analysis is appropriate to determine where univariate differences occur. Discriminant analysis (DA) can be used in this fashion to ascertain the direction and intensity of any univariate differences. While MANOVA tests for significant departure from a null of no differences between the risk component categories, DA determines the weights of the combination of criterion variables that optimize departure from the null. Examining the contribution of each risk dimension to the discriminant function facilitates evaluation of possible differences between the probability and consequence risk component categories.

Of those sampled, 134 (52.3%) had used the LPHC product. MANOVA revealed the presence of a significant multivariate difference regarding the manner in which this sample perceived the probability and risk components

associated with generic drugs. DA revealed the degree to which this sample felt the probability or consequence risk components characterizing the LPHC products differed for three of the five perceived risk dimensions.

The importance of each criterion variable in discriminating between the risk component categories is indicated by the relative magnitude of its canonical loading. The risk dimensions exercising the most influence on overall probability/consequence differences were, in descending order: physical, performance and psychological risk. On each significant risk dimension, "consequences" was judged as the most important risk component. In addition, the mean values indicated that consumers were most concerned with the *consequences* of physical, performance and psychological risk. The sample did not believe that substantial social or financial risk was associated with using this particular product nor were there differences in the risk components associated with either dimension.

The proposition was forwarded that when evaluating a LPHC product, consumers would consider the *consequences* of loss more, while the *probability* of loss would be considered less. This proposition was supported. The means, canonical loadings, and results of the multivariate and univariate significance tests, are shown in [Table 1](#).

### HPLC Product

The procedure was repeated for the HPLC innovation. Of those sampled, 115 (44.9%) had used the product. MANOVA again indicated a significant multivariate difference in the probability and consequence components of overall risk. The sample assigned different weights to the probability and consequence components associated with three risk dimensions (physical, performance and social). Of this set, the physical and performance risk dimensions contributed most to the discriminant function. However, for the HPLC product, the *consequences*, rather than the *probability*, of loss, were again shown to be this sample's most important consideration when evaluating this product's risk. This was true across each of the three significant risk dimensions. No differences were found for the probability and consequence components associated with the financial or psychological risk dimensions.

**Table 1**  
**Low Probability/High Consequences Product (Generic Medications):**  
**Differences in Probability and Consequence Components by Product Users**

| Risk Dimension                                                                                                                                                                                            | Canonical Loadings | Risk Component Mean <sup>a</sup> |             | F-Test Significance Level |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|----------------------------------|-------------|---------------------------|
|                                                                                                                                                                                                           |                    | Probability                      | Consequence |                           |
| PHYSICAL                                                                                                                                                                                                  | .843               | 1.44                             | 3.04        | .000                      |
| PERFORMANCE                                                                                                                                                                                               | .791               | 2.07                             | 3.10        | .000                      |
| PSYCHOLOGICAL                                                                                                                                                                                             | .694               | 1.34                             | 2.21        | .000                      |
| SOCIAL RISK                                                                                                                                                                                               | .298               | 1.41                             | 1.57        | .093                      |
| FINANCIAL                                                                                                                                                                                                 | .129               | 1.37                             | 1.32        | .542                      |
| MULTIVARIATE F-TEST SIGNIFICANCE LEVEL                                                                                                                                                                    |                    |                                  |             | .000                      |
| <sup>a</sup> The items were measured on a four-point scale with (1) indicating "Not at All (Never)," (2) indicating "Somewhat," (3) indicating "Quite a Bit," (4) indicating "Very Much So (Always)."<br> |                    |                                  |             |                           |

In this analysis, the proposition had been forwarded that when evaluating a HPLC product, consumers would consider the *probability*

of loss more, while the *consequence* of loss would be considered less. This proposition was **not** supported.

**Table 2**  
**High Probability/High Consequences Product (Special Phones):**  
**Differences in Probability and Consequence Components by Product Users**

| Risk Dimension                                                                                                                                                                                            | Canonical Loadings | Risk Component Mean <sup>b</sup> |             | F-Test Significance Level |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|----------------------------------|-------------|---------------------------|
|                                                                                                                                                                                                           |                    | Probability                      | Consequence |                           |
| PHYSICAL                                                                                                                                                                                                  | .681               | 1.34                             | 2.53        | .000                      |
| PERFORMANCE                                                                                                                                                                                               | .791               | 2.21                             | 2.94        | .000                      |
| PSYCHOLOGICAL                                                                                                                                                                                             | .487               | 1.21                             | 1.59        | .037                      |
| SOCIAL RISK                                                                                                                                                                                               | .199               | 1.45                             | 1.52        | .447                      |
| FINANCIAL                                                                                                                                                                                                 | .099               | 2.21                             | 2.13        | .502                      |
| MULTIVARIATE F-TEST SIGNIFICANCE LEVEL                                                                                                                                                                    |                    |                                  |             | .000                      |
| <sup>b</sup> The items were measured on a four-point scale with (1) indicating "Not at All (Never)," (2) indicating "Somewhat," (3) indicating "Quite a Bit," (4) indicating "Very Much So (Always)."<br> |                    |                                  |             |                           |

## IMPLICATIONS FOR PROMOTION MANAGEMENT

The results tentatively suggest that any assumption of equivalence between the market influence of the probability and consequences components of a product's risk would be ill placed. Transposing the levels of the associated probabilities and consequences of risk types failed to influence the relationships observed between the probability and consequences components: consequences remained the more influential component in each product setting. While the probability that some loss would be associated with the HPLC product was markedly higher than that associated with the LPHC product (in the view of the focus groups), the sample still evaluated the prospect of loss as significantly less "important" in their evaluative deliberation than the consequences of any loss. Consumers apparently assign significantly less weight to any expectation of loss in their evaluation of risky prospects, and place significantly more emphasis on their expectations of the consequences of any loss. The "costs" of any loss appear more important to consumers.

These findings offer implications for the development of promotional efforts aimed at reducing risk perceptions, particularly with respect to new products of a nature related to the LPHC and HPLC offerings investigated here. The results tentatively suggest marketers may have tended to overvalue the contribution of the probability of loss component in their assessments of the risk *consumers perceive* to be associated with new products. Consequently, past promotions of new products may have concentrated too heavily on reducing consumer perceptions of the probability of loss.

When consumers perceive risk among alternatives, they typically pursue various risk reduction strategies. Inevitably, these strategies involve either an effort to decrease the probability of a loss or to reduce the gravity of the consequences of loss. The delivery of additional favorable information about a new product through the mass media generally lowers that portion of consumers' resistance to adoption that is due to overall risk perceptions (Ram 1989). But these results suggest that, regardless of the risk type associated with a product, reducing the perceived *magnitude* rather than *likelihood* of loss should represent the primary goal of promotional communications targeted at lowering consumer risk perceptions. The

consequences of loss associated with the physical and performance risk dimensions appear to offer the most appropriate promotional foci, since these dimensions were most important discriminators across each risk setting. Promotional efforts stressing low likelihood that any loss will befall those using a new product will apparently do less to alleviate risk perceptions.

Since the uncertainty component of perceived risk is easier to influence than the consequences component (Lutz and Reilly 1974), these findings represent something of a predicament. However, marketing managers have a variety of promotional tactics at their disposal which should reduce consumer perceptions of the consequences of risk associated with these products. Consumer perceptions of performance or physical risk could be lowered by offering in-store or in-home/car demonstrations, warranties and guarantees (especially for "special" phones) or sampling (where the efficacy of generic as opposed to branded medications could be directly compared). Perceived social risk was uniformly low and nonsignificant across each product, inferring that this sample attached no form of social stigma to the use of either product. This suggests consumer risk perceptions could be favorably treated favorably positioning the "type" of consumer who uses these products, perhaps by asserting that these types of "smart" consumers save money or time, gain convenience, and otherwise benefit through using such innovations.

The findings may have been influenced by this comparatively upscale and well-educated sample's confidence in consumer protection guidelines, particularly with respect to the LPHC product. Future research should address similar issues with respect to other populations. The external validity of these results is also limited by this sample's homogeneous character as well as the nature of the products selected for investigation. Research aimed at generalizing these findings to more heterogeneous samples and more expensive or conspicuous products which also invoke HPLC or LPHC risk could be initiated.

## REFERENCES

- Bauer, Raymond A. (1960), "Consumer Behavior as Risk Taking," in Dynamic Marketing for a Changing World, Ed., Robert S. Hancock, Chicago: American Marketing Association, 389-398.

- Dahl, Jonathan and Laurie P. Cohen (1985), "Rash of Air Crashes Causing Some to Give Second Thoughts to Flying," Wall Street Journal, 206, 12 (September), A1-14.
- Diamond, William D. (1988), "The Effect of Probability and Consequence Levels on the Focus of Consumer Judgements in Risky Situations," Journal of Consumer Research, 15 (September), 290-284.
- Dunn, Mark G., Patrick E. Murphy and Gerald R. Skelly (1986), "Research Note: The Influence of Perceived Risk on Brand Preference for Supermarket Products," Journal of Retailing, 62 (2), 204-216.
- Folkes, Valerie (1988), "The Availability Heuristic and Perceived Risk," Journal of Consumer Risk, 15 (June), 13-23.
- Jacoby, Jacob and Leon Kaplan (1972), "The Components of Perceived Risk," Proceedings: 1st Annual Conference of the Association for Consumer Research, Ed., Andrew Mitchell, Chicago, IL: Association for Consumer Research, 341-347.
- Kahneman, Daniel and Amos Tversky (1984), "Choices, Values and Frames," American Psychologist, 39(4), 341-350.
- Lutz, Richard J. and Patrick J. Reilly (1974), "An Exploration of the Effects of Perceived Risk and Social Risk on Consumer Information Acquisition," in Advances in Consumer Research, Vol. 3, Ed.s, Scott Ward and Peter Wright, Chicago, IL.: Association for Consumer Research, 231-236.
- Mowen, John C. and Maryanne M. Mowen (1991), "Time and Outcome Valuation: Implications for Marketing Decision Making," Journal of Marketing, 55 (October), 54-62.
- Ram. S. (1989), "Innovation and Resistance Reluctance," Journal of Product Innovation and Management, 6 (1), 20-34.
- Shanklin, W. M. and J. L. Ryans (1984), "Marketing of High Technology, Lexington, Massachusetts: Lexington Books.
- Taylor, James (1974), "The Role of Risk in Consumer Behavior," Journal of Marketing, 38 (April), 54-60.
- Zikmund, William G. and Jerome E. Scott (1977), "An Investigation of the Role of Product Characteristics in Risk Perceptions," Review of Business and Economic Literature, 13 (1), 19-33.

# THE MODERATING EFFECTS OF BELIEF STRENGTH, INVOLVEMENT, AND SELF-MONITORING ON THE ROLE OF ANTICIPATORY SELF-EVALUATION IN CONSUMER PURCHASE MOTIVATION

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## ABSTRACT

Belief strength, involvement, and self monitoring are examined as potential moderators of the relationship between consumers' anticipatory self-evaluations and purchase motivation. The moderating effects of belief strength and

involvement were supported, suggesting that management efforts to enhance involvement and strengthen beliefs associated with positive anticipatory self-evaluation conditions should result in enhanced motivation to purchase.

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## BACKGROUND

Sirgy (1986) has suggested that people's motivation to purchase is significantly influenced by their reflexive evaluation of certain anticipated social consequences. In other words, individuals often visualize themselves in a product purchase/use situation and the resulting images influence their motivation to purchase. This self-image visualization process is referred to as anticipatory self-evaluation. The valence of evoked images is a function of the image's social desirability; hence, this valence drives the individual's motivation to purchase. More specifically, it was postulated that consumers engage in anticipatory self-evaluation by considering any one or more of four types of social consequences: (1) social consequences related to purchase outcome finale, (2) social consequences related to purchase completion, (3) social consequences related to purchase non-completion, and (4) social consequences related to purchase non-engagement. Purchase outcome finale is the individual's perceptions of the social consequences associated with the actual consumption of a product (e.g., What will people think of me for wearing this type of outfit?). Purchase completion focuses on the social consequences of completing the purchase task as opposed to the consequences of the product itself (e.g., How would I look to others if I were to spend this much money for a new suit?). Purchase non-completion refers to expectations about how the individual will appear given the failure to complete the purchase task (e.g., What will my friends think of

me if I go out shopping and come back empty-handed again?). Purchase non-engagement refers to the social consequences of taking no action (e.g., What will others think of me if I do not go shopping and thus continue to wear the same old clothes to work every day?).

A study was conducted by Sirgy et al. (1993) testing the relative predictiveness of these four types of social consequences on purchase motivation. The study results indicated that anticipatory self-evaluations in relation to both purchase outcome finale and purchase completion were more predictive of purchase motivation than anticipatory self-evaluations related to purchase noncompletion and purchase nonengagement. A natural extension of these findings is to determine the situations where anticipatory self-evaluation will most likely occur. Product managers who can induce the consumer to evaluate personal purchase/use images stand to benefit given that the product is socially desirable. Advertisements and promotions which create a socially desirable image for the product and which serve to induce evaluative images may thus lead to higher levels of consumer purchase motivation.

Potential moderators of this relationship may involve differences in one's ability and proclivity to enter into anticipatory self-evaluations. Differences in belief strength associated with the anticipated consequences, level of involvement with a purchase situation, and/or desires for social approval may influence the willingness to engage in reflexive evaluation. The purpose of

this article is to extend the work on anticipatory self-evaluation (Sirgy 1986; Sirgy et al. 1993) by investigating the potential moderating effects of three personal characteristics: belief strength, involvement, and self-monitoring. Belief strength is conceptualized as the certainty the consumer associates with each anticipated self-evaluation, a definition highly consistent with Fishbein's (1963) belief strength. The consumer's certainty or uncertainty as to the social consequences will serve to magnify or decrease the valence weight associated with the four types of anticipatory self-evaluation. We hypothesize that belief strength is likely to moderate the relationship between anticipatory self-evaluation and purchase motivation. That is, the greater the belief strength associated with anticipatory self-evaluation, the more pronounced the relationship between anticipatory self-evaluation and purchase motivation is likely to be. Thus, we posit the following hypotheses: Belief strength will positively influence the strength of the relationship between purchase motivation toward an alternative product and the anticipated self-evaluation given:

**H1:** the outcomes arising from the use of the product (purchase outcome finale).

**H2:** the successful purchase of the product (purchase completion).

**H3:** purchase non-completion.

**H4:** lack of purchase engagement (purchase non-engagement).

Involvement (Zaichkowsky 1985) is conceptualized as the perceived relevance of an object based on inherent needs, values, and interests. We hypothesize that consumers who are highly involved in a purchase/consumption context are more likely to evaluate the social consequences associated with the purchase/consumption of the product than are low-involved consumers. For example, consumers who value clothes highly, who are interested in fashion and/or who need new clothes, are more likely to be motivated to anticipate the social consequences associated with purchase outcome finale, purchase completion, purchase non-completion, and purchase non-engagement than are less-involved consumers. Specifically, we expect that the relationship between anticipatory self-evaluation and purchase motivation to be more

evident for high than low-involved consumers. Thus, we posit the following hypotheses: Involvement will positively influence the strength of the relationship between purchase motivation toward an alternative product and the anticipated self-evaluation given:

**H5:** the outcomes arising from the use of the product (purchase outcome finale).

**H6:** the successful purchase of the product (purchase completion).

**H7:** purchase non-completion.

**H8:** lack of purchase engagement (purchase non-engagement).

Self-monitoring (Snyder 1974) manifests itself in one's ability to monitor and regulate the presentation of self to meet the needs and norms of the social situation. We hypothesized that self-monitoring moderates the relationship between anticipatory self-evaluation and purchase motivation, because consumers high in self-monitoring may demonstrate a heightened need for social approval. The greater the social desirability of the visualized self-image of purchase and/or consumption, the greater the likelihood that these self-images will be evaluated for their social desirability, thus affecting purchase motivation (compared to a situation in which the social desirability of the self-images is less evident) (Sirgy 1986). Thus, we posit the following hypotheses: Self-monitoring will positively influence the strength of the relationship between purchase motivation toward an alternative product and the anticipated self-evaluation given:

**H9:** the outcomes arising from the use of the product (purchase outcome finale).

**H10:** the successful purchase of the product (purchase completion).

**H11:** purchase non-completion.

**H12:** lack of purchase engagement (purchase non-engagement).

## METHODS

### Subjects and Product Scenario

Three hundred undergraduate marketing

students received a questionnaire which presented them with the following scenario: "Suppose you are working as a business intern in an insurance company. You see different people wearing different kinds of clothes. Some were wearing casual clothes and some professional clothes. You have some money to buy some clothes, and you are thinking of buying some clothes for work."

### **Measures of Anticipatory Self-Evaluations and Purchase Motivation**

The measures for the four predictor variables (anticipatory self evaluation given: purchase outcome finale; purchase completion; purchase noncompletion; and purchase nonengagement) and two dependent measures of purchase motivation were as reported in Sirgy et al. (1993). All measures exceeded required levels of internal consistency as suggested by Churchill (1979).

### **Measures of Belief Strength**

Belief strength measures were associated with each of the four anticipatory self-evaluation items as described in Sirgy et al. (1993). Following each anticipatory self-evaluation measure, subjects were asked to describe how certain or uncertain they were about the expected reaction from their friends. For example, for purchase outcome finale, the measure was as follows, "Now describe how certain or uncertain you are about how your friends at work will react to your wearing casual clothes at work." These were measured via three 9-point semantic differential scales with the following bipolar adjectives: "very uncertain/very certain", "not confident at all about my feelings/very confident about my feelings", and "I don't know/I know." Reliability was also computed for belief strength variables. Cronbach alpha was .89 and .93 for belief strength associated with purchase outcome finale (professional clothes and casual clothes), .93 for belief strength associated with purchase completion, .93 for belief strength associated with purchase noncompletion, and .92 for belief strength associated with purchase nonengagement.

### **The Involvement Measure**

Involvement was measured by a 20-item personal involvement inventory with a 7-point bipolar semantic differential scale (Zaichkowsky

1985). Subjects were asked to describe their involvement or interest in the possible purchase of new clothes for work. An iterative process combining factor analysis and reliability analysis was employed to purify the involvement measure. As with Zaichkowsky's (1985) investigation of the dimensionality of the personal involvement inventory, we found the scale to be essentially unidimensional.

### **The Self-Monitoring Measure**

Self-monitoring behavior was measured by a 33-item multi-dimensional scale (Lennox and Wolfe 1984) which reflects four factors. Two factors are associated with social anxiety (cross-situational variability and attention to social comparison information); while two additional factors reflect sensitivity to the expressive behavior of others and ability to modify self-presentation. Following an iterative purification process of the scales, it was felt that the conceptual similarity of the subscale variables allowed for self-monitoring to be calculated as a single measure. Self-monitoring was calculated by combining all of the subscale variables into one variable, achieving a Cronbach's Alpha of .861, a level of internal consistency higher than that reached by any of the four subscales.

## **RESULTS**

### **The Moderating Effect of Belief Strength**

Purchase motivation was regressed on the original valence variables (i.e., the anticipatory self-evaluations given purchase outcome finale, given purchase completion, given purchase noncompletion, and given purchase nonengagement) and the variables reflecting the interaction term, (i.e., the multiplicative product of each anticipatory self-evaluation with its corresponding belief strength). The results indicate that belief strength improved the predictiveness of anticipatory self-evaluation given only purchase completion (betas without belief strength = .343,  $p < .001$  and .352,  $p < .001$ : betas with belief strength = .424,  $p < .001$  and .380,  $p < .001$ ). Furthermore, another regression was performed in which the valence weights of the anticipatory self-evaluation variables were first input into the regression equation followed by the input of these same variables multiplied by belief strength. The anticipatory self-evaluation variables produced a R square of .202. With the

inclusion of the interaction term involving belief strength, R square increased to .235, an R square change significant at the .001 level (first purchase motivation measure). However, the R square change was not significant in relation to the second purchase motivation measure.

These results do provide some support for the theoretical notion that belief strength moderates the relationship between anticipatory self-evaluation and purchase motivation. However, this support was limited only to anticipatory self-evaluation given purchase completion. Therefore, H2 was supported, while the data did not support H1, H3, and H4.

### **The Moderating Effect of Involvement**

With respect to the moderating effect of involvement, the sample was divided into two groups, high and low involvement using a medium split. The results indicated that anticipatory self-evaluation given purchase completion is more predictive of purchase motivation under high involvement conditions (betas = .448,  $p < .001$  and .402,  $p < .001$ ) than under low involvement conditions (betas = .178,  $p > .05$  and .243,  $p < .05$ ). Furthermore, the regression in which the valence weights of the anticipatory self-evaluation variables were first input into the regression equation followed by the input of this same variable multiplied by involvement showed significance. The R square for high involvement subjects was .218 as compared to an R square of .128 for low involvement subjects (a change significant at the .01 level for the first purchase motivation measure).

These results indicate that involvement may be a significant moderator of the relationship between anticipatory self-evaluation and purchase motivation. However, this support seems to be limited mostly to one type of anticipatory self-evaluation: anticipatory self-evaluation given purchase completion. Therefore, the data suggests that H6 was supported, while H5, H7, and H8 did not receive support.

### **The Moderating Effect of Self-Monitoring**

With respect to the moderating effect of self-monitoring, the sample was divided into two groups, high and low self-monitoring, using a median split. The results indicate that self-monitoring did not play a moderating role in an

overall sense nor with respect to any of the four types of anticipatory self-evaluations. Similar analyses were conducted focusing on each of the four self-monitoring factors (cross situational variables, social comparison information, the ability to modify self-presentation, and sensitivity to expressive behavior of others); however, the data failed to provide support for the theoretical notion that self-monitoring is a moderator of the relationship between anticipatory self-evaluation and purchase motivation. Therefore H9, H10, H11, and H12 were not supported.

## **DISCUSSION AND IMPLICATIONS**

The present study tested the theoretical notion that the relationship between anticipatory self-evaluation and purchase motivation is moderated by consumers' belief strength associated with the anticipated social consequences of purchase (and nonpurchase); consumers' level of involvement in the product category; and consumers' level of self-monitoring. The study findings reveal that anticipatory self-evaluations do indeed play a significant role in purchase motivation; however, not all types of anticipatory self-evaluations play an equivalent role. Specifically, the study found that anticipatory self-evaluation given purchase completion plays a more significant role on purchase motivation than anticipatory self-evaluation given purchase outcome finale, purchase noncompletion and given purchase nonengagement. Furthermore, the study showed that belief strength does indeed play a moderating role in the relationship between anticipatory self-evaluation and purchase motivation; however, the moderation effect seems to be limited only to the anticipatory self-evaluation given purchase completion. The study findings also reveal that involvement plays a significant role in moderating the relationship between anticipatory self-evaluation and purchase motivation, however, this role also seems to be limited only to anticipatory self-evaluation given purchase completion. Furthermore, the data failed to provide support for the hypothesized moderation effect of self-monitoring.

Why did self-monitoring fail to moderate the relationship between anticipatory self-evaluation and purchase motivation? One explanation is the possibility that the variance in self-monitoring was insufficient. A cursory inspection of the data reveals that this was in fact the case. The



sample means for self-monitoring (total) and the four self-monitoring subscales were substantially higher than the norms for the measure as documented in Lennox and Wolfe (1984). The standard deviations for our sample were also substantially lower relative to Lennox and Wolfe's. This suggests the possibility that self-monitoring failed to moderate the relationship between anticipatory self-evaluation and purchase motivation due to a lack of variance in the distribution of self-monitoring scores in this study.

The managerial implications of this study should be noted. Marketers should first and foremost attempt to identify those social consequences that consumers may think about given purchase outcome finale and given purchase completion. A marketing program should be developed to maximize the positive valence associated with the anticipated social consequences (and minimize the negative valence). The product attributes, thus, can be manipulated to enhance the social desirability (and minimize the lack of desirability) associated with the product consumption. Retailing programs can be developed to enhance the social desirability of the act of purchase itself (and minimize the social undesirability too). These product and distribution programs become imperative given consumers who are high involved with the product category. This is because those consumers are more likely to engage in anticipatory self-evaluation given purchase completion than those consumers who are less involved. Furthermore, marketers may develop programs to enhance involvement under conditions of positive anticipatory self-evaluations. That is, given that the marketer knows that consumers are likely to anticipate positive self-evaluations given purchase completion, the marketer should provide consumers with conditions and incentives to further increase their involvement with purchase. By doing so, the marketer is likely to reinforce purchase motivation.

## REFERENCES

- Churchill, Gilbert A., Jr. (1979), "A Paradigm for Developing Better Measures of Marketing Constructs," Journal of Marketing Research, Vol. 16 (Feb.), 64-73.
- Fishbein, Martin (1963), "An Investigation of the Relationship between Beliefs about an Object and the Attitude toward that Object," Human Relations, 7, 117-140.
- Lennox, Richard D. and Raymond N. Wolfe (1984), "Revision of the Self-Monitoring Scale," Journal of Personality and Social Psychology, 46 (6), 1349-1364.
- Sirgy, M. Joseph (1986), Self-Congruity: Toward a Theory of Personality and Cybernetics, New York: Praeger.
- \_\_\_\_\_, J.S. Johar, and Stanley A. Wise (1993), "The Role of Anticipatory Self-Evaluation in Consumer Purchase Motivation," in Development in Marketing Science, edited by Michael Levy and Dhruv Grewal, vol. 19, Miami: Academy of Marketing Science, pp. 69-73.
- Snyder, Mark (1974), "Self-Monitoring of Expressive Behavior," Journal of Personality and Social Psychology, 30 (4), 526-537.
- Zaichkowsky, Judith L. (1985), "Measuring the Involvement Construct," Journal of Consumer Research, 12, (December) 341-352.

# HISPANICS AT THE HIGH ARTS: IN SEARCH OF A CULTURALLY RELEVANT ATTENDANCE EXPERIENCE

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## ABSTRACT

The purpose of this study was to determine whether a "culturally relevant" attendance experience could be detected among Hispanic theatre-goers. Two research questions were addressed: (1) do Hispanic theatre-goers who identify strongly with the Hispanic culture describe a different attendance experience than do those with more Anglo orientations? and (2) how does the experience of the two groups of theatre-goers differ? These questions were explored by surveying the audience at six performances of an Hispanic theatre festival in Southeast Florida. In this setting, attenders would likely be persons of Spanish extraction who were both educated in, and socialized to, theatre attendance. Education and socialization would be implicitly controlled, yet "traces" of any ethnic experience might be retained.

In preparation for the study, members of the research team visited a number of theatre events targeted to Hispanic audiences. Based on observations of these audiences and discussions with theatre-goers, a list of Likert-scaled items that seemed to describe the Hispanic attendance experience was developed. This was refined by pre-testing and discussions with the artistic directors of the festival. The final list consisted of ten items that appeared to be uniquely associated with the Hispanic experience. These represented five aspects: cultural maintenance, social correlates, temporal considerations, demonstrativeness, and emotional intensity.

The questionnaire contained the items designed to assess the Hispanic experience and a measure of the degree of Hispanic identification, as well as requests for general demographic and marketing information. Spanish and English versions were both available. The

Spanish version was prepared through an iterative process of translation and back-translation to assure comparability.

At the theatre, the questionnaire was distributed by bilingual research assistants before the start of the performance and during the intermissions. The resulting sample ( $n = 118$ ) was relatively young and well educated (median age, 36 years; percent college graduates, 85.6%). Ninety percent of respondents were born outside of the United States. Of these, 60 were born in Cuba and 31 in a variety of different Latin countries.

While the results are not strong, traces of an Hispanic attendance experience were found. In comparison with Anglo identifiers, people who strongly identified with the Hispanic culture: (1) appeared to attend Hispanic theatre more for the purpose of maintaining their cultural ties, (2) admitted to being more involved in the play, and (3) reported greater negative demonstrativeness at the theatre. No evidence was found of either a social orientation or a mañana time perspective among the attenders. A sub-analysis by country of birth, revealed that, contrary to expectations, Hispanics who were born in Cuba were significantly less tolerant of late arrival at the theatre than were those who were born in the USA.

*Acknowledgement.* We wish to acknowledge the contributions by members of the research team who assisted with the study: María Canahuati and Ruí Lobo, who assisted with the conceptual development of the project; and Gabriel Alba, Sergio Díaz, Bridget Geddes, Cecile Melanie, Luis Pérez-Bode, and Hilary Ryan, who assisted at the theatre.

# A HYBRID CONJOINT MODEL WITH ITERATIVE RESPONSE SCALE ADJUSTMENT

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## ABSTRACT

A recent critique of Sawtooth Software's Adaptive Conjoint Analysis model proposes an iterative procedure for adjusting self-explicated response scales to agree more closely with the respondent's partial profile evaluations. The

present paper implements this suggestion in the context of two variants of a full-profile, non-adaptive hybrid model. The model is described formally, and then it is applied to an illustrative data set.

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## INTRODUCTION

In the 1980's two user-friendly software packages for conjoint analysis were introduced. The microcomputer package by Steven Herman (1988) consists of a series of programs for full profile orthogonal design, conjoint parameter estimation, and choice simulation. The package by Richard Johnson (1987) involves a hybrid modeling procedure that combines self-explicated data (on attribute level desirabilities and attribute importances) with a subsequent stage in which the respondent evaluates partial profiles on a graded pair-comparison scale.

Green, Krieger, and Agarwal (1991) have suggested ways in which Johnson's Adaptive Conjoint Analysis (ACA) model might be improved; also, see Johnson (1991) for a rejoinder. First, they question the appropriateness of Johnson's adaptive modeling strategy in which pairs of partial profiles are constructed to be as *similar* as possible in utility, based on the respondent's prior updated (estimated) part-worths. To the extent that this feature is successful, Green, Krieger, and Agarwal argue that the respondent should become indifferent between members of the pair, even though a nine-point scale is provided for his/her responses. Second, they question the assumption that the self-explicated part-worths and the pair comparison responses are measured on a common scale. They suggest (but do not implement) an iterative, alternating least squares procedure for achieving commensurability between self-explicated and graded pair-comparison responses.

The primary purpose of this paper is to develop a hybrid conjoint model that implements the preceding suggestion. However, for reasons also stated above, there is no adaptive feature in the proposed model. Similar in spirit (if not in details) to ACA, respondents are exposed to a self-explicated section, consisting of respondent ratings of the levels of each attribute on a 0-10 desirability scale. This is followed by an attribute importance evaluation task in which the respondent evaluates attribute importances according to a constant-sum task. Instead of ACA's adaptive partial-profile pair comparisons step, the proposed method asks respondents to sort a relatively small number of full profiles (typically drawn from a much larger master design). Following the sorting task, the respondent rates each profile on a 0-100 likelihood of purchase scale.

We first describe the approach and model; actually, two variations of the model are proposed. We then apply the model, retrospectively, to a data set originally collected for other purposes. As such, this application is for demonstrative purposes only. We cross validate the two variants of the model on a holdout sample of 16 profiles.

## THE MODEL

The proposed hybrid model assumes the same data collection steps used in hybrid models (Green 1984). The basic input data consist of the following:

- Attribute-level desirabilities, typically rated on a 0-10 scale, attribute by attribute; these are later normalized to vary between 0 and 1.

- Attribute importance evaluations, typically obtained from a 100 point constant sum allocation task; these weights are later normalized to vary between 0 and 1 and sum to 1.0.
- Full-profile evaluations on a 0-100 likelihood of purchase scale; these are later normalized to vary between 0 and 1.

We estimate part-worths, at the individual level, from the self-explicated data and full profile evaluations. To this end, assume that there are  $M$  attributes, where the  $m^{\text{th}}$  attribute has  $J_m$  levels. Associated with each individual is a set of part-worths  $\beta_{mj}$ ,  $m = 1, \dots, M$ ;  $j = 1, \dots, J_m$  and an intercept term  $\beta_0$ . We need to estimate

$$p = 1 + \sum_{m=1}^M J_m \text{ parameters.}$$

We fit a regression equation to the two following relationships:

$$y_{mj} = \beta_{mj} + \epsilon_{mj}; m = 1, \dots, M; j = 1 \quad (1)$$

where  $y_{mj}$  is the self-explicated score on level  $j$  of attribute  $m$ , and

$$s_t = \beta_0 + \sum_{m=1}^M \sum_{j=1}^{J_m} I_{tmj} \beta_{mj} + \delta_t; t=1, \dots, \quad (2)$$

where  $T$  is the number of profiles that each individual evaluates,  $s_t$  is the evaluative score given to full profile  $t$  and  $I_{tmj}$  is 1 or 0, depending on whether the level for attribute  $m$  in profile  $t$  is  $j$  or not.

Combining equations (1) and (2) gives rise to a standard OLS regression problem with  $p$  independent variables and  $p + T - 1$  observations, assuming that  $\epsilon_{mj}$  and  $\delta_t$  are independent and identically distributed error terms.

For example, assume that there are two attributes each at two levels. The self-explicated part-worths that an individual gives to each level of the respective attributes are (0.3, 0.1) and (0.7, 0.2). The individual evaluates all four profiles (1,1), (1,2), (2,1) and (2,2) and gives scores of 0.9, 0.3, 0.5, and 0.1, respectively.

The initial regression would then have 8 observations and five parameters as described below:

| $y$ | Intercept | $I_{11}$ | $I_{12}$ | $I_{21}$ | $I_{22}$ |
|-----|-----------|----------|----------|----------|----------|
| .3  | 0         | 1        | 0        | 0        | 0        |
| .1  | 0         | 0        | 1        | 0        | 0        |
| .7  | 0         | 0        | 0        | 1        | 0        |
| .2  | 0         | 0        | 0        | 0        | 1        |
| .9  | 1         | 1        | 0        | 1        | 0        |
| .3  | 1         | 1        | 0        | 0        | 1        |
| .5  | 1         | 0        | 1        | 1        | 0        |
| .1  | 1         | 0        | 1        | 0        | 1        |

## APPLYING THE MODEL

There are two versions of the proposed model, one that fits individual part-worths in the full-profile stage and one that fits only revised importance weights (thus assuming that the self-explicated, within-attribute desirabilities are not modified). Both models are applied to the sample problem, described next.

## Experimental Design

The stimuli of this demonstration consist of privately offered, unfurnished apartment descriptions, a popular area for academic research in conjoint analysis (Johnson and Meyer 1984; Green, Helsen, and Shandler 1988). Subjects for the experiment were business students, most of whom were already living in a student apartment or were considering renting one during the next school year. Complete data were obtained from 177 respondents.

Table 1 shows the attributes and levels used in the study. Data collection entailed three phases. Phase 1 consisted of the self-explicated task. For each attribute level of Table 1 the respondent was asked to rate its desirability on a 0-10 rating scale, ranging from completely unacceptable to completely acceptable. Following this, each respondent was asked to allocate 100 points across the six attributes, so as to reflect their relative importance in selecting an apartment for rent.

In Phase II, each respondent received (in randomized order) 18 full-profile cards developed from an orthogonal main effects plan. First, the respondent was asked to sort the 18 cards into four piles, varying from least preferred to most preferred. Then, starting with the most preferred pile, the respondent was asked to indicate the likelihood (on a 0-100 scale) of renting an apartment of that description, assuming that he or she were in need of an apartment within walking distance to the university. In Phase III each respondent received 16 profiles, based on an orthogonal design, utilizing levels 1 and 3 of the attributes shown in Table 1. The same preliminary sorting and 0-100 likelihood of renting tasks were used again.

As described above, the preceding experiment did not contain a feature in which a subject sees and evaluates fewer than the 18 profiles that made up the full-profile set. Hence, in using these data for current demonstration purposes we had to simulate each subject's evaluations of fewer than the 18 profiles actually seen. This step was implemented by preparing a computer program for sampling at random, without replacement, either 15, 10, or 5 of the 18 full profiles that the respondent actually saw. We then recorded the likelihood-of-renting responses that each subject actually gave to profiles in these subsets. (Each subject's randomly chosen subset of profiles was generated independently.)

### Coarsening the Original Data

The data used to demonstrate the proposed models' performance have been earlier described and analyzed by two different groups of researchers (van der Lans and Heiser 1992; Green, Krieger, and Schaffer 1993). Both groups report that the simple compositional model (employing self-explicated desirabilities and importances alone) provided comparatively good predictions of respondents' holdout profiles.

Accordingly, for demonstration purposes we consider two coarsenings of the original self-explicated data:

- I. We modify each respondent's original self-explicated importance weights to be equal across the six the attributes.

- II. In addition to the preceding step, we equate ranges of each respondent's self-explicated desirabilities to be equal across attributes. Also, within attribute, we set the three desirability values to be spaced at .05, .50, and .95, respectively, for lowest, middle, and highest desirability levels.

Hence, the original self-explicated data are modified to result in two successive degrees of coarsening. We then apply the same two proposed models to the degraded data sets. (No changes are made in any of the full profile evaluations, at either the calibration or holdout sample stage.)

### Validation Response Measures

In many conjoint validation studies, two measures: (a) the product moment correlation between model-predicted and holdout sample responses and (b) the mean-squared prediction error, are used to assess model performance. These measures are used here, as well. In addition, however, two less common response measures are included. The first of these is rank position validation. In this measure the subject's actual ratings of the 16 holdout profiles are ranked in terms of their likelihood-of-rental. Similarly, each model is used to predict the subject's ranking of the 16 holdouts. The summary validation measure is the incidence with which all of the 16 rank positions are correctly predicted. (The null or chance model, is simply 1/16 or 0.0625.)

The second response measure entails a choice simulation exercise in which choice sets (of four profiles each) are drawn from the original set of 16 holdouts. The respondent's actual likelihood of renting each apartment description is used to find which profile in the four options is most preferred. (This mimics the first-choice rule in conjoint simulators.) These actual choices are then compared with model-predicted choices. One can, of course, vary the number, size, and composition of the various choice sets. In the present case the choice sets are based on balanced incomplete block (BIB) designs. The first set consists of 12 BIB sets of four profiles each (drawn from the holdout set of 16 profiles). The second set consists of 20 BIB sets of four profiles each, where the first 12 sets are duplicates of the smaller design.

## CROSS VALIDATION RESULTS

Table 2 shows a summary of the cross validation responses across models for the non-coarsened data set. All measures were first computed at the individual respondent level and then summarized. As reference cases, Table 2 first shows results for the "pure" cases of traditional full-profile parameter estimation versus the self-explication model alone. As noted, there is a 5-point difference in cross-validated correlation, favoring full profile. Full profile alone also performs better than self-explicated alone on the mean square prediction error and the hit-incidence measures. Next, within the part-worth version of the two proposed hybrid models, we note from Table 2 that one generally needs responses on 15 full profiles to effect a practical gain over the self-explicated model alone. For the 5 and 10 full profile cases, the results are close to those obtained from the self-explicated model alone.

Results are somewhat sharper for the importance weight variant. Here, there are many fewer parameters to estimate; moreover, it would seem that subjects' self-explicated desirabilities are well representative of those that would be derived from the hybrid model. Still, unless at least 15 full-profile evaluations are obtained, the hybrid model's cross validations are little better than those of the self-explicated model alone. Apparently, the self-explicated data are quite good for this particular data set. Hence, the information provided by the limited number of full profiles adds relatively little to cross validation accuracy.

As the self-explicated data are coarsened, however, the situation changes. Table 3 shows the results based on the assumption of equal importance weights for each individual. Under this assumption the self-explicated model results in a cross validation correlation of 0.647, a drop of 6.5 points from its counterpart in Table 2. In the case of the importance weight model both the 15-profile and 10-profile cases add substantially to the cross-validated correlation—gains of 10.5 and 5.7 points, respectively. Even the 5-profile importance weight model adds almost two correlation points.

Further coarsening of the data is provided by the additional assumption of equal ranges and intervals within attributes for the self-explicated desirabilities. Table 4 shows the

results of this further reduction in data quality. As noted in Table 4, the importance weight hybrid model adds 16.2, 10.0 and 4.9 correlation points, respectively, compared to the (coarsened) self-explicated data predictions. Apparently, respondents' actual attribute importances, and the spacing and range given to attribute-level desirabilities (see Table 2) contain useful information.

In conclusion, the proposed model, unlike many of the earlier hybrid models (Green 1984), estimates all part-worths at the individual level. Moreover, with relatively little effort it could be modified to accommodate Tukey's single degree of freedom, 2-way interaction terms (Green, Krieger, and Schaffer 1993), also estimated at the individual respondent level. (Whether the inclusion of these additional terms holds up under cross validation is, of course, another matter.)

## REFERENCES

- Green, Paul E. (1984), "Hybrid Models for Conjoint Analysis: An Expository Review," *Journal of Marketing Research*, 21 (May), 155-9.
- \_\_\_\_\_, Kristiaan Helsen, and Bruce Shandler (1988), "Conjoint Internal Validity Under Alternative Profile Presentations," *Journal of Consumer Research*, 15 (December), 392-7.
- \_\_\_\_\_, Abba M. Krieger, and Manoj K. Agarwal (1991), "Adaptive Conjoint Analysis: Some Caveats and Suggestions," *Journal of Marketing Research*, 28 (May), 215-22.
- \_\_\_\_\_, Abba M. Krieger, and Catherine M. Schaffer (1993), "A Hybrid Conjoint Model with Individual-Level Interaction Estimation," *Advances in Consumer Research*, 20, Provo, UT: Association for Consumer Research, 1-6.
- \_\_\_\_\_, and V. Srinivasan (1990), "Conjoint Analysis in Marketing: New Developments with Implications for Research and Practice," *Journal of Marketing*, 54 (October), 3-19.
- Herman, Steven (1988), "Software for Full-Profile Conjoint Analysis," *Proceedings of the Sawtooth Software Conference on Perceptual Mapping, Conjoint Analysis, and Computer Interviewing*. Ketchum, ID: Sawtooth Software, Inc., 117-30.



Johnson, Eric J. and Robert J. Meyer (1984), "Compensatory Choice Models of Non-compensatory Processes: The Effect of Varying Context," Journal of Consumer Research, 11 (June), 528-41.

Johnson, Richard M. (1991), "A Comment on Adaptive Conjoint Analysis: Some Caveats and Suggestions," Journal of Marketing Research, 28 (May), 223-25.

\_\_\_\_\_ (1987), "Adaptive Conjoint Analysis," Sawtooth Software Conference on Perceptual Mapping, Conjoint Analysis, and Computer Interviewing. Ketchum, ID: Sawtooth Software, Inc. 253-65.

van der Lans, Ivo A. and William J. Heiser (1992), "Constrained Part-Worth Estimation in Conjoint Analysis Using the Self-Explicated Utility Model," International Journal of Research in Marketing, 6 (March), 325-44.

**TABLE 1**  
**Attributes and Levels Used in Conjoint Study**

|                                   |                                   |
|-----------------------------------|-----------------------------------|
| A. Walking Time to Classes        | D. Condition of Apartment         |
| 1. 10 minutes                     | 1. Newly renovated throughout     |
| 2. 20 minutes                     | 2. Renovated kitchen only         |
| 3. 30 minutes                     | 3. Poor condition                 |
| B. Noise Level of Apartment House | E. Size of Living/Dining Area     |
| 1. Very quiet                     | 1. 24 by 30 feet                  |
| 2. Average noise level            | 2. 15 by 20 feet                  |
| 3. Extremely noisy                | 3. 9 by 12 feet                   |
| C. Safety of Apartment Location   | F. Monthly Rent (Utilities Incl.) |
| 1. Very safe location             | 1. \$540                          |
| 2. Average safety                 | 2. \$360                          |
| 3. Very unsafe location           | 3. \$225                          |

**TABLE 2**  
**Cross Validation Summary, by Prediction Model and**  
**Response Measure for the Uncoarsened Data**

| <b>Model</b>                                                   | <b>Cross-Validated Correlation</b> | <b>Mean Squared Error</b> | <b>Rank Position</b> | <b>Twelve 4-Item Choices</b> | <b>Twenty 4-Item Choices</b> |
|----------------------------------------------------------------|------------------------------------|---------------------------|----------------------|------------------------------|------------------------------|
| Reference Cases<br>Full profile alone<br>Self-explicated alone | .762<br>.712                       | .038<br>.095              | 16.5%<br>15.3        | 70.4%<br>65.1                | 67.7%<br>63.3                |
| Part-worth hybrid<br>15 profiles<br>10<br>5                    | .740<br>.714<br>.713               | .048<br>.063<br>.059      | 16.3<br>15.2<br>15.3 | 68.5<br>66.5<br>65.2         | 65.6<br>63.4<br>63.3         |
| Importance weight hybrid<br>15 profiles<br>10<br>5             | .762<br>.735<br>.714               | .040<br>.053<br>.076      | 17.1<br>15.8<br>15.7 | 70.5<br>67.8<br>64.9         | 67.8<br>65.6<br>62.9         |
| Mean critical difference:<br>p = .05 for correlated samples    | .0398                              | .0137                     | 1.49                 | 3.52                         | 3.47                         |



**TABLE 3**  
**Cross-Validation Summary**  
**for Coarsened Data Set I**

| <b>Model</b>                                               | <b>Cross-Validated Correlation</b> | <b>Mean Squared Error</b> | <b>Rank Position</b> | <b>Twelve 4-Item Choices</b> | <b>Twenty 4-Item Choices</b> |
|------------------------------------------------------------|------------------------------------|---------------------------|----------------------|------------------------------|------------------------------|
| Self-explicated alone                                      | .647                               | .114                      | 13.5%                | 61.8%                        | 58.8%                        |
| Part-worth hybrid                                          |                                    |                           |                      |                              |                              |
| 15 profiles                                                | .731                               | .049                      | 16.0                 | 67.9                         | 65.0                         |
| 10                                                         | .676                               | .068                      | 14.8                 | 65.1                         | 61.4                         |
| 5                                                          | .664                               | .064                      | 14.4                 | 63.4                         | 60.2                         |
| Importance weight hybrid                                   |                                    |                           |                      |                              |                              |
| 15 profiles                                                | .752                               | .041                      | 17.0                 | 70.0                         | 66.9                         |
| 10                                                         | .704                               | .057                      | 15.1                 | 66.3                         | 63.7                         |
| 5                                                          | .665                               | .064                      | 14.4                 | 63.4                         | 60.3                         |
| Mean Critical Difference: $p = .05$ for correlated samples | .0387                              | .0134                     | 1.52                 | 3.48                         | 3.48                         |

**TABLE 4**  
**Cross-Validation Summary**  
**for Coarsened Data Set II**

| <b>Model</b>                                               | <b>Cross-Validated Correlation</b> | <b>Mean Squared Error</b> | <b>Rank Position</b> | <b>Twelve 4-Item Choices</b> | <b>Twenty 4-Item Choices</b> |
|------------------------------------------------------------|------------------------------------|---------------------------|----------------------|------------------------------|------------------------------|
| Self-explicated alone                                      | .576                               | .116                      | 12.1%                | 59.3%                        | 55.1%                        |
| Part-worth hybrid                                          |                                    |                           |                      |                              |                              |
| 15 profiles                                                | .726                               | .050                      | 16.0                 | 67.5                         | 64.7                         |
| 10                                                         | .672                               | .070                      | 14.5                 | 64.3                         | 61.1                         |
| 5                                                          | .633                               | .073                      | 13.2                 | 61.8                         | 58.2                         |
| Importance weight hybrid                                   |                                    |                           |                      |                              |                              |
| 15 profiles                                                | .738                               | .045                      | 16.7                 | 68.8                         | 65.9                         |
| 10                                                         | .676                               | .068                      | 14.2                 | 65.1                         | 61.4                         |
| 5                                                          | .625                               | .092                      | 13.3                 | 61.2                         | 57.9                         |
| Mean Critical Difference: $p = .05$ for correlated samples | .0381                              | .0139                     | 1.47                 | 3.42                         | 3.46                         |

# NUMBER OF FACTORS OBTAINED BY CHANCE: A SIMULATION STUDY

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## ABSTRACT

This simulation study examines the effects of sample size, number of initial variables, and scale range on the number of factors extracted due to chance correlation. The ANOVA results indicate that sample size has a positive, and

number of variables a negative effect on the number of factors extracted. The scale range, however, has no direct effect. Instead, it acts as a covariate.

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## INTRODUCTION

While using a factor or component analysis the number of factors or components extracted is probably one of the most important and difficult decisions. Extant studies have stressed the dangers involved with both over-extraction and under-extraction (Cliff 1988; Comrey 1978; Zwick and Velicer 1986). Several methods exist for determining the "appropriate" number of factors to be retained. However, these different methods result in different numbers of factors extracted (Bartlett 1950, 1951; Cattell 1968; Horn 1965; Humphreys and Montanelli 1976; Kaiser 1960; Zwick and Velicer 1986, 1982). Zwick and Velicer (1986) examined the performance of the five key methods (Horn's parallel analysis, Velicer's minimum average partial [MAP], Cattell's scree test, Bartlett's chi-square test, and Kaiser's eigenvalue greater than 1.0 rule or K1 rule).

This study approaches this problems from a slightly different perspective. Factor analysis is commonly used as an exploratory rather than as a predictive technique where a key objective is data reduction in a parsimonious manner so as to make interpretation less confounding. The number of factors seemingly correspond to the underlying motives behind the observed measurements. Consequently, it might be erroneous to evolve procedures for predicting the exact number of factors. It would only provide an empirical solution to a theory driven problem. This study suggests that researchers should understand how various elements, apart from the underlying motives, affect the number

of factors extracted, e.g., chance relationships between measurement items, number of observations, scale range restrictions, and number of measurement items.

Extant literature indicates that component analysis is the most widely used method of the two general approaches, the other being factor analysis (Zwick and Velicer 1986, 1982). Hence, this study will concentrate on principal component or component analysis procedure.

## PRINCIPAL COMPONENT ANALYSIS

Principal component differs from the classical factor analysis in the sense that it produces a transformation of the  $m$  observed variables to a new set of variables which will be pairwise uncorrelated and of which the first will have the maximum variance and the second the maximum variance among those uncorrelated with the first, and so forth. Mathematically, the coefficients of the first component are the elements of the eigenvector associated with the first (largest) eigenvalue of the covariance matrix, the second are the elements associated with the second eigenvector, and so forth (Hotelling 1933; Pearson 1901; Stevens 1986).

If one begins with a set of pure random uncorrelated numbers the resultant starting correlation matrix would be an identity matrix. After the variables are standardized, a principal component solution would thus produce components equal in number to the number of original variables and each having an eigenvalue equal to one. However, since the first component

captures as much of the matrix variance as is linearly possible, any chance fluctuations in a particular random sample will cause the first few components to have eigenvalues greater than one. Horn (1965) argues that sampling error and least-squares "bias" combine such that the first  $m/2$  eigenvalues will be greater than one with the remaining roots less than one. He goes on to suggest that one should retain the number of factors determined at the point where the random data root curve crosses the real data root curve. However, at the point of intersection, the number of factors for both the real and random data are equal and hence could be attributed to chance variation.

To start with, just as any measurement is a composite of true phenomenon and error terms, the correlations among variables could also be viewed as driven by two factors: the underlying motive (the construct to be measured) and the error term (due to chance correlations). If one starts with a set of random numbers then the effect of underlying motive is hopefully eliminated. There still remains the issue of deviation from randomness in the data set which could be determined by several factors. One of these could be the initial number of variables considered ( $m$ ). It is suggested that the smaller the number of variables, the less correlated they are likely to be. One might even be able to extract  $m/2$  number of factors (with roots greater than one) as the number of variables decreases. Conversely, as the number of variables ( $m$ ) increases the chance correlation between these variables would tend to increase. Intuitively, one can visualize that given a certain space, more items will result in smaller distances between items and hence more items will coalesced together. Consequently, a smaller numbers of factors (as a percentage of number of initial variables) with roots greater than one will be extracted.

A second source of erroneous correlation could be the sample size ( $M$ ). As sample size ( $M$ ) increases the sample distribution would approach the true nature of the distribution. A small sample size would lead to deviation from the pure randomness and increased chance correlation between variables ( $m$ ). This would result in increased cohesion between observed values, chance or otherwise. Hence a greater number of factors would be extracted with an increase in sample size. It is possible that the extracted number of factors (with root value

greater than one) may approach  $m/2$  at an infinitely large sample size.

A third source of unintended correlation between random data could be the restriction of number range (Carroll 1961; Stewart 1981). The chance of obtaining correlations among variables will be greater if the numbers are selected from a range of one to five, than say if they are selected from a range of zero to infinity. In other words, smaller scale range would result in increased cohesion between observations and reduced number of factors. On the other hand, with a larger scale range, the responses will be more spaced out and hence greater number of factors will be extracted. The range restriction becomes a valid argument when we consider the data collection process in a typical research situation. Most behavioral scientists do not start with a correlation matrix, nor do they collect numerical data that varies from zero to infinity. In a typical research application, the researcher is concerned with respondents randomly responding to the scale items provided and not with providing random numbers corresponding to the items of correlation matrices.

In this study, randomly generated data is used to ensure that any factor extracted is due only to chance correlation. This study will next elaborate the simulation procedure used to test the contention that the number of factors extracted, in random data set, is affected by scale range, number of variables, and sample size.

## SIMULATION STUDY

Random numbers, using a normal distribution, were generated from data restricted to scale values ranging from 1 to 5, 1 to 7, and 1 to 9. Four levels of  $m$  (number of variables),  $N$  (sample size) and three levels of scale ranges were used for data generation:

- number of variables: 100, 75, 50, 25;
- sample sizes: 200, 150, 100, 50;
- range of response scale: 1-9, 1-7, 1-5.

Five replications per cell were generated, for a total of  $4 \times 4 \times 3$  (48 cells)  $\times$  5 replications per cell = 240 sets of simulated data, and put through principal component analysis. Of these 240 tests, the number of eigenvalues greater than one averaged 44% of the number of initial variables. No analysis produced the  $m/2$  roots

suggested by Horn (1965). For the next stage the measure used for the *number of factor* extracted is **a ratio of the number of factors extracted to the number of initial variables analyzed (FCTR = FCT/m).**

This measure for number of factors extracted was next subjected to variance/covariance analysis with scale ranges, number of variables and sample size as independent variables. We performed the analyses in stages, first a one way ANOVA, then a two way ANOVA, followed by a three way ANOVA and finally a three way ANOVA with one variable acting as a covariate. The one way ANOVA results are presented in [Table 1](#).

Scale range by itself does not seem to have a significant affect on the number of factors extracted (FCTR = a ratio of number of factors extracted to the number of variables analyzed). The number of variables is found to be a significant influencer on the numbers of factors extracted (FCTR). The curve fitting exhibits a linear curve with a negative slope. However, on close inspection it is found that this linear nature could be due to a limited number of data points. The curve seemed to be nonlinear with the initial slope being negative and slowly approaching zero as the number of variables increased.

Sample size was found to be a significant influencer. The curve fitting exhibits a quadratic equation with the slope approaching zero with an increase in sample size. It is possible that with an infinitely large sample size one could end up with  $m/2$  factors. However, with a limited sample size the notion of extracting  $m/2$  factors is unrealistic.

Next, the two-way ANOVA results indicate that the combination of 'number of variables' and 'sample size' accounts for the maximum variance explained in 'number of factors extracted (FCTR).' The scale range again does not seem to have a significant effect on the number of factors extracted (either the main or the interaction effect with other variables). This seems to support the findings of the one way ANOVA results.

At this point, instead of dismissing the scale range completely we analyzed these variables further using a three way and a two-way ANOVA with covariate. The three way ANOVA

results indicate that all three elements (scale range, number of variables and sample size) have a significant main effect on the number of factors extracted (FCTR). However, the 'two way interaction effect of scale and variables' and the 'three way interaction effect' are not significant. The other two way interactions are significant. The adjusted beta weights from the Multiple Classification Analyses indicate that the scale range has the weakest influence on the number of factors extracted (beta weight = 0.08), number of variables the next strongest effect (beta weight = 0.62) and the sample size the strongest effect (beta weight = 0.66). The insignificant nature of the three way interaction and two-way interaction (scale range x variables) effects, and the significant nature of the main effect of the 'scale range' and two-way interaction effect (of scale range x samples) pose a confounding problem. It is possible that 'scale range' acts as a covariate.

The addition of a covariate improved the multiple  $R^2$  dramatically (in comparison to the two way ANOVAs) for all combinations of the independent variables (scale range, number of variables, sample size), taken two at a time (see [Table 2](#)). In comparison to the three-way ANOVA the  $R^2$  did not really improve. The best result obtained for the number of variables and sample size being independent variables with scale range acting as a covariate, were comparable with three-way ANOVA results. However, the two-way ANOVA with 'scale range' as covariate seems to yield a significant main, as well as, interaction effects. This combinations of determinants to the number of factors seems to make more sense.

## DISCUSSION

This study suggests that even with random data one will find factors due to chance relationships in the random data. These relationships are determined by factors such as scale range restrictions used, number of initial variables considered, and sample size used. Using random data we ensured that latent factor do not confound our findings.

The results indicate that the sample size has the strongest effect on the number of factors extracted, followed by the number of initial variables, with the scale range the weakest.

More specifically . . .

- \* As the sample size increases the number of factors extracted also increases, although the curve has a decreasing slope.
- \* As the number of variables increase the number of factors extracted decreases, once again at a decreasing rate.
- \* The scale range by itself does not have a significant main effect on the number of factors.

The weak influence by scale range makes sense when we consider the fact that the input for Principal Component Analyses is a correlation matrix, which eliminates all effect of any scale range variances. Even then the scale range can not be dismissed altogether. The findings of this study indicate that these variables affect the number of factors extracted in a joint and rather complex manner. A close approximation is obtained by a two-way interaction between 'number of initial variables' and 'sample size' with 'scale range' affecting the number of factors extracted as a covariate.

These findings have important implications for users of the principal component analyses, i.e., Sample size and number of initial variables have opposite impact on the number of factors extracted. This study hopefully contributes towards a better understanding of this relationship. Clearly more research is needed in this area, especially the influence of scale range, to enhance our understanding of this rather popular technique.

## REFERENCES

Bartlett, M. S. (1951), "Test of Significance in Factor Analysis," British Journal of Psychology, 3, 77-85.

\_\_\_\_\_ (1950), "Test of Significance in Factor Analysis," British Journal of Psychology, 3, 77-85.

Carroll, John B. (1961), "The Nature of Data, or How to Choose a Correlation Coefficient," Psychometrika, 26:4 (December), 347-372.

Cattell, R. B. (1968), "The Scree Test for the Number of Factors," Multivariate Behavioral Research, 1, 245-276.

Cliff, Norman (1988), "The Eigenvalues-Greater-than-One Rule and the Reliability of Components," Psychological Bulletin, 103 (2), 276-279.

Comrey, A. L. (1978), "Common Methodological Problems in Factor Analytic Studies," Journal of Consulting and Clinical Psychology, 46, 648-659.

Horn, John L. (1965), "A Rational and Test for the Number of Factors in Factor Analysis," Psychometrika, 30 (June), 179-185.

Hotelling, Harold (1933), "Analysis of a Complex of Statistical Variables Into Principal Components," Journal of Educational Psychology, (24) 417-41, 498-520.

Humphreys, Lloyd G and Richard G. Montanelli, Jr. (1976), "An Investigation of the Parallel Analysis Criterion for Determining the Number of Common Factors," Multivariate Behavioral Research, 10, 193-206.

Kaiser, H.F. (1960), "The Application of Electronic Computers to Factor Analysis," Educational and Psychological Measurement, 20, 141-151.

Pearson, Karl (1901), "On Lines and Planes of Closest Fit to Systems of Points in Space," Philosophy Magazine 2 (6), 559-72.

Stevens, James (1986), Applied Multivariate Statistics for the Social Sciences, Hillsdale, NJ: Lawrence Erlbaum Associates.

Stewart, David W. (1981), "The Application and Misapplication of Factor Analysis in Marketing Research," Journal of Marketing Research, 18 (February), 51-62.

Zwick, William R. and Wayne F. Velicer (1986), "Comparison of Five Rules for Determining the Number of Components to Retain," Psychological Bulletin, 19 (3), 432-442.

\_\_\_\_\_ (1982), "Factors Influencing Four Rules for Determining the Number of Components to Retain," Multivariate Behavioral Research, 17, 253-269.

**TABLE 1**  
**ANOVA Results (One-Way) With Scale Range, # of Variables**  
**and Sample Size as Independent Variables**  
**(Ratio of # of factors/ # of variables as dependent variables)**

| Source<br>(Independent)                                                                                                                                                                                                                                                                               | Sum of<br>Squares | d.f. | Mean<br>Square | F-value | p-value | R <sup>2</sup> |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|------|----------------|---------|---------|----------------|
| <b>Scale Range</b>                                                                                                                                                                                                                                                                                    | 0.002             | 2    | 0.001          | 0.674   | 0.511   | 0.006          |
| * Scheffe's test: none of the three groups differed from one another.<br>* Polynomial fit was not found significant.<br>* Mean of each 'scale range' group: 1-5 = 0.4172, 1-7 = 0.4203, 1-9 = 0.4242.                                                                                                 |                   |      |                |         |         |                |
| <b>Variables</b>                                                                                                                                                                                                                                                                                      | 0.132             | 3    | 0.044          | 48.394  | 0.000   | 0.381          |
| * Groups 3 and 4 differed from each other at 0.10 level. All other group pairs (1-2, 1-3, 1-4, 2-3, 2-4) differed at 0.05 level.<br>* The best polynomial fit was a linear equation (p=0.000).<br>* Mean of each 'number of variable' group: 25 = 0.4547, 50 = 0.4283, 75 = 0.4069, 100 = 0.3923.     |                   |      |                |         |         |                |
| <b>Sample Size</b>                                                                                                                                                                                                                                                                                    | 0.152             | 3    | 0.051          | 60.971  | 0.000   | 0.437          |
| * Group pairs 1-2, 1-3, 1-4, 2-3, 2-4 differed from one another at 0.05 level. Groups 3 and 4 did not differ from one another at all.<br>* The best polynomial fit was a quadratic equation (p=0.0002).<br>* Mean of each 'sample size' group: 50 = 0.3804, 100 = 0.4190, 150 = 0.4363, 200 = 0.4464. |                   |      |                |         |         |                |

**TABLE 2**  
**Best ANOVA Results (Two-Way With Covariates)**

| Source                                                       | Sum of<br>Squares | d.f. | Mean<br>Square | F-value | p-value           | R <sup>2</sup> |
|--------------------------------------------------------------|-------------------|------|----------------|---------|-------------------|----------------|
| Independent variables = Number of Variables and Sample Size: |                   |      |                |         |                   |                |
| <b>Explained</b>                                             | 0.294             | 16   | 0.018          | 75.851  | 0.000             | 0.823          |
| <b>Residual</b>                                              | 0.054             | 223  | 0.000          |         |                   |                |
| <b>Scale Range</b>                                           | 0.002             | 1    | 0.002          | 8.098   | 0.005 (Covariate) |                |
| <b>Main Effects</b>                                          | 0.284             | 6    | 0.047          | 195.741 | 0.000             |                |
| <b>Variables</b>                                             | 0.132             | 3    | 0.044          | 182.389 | 0.000             |                |
| <b>Sample</b>                                                | 0.152             | 3    | 0.051          | 209.092 | 0.000             |                |
| <b>Variables<br/>x Sample</b>                                | 0.008             | 9    | 0.001          | 3.452   | 0.001             |                |

**Scale Range:** group 1 = 1-5; group 2 = 1-7; group 3 = 1-9.

**# of Variables:** group 1 = 25; group 2 = 50; group 3 = 75; group 4 = 100.

**Sample Size:** group 1 = 50; group 2 = 100; group 3 = 150; group 4 = 200.

**TABLE 2 (cont.)**  
**Best ANOVA Results (Two-Way and Three-Way)**

| Source                                                            | Sum of Squares | d.f. | Mean Square | F-value | p-value | R <sup>2</sup> |
|-------------------------------------------------------------------|----------------|------|-------------|---------|---------|----------------|
| <b>TWO WAY</b> with Independent variables = Variables and Sample: |                |      |             |         |         |                |
| <b>Explained</b>                                                  | 0.292          | 15   | 0.019       | 77.899  | 0.000   | 0.818          |
| <b>Residual</b>                                                   | 0.056          | 224  | 0.000       |         |         |                |
| <b>THREE WAY ANOVA:</b>                                           |                |      |             |         |         |                |
| <b>Explained</b>                                                  | 0.304          | 47   | 0.006       | 28.515  | 0.000   | 0.823          |
| <b>Residual</b>                                                   | 0.044          | 192  | 0.000       |         |         |                |

# DEVELOPING AND CALIBRATING LOGIT MODELS FOR LARGE, IMBALANCED DATA: AN ENERGY CONSERVATION PROGRAM TARGETING APPLICATION

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## ABSTRACT

Often, realistic applications of classification and choice models employ large data bases. It is also common for the group sizes for different categories of the response variable to be moderately to severely imbalanced. We develop a practical procedure for developing and calibrat-

ing logit classification models when such data conditions exist. Conceptually, the proposed approach is applicable to any classification or choice modeling problem. We report on the application of this methodology to an energy conservation program targeting project.

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## INTRODUCTION

With a service area comprised of over one million residential customers spanning over seven states, PacifiCorp, a Northwest electric utility company, faces the unique challenge of providing energy efficiency services cost-effectively to its very diverse customer base. Achieving high penetration rates and a depth of conservation savings requires innovative and appealing approaches to informing customers and attracting their participation. Typical utility promotions through bill insertions have proven ineffective. Mass marketing is generally more costly and wasteful when advertising a product that has less-than-universal application for a population. Given the diverse nature and immense geography of PacifiCorp's service area, a more focused approach that could improve participation levels was deemed to be a prerequisite to launching broad programs.

The appropriate approach should utilize a comprehensive database comprised of the most current information available on customer energy usage, housing characteristics, purchasing behavior, and demographic data derived from the census and other survey sources. Once this customer information is updated, market segments and niches may be effectively targeted for an array of energy efficient products and services. More importantly, messages may be appropriately matched with segments, sending only those messages most favorably received by the target audiences. This results in improving the effective-

ness of both the promotional medium and the message.

As a module within PacifiCorp's overall program targeting decision support system (DSS), we developed a practical approach to constructing and calibrating classification models with complications of very large data sets and unbalanced (lopsided) class sizes on the grouping variable. In this paper, we describe this approach and present its implementation to PacifiCorp's residential energy conservation program targeting.

## MODELING PROCESS

Figure 1 portrays the general structure of Pacific's Residential Market Segmentation Model. In this figure, four main types of data are required: (1) kiloWatt hour consumption; (2) program historic participation information; (3) customer demographic characteristics; and (4) housing characteristics. The four data sources comprise the main data base. Filters are applied to analyze specific programs and specific types of residences. The first filter applied in this analysis was for Oregon single-family homes. The data was then "cleaned," (i.e., anomalous observations that could have incorrectly biased the average behavior were identified and removed). Statistical (Outlier identification methods) and common sense were used for this purpose. The remaining observations were screened to determine "participants" and "nonparticipants" by program.



## Discrimination Models

Several tools exist for constructing classification functions (models). All of these tools suffer from certain shortcomings and offer certain advantages. Violations of theoretical assumptions in most applications tend to be the rule rather than the exception. Therefore, models need to be chosen for specific applications based on ease of use, applicability to the problem, and robustness to the theoretical violations present in the inquiry.

Models considered for this research project included: *discriminant analysis* (Hand, 1981), a multivariable analytic tool used to classify observations into two or more mutually exclusive groups; *linear programming* (Charnes and Cooper, 1961), a non-parametric (distribution-free) approach based on maximizing the distance between an observation and a hyperplane when the object is correctly classified and vice versa; *neural networks* (IJCNN 1990), a pseudo artificial intelligence/expert system algorithm that “learns” from additional observations; and *logit estimation* (McFadden, 1974), an econometric approach to discriminant analysis. After careful analysis, logit was chosen based upon the availability of reliable software to run the modeling exercise. Logit also proved attractive due to its preferred properties in terms of dealing with categorical data.

Logit is a maximum likelihood logistic regression algorithm with a categorical response variable and a number of descriptive variables. It is called “binary logit” when there are only two categories of the response variable (e.g., program participants/nonparticipants). The model estimates a nonlinear function to assess the probability of an entity undertaking certain action. For example, in the present context of “a household participating in a program,” once the function is estimated, individual household’s characteristics are “plugged in” to determine the probability of that household participating in a certain offering. Alternatively, each descriptor variable’s contribution to the increased (or decreased) likelihood of participation may be tested separately.

This modeling approach assumes the dependent variable follows a conditional logistic distribution (i.e., the probability that  $x$  will take an action, given  $x$ ’s attributes, has a logistic distribution between the values of 0 and +1). By

treating the dependent variable (i.e., program participation) as a two-category discrete variable and the descriptor variables as continuous and/or 0-1 dummy variables, models were generated that produced the probability of being a program participant for each customer account.

## Modeling Steps

The screened Oregon single-family database ( $n = 56,404$ ) used in this study contained approximately 7,420 accounts which had participated in at least one program, including various weatherization programs, water heat programs, or had purchased an electric space conditioning system such as a heat pump.

Prior to using the data for model building and prediction, it was necessary to screen for relevance of all variables and clean the data of unusual and outlier observations. First, the variables and, if applicable, their categories were studied in detail to decide on elimination or transformation of entire variables, or recoding (combining, transforming, etc.) of categories for variables. Outlier removal was based on PROC UNIVARIATE in SAS using Box Plots and Stem and Leaf methods, plus simple rules of thumb.

Princeton Scorekeeping Method (PRISM) is a regression-based weather normalization method which classifies customers into two categories with respect to space heating methods: 1) electric and 2) other sources. It is important to locate customers with electric space heating because nearly all conservation programs are directed towards this group. PRISM identified 64,258 single-family homes as having high likelihood of using electric space heating methods.

## LOGIT—Model Building and Calibration

Classification models are constructed at the specific-program level. Most classification models (Discriminant Analysis, Logit, etc.) work best with equal sized sample of the two groups to be classified (equal prior probability of belonging to each group). Therefore, any time a program-specific classification model was built, a random stratified sample of participants and nonparticipants had to be selected. Individual variables’ contribution to discrimination was tested using a chi-squared test of significance. The model was run ten times with different combinations of participants and nonpartici-

pants chosen randomly from the two populations. Variables with insignificant results regardless of the sample selection were removed before deciding on the final model.

After selecting the model structure through the above procedure, model calibration proceeded as follows: Random samples (n = 2,000; 1,000 participants and 1,000 nonparticipants)

were generated and 100 logit models were run. Each time a logit model was run the coefficients were saved and subsequently used to generate the probabilities of participation for all accounts (in the analysis as well as the holdout samples). The output from the modeling runs set up the criteria upon which customer accounts made it to the final list of "likely participants" (see [Figure 1](#)).

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#### FINAL LOGIT MODEL

*PART* = *f*(*MKWH*, *VKWH*, *PREPART1*, *PREPART2*, *AVGHH*, *AVGFINC*, *AVGHVAL*, *OWNRNT*, *CUSTIN*)

**PART:** DUMMY(1 = PARTICIPANT,  
0 = NON-PARTICIPANT)

**MKWH:** AVERAGE MONTHLY KWH

**VKWH:** VARIANCE MONTHLY KWH

**PREPART1:** PREVIOUS PARTICIPATION IN: COMFORT ZONE, HASSLE FREE, HOME WIRING, OR EQUAL PAY

**PREPART2:** PREVIOUS PARTICIPATION IN WATER HEATER WRAP

**AVGHH:** AVERAGE PERSONS PER HOUSEHOLD

**AVGFINC:** AVERAGE FAMILY INCOME

**AVEHVAL:** AVERAGE HOME VALUE

**OWNRNT:** DUMMY(1 = OWN, 0 = RENT)

**CUSTDATE:** DATE CUSTOMER MOVED IN RESIDENCE

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The final classification of an account as "participant" or "nonparticipant" was based on the cumulative results of these 100 models. The results from each run were saved and then compiled to produce the final list of potential participants. After the completion of each model replication, results (individual customer probabilities of participation) were saved into a data base. Once all runs were finished, a matrix of account numbers and the 100 associated probabilities was generated (one probability of participation per customer per run).

In individual runs, a customer was considered "likely to participate" if the estimated probability exceeded 0.75 and was assigned a "1" for that run. Otherwise, the customer was assigned a "0." At the end of the runs, two variables were calculated for each customer: TOTP (the sum of the 1's and 0's from individual runs, min = 0 when the customer was not classified as a likely participant in any of the runs, max = 100 when the participant was classified as a likely participant in all 100 model runs), and PMEAN (the average of the probability of participation across individual runs).

The population was then sorted by the calculated TOTP values. Households with TOTP ≥ 90 (household classified as a potential participant in at least 90 of the 100 models) were labeled "likely to participate." These criteria are restrictive and tend to produce the most likely to participate customers. Depending on the aggressiveness and goals of the program being launched, these criteria may be relaxed or restricted.

The final list of likely customers is merged with MicroVision to determine the appropriate cluster to which each customer belongs. MicroVision, developed by the National Data Systems (Equifax), uses a mapping procedure to develop 50 "lifestyle" clusters based on the customers' economic and demographic data. These clusters are regarded as customer lifestyle segments. While the logit classification model assists program managers in determining *who* should be approached, MicroVision clusters assist him/her in determining *how* they should be approached.

In addition to lifestyle segments, effective energy conservation program targeting needs

energy attitudinal and behavioral segments as well. CLASSIFY developed by Electric Power Research Institute (EPRI) uses 48 variables related to fuel choice, appliance usage, environmental awareness, and customer energy needs and purchase behavior to develop six energy attitude and behavior related segments. We used CLASSIFY to obtain likelihood that each customer within each Microvision cluster belongs to one of the six CLASSIFY clusters (i.e., pleasure seeker, appearance conscious, resource conserver, lifestyle simplifier, hassle avoider, and value seeker). This was done via the software program CLASSIFY-Link also developed by EPRI.

In summary, [Figure 1](#) outlines the steps taken to produce the final list of potential participants. First a data base of target customers (e.g., Oregon single-family homes) is created. Previous participation in a similar offering is used to categorize these customers into participants and nonparticipants. Random samples from each group ( $n = 1,000$ ) are pulled and used to estimate a logit model. Several runs are attempted to find the final model structure. The model is tested based on a chi-squared goodness of fit test. "Good" models (those passing the chi-squared test at  $\alpha = 0.05$  or better) are kept, others are rerun. In addition, the chi-squared test is also applied to the individual variables; only those that maintain their significance in the majority of the model runs are maintained.

If a model is declared "good," it is used to generate probabilities of participation for the entire population. The process is repeated 100 times. This process results in developing a matrix containing 100 probabilities for each customer. Using probabilities ( $P_i$ ) associated with individual runs, customers are assigned a "1" if  $P_i \geq 0.75$  (i.e., the probability of participation in the proposed offering is equal or greater than 0.75 on a customer-by-customer basis); otherwise, a "0" is assigned. Finally, these 1's and 0's are summed, and customers exceeding 90 (classified as potential participants more than 90 out of the 100 model runs) are sent to the final list.

Once the list of potential participants was created, it was merged with the MicroVision data base, and each customer was assigned to one of the 50 lifestyle clusters. Based the customer's MicroVision cluster designation, the

probabilities of belonging to the different CLASSIFY clusters were generated. Based on this information, PacifiCorp would be able to target these customers with the appropriate message.

## CONCLUSIONS AND RECOMMENDATIONS

The application used in this analysis was that of marketing a weatherization program to electrically space heated, single-family residences in Oregon. Depending on program penetration goals and budgetary constraints, lists may be enlarged or shortened. The "length" of the list (number of potential customers to target) is a function of the following filters:

1. The cutoff point in determining potential participants in individual runs (currently set at 0.75). If program goals are aggressive, this value can be lowered to increase the number of customers on the final list.
2. TOTP (number of times a customer classified as a potential participant in the 100 model runs) cutoff point for determining potential participants on the final list (currently set at 90). Again, this value can be lowered if program managers desire to increase the number of customers targeted.
3. PMEAN (average probability of participation across the 100 model runs). This cutoff point can also be manipulated to change the number of customers on the list. For example, two customers may have been classified as potential participants in 90 model runs; but one of them may have had a probability of 95% in each run and the other only a 75% probability. TOTP would assign "90" to both. Currently the model imposes no cutoff on the value of PMEAN.
4. Previous participation in other PacifiCorp programs. Depending on the offering, managers may elect to first target customers that have participated in previous PacifiCorp programs. These customers have familiarity with PacifiCorp's programs and have already shown a propensity to participate.

## REFERENCES

- Charnes, A., and W.W. Cooper (1961), Management Models and Industrial Applications of Linear Programming, New York: John Wiley.
- Hand, D. J. (1981), Discrimination and Classification, New York, John Wiley.

IJCNN (1990), Proceedings of the International Joint Conference on Neural Networks, Washington, D.C., Vol. II, Lawrence Erlbaum Associates, Hillsdale, NJ.

McFadden, D. (1974), "Conditional Logit Analysis of Qualitative Choice Behavior," in Frontiers in Econometrics, ed. P. Zarembka, New York: John Wiley.

# IN THE SHOES OF THE CUSTOMER

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## ABSTRACT

This paper presents the philosophy behind and the results of a mystery shoppers and -callers technique carried out in the population of top brandname car audio dealers in the Netherlands. The results indicate among others that (due to the importer's shrinking mark-up and bonus program for its dealers) its brand awareness and "sellability" dropped, the brand's visible shop presence was below expectation and that these dealers found it hard to "sell" the brand's and store's image to their prospects - thereby basically doubting their identity in the marketplace. All dealers received an individual report, comparing their scores with the population averages of all dealers, thereby showing the store's weaknesses. Some implications of this study are the apparent need for sales training, creating a psychological link between younger salespersons and the importer, importer-aided personnel selection and rethinking trade advertising and the importer's topdealer business concept.

## INTRODUCTION

Mystery shopping is a highly underutilized participative observational marketing research method in Europe. This is caused by several methodological weaknesses and the fact that it used to be "banned" by the ICC/ ESOMAR Code of Conduct. As these nonreactive methods do offer certain advantages over the questionnaire method (Webb et al, 1966) a Japanese company in the Netherlands, an importer of brandname car audio decided to have this study carried out under all members of its independently-owned top-dealers association, because of its slipping market share. It was felt that the application of this method would yield data on the shop's image and the salespersons' (both owners and employees) behavior through the eyes of the (subjective) "customer".

## RESEARCH OBJECTIVES

The two main objectives of the research were identifying possible causes of the importer's sliding market share related to interpersonal selling at the retailers's end and changing the retailers' attitude towards the consumer by issuing individual "store reports" (thereby assuming that this "mirror" will lead to an improved customer treatment). Secondary objectives were: checking how effectively the customers were approached in the outlet; assessing the selling skills of the store's personnel and determining the unaided and aided awareness of the importer's brandname with the salespersons.

## REFERENCES

- ESOMAR (1992), Guidelines on mystery shopping; Amsterdam.
- ICC/ESOMAR International code of marketing and social research practice, ESOMAR (1992); Amsterdam.
- Landy, F.J. & Farr, J.L. (1975), Police performance appraisal; Pennsylvania State University, Department of Psychology.
- Van Minden, J.J.R. (Sept./Oct. 1988), Mystery shoppers research (parts 1 & 2), Tijdschrift voor Marketing.
- Webb, E.J., D.T. Campbell, R.D. Schwartz & L. Sechrest (1966), Unobtrusive measures: nonreactive research in the social sciences; Rand McNally.

# BARRIERS TO ENTRY INTO CENTRAL AND EASTERN EUROPE

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## ABSTRACT

This paper presents the author's research ideas, starting from his business experiences over the last four years. The working concept will be that of barriers to new competition,

originally devised by Joe S. Bain (1956), and complemented with the existing theory on foreign direct investment and the multinational enterprise.

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## INTRODUCTION

Since the revolutionary changes that took place in Central and Eastern Europe just a few years ago, many Western enterprises have tried to set up shop in the newly converted economies. After all, a market of hundreds of millions of people had opened its doors to the West in adopting market economics and political democracy as their leading principles. The newly elected politicians most emphatically invited the so desperately needed foreign investments. And already the Western world has left its mark; many of its products and advertisements to promote them may be found in stores from Prague to Moscow, from Warsaw to Kiev. A year ago CNN broadcast a special on Poland in which it proudly displayed the many signs of American culture in the streets of Warsaw. True as all that may be, the obstacles for doing business in these countries are plentiful. In a research paper we shall attempt to have a closer look at them, not to discourage further development of trade (in stead of aid) and investments but rather to gain a better and perhaps more realistic perspective. Several of these countries being potential members of the European Community provides us with another reason to take a closer look at the actual openness of their markets.

## RESEARCH OBJECTIVES

The perceived barriers to entry play an important role in the process, leading to the

decision to enter a new market, as well as other considerations like the mode of entry. Next to working out the concept of barriers to new competition, following Bain (1956) and others after him, an objective of further research would be to study the existing theory on foreign direct investment (FDI) and multinational enterprises (MNE's) and see how they relate to the countries in Central and Eastern Europe. A subject of specific interest within this framework is the food distribution industry. And since several of the countries in that part of Europe have shown an interest in joining the EC sooner or later, special reference may be given to the changes that are required to make that feasible.

## REFERENCES

- Bain, Joe S. (1956), Barriers to new competition. Cambridge, MA: Harvard University Press.
- Dalgic, Tefvik (1992), "Euromarketing: Charting the Map for Globalization," International Marketing Review, Vol. 9, No. 5: 31-42.
- Dicken, Peter (1992), Global Shift: The Internationalization of Economic Activity. London: Paul Chapman Publishing Ltd.
- Dunning, John H. (1993), The globalization of business; The challenge of the 1990s. London and New York: Routledge.

# **AN EXTENDED CONCEPTUALIZATION OF COUNTRY-OF-ORIGIN EFFECTS**

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## **ABSTRACT**

Country-of-origin effect refers to how consumers perceive products emanating from a particular country. In some cases, Country-of-origin information has been found to be more important in affecting product quality assessments than price and brand information. In fact, marketers recognize this fact and often use verbal allusion to a product's country-of-origin as a selling point in their advertising. Researchers have suggested different explanations of how country-of-origin information can affect product evaluation. For instance, the country cue can either summarize information about product quality, or act as a halo and influence beliefs regarding different aspects about the product. In whichever of these two ways the country cue might affect product evaluations, the question arises as to what cognitive processes give rise to use of the country cue in product evaluation. This paper tries to answer this question by building upon past literature to

propose that people may have stereotypes about certain countries. These stereotypes arise out of the socialization process we go through as we grow up. However, these stereotypes represent the society's general view about a country, including its people and its products. Over a period of time, individuals may develop their own personal beliefs about aspects of countries that may differ from the general stereotypes. Formation of personal beliefs is largely a result of active direct experience with some aspect of the country. Stereotypes and personal beliefs can exist from a very specific level (brand) to a very general level (country). This paper argues that the dynamics between these two distinct cognitive structures (stereotypes and personal beliefs) influences the nature of country image held by a person, and that in turn influences product and brand evaluation. Based upon this argument, several hypotheses are proposed.

# THE EFFECT OF BRAND PRESTIGE AND COUNTRY OF MANUFACTURE ON CONSUMERS' BRAND EVALUATION AND PURCHASE INTENTION

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## ABSTRACT

The objective of this paper is to examine the effects of brand prestige and country-of-manufacture on consumers' evaluation of brands. Drawing from brand image and country-of-origin literatures, it was hypothesized that consumers' evaluation (and purchase intention) of bi-national brands is a direct function of brand prestige and country-of-manufacture (COM) favorableness. It was also hypothesized that the country-of-manufacture (COM) effect is moderated by brand prestige. This is due to the possibility that prestigious brands are per-

ceived to have higher level of workmanship, and workmanship is perceived to be difficult to transfer to foreign countries for manufacturing purposes. A mixed-subjects ANOVA experimental design was used in this study. Results showed significant main effects for brand prestige and COM favorableness across the two product categories. However, only directional support was found for the interaction effect between COM favorableness and brand prestige on consumers' brand evaluation and purchase intention.

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## INTRODUCTION

With increasing globalization of the marketplace, it is becoming common for a product to have more than one country associated with it. Many firms produce their products in foreign countries instead of their origin countries through foreign direct investments. Products that are manufactured in one country and branded by a firm from another country are referred as "bi-national products" (Ettenson and Gaeth 1991). Bi-national products are therefore associated with two countries: the Country-of-Origin (CO) and the Country-of-Manufacture (COM). The Country-of-Origin (CO) reflects the home country for a company whereas the country-of-manufacture (COM) reflects the country where actual manufacturing of the product takes place (Ozsomer and Cavusgil 1991). The CO reflects the country that consumers infer from brand name, whereas the COM is factual information about final point of assembly, which is manifested in the made-in label.

In this vein, several studies have examined brand-COM interaction effects in relation to consumers' evaluation of bi-national brands (e.g. Han and Terpstra 1988; Cordell 1992). For example, one study found that the COM has a greater effect on brand evaluation than

brand name (Han and Terpstra 1988). Another study found that the COM effect to be greater for brands with unfamiliar names than brands with familiar names (Cordell 1992). This may be due to the possibility that claims and associations of familiar brands have higher source credibility because of the maker's implied warranty. Therefore, when a product carries a known brand name, the impact of the country cue on brand evaluation is diminished (Cordell 1992). However, it should be noted that selection of brands in those studies was based mainly on functional brands, or the brands that can be understood in terms of product performance (Park, Lawson, and Milberg 1989; Park, Milberg, and Lawson 1991). The question remains: Does COM affect brand evaluation for prestigious brands? We think that the COM effect is likely to be stronger for prestigious than non-prestigious brands. The purpose of this study is therefore to examine the moderating effect of brand prestige on the relationship between COM and consumer's evaluation (and purchase intention) of bi-national brands.

## HYPOTHESES

It has been generally accepted that country-of-origin affects brand evaluation (Bilkey and Nes 1982). Consumers' evaluation of a bi-



national brand will increase as the favorableness of the COM increases (Han 1989; Cordell 1992). Therefore,

**H1,H2:** Consumers' brand evaluation (H1) and purchase intention (H2) will decrease as the favorableness of the Country-of-Manufacture (COM) decreases.

Brands are assumed to have an image determined not only by the physical characteristics of the object alone, but also host of other factors such as packaging, advertising, price, and stereotype of the typical user (Sirgy 1982). Park et al. (1991) distinguished between function-oriented brand concept and prestige-oriented brand concept. Function-oriented brand concept is understood in terms of product performance (e.g. durable, reliable, utilitarian), whereas prestige-oriented brand concept is understood in terms of self-concepts and value expressions (e.g. status, wealth, and luxury) (Park, Milberg, Lawson 1991). However, in many cases, prestigious brands also have high functional qualities (i.e. Mercedes Benz or Rolex has higher functional quality also). Thus, it can be said that as brand prestige decreases, consumers evaluation and purchase intention of the brand decreases. Therefore, the hypothesis are;

**H3, H4:** Consumers' brand evaluation (H3) and purchase intention (H4) will decrease as the prestige of the brand decreases.

In an integrated approach of the foreign direct investment (FDI) theory, Dunning (1980) discussed firm-specific advantages and country-specific advantages. Firm-specific advantages are mostly intangible in nature, involving technology, design, knowledge, management know-how, and trademark, etc.. Firm-specific advantages can be easily transferable to various location of manufacture, usually at a minimum transfer cost. Country-specific advantages refer to the attractiveness of the country, which includes the market, labor (e.g. productivity and skill level of workers, workmanship), and raw materials. These country-specific attributes are hard to transfer to foreign manufacturing countries (COM).

Workmanship is one of the country-specific attributes which is not likely to be easily transferable to foreign countries (Dunning 1980), and workmanship is found more likely to be affected by sourcing country (Han and Terpstra

1988). High Prestige brands are more likely to have a higher level of perceived workmanship than low prestige brands. Therefore, it is possible to postulate that the COM effect would be stronger for high prestigious brands than for low prestigious brands. Non-prestigious brands, on the other hand, are more likely to be perceived to have poor workmanship. In addition, non-prestigious brands are often regarded as mass-produced (Li and Monroe 1992). Mass production technology is a firm-specific factor that can be easily transferable to foreign countries (Dunning 1980). Thus it can be postulated that consumers' evaluations (and purchase intention) of high prestige brands will be more affected by country-of-manufacture (COM) than low prestige brands. Therefore, based on the above discussion we propose the following hypothesis:

**H5, H6:** Brand prestige moderates the COM-brand evaluation (H5) and COM-purchase intention (H6) relationship. Specifically, for prestige brands, consumers' brand evaluation and purchase intention will significantly decrease as COM favorableness decreases. For non-prestigious brands, consumers' brand evaluation and purchase intention will not significantly decrease as COM favorableness decreases.

## METHOD

### Research Design and Procedure

A mixed-subjects ANOVA design was used in this study. The within-subjects factor was the product category (watch and automobile); The between-subjects factors were COM favorableness (high vs. low) and brand prestige (high vs. low). For each condition, subjects were presented a booklet containing descriptions of automobile and wristwatch brands and were asked to evaluate the assigned brands. The sequence of evaluation for automobiles and watches within each condition was counter-balanced.

Students enrolled in undergraduate marketing courses participated in this study as a partial requirement of the course. Out of the 198 students who participated in this study, 192 provided usable data (54, 40, 47, 51 for each condition). First, the subjects responded to measures regarding brand prestige. Second, the subjects were asked to evaluate the assigned

brand after reading some descriptions (intrinsic features as well as the COM information) of the assigned brand. Third, the subjects responded to measures of country favorableness and demographics.

### **Selection of Products, Brands, and Countries**

Brands of high and low prestige were selected from two product categories: automobiles and wristwatches. The selected automobile brands were Mercedes Benz (high prestige) and VW Rabbit (low prestige). The selected wristwatch brands were Rolex (high prestige) and Swatch (low prestige). The selection of automobile and watch products and brands was based on the following considerations: (1) college students are likely to be familiar with both products, (2) brands of both high and low prestige are available in the same product category, (3) the products are important enough to college students for them to take notice about the manufacturing country information, and (4) the brands were selected from countries which have both high and low prestige brands (in order to hold the CO effect constant). For each brand, two COMs were selected. The selected COMs for the watch brands were Switzerland (favorable) and China (unfavorable), and the COMs for the automobile brands were Germany (favorable) and China (unfavorable). COM favorableness for each country was measured as a manipulation check.

### **Manipulation and Dependent Variables**

**COM Favorableness:** COM favorableness reflects subjects' beliefs about the degree to which each country has a favorable or unfavorable image as a manufacturing country. A 3-item measure involving the following 7-point Likert scales was used: unfavorable/favorable, good/bad (reverse coded), not developed/developed. The results of factor analysis indicated that the measure was unidimensional, and reliability analysis yielded alpha coefficients of 0.80 (Germany, automobile), 0.83 (China, automobile), 0.80 (Swiss, watch), and 0.83 (China, watch).

**Brand Prestige:** Brand prestige reflects the degree to which the brand reflects the aspects of status, wealth, and luxury (Park, Milberg, and Lawson 1991). The brand prestige measure was adopted and modified from the value-expressive measure developed by Sirgy and

Wood (1986). A 6-item measure with 7-point Likert scales was used. The items included: (1) "It is difficult for me to say wealthy people use (brand name)." (reverse coded); (2) "(Brand name) has a distinctive luxury and wealth image"; (3) "It is foolish to think that wealthy people use (brand name)." (reverse coded); (4) "Owning a (brand name) says much about the high social status of its owner."; (5) "I don't see (brand name) as being a luxury item." (reverse coded); and (6) "I can describe the owner of (brand name) as being wealthy." Based on the results of reliability and factor analyses, two items (item 1 and 3) were deleted, and the remaining items yielded unidimensional measures with reliability coefficients of .82 (Mercedes Benz), .75 (VW Rabbit), .72 (Rolex), and .66 (Swatch).

**Brand Evaluation:** A 3-item measure using the 7-point Likert scale was adapted from Mackenzie and Spreng (1992). The items included were bad/good, favorable/unfavorable (reverse coded), and poor/excellent. The measure was unidimensional with alpha coefficients of .91 (automobile) and .91 (watch).

**Purchase Intention:** A 3-item measure using 7-point Likert scales was used. The items included were: strongly not inclined to buy/strongly inclined to buy, most likely to buy/most unlikely to buy, and strongly not motivated to buy/strongly motivated to buy. The measure resulted in one factor solution with Alpha coefficients of .96 (automobile) and .96 (watch).

## **RESULTS and DISCUSSION**

Manipulation checks were conducted for brand prestige and country favorableness using paired t-tests. The results of the manipulation checks indicated that the manipulations were successful ( $P < .01$ ).

Hypothesis one and two dealt with the main effects of the COM. Specifically, it was predicted that as the COM favorableness decreases, consumers' evaluation (H1) and purchase intention (H2) decrease. Multivariate analysis of variance (MANOVA) results provided support for the hypotheses both in the cases of automobiles and watches. Consumers' evaluation of brands significantly decreased as the COM favorableness decreased (for automobiles  $F = 12.14$ ,  $p = .001$ ; for watches  $F =$

30.75,  $p = .000$ ), therefore supporting H1. Also, consumers' purchase intention of the brands significantly decreased as the COM favorableness decreased (for automobiles  $F = 7.25$ ,  $p = .007$ ; for watches  $F = 6.07$ ,  $p = .015$ ), therefore supporting H2.

H3 and H4 dealt with the main effect of brand prestige. It was predicted that as brand prestige decreases, consumers' evaluation (H3) and purchase intention (H4) would decrease. The results of MANOVA supported the hypotheses for both the automobile and watch product categories. Consumers' evaluation of a brand decreased significantly as the brand prestige decreased (for automobiles:  $F = 31.52$ ,  $p = .000$ ; for watches:  $F = 38.30$ ,  $p = .000$ ), therefore supporting H3. Consumers' purchase intention also decreased as brand prestige decreased (for automobiles:  $F = 34.96$ ,  $p = .000$ ; for watches:  $F = 9.38$ ,  $p = .003$ ), therefore supporting H4.

Interaction effects between brand prestige and COM favorableness on consumers' brand evaluation (H5) and purchase intention (H6) were predicted. The results of the MANOVA failed to support the interaction effects related to consumers' evaluation (for automobiles  $F = .62$ ,  $p = .431$ ; for watches  $F = .204$ ,  $p = .652$ ), thus failing to support H5. The same was true for the interaction effect related to purchase intention (for automobiles  $F = .816$ ,  $p = .368$ ; for watches  $F = .138$ ,  $p = .711$ ), therefore rejecting H6. We expected that COM effects to be greater for high prestige brands than low prestige brands. Though interactions were not significant, the COM effect of prestigious brands was higher than the low prestige brands for brand evaluation of automobile products and for brand evaluation and purchase intention of watch products.

Why were the interaction effects not be supported? One explanation is that workmanship is just one aspect of brand prestige. It is plausible other aspects of brand prestige such as price, retailer image, and design may mediate the COM and brand evaluation relationship. A second explanation may be that the selected product category (automobiles and watches) may have dampened effect. Both of the product categories are high performance risk products, and high risk products are likely to be sensitive to COM cue (Cordell 1992).

Previous research found that the COM effect is smaller for familiar than unfamiliar brands (Cordell 1992). In this study, we used familiar brands. Nevertheless, even within familiar brands, we found some directional support for the notion that the COM effect is stronger for prestigious brands than non-prestigious brands. This finding has significant managerial implications. The study findings show that marketing managers should carefully select the country-of-manufacture since foreign manufacturing might negatively affect the brand's well-established image. This may be true for prestigious brands than non-prestigious ones.

There were some limitations that should be noted. This study investigated only two product categories (and two brands per category) with student samples. The application of this study in more extended product contexts and more representative samples will increase the generalizability of this study. Future cross-cultural studies will allow marketing manager to understand the impact of cultural influences on the COM and the brand prestige effects.

## REFERENCES

- Bilkey, Warren J. and Erik Nes (1982), "Country-of Origin Effects on Product Evaluations," Journal of International Business Studies, Spring/Summer, 89-97.
- Cordell, Victor V. (1992), "Effects of Consumer Preference For Foreign Sourced Products," Journal of International Business Studies, Second Quarter, 251-269.
- Dunning, J.H. (1980), "Toward an Eclectic Theory of International Production," Journal of International Business Studies Spring/Summer, 10-12.
- Ettenson, Richard and Gary Gaeth (1991), "Consumer Perceptions of Hybrid (Bi-National) Products," The Journal of Consumer Marketing, 8, 4 (Fall), 13-18.
- Han, C. Min and Vern Terpstra (1988), "Country-of-Origin Effects for Uni-National and Bi-National Products," Journal of International Business Studies, Summer, 235-255.
- Han, C. Min (1989), "Country Image: Halo or Summary Construct?," Journal of Marketing Research, 26, May, 222-229.

- Li, Wai-Kwan and Kent Monroe (1992), "The Role of Country of origin Information on Buyers' Product Evaluation: An In-Depth Interview Approach," in Proceedings of American Marketing Association, Summer, 274-280.
- Mackenzie, Scott B. and Richard A. Spreng (1992), "How Does Motivation Moderate the Impact of Central and Peripheral Processing on Brand Attitudes and Intentions?" Journal of Consumer Research, 18, March, 519-529.
- Ozsomer, Aysegul and S. Tamer Cavusgil (1991), "Country-of-Origin Effects on Product Evaluations: A Sequel to Bilkey and Nes Review," in AMA Educators Proceedings, Vol. 2, eds. Mary C. Gilly, F. Thomas Dwyer, Thomas W. Leigh, Alan J. Dubinsky, Marsha L. Richins, David Curry, Alladi Venkatesh,, Masaaki Kotabe, Ruby Roy Dholakia, Gerald E. Hills, Chicago, IL: American Marketing Association, 269-277.
- Park, C. Whan, Robert Lawson and Sandra Milberg (1989), "Memory Structure of Brand Names," in Advances in Consumer Research, vol. 16, ed. Thomas Srull, Provo, UT: Association for Consumer Research, 726-731.
- Park, C. Whan, Sandra Milberg and Robert Lawson (1991), "Evaluation of Brand Extensions: The Role of Product Feature Similarity and Brand Concept Consistency," Journal of Consumer Research, 18, September, 185-193.
- Sirgy, M. Joseph (1982), "Self-Concept in Consumer Behavior: A Critical Review," Journal of Consumer Research, 9 (December), 287-300.
- Sirgy, M. Joseph and Michael Wood (1986), "Determinants of Product Value-Expressiveness: Another Look at Conspicuousness, Differentiation, and Common Usage," in Developments of Marketing Science, Vol 9, ed. Naresh Malhotra, Atlanta, GA, Academy of Marketing Science, 35-39.

# A STUDY OF COUNTRY-OF-ORIGIN EFFECTS IN AFRICA<sup>1</sup>

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## ABSTRACT

This paper presents the results of a survey of 110 female consumers in Ivory Coast where country-of-origin information was manipulated along two dimensions, namely, country of design and country of assembly. Consumer judgments of quality and purchase value of stimulus profiles from a common product category (a

typical African garment named *pagne*) were obtained in a multi-cue context. The results show that differences in evaluation of countries are significantly attenuated when country-of-origin information is presented along with other informational cues.

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## INTRODUCTION

Country-of-origin (COO) effects on product evaluations have been studied for well over twenty years (see Bilkey and Nes 1982). Recently, Ozsomer and Cavusgil (1991) and Chao (1993) made the observation that the global competitive environment has altered the focus of corporate strategies. So-called "hybrid" products, i.e. products designed in one country but manufactured in another country, are increasingly appearing in the global marketplace. Such products may carry brand names with various country connotations (e.g. a Goldstar VCR designed in Japan and assembled in South Korea). In the context of these new realities, researchers interested in studying COO effects must distinguish between the country where a product is designed or engineered and the country where it is assembled and also adopt a research approach where other informational cues such as brand name, price and warranty are presented along with COO. Several recent COO studies have taken these factors into account, but all these studies have been carried out in developed countries (DCs): Belgium (Ahmed, d'Astous and Mathieu 1994), Canada (d'Astous, Ahmed and El Adraoui 1993) and the U.S. (Chao 1993). As Roth and Romeo (1992) have pointed out, in order to generalize research findings to the global context, COO studies must be conducted both in DCs and in newly industrializing countries (NICs). Replication of COO effects in NICs is important. Research (Papadopoulos, Heslop and Bamossy 1990) has shown that country image perceptions may vary depending on the level of economic development of the country.

The main objectives of this paper are (1) to investigate the effects of three COOs, in the presence of three different brand names and three levels of price and satisfaction assurance, on NIC consumers' perceptions of the quality and purchase value of a common product category, across two dimensions of origin, namely country of design (COD) and country of assembly (COA), (2) to examine changes in COO perceptions from a single-cue to a multi-cue setting and (3) to discuss the implications of the above for global marketers.

Global marketers interested in NIC-related COO issues in Eastern Europe, Latin America and Asia, may obtain some guidance from previously carried out studies available in the marketing literature (see e.g. Ettenson, Kuznetsov and Vetrova 1992, Papadopoulos, Heslop and Bamossy 1990, Roth and Romeo 1991). Global marketers interested in Africa are not so well served. In our search of the COO literature, we were able to find only one study reporting results from an African industrializing country. Ouattara (1991) showed that consumers' perceptions of such mass consumption products as soap, beer, rice and clothing in the city of Abidjan, in Ivory Coast, were partially influenced by knowledge of COO. In that study, DC brands were perceived to be of higher quality than Ivory Coast brands. Since the Ouattara (1991) study was carried out in a single cue context, using a uni-dimensional definition of COO, the present research sought to provide further evidence of COO effects in Africa.

## METHOD

Ivory Coast was selected as study site

because it is an African NIC and Ouattara's (1991) study had been carried out in Ivory Coast too. Ivory Coast is a former French colony with a population of 12.1 million and a per capita GDP of \$774 in 1989. Out of its total imports of \$2,464 million in 1989, only \$87 million was from the U.S. against \$1,287 million from EEC countries (Jain 1993). The data were collected during the summer of 1992, in Abidjan, one of the most cosmopolitan city of Africa.

The product chosen for study is a typical garment named "pagne" made of a single piece fabric, that African women (and men) wear to cover their body in many different ways (e.g. from the waistline to the knees, as a blouse). The procedure employed to estimate the impact of COD and COA and the other informational cues is conjoint analysis. The conjoint design includes five factors (COD, COA, brand name, price and satisfaction assurance) comprising three levels each. The three countries used to operationalize COD and COA were Holland (prestigious country for this type of product), Canada and Ivory Coast. The three brands were WAX (most prestigious brand), JAVA (intermediate) and FANCI (less prestigious brand). The price levels were 15,000 F.CFA, 10,000 F.CFA AND 5,000 F.CFA. Three levels of product satisfaction assurance were defined: exchange and/or reimbursement, exchange only, and no return possible. The choice of countries, brand names, product satisfaction assurance and price levels was made in consideration of actual market conditions in Abidjan. The research design was pre-tested with a convenience sample of African women before going to the field.

The questionnaire, written in French language, consisted in three main parts. In the first part, thirteen countries had to be evaluated as CODs and COAs using nine-point bipolar scales (see Table 1). To ensure that the concepts of COA and COD were understood, COD was defined as a country where the product is conceived, designed or engineered. COA was described as a country where the product is assembled or manufactured. The second part involved the evaluation of nine profiles of pagne defined by combining the levels of the conjoint design factors. The last part included questions about product familiarity, product involvement and socio-demographics.

Female consumers 18 years or older were

approached in various shopping centres across the city of Abidjan. This sampling procedure was chosen in consideration of the potential difficulties associated with other methods and because of budget constraints. Previous studies conducted in Africa have used similar procedures to obtain data from female respondents (Green et al. 1983). The procedure resulted in 110 completed questionnaires.

## RESULTS AND DISCUSSION

The mean age of the survey participants was 27 years. Sixty-two percent of the respondents were single, 25% were students, 34% had completed high school and 17% had some university education. Thus the sample is biased towards younger and more educated females. More than 75% of the respondents said they buy at least one pagne per year. In general, they felt they were experienced in the purchase of pagne, were familiar with brand names and were moderately involved when considering a pagne purchase.

Table 1 presents the mean ratings of the thirteen countries of origin. Evaluations pertain to perceived design and assembly capabilities of the countries. Contrary to previous studies conducted across the globe in Europe, Japan, the U.S., Canada, Mexico and Asian Pacific countries (Ahmed, d'Astous and Mathieu 1994, Chao 1993, Cordell 1992, Heslop and Papadopoulos 1993, Papadopoulos, Heslop and Bamossy 1991, Roth and Romeo 1992), where Japan and Germany were rated more favourably than the U.S. as COO, in the present study the U.S. were rated most favourably both as COD and COA among a list of seven DCs. As one would expect, in general the DCs obtain better evaluations than the NICs. Among the NICs, there is a wide divergence in the mean ratings on COD: India (mean COD = 4.69) was rated lowest and Brazil (mean COD = 5.68) the highest. There is less variance in COA ratings for NICs.

The overall, low evaluations of NICs observed in the present study conform to the existing literature. The high ratings associated with the U.S. merits some explanation. The U.S. supplied about 3% of Ivory Coast's imports in 1989 (Jain 1993). Therefore, it seems that the image of the U.S. as producer of goods is based more on world stature than on product experience. The United States is the most



powerful country in the world and its technological superiority was amply demonstrated during the Gulf war. Given the limited NIC consumer knowledge of products in the market place (Austin 1990), it is perhaps this demonstration of technological power that helped shape the U.S. image as COD and COA in Africa. These results show the interest in COO studies of looking at the relationship between attitudes toward countries and their people and images of countries as producers of consumer goods (see also Heslop and Papadopoulos 1993).

**Table 2** presents the ANOVA results for the evaluations of pagne profiles. The results indicate that COD and COA have significant effects on both the perceived quality and purchase value dependent variables. The mean squares associated with COA is twice that associated with COD. Whereas brand name is the only other cue found to explain a statistically significant portion of the variance in perceived quality, both brand name and satisfaction assurance have statistically significant effects on purchase value. Price has no significant impact on perceived quality and purchase value of the pagne. Using mean squares as indicators of effect strength, it can be seen that for the perceived quality measure the most important effect is COA, followed by COD and brand name in that order. For purchase value, brand name is the most important factor, followed by satisfaction assurance, COA and COD in that order.

**Table 3** compares the conjoint (multi-cue) marginal mean evaluation ratings associated with Holland, Canada and Ivory Coast with the direct (single-cue) ratings of these countries on 9-point scales. The results indicate that multi-cue differences between countries on both perceived quality and purchase value measures are smaller than single-cue differences. The narrowing of intercountry differences from single-cue to multi-cue format is more important for COD than for COA. The multi-cue COD mean differences between Holland (best country) and Ivory Coast (worst country) are 0.60 and 0.62, for perceived quality and purchase value respectively. This compares with a difference of 2.08 in single-cue COD mean ratings between those two countries. As for COA, multi-cue mean differences between Holland and Ivory Coast are 0.97 (perceived quality) and 0.80 (purchase value) as compared to a single-cue mean

difference of 1.96. These results indicate that Ivory Coast consumers' knowledge of the COD concept may be less organized than COA concept knowledge. Additional information regarding brand name, price and satisfaction assurance attenuated the impact of COD much more than that of COA.

Our results are in agreement with those reported by Ouattara (1991). In his study, pagnes made in Holland (DC) were perceived to be of better quality than those made in Ivory Coast (NIC). They are also in agreement with Ahmed, d'Astous and Mathieu (1994) who found that COD and COA product quality perceptions of Japan (DC) were more favourable than COD and COA Mexico (NIC) among Belgian consumers. According to Li and Monroe (1992), differences in perceived product quality between DCs and NICS are due to consumer beliefs that DCs' workers are more technologically sophisticated than NICS' workers and consequently more able to make quality products. It appears that Ivory Coast consumers share the views held by American and European consumers.

## MANAGERIAL AND RESEARCH IMPLICATIONS

This research study was carried out in only one NIC with a nonprobabilistic sample of female consumers, using only one stimulus product. Our results must therefore be interpreted with great care. Further research should be conducted with larger probabilistic samples from different NICs and use different types of products. Despite these limitations, we believe that the results presented in this paper have important implications for global marketers, especially those located in the U.S. and Canada.

Our results show that the U.S. enjoys great prestige in Ivory Coast. U.S. exporters who target such markets would certainly benefit from this excellent image in terms of the acceptance of their products. The acceptance level should be greater for products designed and manufactured in the U.S. than for those merely U.S.-designed. Canada does not appear to enjoy the same level of prestige than the U.S. However, with the right brand name and satisfaction assurance policy, export products from Canada could be just as attractive to NIC consumers as U.S. products.

For global corporations whose headquarters

are based in NICs and which have manufacturing facilities in DCs (e.g. the Korean corporation Hyundai which produces cars in Canada), our results suggest that it makes sense to export their products manufactured in DCs to NICs and benefit from the high regard given to DC assembled products. Their promotional programs should emphasize the COA information along with a DC sounding brand name to capitalize on the favorable image that made-in DC products enjoy in NICs.

Global DC companies planning to penetrate a NIC market by manufacturing their product line in that country would be well advised to first gain acceptance of their brand name before making an investment decision. Product promotion strategies should emphasize COD information in order to allow the brand name to benefit from the DC image. This tactic, coupled with an appropriate satisfaction assurance program should make the COA label much more acceptable to the NIC consumers. For a global company that is evaluating a market entry strategy in a NIC, the positive impact of manufacturing the product in a prestigious DC such as the

U.S. is an important consideration when deciding between export and other entry strategy.

Our results indicate that, in spite of the differences in market structure and consumer behavior between NICs and DCs, many of the COO research findings observed in DC locations can be relevant to NICs. For instance, we have shown that in a multi-cue environment, in Belgium and in Ivory Coast, the level of prejudice against or in favor of a particular COO diminishes. This suggests that a product carrying a prestigious COO but with an unknown brand name, an ill-conceived satisfaction assurance program and an inappropriate price may fail in a NIC or DC marketplace. Thus, global marketers who contemplate capitalizing on the prestige of their COO to sell their lower quality products in NICs may lose out in the long run. Due to market imperfections, the spread of information may be slower in a NIC, but eventually the information will spread indeed.

<sup>1</sup> *This research study was funded by the Social Sciences and Humanities Research Council of Canada.*

**TABLE 1**  
**MEAN EVALUATION OF COUNTRIES OF ORIGIN<sup>1</sup>**

| Developed Countries |        |          | Newly Industrialized Countries |        |          |
|---------------------|--------|----------|--------------------------------|--------|----------|
| Country             | Design | Assembly | Country                        | Design | Assembly |
| United States       | 7.39   | 7.41     | Brazil                         | 5.68   | 5.49     |
| Holland             | 7.15   | 6.71     | South Korea                    | 5.47   | 5.62     |
| Italy               | 6.75   | 6.54     | Morocco                        | 5.47   | 5.64     |
| France              | 6.65   | 6.90     | Ivory Coast                    | 5.07   | 5.45     |
| Germany             | 6.65   | 6.78     | Russia                         | 5.00   | 5.44     |
| Japan               | 6.62   | 6.80     | India                          | 4.69   | 5.18     |
| Canada              | 6.19   | 6.44     |                                |        |          |
| <u>Mean</u>         | 6.77   | 6.80     | <u>Mean</u>                    | 5.23   | 5.47     |

<sup>1</sup> Obtained from 9-point (1 = mediocre/9 = excellent) bipolar scales.



**TABLE 2**  
**ANOVA RESULTS**

**a) Perceived Quality**

| Source of Variation    | Mean Squares | Degrees of Freedom | F     | p-Value |
|------------------------|--------------|--------------------|-------|---------|
| Country of Design      | 78.20        | 2                  | 15.13 | 0.001   |
| Country of Assembly    | 161.86       | 2                  | 31.32 | 0.001   |
| Brand Name             | 71.75        | 2                  | 13.89 | 0.001   |
| Price                  | 0.59         | 2                  | 0.11  | 0.892   |
| Satisfaction Assurance | 9.90         | 2                  | 1.92  | 0.148   |

**b) Purchase Value**

| Source of Variation    | Mean Squares | Degrees of Freedom | F     | p-Value |
|------------------------|--------------|--------------------|-------|---------|
| Country of Design      | 76.50        | 2                  | 10.17 | 0.001   |
| Country of Assembly    | 149.00       | 2                  | 19.81 | 0.001   |
| Brand Name             | 333.07       | 2                  | 44.28 | 0.001   |
| Price                  | 2.88         | 2                  | 0.38  | 0.681   |
| Satisfaction Assurance | 230.76       | 2                  | 30.68 | 0.001   |

**TABLE 3**  
**COMPARISON OF MULTI-CUE MARGINAL MEANS**  
**VERSUS SINGLE-CUE OVERALL MEAN RATINGS<sup>1</sup>**

**a) Country of Design**

|                         | Holland (1) | Canada (2) | Ivory Coast (3) | (1) - (2) | (1) - (3) |
|-------------------------|-------------|------------|-----------------|-----------|-----------|
| <u>Multi-Cue Means</u>  |             |            |                 |           |           |
| Perceived Quality       | 6.58        | 6.52       | 5.98            | (0.06)    | (0.60)    |
| Purchase Value          | 6.25        | 6.14       | 5.63            | (0.11)    | (0.62)    |
| <u>Single-Cue Means</u> | 7.15        | 6.12       | 5.07            | (1.13)    | (2.08)    |

**b) Country of Assembly**

|                         | Holland (1) | Canada (2) | Ivory Coast (3) | (1) - (2) | (1) - (3) |
|-------------------------|-------------|------------|-----------------|-----------|-----------|
| <u>Multi-Cue Means</u>  |             |            |                 |           |           |
| Perceived Quality       | 6.81        | 6.44       | 5.84            | (0.37)    | (0.97)    |
| Purchase Value          | 6.27        | 6.28       | 5.47            | (0.01)    | (0.80)    |
| <u>Single-Cue Means</u> | 7.41        | 6.44       | 5.45            | (0.97)    | (1.96)    |

<sup>1</sup> Scale values range from 1 to 9.

## REFERENCES

- Ahmed, S. A., A.d'Astous and A. Mathieu (1994), "Influences relatives des lieux de conception et d'assemblage sur la perception des produits," Canadian Journal of Administrative Sciences (forthcoming).
- Austin, J.E. (1990), Managing in Developing Countries, New York : The Free Press.
- Chao, P. (1993), "Partitioning Country-of-Origin Effects : Consumer Evaluations of a Hybrid Product," Journal of International Business Studies, 24 (2), 291-306.
- d'Astous, A., S.A. Ahmed and M. El Adraoui (1993), "L'influence du pays d'origine des produits sur les évaluations des consommateurs," Gestion, 18 (2), 14-21.
- Ettenson, R., A. Kuznetsov and E. Vetrova (1992), "Consumer Decision Making in the Soviet Union : A Conjoint Analysis of Brand Name and Country of Origin Effects," in Marketing for Europe - Marketing for the Future, K.G. Grunert and D. Fuglede (eds), Aarhus, Denmark : The Aarhus School of Business, 363-380.
- Green, R.J., J.P. Leonard, J.L. Chandon, I.C.M. Cunningham, B.V. Verhage and A. Strazzieri (1983), "Societal Development and Family Purchasing Roles : A Cross-National Study," Journal of Consumer Research, 9 (March), 436-442.
- Heslop, L.A. and N. Papadopoulos (1993), "But Who Knows Where or When : Reflections on the Images of Countries and Their Products," in Product-Country Images : Impact and Role in International Marketing, N. Papadopoulos and L.A. Heslop (eds), New York : International Business Press, 39-76.
- Jain, S. (1993), International Marketing Management. Belmont, CA : Wadsworth Publishing Co.
- Li, W.K. and K.B. Monroe (1992), "Role of Country of Origin Information on Buyers' Product Evaluation: An In-Depth Interview Approach," Paper presented at the American Marketing Association Educator's Conference.
- Ozsomer, A. and S.T. Cavusgil (1991), "Country-of-Origin Effects on Product Evaluations : A Sequel to the Bilkey and Nes Review," in Proceedings, American Marketing Association Summer Conference.
- Papadopoulos, N., L.A. Heslop and G. Bamossy (1990), "A Comparative Image Analysis of Domestic Versus Imported Products," International Journal of Research in Marketing, 7 (4), 283-294.
- Roth, M.S. and S.B. Romeo (1992), "Matching Product Category and Country Image Perceptions : A Framework for Managing Country-of-Origin Effects," Journal of International Business Studies, 23 (3), 477-497.

# POST-SALE FIELD SERVICE: OPTIONS, COSTS, AND A NEW OPTION

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## ABSTRACT

Some basic general options for providing post-sale product maintenance are outlined. These traditional options are then contrasted with an additional option introduced here,

modeled after Wilson's EOQ inventory model. This latter option might in some cases help lower costs/pricing as well as result in a higher level of customer service.

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## INTRODUCTION

When a large order is placed for new equipment by an industrial/organizational purchaser, an important component of the transaction to both the seller and the buyer is the cost of future maintenance. Sometimes such post-sale service is bundled with the product offering in the form of a warranty. Not all prospective purchasers, however, necessarily want to rely on the original equipment manufacturer (OEM) for future product servicing (cf., Owen and Cooper 1991); some product purchasers, especially industrial/organizational consumers, might find it more convenient or less costly to perform their own product servicing or to obtain independent third-party servicing. Whether post-sale product servicing is bundled with the price of the product offering or is instead a post-sale cost to the purchaser, the actual implementation of this servicing can take many forms, resulting in different costs to provide and in different levels of customer service.

Given the growing importance of post-sale maintenance to original equipment manufacturers, to independent third-party service providers, and to product purchasers, it is important to understand the basic options for the implementation of post-sale field servicing and the costs associated with those options. For some classes of products used by industrial/organizational consumers, field service has become a very lucrative, recession-proof business (Blumberg 1987; Martin 1987), resulting in turf battles that have even reached the U.S. Supreme Court (Image Technical Services Inc. vs. Eastman Kodak Co.: NESDA/ISCET 1991). It is likely that costs and pricing will become important issues as strategic and profit interests

begin to focus on field service as an OEM-bundled component of a product offering or as a separable post-sale component for which the purchaser contracts from a third-party or supplies itself. We therefore present a means to model some basic options, recognizing that these are merely basic options from among an almost limitless combination of service features, and use this as a background against which to introduce and compare an additional option that we have not yet seen mentioned in the applied literature on post-sale servicing.

## FIELD SERVICE OPTIONS

A limitless combination of options exist for the provision of field service by the OEM, by a third-party provider or by the user, but there do appear to be a few basic general options that can be modeled as to basic variables and costs. The options for field service in an industrial/organizational setting as modeled below are based on discussions of Benoit (1985), Hayashida (1980), Tepas (1980), Wallace (1980), and others. Options can include the provision of in-house maintenance by the purchaser. However, the electronics (and mechanics) upon which much modern equipment is based is becoming increasingly sophisticated, often necessitating that maintenance service be provided by the original equipment manufacturer or by a specialized third party service vendor using specialized troubleshooting equipment and skills. Excluding, then, the user option of obtaining specialized tools, parts, and personnel training for comprehensive in-house servicing, the following most basic, general field service options can easily be modeled:

1. Flat-fee exchange: The malfunctioning unit is returned to the OEM or third-party service

vendor for a refurbished exchange unit for a flat fee (per unit), regardless of the malfunction. That is, the user ships the malfunctioning unit to the service provider in exchange for a working unit.

2. Flat-fee service contract: All maintenance is provided on demand on site by the OEM or third-party service vendor for a flat fee covering some fixed period of time.
3. Hourly-rate plus costs: The OEM or third-party service vendor will provide a field service representative for an hourly rate. The customer must also pay for travel expenses and repair parts.

The first option might not be desirable from a customer service standpoint given the lag time between a breakdown and receipt of a replacement unit. It also might not be feasible if the unit is physically very large or requires on-site adjustment. The time associated with travel in the second and third options can similarly result in an undesirable lag between breakdown and arrival of a repair person. Additionally, the expenses associated with travel in the second and third options can be substantial in comparison to the actual cost of repairing an individual unit. These costs may include air fare, lodging and meals, and the hourly labor charge during travel time. We might consider, then, the purchase of a few additional spare units, and requesting factory service not as each unit breaks down but after several units have broken down. This fourth option, purchasing some optional number of spare units, attempts to dilute the relatively large travel expense across several unit repairs in addition to decreasing equipment down time. This fourth option, then, is:

4. Hourly-rate plus costs with spare units: Malfunctioning units will be exchanged by the customer from an inventory of spare units. A call for hourly-rate service will be made when the units inventory is depleted.

#### Example:

For the sake of contrasting Option 4 with the traditional options through use of example, suppose that Manufacturer Z receives a single large order for 500 units of Product Z (could be video display terminals, laptop computers, etc.) from a large organizational customer (e.g., a university). Due to the sophisticated nature of

the equipment, it is not feasible for the customer to provide for its own servicing of the equipment beyond a rudimentary level; future maintenance must be provided by the OEM or qualified third party service provider.

The customer expects to keep Product Z in service for about five years, after which all units are expected to be salvaged and replaced. Past experience indicates that about 2% of Product Z units per year can be expected to require some form of service maintenance (cf. Hayashida 1980, which indicates failure rates of as high as 10%). That is, Manufacturer Z expects the customer to make about 10 calls per year for maintenance service, or about 50 calls over the five year life of this equipment. Based on past experience, the average across all repairs of Product Z is expected to cost \$180, including labor and parts. However, there is also a charge for the service person's travel time and expenses; the hourly labor charge starts when s/he leaves the depot on the opposite coast. The cost for travel time, air fare, and lodging will total \$500. (Costs used for example are based on an author's experience in 1985 with a major manufacturer and a large midwestern university.)

As this fixed cost of the service call greatly exceeds the cost of repairing an individual unit, it seems reasonable to consider the purchase of several spare Product Z units, with a call for repair service only after several malfunctioning units have accumulated. Is this a cost effective solution? If so, what is the optimal number of additional spare units to purchase?

#### Modeling the Options:

Assume the following costs in this example:

D = expected demand for repairs  
=  $2\% \times 500$   
= 10 repairs per year.

Y = useful life of equipment  
= 5 years.

P = purchase price less salvage value  
= \$1000.

T = travel cost  
= cost per call of transporting a repair person to the field site  
= \$500.

- R = average repair cost  
 = average expected cost of labor and parts  
 = \$180.
- E = exchange cost  
 = cost of a refurbished unit in exchange for a malfunctioning unit  
 = \$500.
- S = shipping cost  
 = cost to pack and send a malfunctioning unit to the manufacturer for exchange  
 = \$20
- C = flat-fee service contract cost  
 = \$5,000 per year.
- X = set-up cost  
 = cost associated with a university employee exchanging a malfunctioning unit with a spare unit  
 = \$20.
- Q = optimal quantity of spare units.

The four post-sale service options can be modeled over the life of the product in this situation as:

1. **Flat-fee exchange:** The purchaser can simply ship a malfunctioning unit to the manufacturer in exchange for a refurbished unit. In addition to the cost of an exchange unit, the purchaser must pay its own employee to remove the malfunctioning unit from service and to set-up the replacement unit when it arrives. The purchaser must also pay an employee to pack and ship the malfunctioning unit and to unpack and inspect the refurbished replacement unit. The expected total customer cost of this option over the five year life of the equipment can be represented by:

$$\begin{aligned} TC(E) &= YD \times (E + S + X) \\ &= 5 \times 10 \times (500 + 20 + 20) \\ &= \underline{\$27,000} \end{aligned}$$

2. **Flat-fee service contract:** The expected total cost of a service contract over the life of the equipment is easily represented, assuming administrative costs are negligible:

$$\begin{aligned} TC(C) &= YC \\ &= 5 \times 5000 \\ &= \underline{\$25,000} \end{aligned}$$

3. **Hourly-rate Plus costs:** The expected cost of this option includes the average cost of labor and parts per repair and the cost of transporting a repair person to the field site for each repair. Over the life of the equipment, the total cost of this option can be represented by:

$$\begin{aligned} TC(R) &= YD \times (T + R) \\ &= 5 \times 10 \times (500 + 180) \\ &= \underline{\$34,000} \end{aligned}$$

At this point, we might conclude that it is not cost effective in this particular situation to choose Option 3 due to the extremely high cost of transporting a service person to this site. Let us consider, however, the possibility of supplying several spare units of Product Z. Purchaser employees could replace malfunctioning units with these spare units, postponing a service call until the inventory of spare Product Z units has been depleted. The savings associated with spreading out the fixed travel expense across several unit repairs must be balanced against the cost of purchasing additional spare units. If this can result in costs lower than any of the first three options, what is the optimal number of spare units to have on hand?

4. **Hourly-rate plus costs with spare units:** This option can be modeled in a manner similar to the familiar Wilson's EOQ inventory model:

$$TC(Q^*) = (\text{travel costs}) + (\text{holding costs}) + (\text{repair costs})$$

$$= \left[ \frac{YD}{Q^*} \right] \times T + PQ^* + YD \times (R + X)$$

Where:

T = fixed cost associated with each service call.

Q\* = number of spare units.

$\left[ \frac{YD}{Q^*} \right]$  = number of service calls made during the equipment life.

PQ\* = cost of all spare units (without regard to opportunity costs or storage space costs).

YD x (R + X) = variable cost of repairing all malfunctioning units over the product life.

The optimal or minimal Q is found by taking the derivative of the total cost function with respect to Q, and setting this to zero:

$$\left[ \frac{\partial TC(Q)}{\partial Q} \right] = - \left[ \frac{YDT}{Q^2} \right] + P$$

$$MIN(Q): - \left[ \frac{YDT}{Q^2} \right] + P = 0$$

$$\sqrt{\frac{YDT}{P}} = Q^*$$

Now let us apply this model to Option 4:

$$Q^* = \sqrt{\frac{YDT}{P}}$$

$$= \sqrt{\frac{5 \times 10 \times 500}{1000}}$$

$$= \underline{5 \text{ units}}$$

And . . .

$$\begin{aligned} TC(Q) &= \left[ \frac{YDT}{Q^*} \right] + PQ^* + YD \times (R + X) \\ &= \left[ \frac{5 \times 10 \times 500}{5} \right] + (1000 \times 5) + (5 \times 10) \times (180 + 20) \\ &= \$ 20,000 \end{aligned}$$

Option 4, then, yields the lowest costs in this particular example. That is, conclude in this particular situation that it is lowest cost in this instance for the customer to hold five spare units and make a call for a field repair person after every fifth break-down. (Note that we are not attempting to support any particular option as always best, but rather are introducing this option by way of an example illustrating it as effective from the perspectives of costs/pricing and customer service levels.)

### DISCUSSION

As post-sale servicing increases in importance as a bundled attribute of a product offering or as a separable, independent, stand-alone service, the costs associated with providing these services and the pricing of these services will become increasingly important. The basic options for post-sale field maintenance have

been outlined and an additional option involving the sale of spares has been modeled. By modeling the basic options, whatever they are for a particular case, costs in particular situations can be compared, thus allowing a basis for making pricing decisions from the perspective of the service provider or for decisions regarding costs from the perspective of the purchaser. The fourth option involving the sales of spares could be used by the service provider as a means of providing to the customer less down time in addition to providing lower cost (and therefore price) in some large quantity situations.

Being based on an EOQ-type model, this latter option will be relatively insensitive to errors in break-down (demand) estimation. Consider, for example, a 20% difference in total number of break downs actually experienced over the five-year period above and below the number that had been estimated:

$$\underline{YD = 60}: TC(Q=5) = \$23,000, \text{ and } \begin{array}{l} [TC(E) = \$32,400] \\ [TC(C) = \$25,000] \\ [TC(R) = \$40,000] \end{array}$$

$$\underline{YD = 40}: TC(Q=5) = \$17,000, \text{ and } \begin{array}{l} [TC(E) = \$21,600] \\ [TC(C) = \$25,000] \\ [TC(R) = \$27,200] \end{array}$$

This insensitivity to the uncertainty associated with a difference between the estimated number of breakdowns and the actual number of breakdowns that are experienced can lower the financial risk associated with providing and pricing post-sale service.

### REFERENCES

Benoit, Ellen (1985), "Micro computer Maintenance: Where to Find It and What it Costs," The Practical Accountant 18(1), 49-52.

Blumberg, Donald F. (1987), "Developing Service as a Line of Business," Management Review 76(2), 58-62.

Hayashida, George (1980), "Computer Depot Repair Service," Behavior Research Methods & Instrumentation 12(2) 266.

Martin, Alexia (1987), "Plans Unfold to Cover Users," Computer World (17 August) s1-s7.

NESDA/ISCET (1991), "NESDA/ISCET Goes to Court," Professional Electronics 17(6) 1.

Owen, Robert S. and Martha C. Cooper (1991), "The Role of Bundled Maintenance Warranties," Developments in Marketing Science 14, 212-216.

Tepas, Donald I. (1980), "Picking a Maintenance Service: A User's View," Behavior Research Methods & Instrumentation 12(2) 270-273.

Wallace, R. A. (1980), "Third-party Maintenance and Sorbus' Involvement," Behavior Research Methods & Instrumentation 12(2) 267-269.

# AMERICANS' CHOICE OF DOMESTIC OVER FOREIGN PRODUCTS: A REPLICATION AND EXTENSION

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## ABSTRACT

The continually increasing level of competition in the global marketplace has stimulated scholarly research into the "country-of-origin" effect on domestic sales for almost three decades. Almost entirely missing from previous research has been the consideration of behavioral constructs of an interpersonal nature as potential influences on selection of domestic vs. foreign offerings. To remedy this important omission, this study views purchase of domestic products as an act of assistance to American workers. In particular, it offers a behavioral basis useful for designing such Buy American campaigns as those waged by such domestic groups as the threatened workers in the U.S. textile industry.

This study employs nine predictor constructs drawn from the behavioral literature dealing with helping behavior: Salience, Social concern, Deservingness, Common fate, Perceived equity, Similarity, Empathy, Internalized responsibility, and Costs of helping. Two additional behavioral constructs, Patriotism and Work ethic, as well as several demographics, were also proposed to predict Americans' support for domestic workers through their activities in the marketplace. Because the current Buy American campaigns seek to persuade consumers to help workers by purchasing domestic products and services, consumers' activities in the marketplace furnished the appropriate criterion construct.

Data came from quota survey of 240 adult residents of a major Western metropolitan area. The twelve constructs other than demographics were measured using six-point, Likert-type items. Four items were used to operationalize each construct except Supportive behavior, which was measured using eight items. Hierarchical cluster analysis produced a four-group solution considered suitable for portraying the nuances in Americans' supportive activities associated with purchase of domestic vs.

foreign products. A stepwise MDA using the 17 predictors produced three functions that significantly ( $p = .000, .001, .031$ ) discriminated among the four groups.

The major contributions to group formation come from the three types of variables reflecting action--either selecting stores to patronize, looking at labels, or selecting products to purchase. Support for governmental actions played a relatively minor role in formation of the groups. The Unqualified Supporters ( $n = 107$ ) group stands highest on all eight of the Supportive behavior items. Existence of the Non-supporters ( $n = 39$ ) group shows that a substantial segment of the market resists the idea of favoring American products. The Moderate Supporters ( $n = 47$ ) cluster comprises those who apparently lean toward personally supporting domestic producers, but whose participation in the marketplace is rather weak. Finally, the Disinterested Shoppers ( $n = 47$ ) make even less personal effort to buy American products; quite likely, the issue is so unimportant for them that they would be content to leave appropriate action to the government.

The findings indicate that all nine of the helping constructs make a significant and useful contribution to understanding the extent to which discrete segments of American consumers support domestic products in their economic competition with foreign products. Those who support American workers can be characterized as having the ability to understand the workers' plight, as internalizing the obligation to do something to help them, as feeling that Americans must stand together in this matter, and as expressing a concern for other members of the society. In addition, those whose behavior is most supportive see the issue as a prominent one. They find that the workers have been placed at an unfair disadvantage in view of their contribution to the economy, and feel they are deserving of help from their fellow citizens.



Further, helpful consumers tend to visualize themselves as being in a similar position to those who are threatened. Helpers are also more patriotic; but the contribution of Work ethic is somewhat ambiguous, as the Non-supporters claim a greater belief in the impor-

tance of hard work (while denying the inequity of the threatened workers' position). Demographics also serve usefully, but in a secondary role. The results also show supporters are more religious, older, and (marginally) better educated.

# AN EXPLORATION OF ENVIRONMENTAL INFLUENCES ON PRICING BEHAVIOUR IN SOUTH AFRICAN FIRMS

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## ABSTRACT

A number of criticisms have been directed at companies for relying on relatively static approaches to pricing, and for a preoccupation with cost-based methodologies (Kijewski and Yoon, 1990; Nagle, 1983). And yet there may be some evidence, mostly anecdotal, to suggest this state of affairs is changing. Specifically, firms may be adopting more sophisticated approaches to price management, while their price structures are becoming more complex,

flexible, and dynamic. To the extent that such trends are occurring, they may reflect a direct behavioral response by firms to significant changes in their external environments. Unfortunately, little theoretical, conceptual, or empirical work exists concerning the nature of the relationships between external environmental change and organizational pricing behaviour. The present research strives to systematically explore these relationships.

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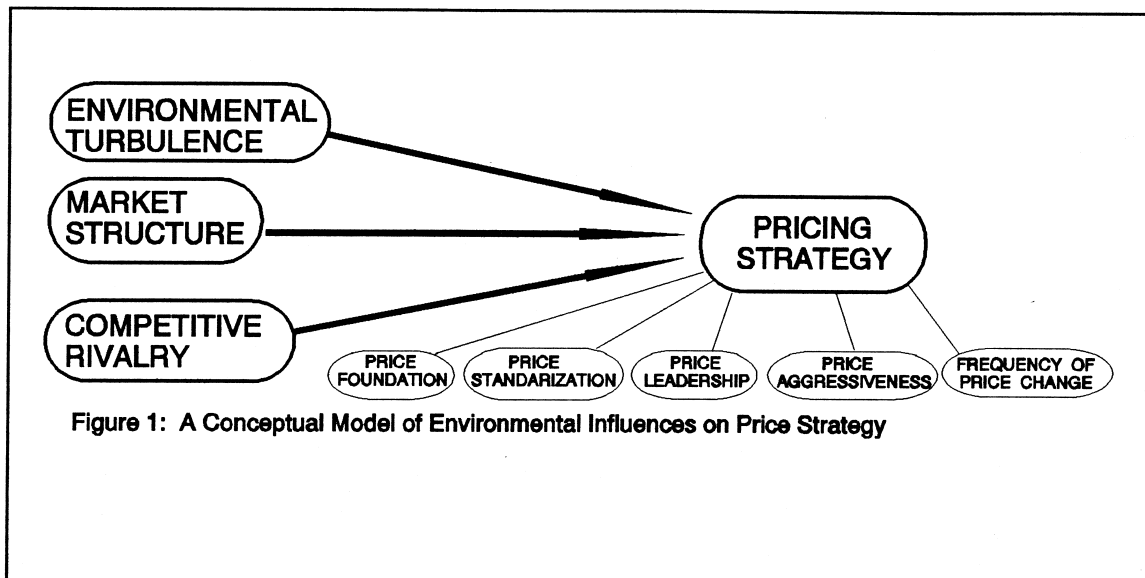
## AN ENVIRONMENTAL MODEL OF PRICE MANAGEMENT

Of all the factors that influence price determination, those outside the firm would seem especially problematic for the price manager. Not only are they less controllable, but these factors are subject to considerable flux or turbulence in the contemporary business environment. Marketing scholars appear to recognize this turbulence, but have tended to draw fairly general implications for pricing. For instance, Monroe (1990) suggests pressures from the external environment are making product and service pricing more delicate, complex, and important. Mitchell (1989) claims that environmental turbulence elicits fear, uncertainty, and doubt among sellers and buyers alike when it comes to making price-related decisions. Mesak and Clelland (1988) have concluded that environmental change is forcing firms to make faster and more frequent price decisions.

Alternatively, much has been written in corporate strategy literature regarding the nature of turbulence and the strategic and structural adjustments firms must make to countenance threats and capitalize on opportunities in the external environment (e.g., Khandwalla, 1977). Miller and Friesen (1982) indicate that environments can be characterized based on how dynamic, threatening, and complex they are,

and that these three variables combine to define turbulence. They and others have demonstrated that, under conditions of high turbulence, successful firms demonstrate more adaptability and flexibility, and higher levels of innovation and entrepreneurship.

We propose the conceptual model in Figure to integrate this research foundation with the existing work on external determinants of price. Here, three aspects of the environment are identified as independent variables, while price strategy is the dependent variable. Further, five components of price strategy are specified. With regard to the environmental component of the model, the first variable is concerned with rates of change in various sectors of the environment, including markets, competitors, sources of supply, technology, the economy, regulation, and social trends. The second variable reflects the work by economists on market structure, and includes the number of competitors and their relative market shares, the presence of one or more dominant firms in an industry, and the extent to which seller offerings and buyer characteristics are homogeneous or heterogeneous. The third variable concerns competitive rivalry, and builds on the work of Porter (1980). Here the concern is with levels of competitive intensity, barriers to entry, availability of effective substitutes, and the bargaining power of suppliers and buyers.



The pricing variables reflect the growing complexity involved in managing company price strategy. The first variable specified is price foundation, or the extent to which prices are based more on cost or market considerations. Next is price standardization, or the degree to which a firm charges one fixed price for all customers, or customizes price for different market segments or individual accounts. The third variable is price leadership, or the extent to which a firm initiates price changes, or follows the lead of other firms. This is followed by price aggressiveness, which reflects the boldness of a firm's pricing moves, and captures the use of proactive pricing tactics. Finally comes the frequency with which the firm changes its prices in a given period. These variables are presented as fairly independent, although they clearly interact with one another.

Testable hypotheses can be derived regarding relationships among the variables presented in [Figure 1](#). In general, firms confronting environments that are more turbulent are expected to be more innovative and market-driven in their pricing approaches, which is consistent with findings in corporate strategy literature. *Specifically, movement toward higher rates of change, more heterogeneity, or intensified competitive rivalry are hypothesized to affect pricing strategy in similar ways. In all three instances, it is expected that pricing will be more market-based than cost-based, more customized than standardized with firms, initiating rather than following price changes, demonstrating more*

*aggressiveness than passiveness, and changing price more often.*

High rates of environmental change imply faster rates of product and resource obsolescence, new forms of competition, changing consumer economics, liberalized social expectations, and shorter managerial decision windows (Stevenson, et al., 1989). Marketplace structures that are more heterogeneous with regard to supply and demand conditions imply more product/market specialization and "nichemanship" on the part of firms large and small, and the disappearance of "mass markets" in favour of markets that are diverse, fragmented, and segmented. An increase in the intensity of competitive rivalry implies that firms will encounter real limitations in their abilities to meaningfully differentiate their offerings, and downward pressure will be placed on their margins. Higher rates of product/service innovation are also likely, which probably means higher rates of failure. These problems will be heightened where entry barriers are lower, effective substitutes are more readily available, or the bargaining powers of suppliers and buyers are greater.

Market-based pricing will result because cost-based approaches will fail to provide the flexibility necessary to keep abreast of changes in customer expectations, to take advantage of opportunities created by niche markets, or to quickly respond to competitor initiatives (Kijewski and Yoon, 1990). Similarly, in order to

capitalize on the different price/value perceptions that result in various parts of the marketplace when environments are changing rapidly, to reflect differences in elasticity among the numerous niche markets that appear, and in response to competitive pressures for differential treatment of key accounts, prices will be more customized (Bush, et al., 1989). Firms will be more comfortable taking the lead in instituting price changes as rapid environmental change undermines the stability of traditional market positions, while heterogeneous markets enable firms to act independently on price within a given niche, and competitive intensity creates more price than non-price competition (Tellis, 1989). The same reasoning applies to price aggressiveness, especially with regard to competitive intensity (Day and Ryans, 1988). Finally, prices will be modified more often in response to changing economic conditions and rapid movement through the product life cycle, as well as the demands of individual customers requiring unique product/service packages, and the pressures to stay ahead of competitor forays into one's markets (Monroe, 1990).

## THE STUDY

To test these hypothesized relationships, a cross-sectional study of pricing behaviour in large South African firms was undertaken. At the time of the study, the South African business environment was experiencing significant turbulence given the dramatic political, social, and economic transitions that were underway, as well as the lingering effects of international trade sanctions. As such, it seemed an especially well-suited context for examining the impact of turbulence on pricing strategy.

A self-report survey instrument was designed for personal administration to senior executives. Respondents were first asked to specify a primary product or service sold by their firms which was then to be used as their reference point in answering the rest of the questions. The questionnaire was organized into three parts : pricing-related behaviours, industry and competitive characteristics, and perceptions of the external environment. A total of thirty-seven pricing questions were included, with fifteen devoted to measuring price foundation (seven for cost-based, eight for market-based), five to price standardization, seven to price leadership, eight to price

aggressiveness, and two to the frequency of general price changes. These questions focused on the extent to which specific methods or approaches were employed, and included 5-point response scales ranging from 'not at all' to 'extensively.' Market structure was assessed with a series of open-ended and multichotomous items in which firms characterized the number of competitors in their markets, the amount of product differentiation among competitors, the existence of any dominant competitors in the industry, the number of customers, and the degree of heterogeneity in customer requirements. Porter's competitive rivalry variables were assessed using a series of 5-point bipolar scales. For instance, respondents characterized competition on a scale ranging from 'passive' to 'aggressive,' or entry barriers on a scale from 'low' to 'high.'

Environmental change was measured by having respondents indicate the rate of change their firms had experienced over the past two years in eight key areas (e.g., the economy, regulation, technology). Each environmental area was assessed on a 5-point scale ranging from 'no change' to 'a great deal of change'.

A convenience sample was employed. Subjects were attendees of a three week executive-level management development seminar offered by a leading South African business school. Only attendees reporting familiarity with company pricing behaviour were included. A total of 65 companies were represented in the sample, and these reflected a cross-section of the leading firms in South Africa. Specifically, a comparison was made between firms in the sample and those listed in the Financial Mail's published listing of the 300 largest firms in South Africa, and two-thirds of the sampled firms were among those listed. The questionnaire was administered during the seminar, and took approximately twenty-five minutes to complete. A breakdown of the final sample revealed that 56% of the respondents were general or divisional managers, 30% were marketing managers, and 14% were financial managers. Of the firms represented, 50% were principally involved with industrial markets, and 50% primarily focused on consumer markets. In addition, 67% of the firms primarily sold products, while 33% generated most of their revenue from services.

## RESULTS

The sample demonstrated considerable variability on most of the pricing questions, but with some general trends appearing in the data. Pricing was more cost-based than market-based, although market considerations were clearly acknowledged. Further, the tendency to differentiate prices among segments or customers was apparent. With regard to price leadership, firms demonstrated some willingness to initiate price changes, but a stronger tendency to adjust prices in accord with those charged by others in the industry. While respondents generally claimed they were very price aggressive, there was relatively low use of specifically aggressive tactics. The frequency of general price changes was relatively low, with a median value of 1.2.

The external environment confronting South African firms can be characterized in broad terms as being turbulent, again with considerable variability among firms. Respondents reported fairly high rates of external change, especially in the economy and technology. In terms of market structures, firms on average faced few (3.57) direct competitors, each with sizeable market shares, limited product differentiation, and sizeable customer bases having reasonably homogeneous needs and requirements. The findings for Porter's competitive rivalry factors suggested that firms were aggressive in dealings with competitors, fairly dependent on suppliers, but less so on individual buyers, benefited from reasonably high entry barriers, and that effective substitutes to their products or services were available in the marketplace.

Comprehensive measures of the price and environmental variables were next computed by summing together the corresponding sets of items. In this manner, scaled variables were created for price foundation (FOUND 1,2), price standardization (STAND), price leadership (LEAD), price aggressiveness (AGGRES), and environmental change (ENV). Reliabilities were then calculated for these scales, producing coefficients of .64, .78, .58, .83, .50, and .76, respectively. The measures of frequency of price change (FREQ), market structure (STRUCT 1, 2, 3, 4) and Porter's competitive intensity factors (INTENS 1, 2, 3, 4, 5) were single item measures.

Relationships between the price and environmental variables were then assessed. Pearson correlation coefficients were generated for each of the hypothesized relationships, with the exception of the variables assessing competitive and customer market structures, where analysis of variance was utilized. Only significant findings are reported here. Consistent with the hypotheses, higher rates of change were positively associated with market-based pricing ( $r = .31$ ,  $p = .01$ ) and negatively associated with cost-based pricing ( $r = -.24$ ,  $p = .05$ ), while also being associated with price customization ( $r = .46$ ,  $p = .01$ ), price aggressiveness ( $r = .26$ ,  $p = .05$ ), and a higher frequency of price changes ( $r = .22$ ,  $p = .05$ ). For the market structure variables, traditional structural indicators such as the number of competitors and the presence of dominant competitors were not significantly related to price, but product and customer heterogeneity variables were significant. Specifically, where there is more heterogeneity in competitor offerings, pricing was more market-based ( $r = .20$ ,  $p = .05$ ) and customized ( $r = .29$ ,  $p = .01$ ). Where customer demand was more heterogeneous, pricing was more market-based ( $f = 2.73$ ,  $p = .05$ ), customized ( $f = 3.04$ ,  $p = .04$ ), and aggressive ( $f = 3.60$ ,  $p = .02$ ). Of Porter's five competitive rivalry factors, competitive intensity was the most salient. Firms experiencing greater intensity were more likely to employ market-based pricing ( $r = .28$ ,  $p = .01$ ), price customization ( $r = .27$ ,  $p = .01$ ), price leadership ( $r = .22$ ,  $p = .05$ ), and to be more price aggressive ( $p = .27$ ,  $p = .01$ ).

## CONCLUSIONS AND IMPLICATIONS

While marketing managers have been urged to become more creative and proactive in their pricing efforts, important questions exist regarding how and when to do so. This study provides initial guidance in addressing such questions. Among the price variables assessed, market-based pricing, price customization, and price aggressiveness were most associated with environmental turbulence. Further, the key environmental variables affecting price were the rate of environmental change, supplier and customer heterogeneity, and competitive intensity.

From a managerial standpoint, price must become a strategic level decision variable, which means developing programmes that take full advantage of innovative price opportunities.

Moreover, pricing must be externally focused, with formal and ongoing environmental monitoring efforts. The ability to anticipate variability in rates of change, movements towards greater market heterogeneity, or intensification of competitor aggressiveness, and to quickly adapt price strategy would seem paramount.

A number of suggestions can also be made for ongoing research. Work is needed to establish the implications of environment-price relationships for company performance. It may be that, under conditions of environmental turbulence, certain price behaviours (e.g., customization) have a greater impact on revenues or profits than do others (e.g., aggressiveness). Another relevant issue involves how environment-price relationships vary over the stages of the organizational life cycle. Of concern here is how the age, size and complexity of an organization influence its perception and approach to the external environment as well as its strategic use of the price variable. Research is also needed to establish the dynamics of possible relationships among sets of environmental variables or price-related variables. Thus, for the environmental variables, faster rates of change may heighten competitive intensity, and more intensity may produce new market structures. Similarly, for the price variables, price aggressiveness may lead to customization, which in turn permits price leadership within segments. An additional avenue for investigation concerns the ways in which the five pricing variables identified in this study interact with other elements of the marketing mix.

#### REFERENCES

- Bush, A., G. Lucas, and O.C. Ferrell (1989), "Distinguishing Market Segments to Assess Price Responsiveness," Journal of the Academy of Marketing Science, 17, 4, 325-331.
- Day, G. and A. Ryans (1988), "Using Price Discounts for a Competitive Advantage," Industrial Marketing Management, 17, 1-14.
- Khandwalla, P. (1977), The Design of Organizations, New York: Harcourt Brace Jovanovich.
- Kijewski, V. and E. Yoon (1990), "Market-Based Pricing : Beyond Price-Performance Curves," Industrial Marketing Management, 19, 11-19.
- Mesak, H. and R. Clelland (1988), "Optimum Conservation Price Increase Decisions in a Competitive Market," Decision Sciences, 19, 920-929.
- Miller, D. and P. Friesen (1982), "Innovation in Conservative and Entrepreneurial Firms: Two Models of Strategic Momentum," Strategic Management Journal, 3-1, 1-25.
- Mitchell, E. (1989), "Balance Upward and Downward Pressures to Keep Your Equilibrium," Marketing News, (November 20), 10.
- Monroe, K. (1973), "The Influence of Price Differences and Brand Familiarity on Brand Preferences," Journal of Consumer Research, 3 (June), 42-49.
- Nagle, T. (1983), "Pricing as Creative Marketing," Business Horizons, 26 (July-August), 14-19.
- Porter, M. (1980), Competitive Strategy, New York : Free Press.
- Tellis, G. (1989), "The Impact of Corporate Size and Strategy on Competitive Pricing," Strategic Management Journal, 10, 569-585.

# EXCELLENCE, MARKET ORIENTATION, SOME ASPECTS OF SERVICE QUALITY AND THEIR EFFECT ON PERFORMANCE IN SERVICE COMPANIES: PROPOSITIONS AND A MODEL

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## ABSTRACT

This paper considers the possible interrelationships between four constructs: Excellence, Market Orientation, Management of Expectations and Service Reliability. The interest in "excellence" owes much to the work by Peters and Waterman (1982) in their best-selling book, *In Search of Excellence*. Sharma, Netmeyer, and Mahajan (1990) have reviewed the literature that has sought to verify or otherwise Peters and Waterman's claims. From their review they draw four general conclusions. It is the development of EXCEL by Sharma *et al.* that provides the researcher with the possibility of testing Peters and Waterman's paradigm. An obvious research proposition is therefore . . .

- **P<sub>1</sub>**. A company's excellence is related positively to business performance.

The market-oriented firm is one which successfully applies the marketing concept. McGee and Spiro (1988) hold that the marketing concept can be defined in three ways: as a **philosophy**, as a **concept**, and currently as **implemented**. Much of the confusion over the years in defining marketing and in the understanding of the marketing concept results from a failure to make these three distinctions between marketing as a culture, as a strategy, and as a tactic. A direct link between the level of market orientation in U.S. firms, at the SBU level, and performance has been confirmed in a number of studies. Until recently this linkage appears to have been taken for granted by both academics and practitioners. Recent studies only appear to confirm the relationship between market orientation and performance for a number of SBU's of a U.S. firm. It is expected that this relationship should also extend to U.K. service companies. Hence, it is proposed . . .

- **P<sub>2</sub>**. A company's market orientation is related positively to business performance.

Market orientation has also been expressed in such terms as 'Close to the customer'. The

term 'Close to the customer' was popularised by Peters and Waterman, who used it to describe one of their eight attributes of excellence. Since all excellent firms are supposedly 'close to the customer', it is proposed that . . .

- **P<sub>3</sub>**. The more excellent the company is, the higher is its level of market orientation.

Berry and Parasuraman (1991) argue that companies providing a service above the adequate level will enjoy a competitive advantage, and furthermore, that such companies need to strive to provide service that exceeds the service level desired by customers. This will ensure 'customer franchise' which results in unwavering customer loyalty. It seems reasonable to suppose that an excellent company would be intent on achieving 'customer franchise' and would seek to manage customer expectations. It is proposed that . . .

- **P<sub>4</sub>**. The more market oriented a service firm is, the more it will seek to manage customer expectations.

Pitt and Jeantrout (1994) did not find a significant relationship between the management of expectations and respondents' perceived profitability of the firm relative to its competitors. It is therefore proposed that . . .

- **P<sub>5</sub>**. The management of expectations does not result in better business performance.

Nurturing customer relationships is a paramount consideration of the market-oriented service firm. The firm does so because its reliability as a service provider is crucial. It is proposed that . . .

- **P<sub>6</sub>**. The more market oriented a service firm is, the more it will seek to manage reliability.

When perceived service is above the maximum 'required service' threshold, attainment of

customer expectations on the reliability dimension results. It is on this basis that the following is proposed . . .

- **P<sub>7</sub>**. The higher the level of reliability of a service firm, the more effective it will be at managing customer expectations.

Berry and Parasuraman define service reliability as 'the ability of the service provider to perform the service dependably and accurately'. This should help improve business performance. It is proposed that . . .

- **P<sub>8</sub>**. The reliability of a service firm is related positively to business performance.

All the above inter-relationships can be portrayed using a path diagram. Work is currently underway to identify and further develop measures for each of these constructs. The verification or otherwise of the proposed research model will hopefully add to the body of empirical research in each of these areas.

A complete list of references is available from the authors. If you would like copies of the full paper, please contact Albert Caruana, Henley Management College, Greenlands, Henley on Thames, Oxfordshire, RG9 3AU, ENGLAND.



# A MANAGERIAL APPROACH TO MISSION ANALYSIS

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## ABSTRACT

The development and use of Mission Statements is an increasingly common prescription in most views of marketing strategy and strategic marketing planning; however, this issue is one surrounded by ambiguous terminology and consequently remains problematic to implement.

For example, qualitative workshop data collected from executives suggests that their criticisms of Mission Statements include the following themes: Mission Statements are qualitative, non-specific, unclear and ambiguous; they end up as a valueless compromise between conflicting interests; they contain nothing but 'motherhood' - no one disagrees but no one takes any notice; they are inconsistent and self-contradictory; they are poorly integrated, internally inconsistent and unrealistic; they try to be too global and ignore market and SBU differences; they have no credibility with managers; and, Mission statements tend to be inward-looking and historically-based when we need to be market-focused and future-oriented. While representativeness cannot be claimed, these themes suggest the need for a more operational approach to mission analysis.

Review of the literature suggests there are four components to an holistic mission analysis:

statements relating to *organizational philosophy*; the specification of *product-market domain*; the definition of *organizational key values* for participants; and, the identification of *critical success factors* in the marketplace or industry faced. These components of mission differ in their perspective (internal or external), and their scope (broad or narrow), suggesting that it is possible to identify quite different types of mission: *global*, *organizational*, and *market*, which may achieve quite different purposes in different organizations at different times.

This model has been used with organizations to reduce the mission analysis process for executives (developing a new statement of mission or evaluating an existing one) to a systematic, though iterative, approach: reduce the mission statement/proposals to key components; categorize the key components (as above), and evaluate their validity; test for internal consistency and compatibility; test the quality with target audiences inside and outside the organization.

Copies of the full paper are available from Nigel F. Piercy, Visiting Professor, M.J. Neeley School of Business, Texas Christian University, PO Box 32868, Fort Worth, Texas 76129.

# THE INTERNAL STATUS AND ORGANISATION OF MARKETING IN HUNGARY AND POLAND

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## ABSTRACT

Hungary and Poland have made impressive progress toward becoming market-led economies. However, their firms now urgently need to apply effective marketing capability to extend the transition and to compete equally against Western rivals. This paper examines

the status of and organisation for marketing among firms in the two countries. It uncovers some positive findings concerning organisation for strategic marketing. It also reveals many areas of weakness to be addressed by many of the companies.

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## INTRODUCTION

Hungary and Poland now stand at a competitive crossroads in their development toward being market-led economies. Both have made much progress in political mindset and both have achieved substantial privatisation of industry. By September 1992, Hungary had 64 times as many private firms as public companies while in Poland the ratio was 180 to 1 by the end of 1991. Most of these privatised companies are small. Nevertheless, by 1992 the private sector contributed 25% and 35% respectively to GDP in Hungary and Poland (East European 1992; Hare 1993).

Though the progress of Hungary and Poland has outstripped that of other countries in their region (Vanous 1992), it has been less than was hoped for (Thomas 1993) owing to political dislocations, chronic economic depression (Ewing et al 1993) and management deficiencies (McDonald 1993). Both countries have experienced vast changes in supply and demand patterns, surging inflation and unemployment, escalating national debts and sharp reductions in output and profitability (Domanski 1992; Hare 1993; Vanous 1992). Further, domestic competition is intensifying and international competition is becoming tougher and more sophisticated (Hooley et al 1992a).

Pre-1980 over 70% of Hungarian and Polish

import and export trade was with COMECON countries. Since 1990 however, over 50% of both imports and exports for both countries are with Western countries (Hooley et al 1992b). Hence, firms in both countries now compete far more extensively with Western rivals and their marketing skills built over the last few decades. Moreover, many Western companies are raising the tempo of rivalry within Hungary and Poland through market entry via acquisition, capacity creation and alliances (Bell et al 1991; East European 1992; McDonald 1993).

To sustain and exploit the transition in harsh, uncertain and competitive environments firms in Hungary and Poland patently need to practice effective marketing. Little has been published about contemporary marketing capabilities in Hungary. McDonald (1993) however, has posited that Polish managers generally lack management and marketing skills. Since the transition began there has been little time to establish a widescale marketing training infrastructure in Poland. Further, with pervasive excess demand problems the previous political regime encouraged businesses to focus on production volumes and these attitudes are slow in changing. Consequently, there is a legacy of attitudinal barriers in Poland which have constrained the diffusion of marketing awareness, acceptance and skills development (McDonald 1993; Shipley and Fonfara 1994).

There is some reason to expect these problems to be less severe in Hungary than in Poland. Although the latter has had the fastest transition, Hungary began the process earlier (Vanous 1992). The Hungarian transition began with legislation unshackling firms from state planning in 1968 and gathered pace with further liberalising legislation in the mid and late 1980s. Though the government did not change until 1990, around the time of the beginning of the Polish transition, Hungary was already well started (Hare 1993; Krawczyk and Lopez 1993).

Notwithstanding this, since Hungarian and Polish companies are now encountering sophisticated Western customers and competitors it is necessary to understand the nature of marketing capabilities in the two countries and to identify any areas of weakness. The purpose of this paper is to contribute to that understanding findings on the intra-organisational status of marketing and dimensions of organisation for marketing among Hungarian and Polish firms.

## METHODOLOGY

Data were collected through both in-depth interviews and broader mail surveys of marketing activity in Bulgaria, Hungary and Poland (the Bulgarian results are excluded here due to the very different stage of transition to a demand economy experienced in Bulgaria). The full research project was funded by the European Commission under its Programme of Action for Co-operation in the field of Economics (ACE). In total 40 personal interviews in Hungary and 35 in Poland were conducted by local researchers with senior company executives responsible for marketing. In some instances these were titled "marketing director" or manager. In other instances they were chief executives or even sales directors. On the basis of these in-depth interviews a questionnaire, developed, tested and used in Western surveys of marketing by the authors was adapted to the Central European environment.

The mailed surveys were translated into local language, cultures and marketing understandings. Similar methodologies were used in each country. Mailing lists were adapted from local sources to be representative by sectoral GDP contribution and by geographical concentration.

Three waves of the questionnaire were mailed to CEOs in each country and these were asked to redirect the instrument to the most senior marketing executive. Prescribed techniques were used to build response rates (Jobber 1986). One hundred questionnaires in Hungary and 122 in Poland were returned unopened or blank although by striking coincidence, 893 usable questionnaires were received in each country providing response rates of respectively 30.8% and 31.0%. These were viewed as satisfactory given the newness of marketing in both countries. It is acknowledged however, that the responses may have been depressed or biased by an absence of marketing personnel, marketing understanding or attitudinal barriers in some target companies. Some indication of this is suggested since, as shown in the tables, not all of the respondents answered all of the questions. A possible interpretation is that some of the activities studied are not undertaken in some countries. If so, the positive aspects of the findings may be overstated.

The two samples are broadly representative by sectoral GDP contributions and by geography. Compared to the target populations however, there is a bias in both samples towards larger firms. Chi-squared tests were used to compare the country findings. Sample characteristics are shown in [Table 1](#). This indicates a higher proportion of consumer firms in the Polish sample and higher proportions of industrial and service firms in the Hungarian sample.

It is not expected that these differences substantially influence the type of findings discussed below. It is expected, however, that the substantially larger average size (indicated by number of employees) of the Polish companies has some impact on the findings. Earlier Western studies found that marketing practices vary systematically with size (e.g. Dubinsky and Barry 1982; Shipley and Howard 1993). Larger firms behave more in accord with conventional wisdom than smaller firms; but against this potential size effect, there is more export involvement among the Hungarian firms which may thus have learned more about the need and competencies for marketing from Western customers and rivals. Also, the incidence of Western company alliances is far more extensive in Hungary than Poland or elsewhere in the region (Hare 1993; Vanous 1992). Hungarian firms may thus have gained more marketing knowledge by transference from strategic partners.

## RESULTS

### Approaches to Marketing

Respondents were asked which of three descriptors proxying production, sales and marketing orientations best describes their firms' approach to marketing. The results displayed in [Table 2](#) show that 63% of the Hungarian firms have adopted a marketing orientation whereas 60% of the Polish firms have a production orientation.

It is suggested that the latter result reflects the attitudinal barriers to marketing adoption arising from their recent adherence to a production volume focus (McDonald 1993). Conversely, the Hungarian sample has had more time to prepare for transition and the diffusion of marketing acceptance and perhaps more interaction with Western companies which may have accelerated the process.

### Dimensions of Strategic Marketing Organisation

In Western conventional wisdom, marketing success requires the creation and continuation of a tight strategic fit between the marketing environment and the company's organisational capabilities through the development of marketing strategy (e.g. Hooley and Saunders, 1993). In turn, this requires top management marketing leadership and company flexibility to maintain the strategic fit (e.g. Aaker 1992; Brown 1993). In this context, respondents were asked about dimensions of organisation for strategic marketing. Shown in [Table 3](#), 88% and 70% of the Hungarian and Polish samples maintain company flexibility to meet change and respectively 67% and 57% have CEO direct responsibility for marketing. These findings suggest positive signs of widespread strategic marketing focus in the two countries. Both frequencies are higher among the Hungarian sample and this may reflect more widespread strategic awareness. It was also found that 50% of the Polish sample but only 21% of the Hungarian firms have other marketing personnel at board-room level.

It is suggested that these results reflect the different firm size compositions of the samples and the effects of this on resource allocation for managerial specialisation (Shipley and Howard 1993). Only small minorities of the samples recruit the services of external

agencies or consultants to bolster marketing management. This may also reflect resource deficiencies although it may indicate shortages in the supply of external experts.

### Functional Department Specialisation

Respondents were asked whether they had separate departments for each in a range of business functions. The results provided in [Table 4](#) indicate that functional specialisation is generally more extensive among the Polish sample.

This is again explained as function of firm size and resource availability, larger firms being generally more likely both to be able to afford and to see the need for functional specialisation.

The presence of a marketing department does not automatically result in effective marketing understanding or activity. The department may lack qualified personnel or it may be internally overpowered by other functions. Similarly, the absence of a marketing department does not necessarily preclude effective marketing. Companies may organise for marketing in other ways (e.g. Piercy 1991). Nevertheless, the existence of a marketing department does imply that marketing activity is being attempted and given greater priority.

The findings in [Table 4](#) show that only 18% and 38% respectively of the Hungarian and Polish companies have a specialist marketing department. These frequencies are low in absolute terms. A serious risk of this is that top management in the other firms is diverted from strategic issues to attend to operational marketing. Alternatively, those firms may have organised differently for marketing, allocate marketing tasks to non-specialists or, in the worst case, are not doing marketing at all.

The bi-national differences in the incidence of marketing department may appear to contradict the findings in marketing orientation shown in [Table 2](#). They may well however, be explained by the size-constrained resources of many of the Hungarian companies and the time-constrained development of marketing preparation of the Polish sample.

In both samples, the incidence of specialisation of marketing is less than that pertaining to

all the other functions studied. Generally, the frequencies are lower among the Hungarian firms and this is again attributed to size effects. There is however, extensive specialisation for finance, sales and production in both samples. This suggests that companies in both samples do recognise the benefits of functional specialisation *per se* despite their as yet nonspecialisation of marketing. Nevertheless, only minorities of both samples specialise for R + D and this may negatively affect long term marketing performance by impairing new product flows (e.g. Aaker 1992; Brown 1993). Similarly, the Hungarian sample includes only a minority of firms with personnel specialisation. This risks having ineffective recruitment, training, motivating and control of marketing personnel.

### Internal Status of Marketing Departments

Since company performance derives from the behaviour of multiple interdependent functions, there is need for close functional integration to dovetail activities. Important determinants of this are the power and status balances of the different functions and company leadership and culture (e.g. Aaker 1992; Piercy 1991). In the market driven company, planning and behaviour is led by top management and the status of the marketing department would equal or exceed that of other functions. Respondents whose firms have a marketing department were asked about the relative status of that department and those of other functions. The results shown in Table 5 indicate that in the minority of firms where marketing departments exist, they are not widely disadvantaged by inferior internal status.

Directionally but not significantly, the Hungarian marketing departments have higher internal status than their Polish equivalents. Nevertheless, in both samples there are only low frequencies indicating inferior relative marketing department status. The main exception to this is that around 27% of both marketing department samples have lower status than production. This result may confirm the posited attitudinal legacy from earlier production-dominated regimes (McDonald 1993).

### Functional Integration with Marketing

The relevant respondents were asked how closely their marketing departments work with other departments. The results in Table 6 reveal

substantial integration with the sales and production functions among both samples. Otherwise, however, the incidence of integration is moderate at best.

Moreover, compared to their Polish equivalents, there are significantly lower frequencies of Hungarian marketing department coordination with the finance and R&D functions and directionally lower frequencies for integration with production and sales. These differences are difficult to explain given the higher incidence of marketing orientation and CEO marketing responsibility among the Hungarian sample. What the results do suggest however, is that there is some need for internal marketing in both samples and especially the Hungarian one, to stimulate more internal harmony. This could be expected to narrow the marketing-personnel integration gap affecting both samples and generally enhance internal co-ordination.

## CONCLUSIONS

Hungary and Poland are progressing toward being market-led economies, but their companies are now facing intensifying competitive pressure, particular from the West. Many firms in the two countries are organising for strategic marketing. They have adopted a flexible company approach to coping with change, and many of them are assigning marketing responsibility to their CEOs. While a majority of the Hungarian firms studied have adopted a marketing orientation, the majority of the Polish firms and some Hungarian companies have not yet done so. This supports the view expressed by McDonald (1993) that many firms in Central Europe are experiencing attitudinal problems in breaking their earlier production orientation culture. In accord with this, majorities of the present samples have not yet established separate marketing departments even though they do have extensive specialisation in some other functions, especially in Poland. Moreover, few of the firms recruit external marketing agencies or consultants to assist with strategic or operational marketing. Of the minorities of respondents that do have marketing departments, however, most report that those departments generally have equal or higher internal status than most other functions. Nevertheless, large proportions of those departments are not closely integrated with other internal functions. It is conjectured that many of those firms are operating a marketing department approach rather than a marketing company approach.



Differences were identified in the results pertaining to Hungarian and Polish companies. These were attributed to the longer period that Hungarian companies have had to prepare for the transition and to effects of the firm size differences between the samples. Overall however, despite the progress that has been made by some of the firms, many others have much ground to cover to sustain the transition and to compete on equal terms with Western rivals. The biggest barrier to a widespread adherence to effective marketing appears to be attitudinal barriers toward accepting marketing principles. It is proposed therefore, that the CEOs which have embraced the marketing ethos should instigate programmes of internal marketing and education to drive marketing acceptance, orientation and skills through their companies. Some firms will lack resources to fund these programmes. Where this is so, it is recommended that aid should be made available by the State and/or the international community.

## REFERENCES

- Aaker, D. Strategic Marketing Management. Toronto: Wiley, 1992.
- Bell, J. C., P. Kochanski, and H. Maccoby (1991) "Free Market Takeover: Poland," International Financial Law Review Supplement pp44-50
- Brown, R. Market Focus: Achieving and Sustaining Marketing Effectiveness. Oxford: Butterworth Heinemann, 1993.
- Dubinsky, A. and T. Barry (1982), "A survey of sales management practices," Industrial Marketing Management, Vol. 11, No. 3, 133-141
- East European Editorial, "Poland's Sectoral Approach to Privatisation," (February 1992), 98-103.
- Ewing, A., B. W. Lee, and R. Leeds (1993), "Accelerating Privatisation in Ex-Socialist Economies," Columbia Journal of World Business, Vol. 28, No. 1, 158-167.
- Hare, P. (1993), "Economic Prospects in Hungary: The Rise of the Private Sector," Business Strategy Review, Vol. 4, No. 2, 39-57.
- Hooley, G. J., A. J. Cox, E. Shipley (1992), "Marketing in Hungary, Poland and Bulgaria," Proceedings of the 16th Annual Conference of the Academy of Marketing Science (May), 655-657.
- Hooley, G. J., G. Avlonitis, J. Beracs, A. J. Cox, K. Fonfara, K. Kolos, T. Kouremenos, M. Marinov, and D. Shipley (1993), "A Comparative Study of Marketing in Hungary, Poland and Bulgaria," Marketing for the New Europe - Dealing With Complexity, Proceedings of the European Marketing Academy Conference, Barcelona (May 1993), eds. J. Chias and J. Sureda, 561-578.
- Hooley, G. J. and J. A. Saunders. Competitive Positioning. London: Prentice Hall International, 1993.
- Jobber, D. (1986), "Improving Response Rates in Industrial Mail Surveys," Industrial Marketing Management, Vol. 15, No. 3, 183-195.
- Krawczyk, M., and J. A. Lopez-Lopez (1993), "The Role of Government in Poland's Economic Transition," Columbia Journal of World Business, Vol. 28, No. 1, 180-187.
- McDonald, K. R. (1993), "Why Privatisation is Not Enough," Harvard Business Review, Vol. 71, No. 3, 49-59.
- Piercy, N. Market-Led Strategic Change. London: Thorsons, 1991.
- Shipley, D., and Fonfara, K. (1993), "Organisation for Marketing in Poland," European Journal of Marketing, Vol. 27, No. 11, 60-79.
- Shipley, D. and Howard, P. (1993), "Brand-Naming Industrial Products," Industrial Marketing Management, Vol. 22, No. 1, 59-66.
- Thomas, S. (1993), "The Politics and Economics of Privatisation in Central and Eastern Europe," Columbia Journal of World Business, Vol. 28, No. 1, 169-178.
- Vanous, J. (1992), "Economic Recovery of Eastern Europe," PlanEcon Report, Vol. 8, 1-35.

**TABLE 1**  
**SAMPLE CHARACTERISTICS**

|                                       | Hungary<br>N = 893<br>% | Poland<br>N = 893<br>% |
|---------------------------------------|-------------------------|------------------------|
| <b>Number of employees</b>            |                         |                        |
| Less than 100                         | 52.9                    | 23.5 *                 |
| 100 to 499                            | 33.6                    | 33.0                   |
| 500 or more                           | 13.4                    | 42.8                   |
| No response                           | 0.0                     | 0.7                    |
| <b>Product classification</b>         |                         |                        |
| Consumer durables                     | 6.4                     | 9.4 *                  |
| Fast moving consumables               | 25.9                    | 32.6                   |
| Consumer services                     | 13.3                    | 16.0                   |
| Materials and components              | 17.1                    | 9.1                    |
| Capital equipment                     | 5.8                     | 17.1                   |
| Industrial services                   | 21.5                    | 6.4                    |
| Other                                 | 10.0                    | 9.5                    |
| <b>Exports as proportion of sales</b> |                         |                        |
| None                                  | 50.3                    | 48.6 *                 |
| 1% - 10%                              | 16.3                    | 21.5                   |
| 11% - 25%                             | 10.2                    | 12.5                   |
| 26% - 50%                             | 9.1                     | 10.0                   |
| More than 50%                         | 14.0                    | 7.4                    |

\* Significantly different at  $p < 0.005$

**TABLE 2**  
**APPROACHES TO MARKETING**

|                                                                                                                      | Hungary<br>N = 864<br>% | Poland<br>N = 865<br>% |
|----------------------------------------------------------------------------------------------------------------------|-------------------------|------------------------|
| Make what we can and sell to whoever will buy                                                                        | 18.2                    | 60.3                   |
| Place major emphasis on advertising and selling to ensure sales                                                      | 18.5                    | 17.5                   |
| Place major emphasis on prior analysis of market needs, adapting our products and services to meet them if necessary | 63.3                    | 22.2                   |

Significantly different at  $p < 0.005$

**TABLE 3**  
**DIMENSIONS OF STRATEGIC MARKETING ORGANISATION**

|                                                                             | <b>Hungary<br/>N = 744<br/>%</b> | <b>Poland<br/>N = 508<br/>%</b> |
|-----------------------------------------------------------------------------|----------------------------------|---------------------------------|
| Marketing is the responsibility of the CEO                                  | 66.5                             | 56.8 *                          |
| Marketing is directly represented at board level<br>(other than by the CEO) | 21.1                             | 49.6 *                          |
| We keep the company flexible to help us cope<br>with change                 | 87.8                             | 70.4 *                          |
| We buy in marketing help from consultancies<br>and agencies                 | 22.2                             | 17.1 *                          |

\* Significantly different at  $p < 0.005$

**TABLE 4**  
**ORGANISATION BY SEPARATE FUNCTIONAL DEPARTMENTS**

|                                  | <b>Hungary<br/>N = 893<br/>%</b> | <b>Poland<br/>N = 893<br/>%</b> |
|----------------------------------|----------------------------------|---------------------------------|
| Marketing Department             | 17.6                             | 38.1 *                          |
| Sales Department                 | 58.7                             | 81.0 *                          |
| Finance/Accounting Department    | 90.3                             | 95.2 *                          |
| R & D/Technical Department       | 28.0                             | 43.2 *                          |
| Production/Operations Department | 71.7                             | 71.9                            |
| Personnel Department             | 29.3                             | 86.9 *                          |

\*Significantly different at  $p < 0.005$



**TABLE 5**  
**RELATIVE STATUS OF THE MARKETING DEPARTMENT**  
 (where there is a separate marketing department)

|                           | Country | n   | Higher<br>% | Equal<br>% | Lower<br>% |
|---------------------------|---------|-----|-------------|------------|------------|
| <b>Status relative to</b> |         |     |             |            |            |
| Production/Operations     | Hungary | 103 | 35.0        | 36.9       | 28.2 *     |
|                           | Poland  | 290 | 27.9        | 45.9       | 26.2       |
| Finance/Accounting        | Hungary | 114 | 41.2        | 41.2       | 17.5 *     |
|                           | Poland  | 299 | 39.5        | 42.1       | 18.4       |
| Personnel                 | Hungary | 101 | 73.3        | 22.8       | 4.0 *      |
|                           | Poland  | 293 | 65.5        | 23.9       | 10.6       |
| R&D/Technical             | Hungary | 91  | 31.9        | 54.9       | 13.1 *     |
|                           | Poland  | 267 | 24.3        | 56.6       | 19.1       |
| Sales                     | Hungary | 107 | 27.1        | 53.3       | 19.6 *     |
|                           | Poland  | 293 | 43.1        | 51.9       | 14.0       |

\* Not significantly different at  $p = 0.10$

**TABLE 6**  
**INTEGRATION OF MARKETING WITH OTHER FUNCTIONS**  
 (where there is a separate marketing department)

|                         | Country | n   | Very<br>Close<br>% | Quite<br>Close<br>% | Not<br>At All<br>% |
|-------------------------|---------|-----|--------------------|---------------------|--------------------|
| <b>Integration with</b> |         |     |                    |                     |                    |
| Production/Operations   | Hungary | 101 | 46.5               | 38.6                | 14.9 *             |
|                         | Poland  | 301 | 55.1               | 35.5                | 9.3                |
| Finance/Accounting      | Hungary | 113 | 11.5               | 55.8                | 34.5 **            |
|                         | Poland  | 300 | 22.0               | 62.3                | 15.7               |
| Personnel               | Hungary | 100 | 4.0                | 23.0                | 73.0 *             |
|                         | Poland  | 291 | 1.7                | 26.8                | 71.5               |
| R&D/Technical           | Hungary | 94  | 27.7               | 48.9                | 23.4 **            |
|                         | Poland  | 275 | 47.6               | 40.4                | 12.0               |
| Sales                   | Hungary | 109 | 72.5               | 22.0                | 5.5 *              |
|                         | Poland  | 304 | 80.9               | 18.1                | 1.0                |

\* Not significantly different at  $p = 0.1$

\*\* Significantly different at  $p < 0.005$

# **THE PERCEIVED ROLE OF ETHICS AND SOCIAL RESPONSIBILITY: A SCALE DEVELOPMENT**

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Kenneth L. Kraft, University of Tampa  
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## **ABSTRACT**

It can be assumed that marketers must first perceive ethics and social responsibility to be important before their behaviors will become more ethical and reflect greater social responsibility. However, little is known about marketers' perceptions regarding the importance of ethics and social responsibility components of business decisions. The purpose of this study is to develop a reliable and valid scale for measuring marketers' perceptions regarding the importance of ethics and social responsibility. The

authors develop a 13 item instrument for the measurement of the perceived role of ethics and social responsibility. The results of exploratory factor analysis reveal that the scale has 3 dimensions: (1) social responsibility and profitability, (2) long term gains, and (3) short-term gains. Evidence that the scale is valid is presented through the assessment of scale reliability, content, and predictive validity. Finally, future research needs and the value of this construct to marketing are discussed.

# DEVELOPMENT OF A MULTI-ATTRIBUTE SCALE FOR ASSESSING MARKETING EFFECTIVENESS

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## ABSTRACT

### INTRODUCTION

In the Miles and Snow typology (1978), three successful strategic orientations, the Prospector, Defender, and Analyzer are hypothesized to outperform firms without a strategic orientation (the Reactor). Adoption of a strategic orientation sets the overall direction for determining how a business will compete. Functional units respond to the direction set in the business strategy. For the marketing organization, this set of responses focuses on developing the product-market domain (Miles and Snow 1978). To successfully develop selected product markets, the development of distinctive competencies in areas such as product development, pricing, service, distribution, and promotion are needed to achieve the strategic goals of the organization (Walker and Ruekert 1987).

### THEORETICAL DEVELOPMENT

Prospectors attempt to achieve a dominant position in the markets they enter by determining unmet consumer needs, developing new products to meet those needs, and communicating the benefits of those new products to the market. In contrast, Defenders are focused on maintaining a stable product-market. They engage in little product development, stress efficiency, and focus on pricing, customer service, and management of the relationships with customers, regulators and other publics. Analyzers exhibit characteristics of both Prospectors and Defenders. For firm's adopting this orientation, the marketing approach will vary between the marketing tactics used by the Prospector and those used by the Defender (Miles and Snow 1978).

### SCOPE OF THE RESEARCH

To investigate the impact of strategic orientation on marketing effectiveness, a research

project was undertaken. A questionnaire was developed to assess the importance and performance of firms in sixteen marketing areas. This questionnaire was mailed to Chief Marketing Executives of 890 randomly selected motor carriers. To assess marketing performance a confirmatory factor model consistent with the Miles and Snow typology was assessed under the SAS CALIS software.

### RESULTS AND DISCUSSION

Following collection of the data, reliability and confirmatory factor analyses were performed on the data. The reliability, convergent validity, and discriminant validity for each construct proved acceptable. Consistent with a priori expectations, a construct corresponding to a market development approach and a construct representing a market protection approach emerged from the analysis. For the market development construct, market share growth, market position, advertising, sales growth, marketing skill development, and new product and service development proved to be the key variables. For the market protection construct, personal selling, pricing, public relations, customer relations, governmental and regulatory relations, and cost reductions were the key marketing variables.

### REFERENCES

- Miles, Raymond E. and Charles C. Snow, (1978), Organizational Strategy, Structure and Process, New York: McGraw Hill.
- Walker, Orville C and Robert W. Ruekert (1987), "Marketing's Role in the Implementation of Business Strategies: A Critical Review and Conceptual Framework," Journal of Marketing, 51, 15-33.

# RESEARCH DESIGN EFFECTS ON THE RELIABILITY OF RATING SCALES IN MARKETING: AN UPDATE ON CHURCHILL AND PETER

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## ABSTRACT

Churchill and Peter (1984) conducted a landmark study in which they used meta-analysis to determine whether particular research design variables (type of sample, type of subjects, use of reverse scoring, etc.) affected the overall reliability of rating scales in marketing. In other words, they studied the question, "What research design variables are likely to make one measurement scale more reliable than another?" If a researcher knows, for example, that a scale composed of semantic differential items with both numerical and verbal labels tends to have a higher reliability score, on average, than a scale using Likert-type items with labels on the polar points only, then that researcher can *build in* those aspects when designing a new measure.

The present study builds upon the work of Churchill and Peter (1984) to update and extend their findings. Bearden, Netemeyer, and Mobley's (1993) *Handbook of Marketing Scales* provides a set of scales and related developmental information for which a similar meta-analysis is conducted. Results of this study are compared to those from Churchill and Peter to note similarities and differences over time.

A meta-analytic review of Bearden et al. (BNM hereafter) and comparison to findings of Churchill and Peter (CP) may be a useful contribution for three reasons. First, a programmatic update on this issue is needed; CP's findings are now more than ten years old. Second, new knowledge may be gained by this examination because there is relatively little overlap between the studies included in CP and BNM. For example, CP examined 154 scales (from 107 studies) and BNM examined 122 scales -- only 15 of the scales are common between the two.

Third, BNM have a relatively wider domain compared to CP.

Results of a meta-analysis reaffirm, to a large degree, the findings of CP. CP's results are confirmed in 75 percent of the comparisons to BNM. This result is robust considering that ten years have past and that most of the scales do not overlap those included in CP's original study. The average reliability score from measures included in BNM is higher than that from CP (0.81 compared to 0.75). This is probably due to BNM's criteria for inclusion in the *Handbook* -- only multi-item scales which tend to be used by marketing scholars. No single item measures nor infrequently used measures were included.

In conclusion, the status of the reliability of rating scale measures in marketing seems to be quite good and improving based on this comparison. Scales used to measure marketing traits are being developed with care and rigor; else, average reliability coefficients would not be at the levels found based on the information in CP and BNM.

## REFERENCES

- Bearden, William O., Richard G. Netemeyer, and Mary F. Mobley (1993), *Handbook of Marketing Scales*. Newbury Park, CA: Sage Publications.
- Churchill, Gilbert A. and J. Paul Peter (1984), "Research Design Effects on the Reliability of Rating Scales: A Meta-Analysis," *Journal of Marketing Research* 21 (November) 360-375.

# ECO-MARKETING: A WASTE MANAGEMENT PERSPECTIVE

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## ABSTRACT

Pollution caused by solid waste has raised concerns about eroding ecosystem quality and the ability to maintain sustainable development. In order to directly link the marketing discipline with this issue, an approach called "eco-marketing" has been developed. In addition to satisfying customers and meeting organizational goals, eco-marketing specifies that marketing strategy must also be designed to minimize pollution of the ecosystem. Eco-marketing suggests that the ecosystem now acts as a non-negotiable limiting factor on strategic marketing decisions, and that this factor can be properly addressed only through the management and control of waste associated with consumption.

Crucial to eco-marketing is an understanding of the product system life-cycle (PSLC). The PSLC is a normative construct that views consumption as a holistic process made up of the following five stages: 1) raw materials acquisition, 2) materials-components manufacturing, 3) finished products manufacturing, 4) consumer use/consumption, and 5) concurrent waste management. Each stage is interrelated and inseparable from the others; each utilizes resource inputs and generates outputs in the form of products and waste streams. Life-cycle assessment (LCA) is an emerging quantitative technique that provides strategic information about the volume and composition of the waste streams at each stage.

PSLC can be translated into a set of five corresponding vertical marketing systems (VMS) arranged in series which is called an extended vertical marketing system (EVMS). This reinforces the notion that the system is made up of decision-making organizations that are bound together by marketing strategies (not just resource flows) which result in market transactions. When dealing with consumer products, marketing decisions made in the finished products manufacturing VMS (i.e., product form, materials, target markets) determine the need for the presence of other EVMS members as support (i.e., raw materials suppliers, materials-components manufacturers) as well as participation of given consumer target markets. In effect, the finished products VMS determines (sets in motion) the resource and waste flows associated with all stages of EVMS. The decision responsibility and domain of these manufacturers is therefore dramatically broadened.

The integrated waste management strategies of pollution prevention (i.e., waste reduction) and resource recovery (i.e., the management of unavoidable waste streams) can be used as corner-stones of low-waste strategies. LCA can provide proactive eco-marketers at all EVMS stages with the ability to make low-waste choices that enhance the firm's ecological footprint and also provide a basis for establishing sustainable competitive advantage.

# LINKING ENVIRONMENTALISM AND MARKETING STRATEGY: A KEY TO SUSTAINABLE SUCCESS

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## ABSTRACT

Protecting, conserving, and preserving the physical or "green" environment (i.e., environmentalism) will increasingly become a crucial challenge to the success of American businesses in the years to come. According to Sony President Akio Morita, one of the central issues that will be facing businesses in the 21st century will most likely pertain to the physical environment (Winsemius and Guntram 1992). Two recent survey studies concur with Morita's observation. The *Harvard Business Review's* findings based on a world-wide survey of 12,000 managers suggest that "environmental issues such as waste disposal and pollution are the second highest social priority" of the respondents (Kanter 1991:156). Additionally, the findings of a study sponsored by the American Marketing Association report that concern over the physical environment has clearly emerged as the most important issue affecting [global] marketing (Czinkota and Ronkainen 1992).

Undoubtedly the environment has steadfastly become an important consideration in today's business activities. Businesses are being pressured by various stakeholders such as government, special interest groups, and consumers, who keep close watch of businesses' daily operations. Stakeholders bolster organizations conducting business activities that are in harmony with the physical environment. As such, the long-run social benefit of environmentalism has emerged as a fundamental element for achieving customer and social support (Murray and Montanari 1991). If addressed effectively, environmentalism could provide American businesses with a new source of competitive advantage, profitable opportunities, or opportunities to build on the bona fides of their constituencies. Yet, integrating environmentalism into business activities may be a demanding task to accomplish. It may require changes, for example, in product or packaging design.

In this paper, we explore the impact that environmentalism is having on the practice of marketing. We investigate two primary trends that we believe will dominate the practice of marketing in the near future. We contend that the *greening* of businesses will provide them with a new source a competitive advantage through a philosophy of sustainable development. As a result, more businesses will find themselves incorporating environmentalism in their marketing strategies. As marketing practitioners, the challenge is to face head on the ecological plights confronting us through bold, swift, and creative actions on the part of business organizations. To do this, we firmly believe that business organizations must start by reorienting their marketing mix and by implementing programs to help the consumer in making significant changes in their buying, consumption, and disposal behaviors. Concurrently, a shift in gears or even the revamping of corporate business philosophy is not only necessary but imperative.

## REFERENCES

- Czinkota, M. and I. Ronkainen (1992), "Global Marketing 2000: A Marketing Survival Guide," *Marketing Management*, 1(1):36-45.
- Kanter, R. M. (1991), "Transcending Business Boundaries: 12,000 World Managers View Change," *Harvard Business Review*, May-June: 151-164.
- Murray, K. and J. Montanari (1986), "Strategic Management of the Socially Responsible Firm: Integrating Management and Marketing Theory," *Academy of Management Review*, 11 (4): 815-827.
- Winsemius, P. and U. Guntram (1992), "Responding to the Environmental Challenge," *Business Horizons*, March-April: 12-20.

# DO EXTERNAL FACTORS PLAY AN ANTECEDENT ROLE TO MARKET ORIENTATION?

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## ABSTRACT

This paper proposes that firms' external environment may influence the degree of market orientation necessary to conduct business profitably. Seven environmental variables are proposed to affect the level of market orientation

a firm must possess in order to remain competitive in its particular market. Propositions are given based on the theoretical underpinnings of several strategic planning models.

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## INTRODUCTION

Until recently, a formal construct of market orientation had not been developed in the marketing literature. This lack of attention ended with the emergence of two articles (Kohli and Jaworski, 1990; Narver and Slater, 1990) that dealt specifically with defining and validating market orientation as a construct. Kohli and Jaworski (1990) defined market orientation as "the organizationwide generation of market intelligence pertaining to current and future customer needs, dissemination of the intelligence across departments, and organizationwide responsiveness to it (p. 6)."

Similarly, Narver and Slater (1990) define market orientation in terms of three behavioral components - "customer orientation, competitor orientation, and interfunctional coordination (p. 22)." All the authors agree that profitability is a consequence of market orientation. Therefore, market orientation has been theorized and measured as an antecedent to business performance (Kohli and Jaworski 1990; Narver and Slater 1990).

What has not been addressed thus far is whether there exist any antecedents that may affect a firm's degree of market orientation. Kohli and Jaworski (1990) acknowledge that "the literature pays little attention to the contextual factors that may make a market orientation either more or less appropriate for a particular business (p. 1)."

## LITERATURE REVIEW

In the first theoretical work conducted on the development of a market orientation construct, Kohli and Jaworski (1990) defined market orientation in terms of "intelligence generation," "intelligence dissemination," and "responsiveness." One of the items housed under the concept "intelligence generation", market intelligence, was defined in terms of monitoring the environment for any changes in competition, government regulation, and technology that may strengthen or erode the firm's position. These external factors were presented as moderator variables of the market orientation-business performance relationship.

Narver and Slater (1990) tested the market orientation construct. They presented market orientation as one of three components that affects business performance. Another component, called "market-level factors," was also shown to affect business performance (Narver and Slater 1990). Yet, the environmental variables measured were considered "situational variables (that) must be controlled in analyzing the effect of market orientation on a business's profitability" (Narver and Slater 1990, p. 28). These factors were hypothesized as influencing business performance but were not tested to determine if, in any degree, they may act as antecedents to a firm's degree of market orientation.

The market orientation construct proposed by Kohli and Jaworski (1990) and tested by

Narver and Slater (1990) was primarily composed of internal structural forces such as senior management focus, interdepartmental dynamics, and profitability. Environmental factors, such as government regulation, competition, and technology were either categorized as exogenous variables to be monitored, as moderators to the market orientation-business performance relationship, or as control variables whose effects should be measured independently of market orientation.

Some marketing strategists have been discussing the impact of the external environment on a firm's success for over three decades (see Bain 1956; Porter 1980; Scherer 1980). A review of relevant strategic management and organizational economics literature revealed two primary sources of environmental variables. Porter's Competitive Strategy and Scherer's textbook Industrial Market Structure and Economic Performance provide the foundation for the following review of the relevant environmental variables.

The environments chosen for further theoretical investigation include: 1) ease of entry of new competitors, in terms of the costs required of a new firm to both enter and feasibly compete in the market, 2) seller concentration, defined as the extent to which the largest four firms account for the majority of sales in the market, 3) degree of government regulation, as it relates to the degree to which the government has placed constraints on the behavior of the firm or industry, 4) customer power, as measured by the degree the customer can exert power over the seller in order to change the proposed price, 5) rate of growth in the market place, as determined by the increase or decrease of market demand, 6) rate of technological change in the market place, that causes new opportunities or poses threats for firms in the industry, and 7) supplier power, as measured by the degree to which a supplier can negotiate higher prices from a buyer. It is posited in this paper that these external environmental factors influence a firm's level of market orientation. The propositions presented in this paper were derived from the resource dependence model developed by Pfeffer and Salancik (1978).

The resource dependence model presents a view of firms in terms of organizational efficiency, which is the internal standard by which

firms measure success, and organizational effectiveness, which is defined as the "external standard of how well an organization is meeting the demands of groups concerned with its activities" (Pfeffer and Salancik 1978, p. 11). First, the model emphasizes the external environment as a crucial element for organizational survival. This resource dependence makes the environment a crucial component of organizational effectiveness. Second, the resource dependence model presents survival as the primary goal of the firm. This element strengthens the proposition that firms will "maintain a coalition of parties" in order to survive (Anderson 1982, p. 79). Third, much of the competitive strategy theory proposed by Porter (1980) and Scherer (1980) that provides the foundation for the constructs defined in this paper stems from this particular behavioral theory of the firm.

## PROPOSITIONS

This paper will attempt to show how external environmental variables have an effect on the firm's degree of market orientation. The work on market orientation thus far has treated environmental factors as moderators of the market orientation/business performance relationship or as phenomena that occur independently of market orientation. However, as shown in the discussion of the resource dependence model, a firm's performance is dependent on how well it manages both external and internal factors. Prior research has stressed how internal factors affect market orientation; this paper posits that external factors may also have a bearing on market orientation.

**Barriers to entry** is one environmental influence that may affect the firm's degree of market orientation. Consider an industry where entry barriers are low. New entrants will have an easier time entering, thus bringing new capacity and possibly more resources (Porter 1980). This in turn will bring increased competition. Increased competition will create an environment in which a firm will have to place incrementally more company resources into determining customer needs, monitoring competitors, and maintaining profitability. Thus . . .

**P1:** The greater the ease of entry into an industry, the greater the market orientation of an existing firm within the industry.

The degree to which an industry is concentrated can be measured in terms of the number



of sellers who comprise the largest share of the market. This is typically measured by determining the amount of sales accounted for by the four firms with the largest sales volume. High levels of **seller concentration** may result in high levels of profitability if the members of the concentrated industry "encourage tacit or explicit joint maximizing monopoly behavior" (Narver and Slater 1990, p. 29). As a result of this monopoly behavior, prices may be forced to stay at a competitive level, thereby creating a "profit umbrella" for firms that are not part of the concentrated group. Also, high degrees of seller concentration allow the members great economies of scale. Consequently, in an industry characterized by a high level of concentration, less emphasis will be placed on market driven factors such as quick responses to changing market needs or competitor orientation. Therefore . . .

**P2:** Firms in a highly concentrated industry will have a smaller degree of market orientation than firms in a highly fragmented industry.

The degree to which the **government** constrains behavior of the firm can also affect the firm's degree of market orientation. Consider the trucking industry as an example. Prior to deregulation, the trucking industry did not partake in customer oriented, market driven policies. "No competition," as mandated by the government, curtailed the industry's use of any marketing activities. Once deregulation was enacted, the trucking industry began participating in competitively driven marketing activities such as demand analysis and competitive pricing policies in order to maintain profitability (Mentzer and Gomes 1986). This is an extreme example of the degree that government regulation can affect a firm or industry's degree of market orientation, yet it illustrates the logic of the following . . .

**P3:** The more the government regulates the behavior of the industry, the less the degree of market orientation of the member firm.

Customers' degree of control within an industry is exerted when as a group they force prices down, demand higher quality, or foster competition among suppliers or manufacturers. This exertion of power can impede the efficiency of an industry and an individual firm. A buying group is powerful when switching costs are low, the product is undifferentiated, or

"large volumes (are purchased) relative to seller sales" (Porter 1980, p. 24). In a highly competitive industry, **customer power** could devastate a weaker firm's strategic position. When customers possess the power to switch or demand lower prices, the firm will have to appropriate more energy into determining the needs of the customer in order to provide a complete product offering that will satisfy demand. Therefore, when customers have a strong power base within an industry, the firm's degree of customer orientation becomes an important factor for success. Thus . . .

**P4:** The more power the firm's customers have, the greater the degree of market orientation within the firm.

Markets with large increases in demand attract new sellers. This attraction to lucrative markets is even more pronounced when entry barriers and switching costs are low. If growth in the industry is characterized by low barriers to entry, competitor and customer orientation will be crucial to a firm's profitability. By employing a market orientation, firms will be better equipped to gain and maintain a loyal customer base. If entry barriers are high, there will be less incentive for firms to monitor customer requirements or the environment for possible market share-threatening entrants. This lack of focus on the customer is a result of the captivity of the buyer to the firms already established in the industry. **Market growth rate** will either have a positive or null effect on a firm's degree of market orientation, depending on the barriers to entry in the industry. In other words, barriers to entry will moderate the relationship between market growth rate and a firm's degree of market orientation. Therefore . . .

**P5a:** When barriers to entry are high, market growth rate will have no effect on a company's degree of market orientation.

**P5b:** When barriers to entry are low, market growth rate will have a positive effect on a firm's degree of market orientation.

The **rate of technological change** in the market is largely uncontrollable by the individual firm. Logically, the greater the technological change within an industry, the more opportunities organizations will have to capitalize on new ideas generated by R&D. Further, when an industry is faced with a technologically volatile environment, more resources will have to be

invested in market oriented activities in order to maintain a competitive advantage. Therefore, it can be reasoned that . . .

**P6:** The greater the degree of technological change within the market, the greater the degree of market orientation within a firm.

The degree to which suppliers can exert power over buyers will also affect a firm's degree of market orientation. Suppliers can exert power over members of an industry by threatening to raise prices or reduce the quality of goods offered (Porter 1980). Supplier power is also evident when the product is crucial to a buyer's business. The more power the supplier has, the more the buying firm will want to direct efforts to ease the supplying process, such as order quantities and delivery schedules. The degree of power that a particular supplier exerts may in fact cause the firm to employ market orientation to a greater degree as a means of balancing this dependence (Heide and John 1988). In effect, the firm will view the supplier as a "competitor" that requires monitoring. This monitoring function is tantamount to market orientation. Therefore . . .

**P7:** The greater the degree of supplier power, the greater the degree of a firm's market orientation.

The seven environmental variables presented here may prove to have an antecedent influence on a firm's degree of market orientation. Future research should include improving the validity of the market orientation construct (Kohli and Jaworski 1993) and empirically testing the relationships proposed here.

## CONCLUSIONS AND IMPLICATIONS

This paper presented theoretical relationships between environmental variables and a firm's degree of market orientation. Knowing that external factors must be monitored in order to determine the firm's necessary degree of market orientation may assist in decisions made by firms wishing to enter new markets. For example, if prospective firms find that industries characterized by high degrees of technological change are more susceptible to competitive threats, then valuable resources could be applied to such practices as extensive competitor monitoring and customer service. Thus, practitioners will be aided by the knowledge that not

only internal but external considerations must be monitored when developing a market-driven organization.

Further development of the market orientation construct will have direct implications for both marketing practitioners and researchers. Researchers in the area of marketing strategy could use this broader construct to further the research on the market orientation/performance relationship. This research intends to extend the current work being conducted on market orientation by shedding light on the antecedent influences on market orientation. Most research in this area has concerned itself with the market orientation/business performance relationship. Although understanding this relationship is critical in order to assist in predicting firm performance, understanding what external influences shape a firm's degree of market orientation is also vital. If it can be shown that degrees of market orientation are found within industries and that consequently business performance is affected, then firms can modify their level of market orientation dependent on characteristics such as industry type.

It may be found that different industries, as measured by variables such as ease of entry and degree of government regulation, may need more or less of a market orientation and still be successful. This paper builds on, yet departs from, past research on market orientation that is theoretically developed based on the assumption that more market orientation is always better. This paper argues that in some cases or in some industries, a heavy emphasis on market orientation may result in a misplacement of resources. So, before the market orientation/performance relationship can be fully understood, more evidence is needed that discloses whether market orientation is more or less appropriate in some industries or business contexts.

The propositions that have been suggested here are theoretical in nature; therefore, empirical analysis must ensue. Steps have already been taken to test the market orientation construct (e.g., Kohli and Jaworski 1990; Narver and Slater 1990). Understanding the relationships between environmental variables and market orientation performance gives researchers a basis for better explanation of the market orientation/business performance relationship that often lies at the heart of research in this area.

A firm cannot exist in a vacuum. In order for firms to survive, extensive monitoring of the external environment must take place (Pfeffer and Salancik 1978; Porter 1980). This monitoring of the external environment allows a firm to be more adaptive to adverse changes: "The organization's environment is just as crucial an element as its internal conditions. Organizations are linked to environments by federations, associations, customer-supplier relationships, controlling the nature and limits of these relationships. Organizations must transact with other elements in their environment to acquire needed resources (Pfeffer and Salancik 1978, p.2)." Through the management of its internal coalitions, and extensive monitoring of its external coalitions, the firm's goal of survival through the management of resources will be achieved.

## REFERENCES

- Anderson, Paul (1982), "Marketing, Strategic Planning and the Theory of the Firm," Journal of Marketing, 46 (Spring), 15-26.
- Bain, Joe (1956), Barriers to New Competition, Harvard University Press.
- Heide, Jan and George John (1988), "The Role of Dependence Balancing in Safeguarding Transaction-Specific Assets in Conventional Channels," Journal of Marketing, 52 (January), 20-35.
- Kohli, Ajay and Bernard Jaworski (1990), "Market Orientation: The Construct, Research Propositions, and Managerial Implications," Journal of Marketing, 54 (April), 1-18.
- Mentzer, John T. and Roger Gomes (1986), "Deregulation of the Motor Carrier Industry: A Retrospective Analysis," International Journal of Physical Distribution and Materials Management, 16 (7), 46-58.
- Narver, John, and Stanley Slater (1990), "The Effect of a Market Orientation on Business Profitability," Journal of Marketing, 54 (October), 20-35.
- Pfeffer, Jeffrey and Gerald Salancik (1978), The External Control of Organizations, New York: Harper and Row.
- Porter, Michael (1980), Competitive Strategy: Techniques for Analyzing Industries and Competitors, New York: The Free Press.
- Scherer, F.M. (1980), Industrial Market Structure and Economic Performance, Chicago: Rand McNally.

# ETHNICITY AS A PROMOTIONAL TOOL: RETAILING TO EMERGING CONSUMER SOCIETIES

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## ABSTRACT

American retailers are faced with an increasing array of international expansion opportunities. Since the vast majority of retail patronage and shopper behavior has been conducted using consumers from fully developed consumer

societies, retailers can only guess how consumers naive to common retailing practices will react to traditional retailing tools. This paper raises issues related to this problem.

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## INTRODUCTION

The 1980s ushered in a multitude of multinational opportunities for aspiring retailers. During this period, numerous political, technical, and cultural barriers that once inhibited retailers from considering operations in certain parts of the world tumbled. Companies like McDonald's, Pizza Hut, Sogo, Toys 'R' Us, and Benetton are early leaders in the race for international market share. Not only can retailers consider entries into Europe, Latin America and Japan, but the former Soviet Union, Malaysia, South Korea, Taiwan, and the People's Republic of China (PRC) provide potentially attractive markets as well. While undeveloped consumer societies offer large amounts of pent-up demand for goods and services, caution is warranted when considering retailing operations in these geographic regions. Once political barriers have fallen cultural barriers remain. The question considered here is the likelihood that traditional retailing practices will affect 'undeveloped' consumers identically to their counterparts in the developed world.

This paper raises a number of potentially relevant issues for retailers entering markets comprised of consumers unaccustomed to modern retailing practices. The answer to some of these questions may lie in trial and error. However, given this alternative's expense, research on each of these issues seems a worthwhile endeavor. The paper is divided into three sections. The first section discusses potential variation in responses to the retail environment itself. That is, can the physical environment be designed effectively to appeal to consumers in specific

developing markets? The second section discusses sources of influence on shoppers. How should advertising be designed and used in an effort to attract shoppers? Third, hard-core retail mix elements like product offering, price lines, and quality of assortment are discussed. Will the same mix that is successful in a developed consumer society like the United States be effective universally? These questions are provided as a platform for future study aimed at serving these emerging markets better.

## IN-STORE REACTIONS

The altering of a store's physical environment in an attempt to alter customers' feelings is known as retail atmospherics (Kotler 1974). These feelings, in turn, can affect shoppers' in-store behavior (Donovan and Rossiter 1982; Dawson, Bloch, and Ridgway 1990), image perceptions (Darden and Babin 1994), and perceived value of the shopping activity (Babin, Darden, and Griffin 1994). Several issues impact the use of atmospherics in developing consumer societies.

## Emotions Across Cultures

Studies of American consumers' consumption related emotions have generally found the dimensions of pleasure and arousal, and to a lesser extent domination, useful in summarizing the multitude of more specific feelings experienced while shopping (Donovan and Rossiter 1982; Holbrook et al. 1984; Havlena, Holbrook, and Lehmann 1989). However, there is some question whether or not people from different cultures experience identical emotions. That is,

are emotions culturally constructed (Zajonc and Markus 1985)? Complicating this matter further are potential linguistic differences in the expression of various emotions.

Russell (1983) addresses this issue in a study involving Chinese, Japanese, English, Gujarati, and Croatian respondents. Respondents were asked to rate the similarity of different emotions. The emotion terms were taken from three different emotional measurement inventories and translated into respondents' native languages. Results were analyzed using multi-dimensional scaling. Both pleasure and arousal dimensions were recovered consistently across languages and emotion inventories. This evidence suggests that emotions are pancultural and the terms conveying each have universal meaning. Thus, it is quite likely that consumer emotions can be captured along these two dimensions across all cultures. The pancultural nature of emotions also suggests that similar behavioral consequences might be expected (Russell and Snodgrass 1987). The following two specific research issues emerge directly from this result.

1. Shopper emotions in developing consumer societies are expressed along the dimensions of pleasure and arousal.
2. Pleasure and arousal will affect shoppers from developing consumer societies similarly to consumers from developed consumer societies (i.e., pleasure and arousal both increase resource expenditures).

Left unaddressed however, are the potential antecedents of these consumption related emotions. In fact, this issue has received relatively little attention among studies of American shoppers (cf. Babin and Darden 1994). Some evidence suggests increased arousal as prices, quality (e.g., designer merchandise), and perceptions of crowding increase (Darden and Babin 1994; Eroglu and Harrell 1986). Likewise, store cleanliness and salesperson courteousness can increase shoppers' pleasure (Darden and Babin 1994). It is unclear that these same reactions can be expected among shoppers in other cultures. The sheer density of people in the PRC suggest different reactions to crowding density for instance. Also, a courteous employee might be considered a threat by a highly skeptical Russian patron. Likewise, there is some evidence that emotional reactions to

colors vary across cultures (Russell and Snodgrass 1987). Thus, this is an issue in need of closer scrutiny to help retailers avoid potential mistakes in the design of the retail environment.

### **Utilitarian and Hedonic Value**

Value has been proposed as the ultimate reason for all consumption activities (Holbrook 1986). Consumers express the value of a shopping experience along two basic dimension -- utilitarian and hedonic shopping value (Babin et al. 1994). A retailer in the U.S., Western Europe, Hong Kong, or Japan might thrive by providing one type of value or the other as evidenced by the success of both warehouse type food outlets and upscale stores like Sharper Image. Retailers in a developing consumer society however, may not be afforded with the same luxury.

A recent comparison of consumption values across a relatively mature consumer society (Hong Kong), a developing consumer society (Taiwan), and an immature consumer society (PRC) addressed this issue (Tse, Belk, and Zhou 1989). In drawing inferences about consumption values from advertising content, the authors concluded that hedonic value appeals increase in prevalence and effectiveness as a consumer society develops. Thus, few hedonic value appeals appear in Hong Kong compared to its slightly more mature counterpart Taiwan.

The implication for retailers is that hedonic shopping value may not be a factor in newly opened consumer societies. A recent discussion with consumers from the former Soviet Union seemed to suggest this. These consumers had considerable difficulty accepting the notion that shopping could be fun and/or pleasurable in and of itself. A hedonic shopping value dimension may even be difficult to recover among shoppers like these. However, if advertising appeals are any indication, consumers quickly become acculturated to hedonic appeals. This has implications for product assortments that will be discussed later, but two specific research questions follow from this evidence.

3. Consumers in a newly opened consumer society will be affected only by utilitarian shopping value.
4. Expressions of hedonic shopping value increase with time as a consumer society develops.

## **MEDIA HABITS**

The billions of dollars invested in advertising in the United States every year suggest that marketers believe American consumers can be influenced by mass media. Clearly interpersonal influence also has an effect on which stores people decide to shop in. Several factors suggest that the ratio of interpersonal to impersonal influence may vary across cultures.

Physical factors may limit the amount of advertising influences in some cultures. First, many developing cultures may not have the infrastructure to support a mass media. Televisions are not nearly as common in the PRC as they are in the U.S., Europe, or Japan (Tse et al. 1989). Thus, the average consumer in some developing consumer societies may have only a fraction of the access to media sources that consumers in other parts of the world enjoy. Second, there are communication barriers related to language. In many undeveloped areas illiteracy may be a problem. Additionally, some relatively small geographic regions are populated with people speaking a large number of different languages. Over twenty languages are used in the former Yugoslavia for instance. Similar situations exist in many areas of the former Soviet Union and the Far East. Thus, reaching a mass audience through a common medium in an area such as this would seem quite difficult. Each of these physical factors would contribute to relatively attenuated advertising effects on patronage.

Further, many developing consumer societies have highly collective value orientations (Taylor 1994). Thus, the same appeals to individualism that are successful in the U.S. may seem insulting to a consumer in a collective society like Korea. The implications for retailers are two-fold. First, consumers in collective societies will be influenced more by members of their reference groups. Second, advertising appeals should stress acceptance by peer groups more than they do in most fully developed consumer societies. For example, a Macy's ad might emphasize acceptance by an entire family rather than exuberance of a single customer. The following two research questions summarize this section.

5. Susceptibility to interpersonal influence is higher in developing consumer societies than in the U.S.

6. Interpersonal influence will exert a greater influence on patronage behavior relative to advertising in developing compared to exemplar consumer societies like the U.S. and Western Europe.

## **PRODUCT ASSORTMENTS**

Adjusting product assortments cross-culturally can be a difficult task even within the borders of the United States. This difficulty is compounded when considering markets that have primarily dealt previously with government owned cooperatives for goods acquisitions. Even the idea of having a choice of places to shop may be foreign to some consumers. Several issues may impact the optimal product assortment within these countries' retail stores.

Earlier, we discussed the transition from the pursuit of utilitarian value only to the pursuit of hedonic value as a consumer society matures. This is likely to have implications for the product assortment. Retailers entering a highly undeveloped area (e.g., PRC) may benefit from focusing on providing utilitarian value. Therefore, a functional store design and a basic product assortment that provides an acceptable product alternative to its customers is likely to be most effective. This may require only a narrow product assortment. Customers in areas like these are likely to focus on technological perceptions to a greater extent than other characteristics. However, within a few years, stores offering high levels of hedonic value may be desirable. Evidence of this is seen in a comparison of consumption values in Taiwan and PRC (Tse et al. 1989). If this trend is generalizable, retailers entering moderately mature consumer societies (e.g., South Korea), may need to focus more on elaborate store designs and product lines that provide a more exciting and uplifting shopping environment (see Babin et al. 1994). Likewise, within a few years after entering an undeveloped consumer market, adjustments should be made to account for changing orientations. The study of this issue would benefit from a measurement tool capable of capturing the state of development of a consumer society.

Consumer ethnocentrism should also be considered in product assortments. While many of these emerging societies hold the U.S. up as an exemplar consumer society, some nations may still hold all signs of capitalism in discord.

The challenge is to offer a percentage of imported goods that will not alienate large segments of the population. As the society develops, it is likely that consumer eclecticism will increase. The consumer ethnocentrism scale, generalized multinationally (Netemeyer, Durvasula, and Lichtenstein 1991), may prove useful in attacking this problem. Potential interactions also arise here. In completely new product categories, even moderately ethnocentric consumers may accept foreign products. However, in more staple categories, consumers may desire domestic products.

Other retailing tools like the amount of service provided, product price lines, quality levels, and focus on brand names need be considered when entering a developing consumer society. If media patterns are any indication, consumers in newly opened consumer societies appear less sensitive to price and service than are other consumers (Tse et al. 1989). Again however, these consumers begin to react to these tools much like fully developed consumer do as time passes. The impact of brand image on these consumers is also difficult to analyze. Many of these consumers are likely to be familiar with only a few internationally known and respected brand names (e.g., Disney, IBM, Coke, etc.). It is unclear that a well-known brand will signal quality to the extent it does in the U.S. Similarly, the impact of price on quality perceptions is unclear. Consumer ethnocentrism may also impact these relationships multinationally. However, it is difficult to offer specific research questions on this issue as of now. The following research questions summarize our suggestions with respect to retail product assortments.

7. Product lines should be very basic in new consumer societies and should evolve more toward hedonically oriented product lines as the society develops.
8. The degree of consumer ethnocentrism in a society is related negatively to the success of product lines containing large quantities of imported goods.

## CONCLUSION

We offer these thoughts as fuel for thought for research examining retailing in newly opened consumer societies. Our focus here has been on consumer behavior more than on

political barriers to trade. Although the barriers have lessened considerably in the recent past some remain. Reviews of these barriers are provided elsewhere (see Davies 1993) and have been discussed somewhat in this session. The main consideration is that retailers refrain from entering markets without consideration of consumer peculiarities associated with an emerging consumer society.

## REFERENCES

- Babin, Barry J., William R. Darden, and Mitch Griffin (1994), "Work and/or Fun? Measuring Hedonic and Utilitarian Shopping Value," Journal of Consumer Research, 19 (March), in press.
- Babin, Barry J. and William R. Darden (1994), "Mapping the Affective Quality of Retail Stores: Some Practical Insights," The Cutting Edge III: Patronage Behavior and Retail Strategy, Vol. 3, Baton Rouge, LA: LSU Press, 215-226.
- Darden, William R. and Barry J. Babin (1994), "Exploring the Affective Quality of Retail Environments: Expanding the Scope of Retail Personality," Journal of Business Research, 29 (February), in press.
- Davies, Keri (1993), "Trade Barriers in East and South East Asia: The Implications for Retailers," International Review of Retail, Distribution, and Consumer Research, 3 (October), 345-365.
- Dawson, Scott, Peter H. Bloch, and Nancy M. Ridgway (1990), "Shopping Motives, Emotional States, and Retail Outcomes," Journal of Retailing, 66 (Winter), 408-427.
- Donovan, Robert J. and John R. Rossiter (1982), "Store Atmosphere: An Environmental Psychology Approach," Journal of Retailing, 58 (Spring), 34-57.
- Eroglu, Sevgin and Gilbert D. Harrell (1986), "Retail Crowding: Theoretical and Strategic Implications," Journal of Retailing, 62 (Winter), 346-63.
- Havlena, William J., Morris B. Holbrook, and Donald R. Lehmann (1989), "Assessing the Validity of Emotional Typologies," Psychology and Marketing, 6 (Summer), 97-112.

- Holbrook, Morris B. (1986), "Emotion in the Consumption Experience: Toward a New Model of the Human Consumer," in The Role of Affect in Consumer Behavior, Robert A. Peterson, Wayne D. Hoyer, and William R. Wilson eds. Lexington, MA: Lexington Books.
- Holbrook, Morris B., Robert W. Chestnut, Terence A. Oliva, and Eric A. Greenleaf (1984), "Play as a Consumption Experience: The Roles of Emotions, Performance, and Personality in the Enjoyment of Games," Journal of Consumer Research, 11 (September), 728-39.
- Kotler, Phillip (1974), "Atmospherics as a Marketing Tool," Journal of Retailing, 49 (Winter), 48-64.
- Netemeyer, Richard G., Srinivas Durvasula, and Donald R. Lichtenstein (1991), "A Cross-National Assessment of the Reliability and Validity of the CETSCALE," Journal of Marketing Research, 28 (August), 320-327.
- Russell, James A. (1983), "Pancultural Aspects of the Human Conceptual Organization of Emotions," Journal of Personality and Social Psychology, 45 (June), 1281-8.
- Russell, James A. and Jacalyn Snodgrass (1987), "Emotion and the Environment," in Handbook of Environmental Psychology, D. Stokols and I. Altman eds., New York: John Wiley and Sons, 245-80.
- Taylor, C. Ray (1994), "Brand Differentiating Messages in South Korea," working paper, Villanova University College of Business and Commerce, Villanova PA.
- Tse, David K., Russell W. Belk, and Nan Zhou (1989), "Becoming a Consumer Society: A Longitudinal and Cross-Cultural Content Analysis of Print Ads from Hong Kong, the PRC, and Taiwan," Journal of Consumer Research, 15 (March), 457-472.
- Zajonc, Robert B. and Hazel Markus (1982), "Affective and Cognitive Factors in Preferences," Journal of Consumer Research, 9 (September), 123-31.



# AN EXAMINATION OF INFLUENCES ON SUPPORT FOR FREE TRADE AND NAFTA BY MANAGERS IN THE ENVIRONMENTAL SERVICES/TECHNOLOGY INDUSTRY

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## ABSTRACT

Support for free trade and NAFTA by managers of businesses in the environmental services and technology field are linked with their environmental concern, their favor for providing

financial aid to foreign trading partners to clean the environment, and their desire for regulation of markets and tough laws for to provide environmental protection.

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## INTRODUCTION

During 1993 a socio-politico-economic debate raged in the United States, peaking with the vote on NAFTA in November of the year. The debate pitted the Clinton administration and various business groups against H. Ross Perot, labor unions, and certain environmental groups. It appears that, for the most part, the people's representatives in Congress have listened to their constituents in deciding how to vote. They have also listened to special interest groups who have taken certain public information relative to free trade and NAFTA, factual and otherwise, and interpreted this information through their own perceptual lenses. Thus, the relevant facts have been arguable and their interpretation even more in question. The major issue of interest to the present study is how some of those with a special interest in NAFTA have interpreted the often conflicting information about the treaty to form an opinion on free trade in general and NAFTA in particular.

The decision on NAFTA will have major implications for U.S. foreign and trade policy. A commitment in favor of free trade with Mexico and Canada will affect thousands, perhaps millions, of businesses in all three countries. (Note that the 1989 free trade agreement with Canada, which has already been implemented, means the implications of NAFTA therefore concern primarily trade relations with Mexico.) Looking beyond relations with Mexico, the vote on NAFTA will likely have longer run implications by setting a precedent for future decisions on free trade; notably, on whether the

U.S. should seek to establish free trade within the entire Western Hemisphere. With the passage of NAFTA, there is little doubt that future treaties that facilitate free trade will be proposed. Marketing scholars can help the treaties' proponents understand why certain segments of the U.S. society favor free trade, and why managers and consumers will try to influence their legislators to either accept or reject these instruments of U.S. policy. This paper focuses on the appeal free trade holds for the business segment of society. It provides a partial explanation for the support, or lack of support, given by managers of businesses in a field that is salient to implementing any agreement with less-developed nations such as Mexico -- the field of environmental services and technology.

While free trade can be a tremendous boon for business in general, it will benefit certain industries in particular. The global market for environmental equipment and services was estimated at an annual \$200 billion for 1990 and projected to grow to \$300 billion by the year 2000 (Stevens 1992). Because free trade with Mexico holds sizable implications for environmental protection, it creates a potentially huge market for firms whose business is to help solve environment-related problems. The U.S. currently has more than 40,000 environment-related businesses. By the year 2000, government figures project that more than 7,000,000 million people will be working in an environment-related field (U.S. Department of International Trade 1993). These figures indicate the importance of learning more about marketing issues of concern to these businesses. The

purpose of this study, then, is to investigate the influence of certain environment-related attitudes on support for eliminating trade barriers, particularly those on U.S. trade with Mexico.

#### **A REVIEW OF RELEVANT ENVIRONMENT-RELATED ISSUES AND PROPOSED INFLUENCES ON MANAGERS' SUPPORT FOR FREE TRADE/NAFTA**

As an instrument of policy to effect free trade, NAFTA lifts many barriers to trade among Canada, the United States, and Mexico. The treaty specifies that within fifteen years of implementation all tariffs on North American products shipped among these three countries will be lifted. Ratification of NAFTA will require Mexico to immediately eliminate tariffs on almost fifty per cent of incoming U.S. industrial goods. Sixty-five per cent of industrial goods will enter Mexico tariff-free within five years (Driscoll 1992). The U.S. and Mexico have already anticipated implementation of a free trade policy; U.S. exports to Mexico tripled from 1987 to 1992, reaching \$40.6 billion and a positive balance of \$7.5 billion in the latter year (Welch 1993). Mexico currently provides the fastest growing market for the U.S. exports. Opponents of NAFTA profess otherwise, citing higher costs and lesser benefits from free trade. Regarding jobs, the vocal H. Ross Perot and an expensive advertising campaign funded by American labor unions claimed that NAFTA would cause a net loss, rather than a gain, of American jobs. Beyond jobs, the effect of NAFTA on the physical environment of both the U.S. and Mexico has played a large part in the free trade controversy. This issue provides the focal point for this study.

The following material treats relevant environmental issues and proposes their influence on managers' Support for free trade, which is therefore the criterion construct in this study. To support generalization, this study refers to managers' attitudes toward free trade in general; to provide a point of focus, it emphasizes trade with Mexico in particular. Five environmental issues appear particularly salient to understanding managers' Support.

The first issue considered is the effect of a manager's general concern for the environment. Many environmental activists have opposed free trade with Mexico, fearing that companies will locate in Mexico because environmental

regulations are less strictly enforced there than in the United States. They propose that external trade policies should be linked with internal environmental policies. Opponents of NAFTA commonly point to the maquiladoras, U.S. firms operating just into Mexico. Both the U.S. and Mexican governments have scrutinized the maquiladoras because of their lack of compliance with Mexican environmental regulations. Of course, this non-compliance has concerned environmentalists. Similar problems exist in other LDC's. Given the continuing controversy over Mexican performance in regard to environmental protection, it appears that *those managers who have greater Environmental concern will evince lesser Support for free trade.*

The second issue involves who will pay to clean and protect the physical environment that is affected by Mexican industry. President Bush proposed the Integrated Border Plan in 1992, seeking to eliminate some environmental objections to NAFTA. The plan aims to protect human health and natural ecosystems along the border. The plan calls for the U.S. to allocate \$380 million over a two year period and Mexico \$480 million over a three year period to finance cleaning the physical environment (The Economist 1992). This financial support should help pave the way for further cooperation between the two countries as they act to make free trade more palatable. In particular, government funds will enlarge the market for environment-related products and services. Thus, it appears that because they feel this aid paves the way for solving the problems of NAFTA, *those with greater Favor for financial aid will have greater Support for free trade.*

The third issue recognizes that one's Support for free trade depends on an awareness of the pertinent issues. To illustrate, environmentalists have sought to ban import of Mexican tuna caught using nets that are harmful to dolphins. However, the GATT organization has ruled that countries (i.e., the U.S.) cannot impose their own environmental standards on others. For their part, the Mexican government maintains it is genuinely committed to, and finding success in, enforcing environmental standards and improving the environment of Mexico (Mexico Environmental Issues 1992). Mexico claims to have tightened enforcement of environmental regulations that apply to maquiladoras (Mexico Environmental Issues 1992).

In 1992, Mexico formed a new "super agency," SEDESOL, to monitor environmental programs and ensure enforcement of environmental laws. Further, Mexico has been a leader in quickly ratifying international agreements; i.e., the Vienna Convention and Montreal Protocol agreements on protection of the ozone layer and the Convention on International Trade in Endangered Species (Mexico Environmental Issues 1992). In addition, responding to criticisms of its political process, the Mexican government has transferred over \$22 billion of state-owned companies to private hands, ameliorated one-party control, and moved against governmental corruption. In September, 1993 Mexico agreed to a set of supplemental "side agreements" to the basic treaty, providing stronger requirements for environmental standards and labor rights in Mexico. Further, many observers believe free trade through NAFTA will lead to economic growth in Mexico, which in turn will create wealth that can be used to help the environment. This discussion indicates that environmental and public policy differences between the U.S. and Mexico are less divisive than believed by many critics. On this basis, it appears *those with greater Familiarity with environmental and trade issues will have greater Support for free trade.*

The fourth issue deals with the importance of governmental regulation of markets, in particular as regards environmental problems. The GATT organization contends that environmental problems arise when the market (or appropriate governmental control) fails to work properly. GATT asserts that efficient environmental policies, rather than trade policies, should be used to correct the problem. But some persons, when considering the current status of government control, feel the government should enforce even stronger measures to protect the environment. Contrarily, the very nature of free trade implies freedom from governmental intervention in market operation. Actions such as banning the sale of certain products because they harm the environment would run counter to the philosophy of free trade. Thus, *those with a greater Desire for regulation of markets will provide lesser Support for free trade.*

The fifth issue involves what strength and nature of government intervention to effect conservation and environmental protection is appropriate. Many Americans consider NAFTA a "tough" and "green" treaty, especially with

its more recent side agreements. NAFTA requires Mexico to comply with many of the stricter environmental policies of the U.S. It allows the U.S. to deny entry to goods that do not comply with U.S. environmental regulations. Yet for many Americans, these steps are not sufficient; they feel NAFTA falls short of what is necessary to guarantee environmental protection and that even tougher laws are needed. For these persons, *a greater Desire for tough laws will be associated with lesser Support for free trade.*

In addition, the nature of a manager's business and its operations should be useful to understanding the managers' Support. Unfortunately, the often anecdotal treatment of companies in the literature reviewed for this study provides little basis for proposing specific company characteristics and their relationships to Support. Nonetheless, certain relationships seem intuitive; e.g., it appears that managers from companies that serve export markets, particularly Mexico, would be more likely to support free trade.

## METHOD

Data were collected using two methods: (1) a mail survey of companies located in a single Southern state; and (2) attendees of a business exposition with an environmental theme held in the same state completed the questionnaire when approached by an interviewer. The usable sample comprised 74 managers. The survey instrument used six multi-item scales to measure the constructs representing managers' feelings toward the issues discussed above. The construct of Support for free trade connotes backing for free trade and NAFTA. Environmental concern represents the attitude that the environment should be protected--even at the expense of economic growth. Favor for financial aid embodies the notion that the U.S. should contribute financial aid to assist Mexico and other trading partners in cleaning their environment. Familiarity with environmental and trade issues shows an understanding of Mexican and U.S. policies concerning trade and environmental issues. Desire for regulation of markets portrays support for environment-related regulation of the marketplace. Desire for tough laws represents wanting stricter requirements for business and citizens to protect the environment. Company demographics were also collected.

Both multiple regression analysis and canonical correlation were used to examine the relationship between Support for free trade and the five proposed influences on this Support. The regression analysis used composite variables created by averaging all of the items representing each of the six constructs. The canonical correlation analysis used the same composite variables for the five predictor constructs, but treated the criterion Support measure by entering each of the four operational measures as single variables. Bivariate correlation analysis was also used to examine the relationships between the six composite variables and the company characteristics.

## RESULTS

Table 1 gives the results of the regression analysis involving the six constructs. The regression of Support for free trade on the five predictors is significant ( $F = 3.16$ ,  $d.f. = 5, 68$ ,  $p = .013$ ). The  $R^2$  for the equation is .19. T-tests on the five predictors show significant contributions from Favor for financial aid and Environmental concern ( $p < .05$ ), and a marginally significant contribution from Desire for tough laws ( $p = .055$ ); the other two constructs did not make a significant contribution to the equation. The results show that Support for free trade increases to the extent the manager favors giving financial aid to Mexico and other U.S. trading partners to help them clean their environment. Support decreases to the extent the manager is more concerned about the environment than about economic growth; it also decreases with wanting tougher laws to protect the environment. Interestingly, neither familiarity with the issues nor wanting greater environmental regulation in the market affect the manager's endorsement of free trade.

The canonical correlation produced an  $R_c$  of .461, with its Wilks' lambda of .607 significant at  $p = .027$ . For the single significant function, all loadings but that for Familiarity with environmental and trade issues (-.01) reach the customary .30 threshold denoting an important contribution to the canonical variate. The variate for Support is dominated by feeling that there should be no trade restrictions on products imported from Mexico (.86) and that free trade between all countries should be allowed to provide (the manager with) low prices (.84). Lesser contributions come from feeling that the U.S. should have an agreement with Mexico

(.59) and that free trade is good for the U.S. (.50). The variate portrays a general endorsement of free trade that includes trade with Mexico, but, in particular, emphasizes the availability of products and low prices. Four of the five proposed predictor constructs load beyond the .30 level of importance, in the decreasing order of lesser Desire for tough laws (-.57), lesser Environmental concern (-.45), greater Favor for financial aid (.39), and lesser Desire for regulation of markets (-.33). This variate represents wanting the U.S. government to play a reduced role in regulating the environment, yet to provide economic assistance for environmental action to Mexico and other trading partners. In general, the company characteristics did not aid understanding the managers' Support for free trade; thus, the results are not presented here.

## DISCUSSION

The findings show the managers' Support for free trade is related to four of the five predictor constructs--to all but Familiarity with environmental and trade issues. The relationships between Support and the other four constructs present a clear picture. Managers in the field of environmental services and technology associate free trade with damage to the environment. The managers who endorse free trade evince a lesser concern for the environment and require the U.S. government to play less of a caretaker role. One might consequently seek to explain this inverse relationship by offering various rationales that involve profitability for these managers' company. However, correlations computed between Support and the company characteristics that measure involvement in export trade offer no statistically significant patterns of association with any of the six constructs except Familiarity, which will be discussed below.

Conversely, of course, those who are less in favor of free trade express greater concern about protecting the environment. They mirror the position of the most vocal pro-environment advocacy groups in finding free trade inconsistent with environmental stewardship. On these grounds, they desire government intervention in various forms. They want government to help protect the environment by regulating the operation of markets and by passing tougher laws to control consumers as well as businesses.

Could the lack of influence from Familiarity with environmental and trade issues represent a measurement flaw? For evidence, its relationships with the company characteristics were examined, using t-tests or bivariate correlations as appropriate. The findings show greater Familiarity for managers of those companies that export products from their company location ( $t=3.49$ ,  $p=.001$ , two-tailed), export products to Mexico from their company location ( $t=2.75$ ,  $p=.005$ ), plan to export to Mexico in the next year ( $t=2.13$ ,  $p=.038$ ), have exported products for a longer time ( $r=.45$ ,  $p=.000$ , two-tailed), have exported products to Mexico for a longer time ( $r=.23$ ,  $p=.049$ ), and gain a higher percentage of company sales from exports ( $r=.42$ ,  $p=.000$ ). Clearly, the measurement of Familiarity was effective. Those managers whose companies are most involved in export trade evince a greater awareness of pertinent trade and environmental issues, even though Familiarity does not affect their Support.

## REFERENCES

- Driscoll, Anne M. (1992), "Key Provisions of the North American Free Trade Agreement," Business America, 113 (October 19), 3-11.
- Mexican Environmental Issues (1992), Embassy of Mexico, 1911 Pennsylvania Ave. NW, Washington DC 20006. Office for Social Development.
- Stevens, Candice (1992), "The Environment Industry," OECD Observer, 177 (August/September), 26-28.
- The Economist (1992), "From Fast Track to Back Burner," 322:7748 (February 29), A25-A26.
- U.S. Department of International Trade (1993), "Mexico's Environmental Potential."
- Welch, Tom (1993), "View Stays Positive for U.S. Firms Doing Business in Latin America," Business America, 114 (April 19), 7-9.

**TABLE 1**

Regression of Support for Free Trade on  
Five Proposed Predictor Constructs

| Predictor construct                                        | Coeff. | Beta | t-Value | p <sup>a</sup> |
|------------------------------------------------------------|--------|------|---------|----------------|
| Environmental concern                                      | -.32   | -.31 | 2.33    | .011           |
| Favor for financial aid                                    | .32    | .39  | 3.03    | .002           |
| Familiarity with environ/trade issues                      | .02    | .12  | .21     | .418           |
| Desire for tough laws                                      | -.19   | -.21 | 1.62    | .055           |
| Desire for regulation of markets                           | -.01   | -.01 | .06     | .478           |
| <sup>a</sup> Probability of Type I error, one-tailed test. |        |      |         |                |

# THE EMERGENCE OF GLOBAL TRADING BLOCKS: WILL IT LEAD TO GLOBAL FREE TRADE?

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## ABSTRACT

Today's U.S. economy can be characterized as truly global. Our prosperity depends in large measure on the prosperity of our trade partners (Sundquist 1991). It has been argued that free trade is good and all parties benefit. One case given where this is especially true is the case of the world's principle trading nations (i.e., the three major regional trading blocks of North America, the European Community, and industrialized Asia). These blocks account for 15 percent of the world's population, yet produce 72 percent of its wealth (Sundquist 1991).

Some argue that these new regional trade groupings would be a faster route to global free trade. Following are some of the reasons given:

- "Trade creation" among member states is more than the "trade diversion" from non-members (Sundquist 1991, Krugman 1992).
- Regional trade agreements can weaken the consistency for nationalistic protectionism (Sundquist 1991).
- Regional trading blocks can be laboratories for free-trade initiatives (e.g., agreements on intellectual rights or service industries). And trading nations have been unable and unwilling to implement these initiatives on the global level.
- With the consolidation of countries into three regional trading blocks, it will be less difficult to adopt global reductions in trade barriers.
- It is not in the interest of any one trade region to strengthen trade barriers with the

rest of the world given the vital role that extra-regional trade plays in their economies (Lawrence 1991).

- Regional blocs will inevitably become building rather than stumbling blocks in the move towards global economic integration (Lawrence, 1991).

There are, however, some cautionary observations concerning the emergence of the regional trade blocs. Among these are the following:

- "A world organized around regional trade blocs unconnected to a larger global trade framework would have devastating consequences for those nations left outside the regional blocs, particularly in the poorest and least developed of the world's nations" (Sundquist 1991).
- "Negotiations between just three parties would also increase the potential for conflict. Larger and powerful blocks would have bigger temptations to protect their markets with restrictions on imports from outside the block" (Krugman 1992).

Suggested solutions: "For trade powers (U.S., Japan, and EC) not to withdraw from extra-regional commerce" (Sundquist 1991). And "turning regional trade integration into a vehicle for multilateral liberalization" (The Economist, 1992).

# NORTH AMERICAN FREE TRADE AGREEMENT (NAFTA): A CANADIAN PERSPECTIVE

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## ABSTRACT

Advantages of NAFTA should not be evaluated based on protectionist pressures created by uncompetitive industries but by looking at the potential for **future** trade. Many of the negative consequences of NAFTA are likely to occur with or without NAFTA. However, a bilateral agreement between the US and Mexico would have put Canada at a disadvantage in trading with the US.

Canada is a trading nation that derives approximately thirty percent of its GNP from exports. Approximately 75 percent of Canadian exports go to the U.S. While the volume of trade with the US explains the reason for Canada's desire to join NAFTA, the current size of trade with Mexico is not the main reason for Canada's involvement. A Mexico-USA FTA would have increased the competitiveness of the US firms by allowing access to cheaper Mexican labor and other inputs. Consequently, the Canadian firms would have been at a disadvantage both in competing in the US as well as in defending their domestic market against the US and the Mexican firms. The latter is due to the fact that Mexican firms would also benefit from access to U.S. technology and investment. The US is not just negotiating a multi-lateral trade agreement with Canada and Mexico but is also addressing trade issues with other countries in Latin America and the Caribbean. The nations of Latin America are attractive places to do business in as they offer many opportunities for investment that could lead to advantages in other markets.

It is possible to identify some of the potential areas for increasing exports to Mexico by examining (1) Canada's ability to export, (2) the

demand by Mexico and (3) Canada's share of Mexican imports. The sectors that meet all three conditions have the most potential. In these areas, Canada has captured a fair share of the world market, Mexico has sizable imports, but Canada's share in Mexico is small. Examples include organic chemicals, mineral fuels, cereals, plastics, precision instruments, inorganic chemicals and aluminum articles.

NAFTA will create trade among its members as a result of lower costs by decreasing tariffs, reducing non-tariff barriers and integrating the three economies. In all three countries, domestic prices are expected to decline as a result of reduced tariffs and more efficient allocation of resources. At the steady state, it could also lead to higher levels of income and employment for all partners.

The real issue for Canada is not so much whether NAFTA is beneficial or whether the cost of adjustment could be borne by the government or what will happen to the businesses that are hurt by it. The issue is much broader. Canada cannot continue to hide behind its protective trade walls and expect to maintain its high standard of living. It will have to become more competitive internationally, and the years of protectionism will exact their cost whether the country has NAFTA or not. The biggest benefit of NAFTA for Canada might very well be the change of attitude that will accompany it among employees, business and government. NAFTA will actually provide a certain degree of insurance by providing access to a secure market against EC and the other competitors including Japan.

# 30 YEARS OF PERCEIVED RISK: SOME RESEARCH ISSUES

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## ABSTRACT

This article explores how perceived risk has been used to explain behaviour over the past 30 years using convenience and shopping goods as well as services in the consumer and industrial fields. From a review of 120 studies, a consumer product and U.S. dominance can be seen in the literature, which may have stifled theoretical developments in perceived risk.

Methodological observations include; a heavy use of student samples with relatively low sample sizes; a lack of attention to purchase detail, purchasers' buy-phase and demographics which can affect risk perception. Suggested areas for further research are high-value products, not-for-profit organisations and industrial services.

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## INTRODUCTION

From the early 1960's perceived risk has been of interest to marketers and consumer behaviour researchers and the case can easily be made for marketing practitioners and researchers to continue to be interested in perceived risk and hence be interested in a review of the literature. Perceived risk theory plays a role in facilitating marketers seeing the world through their customer's eyes. The theory has intuitive appeal and can be almost universally applied. It is suggested that perceived risk is more powerful at explaining consumers' behaviour since consumer motivations in purchasing are more often to avoid mistakes rather than to maximise utility in purchasing. Analysis of risk can be used in deciding on marketing resource allocation decisions. For example, a study of risk relievers used by consumers can help to increasing marketing efficiency by targeting resources and strategies which consumers find more useless while withdrawing them from those which they find less useful. Risk analysis can be used in brand image development, targeting, positioning and segmentation. For example:- highlighting risk aspects in comparative advertising; repositioning commodity products to give added value, segmenting consumers as on the basis of their risk reducing strategy usage. Examining in risk perception can also generate new product ideas. For example, in a recent study of breakfast cereals (Mitchell and Boustani, 1993) one of the risk consumers perceived was a result of disliking milk. This suggests the development of non-milk based breakfast products such as the recently UK-launched Kellogg's pop tarts.

The relationship between risk and uncertainty has often been confused by marketers, despite clear ideas from Knights on the subject as far back as 1948. Knight's (1948) definition separates the concepts of risk and uncertainty. 'Risk' is defined as having a known probability associated with various decision outcome while 'uncertainty' exists when knowledge of a precise probability is lacking. However, as Cox (1967) has commented, consumers are rarely in a position to know the probabilities associated with purchases exactly, therefore much of the work on consumers has not found Knight's thinking to be helpful. One of the most frequently used operations of definition has been a two component approach where Overall risk =  $\sum^n \text{Probability of loss}_i \times \text{Importance of loss}_i$ .

Numerous studies have used its tenet to help explain buyer behaviour in a variety of different contexts, but detailed examination of the range of these contexts and methodologies has eluded the literature. This article reviews applications of the theory over the past 30 years and attempts to document areas where the work has been done, highlight some of the general problems with the literature and generate ideas for future research. A survey of the literature using abstracting services and the reference-tree method revealed some 120 empirical studies which formed the basis of the analysis. For ease of reporting, the studies have been collated into four sections: convenience products; a mixture of convenience and comparison goods; services, including professional services; and non-purchase related areas.



## Perceived Risk in its Applications

In the food and convenience non-food section, the single most noticeable type of study is that of generic versus branded grocery items (see for example, Toh and Heeren, 1982; Wu, Holmes and Alexander, 1984; Brooker, 1984; Dunn, Murphy and Skelly, 1986; Chernatony, 1989). In fact, food products have been a consistent feature of perceived risk studies over the years. Some studies have chosen to examine a mixture of convenience and shopping goods (e.g. Popielarz, 1967; Johnson & Andrews, 1971; Deering & Jacoby, 1972; Kaplan, Szybillo and Jacoby, 1974; Woodside, 1974; Hampton, 1977; Derbaix, 1983; Laurent & Kapferer, 1985). From these studies, it can be seen that in general the higher value, more complicated products and shopping goods are more risky than the lower value, simpler convenience products. Some of the most popular products studied have been deodorant, headache remedy, coffee, car and TV. Since Slovic (1962) observed that risk taking is markedly 'task specific', many studies have measured differences in perceived risk at the product class level, but few have measured differences over product classifications (Derbaix, 1983; Mitchell & Greataorex, 1990c). Derbaix (1983) found that for search goods characterised by highly visible attributes, psychosocial risk was more important than others. For durable experience goods which are usually expensive, financial risk came first, and for non-durable goods physical risk was more important. Mitchell and Greataorex (1990c) directly compared 24 products, six from each classification, including services. The authors reported that the order of riskiness for classifications was: convenience non-food, convenience food, shopping goods and services, services being the most risky. The overall risk, however, concealed interesting differences; shopping goods, which have significantly more seriousness associated with failure than services and have significantly less uncertainty. Further work by Mitchell and Greataorex (1990a) has identified how the types of loss vary across classifications. Not only did the type of loss vary, but also the degree to which these losses explained overall risk altered according to the classification; ranging from 44% of services to 31% for shopping goods.

Some studies have chosen to examine only comparison goods or complex consumer products (e.g. Hisrich, Dornoff and Kernan, 1972;

Peter and Tarpey, 1975; Pras and Summers, 1978; Winakor, Canton and Wolins, 1980; Lumpkin and Massey, 1983; Asembri, 1986). Clothes would seem to be the most popular and appropriate choice of product for study in this collection, given the rapid change of tastes and styles. However, the brown-goods market has been overlooked.

A number of authors have shown that services are riskier than products because of their inherent properties of; and this affects mainly the probability component of risk (Mitchell and Greataorex, 1993; Guseman, 1981; Lewis, 1976). The most frequently studied services are life insurance, doctors and hairdressers, then legal services, banks and dry cleaners. More recent studies have focused on professional services (e.g. Crocker, 1983; Motilla, 1983; Garner & Garner, 1985; Boze, 1987).

From [Table 1](#) it can be seen that 10 studies did not fall into the conventional purchase behaviour categories. This reflects the versatility of perceived risk and its universal appeal for researchers keen to explain less usual consumer phenomena. Some of the studies include topics like experts systems and artificial intelligence (Taunton, 1989; Wong, 1988), flexible manufacturing systems (Phillips, 1987), complaints about advertising (Lawson, 1985), financial risk assessment (Farrelly, Ferris & Reichhenstein, 1985), top executive travel (Brown, 1987) and diffusion theory (Onkvisit & Shaw, 1989).

## GENERAL LITERATURE CRITICISMS AND IDEAS FOR FURTHER RESEARCH

**The Decision Problem** As can be seen from [table 1](#), there is a large variation in the type of decision problem studied. One key point is the increasing number of services that have been studied using the perceived risk framework. A second point is that, despite the increase, services are still the second least studied area. A third point to note is the absence of any category labelled "industrial services" (see later section). By far the most popular decision problem is that of the complex consumer product, which perhaps is not surprising given the origins of the theory in the consumer sphere and the risk associated with complex products. But perhaps more surprising is the relatively few studies which have considered routine organisational purchases. While these decisions may be considered less risky than one-off complex

purchases, they nonetheless can account not only for the vast majority of organisation buying decisions, but also for a large proportion of the purchasing budget. As such, they may be worth considering for further study. Consumers have been the most frequently sampled and managers studied the least. Table 2 shows that

students have been mainly used in consumer studies and particularly for complex consumer decisions, while they have only been used twice in studies considering organisational buying. The validity of using students as surrogates for managers must be questioned and has been (see for example Bernard, 1967).

| <b>Table 1                      Type of Decision Problem Studied Between 1960-1989<sup>1</sup></b> |    |    |   |    |   |    |       |       |
|----------------------------------------------------------------------------------------------------|----|----|---|----|---|----|-------|-------|
| Decade                                                                                             | A  | B  | C | D  | E | F  | Other | Total |
| 1960-69                                                                                            | 5  | 0  | 0 | 4  | 0 | 0  | 0     | 9     |
| 1970-79                                                                                            | 5  | 17 | 1 | 12 | 3 | 7  | 2     | 47    |
| 1980-89                                                                                            | 13 | 20 | 8 | 9  | 0 | 8  | 8     | 64    |
| Total                                                                                              | 23 | 37 | 9 | 25 | 3 | 13 | 10    | 120   |

| <b>Table 2                      Type of Decision Problem Studied By Decision Maker Type</b> |    |    |   |    |   |    |       |       |
|---------------------------------------------------------------------------------------------|----|----|---|----|---|----|-------|-------|
| Sample                                                                                      | A  | B  | C | D  | E | F  | Other | Total |
| Consumer                                                                                    | 14 | 23 | 9 | 17 | 0 | 0  | 2     | 65    |
| Manager                                                                                     | 0  | 0  | 0 | 0  | 3 | 10 | 7     | 20    |
| Students                                                                                    | 9  | 14 | 0 | 8  | 0 | 2  | 2     | 35    |

Key:    A = Routine Consumer    C = Consumer Services    E = Routine Organisational  
        B = Complex Consumer    D = Consumer Mixed Goods    F = Complex Organisational

<sup>1</sup> The type of decision problem which has provided the setting for perceived risk studies ranges from routine consumer purchasing of soap to complex organisational purchasing of reprographics equipment. Routine consumer purchases were mainly convenience goods such as soap, toothpaste, etc; complex consumer purchases were things like cars and major household equipment; consumer services were purchases such as hairdresser, insurance; consumer mixed goods, involved studies which had combined convenience and comparison goods in the same study e.g. paper towel and stereo; complex organisational were usually capital goods while routine organisational were things like screws and bolts. Other kinds of decision were documented. These included situations such as specific experimental problems, choice of professor, or studies in which no decision was specified.

**Sample Populations & Sizes** Of the consumer studies which have been reported, the overwhelming majority have based their findings on sample sizes less than 500. Such sample sizes are not large, compared to the population sizes and they can result in limiting the statistics which can be used with confidence on the data. If the appropriate probability sampling methods have been rigorously applied, there is little cause for concern. However, the sampling procedures used in many studies are have neither been random nor rigorous. This reflects badly on the degree of confidence with which one can generalize about the findings. A clear criticism can be made when considering the

average sample sizes across subject type since average sample sizes for students is only 112. With some 30% of the sample studies having student subjects, such a low average is cause for concern. The 30% figure is comparable earlier observations of the use of students as surrogates made by Cunningham et al. (1974) who recorded between 22 and 30% of articles published between 1967-72 in business journals employed student subject with over 75% using convenience samples. There is some supportive evidence for using student surrogates. For example, similarities between students' and housewives' answers were reported in a dissonance reduction experiment (Sheth, 1970) and

students and housewives had similar factor loadings in the study of scientific differential evaluations of two nationally known corporations (Clevenger, Lazier and Clark, 1965). Other researchers have found mixed support, reporting some significant differences between student and housewife samples in the influence of race of model upon advertising perceptions and bias related to country of origin in glassware preference (Enis, Cox and Stafford, 1972). Others have concluded from their empirical investigations, "That students are not good surrogates for assessing household consumer sociopsychological attributes ... product information exposure ... decision factors and store usage" (Cunningham et al. 1974, p409). Given the atypicality of students, caution must be used when considering the findings of these studies. This is especially so when an attempt is being made to integrate studies. The criticism also has wider implications which extend to much of the exploratory work which has been done with student subjects. Many findings remain untested on the wider population.

How have sample sizes changed over the thirty years? Table 3 shows that the average sample numbers have fallen significantly ( $p <$

1%) in the last two decades compared with 1960-69 and that the smallest sample numbers are to be found in the 70s. This latter point may be accounted for by considering the "vogue" of industrial risk research at that time which usually has smaller populations. One might have expected an increasing sample size over the decades since much exploratory work can be done on small samples in a theory's infancy before it becomes better known and its credentials are established. This observation could be a criticism, if the reason for the small sample sizes is research laziness. An alternative, less critical, explanation for the observed decrease is that researchers' statistical and sampling capabilities have increased over the years and so smaller samples may be justified. There is scope for large-scale research from which valid generalisations about consumer markets can be made. It may be that researchers are slow to investigate perceived risk or that their studies are simply not reported in the literature. Either way, there is room for future cooperation between academics with expertise in perceived risk and commercial organisations. Recent work by Deighton, Romer and McQueen (1989) has demonstrated how successful this partnership can be in consumer behaviour research.

**Table 3<sup>2</sup> Average Sample Size for Studies Across Different Decision Maker types and decades**

| Decade  | Average Sample Size   | Decision Maker | Average Sample Size |
|---------|-----------------------|----------------|---------------------|
| 1960-69 | (1) 741 <sup>32</sup> | Consumer       | 363 <sup>3</sup>    |
| 1970-79 | (2) 178 <sup>1</sup>  | Manager        | 229                 |
| 1980-89 | (3) 271 <sup>1</sup>  | Student        | 112 <sup>1</sup>    |

<sup>2</sup> Superscripts denote the row from which the figure is significantly different at the 5% level.

Dowling (1986 p. 201) comments that researchers typically interview only those respondents who have purchased the product. According to perceived risk theory, these consumers have been able to reduce their risk perceptions to a tolerable level. Those consumers who deliberate but do not purchase, perhaps because of their high risk perceptions, are consequently not interviewed and form a source of systematic sample bias. Some of the studies which fall into this category are: Cox and Rich (1964); Dash, Schiffman and Berenson (1976); Hisrich, Dornoff and Kernan (1972); Schiffman (1972). Only a few studies could be found which had questioned both potential adopters and non-adopters (Arndt, 1967; Sheth and

Venkatesan, 1968). There is clearly scope for a more thoughtful approach to when consumers are interviewed.

**Buying Stages** Although very few studies have been designed to measure the changes, there is some limited evidence that risk perception and reduction may vary marginally during the stages of the buying process (Mitchell and Boustani, 1994). Further research might consider employing experimental designs in order to assess the nature of the changes. There are many questions which need answering, for example, what happens to risk just before a person decides to buy the product? How would a knowledge of the changes help sales people to

move consumers through the purchasing phases? What are the changes in consumer risk reducing behaviour during the stages?

**Buying Scenarios** A general methodological criticism of the studies can be made concerning their lack of attention to purchase details. As has already been noted, perceived risk is a markedly task specific phenomenon, which may vary even between brands (Slovic, 1962). Very few perceived risk studies have attempted to control the buying scenario to such an extent. Whilst ideally, subjects should actually be going

through the pre-purchase decision process, this can create severe methodological problems. Nonetheless, some attempt does need to be made to control the parameters in which the decisions are to be taken, otherwise the number of variations which individual subjects could conceive of might seriously affect the validity of the findings. At minimum, the respondent should be given a buying scenario in which to envisage himself purchasing the product. Crocker's (1983) study and use of experimental design is a notable and welcome exception to this trend.

**Table 4 A Classification of Perceived Risk Studies**

|                             |     |                                 |    |
|-----------------------------|-----|---------------------------------|----|
| Consumer                    | 97  | Industrial                      | 23 |
| Products                    | 111 | Services                        | 9  |
| Profit Making Organisations | 120 | Non-Profit Making Organisations | 0  |

**Demographic Determinants of Risk** Despite the importance of demographic variables which effect consumers' behaviour and the long tradition of perceived risk research, how demographic variables influence risk perception and reduction has not been clearly identified. In a recent review of the subject Mitchell and Boustani (1993a), highlighted the conflicting evidence for the effects of age, gender and social class and presented evidence that demographic variables, especially gender, did have a significant effect on risk perception and reduction even in a low-risk product such as breakfast cereals. There is clear scope for the reporting of how demographic variables affect risk. Given the frequency which these variables are collected in studies, the additional effort seems minimal, yet might substantially improve our understanding of how risk operates across society.

**High-Risk Products and Services** Very many studies have examined fairly low-cost convenience food and non-food stuffs, with which there is little or no risk usually involved. Many of the products used in studies can be criticised for being below a risk threshold when perceived risk theory has little explicatory power; except when these products are the subject of a consumer 'scare'. A priority for future research should be to use high-value products or services, for example, cars, fridges, washing machines, brown goods, boats, caravans, houses, time-share accommodation, jewellery,

objets d'art, holidays, wedding arrangements, private pension plans etc.

**Nationality** The increasing internationalisation of companies and markets, which is especially apparent in Europe, provides a stimulus for cross-national research. Some research has been done which shows that perceived risk does vary according to a product's country of origin. Mitchell and Greator (1990b) extended this to consider risk perception between nationals and non-nationals, because of the increasing mobility of travellers and the increase in the numbers of people working in foreign countries. A longitudinal study is called for to examine the mechanism by which risk reducing behaviour develops in non-nationals and how long this process of re-adjustment takes.

**U.S. Literature Dominance** The vast majority of studies have been conducted in the U.S.. From the sample 85% were U.S., 5% U.K. and 10% from other countries. It should be noted that such a high U.S. percentage of the studies examined may be partly due to the English language speaking bias inherent within the abstracting services used in collecting the studies; non-English European and Asian Pacific journals are likely to be severely under-represented. Nonetheless, other authors have pointed out that this is a shortcoming in the marketing literature (Verhage et al., 1990). Non-U.S. based research would help to fill the gap which exists in the literature and help to

allay worries about perceived risk's ethnocentricity.

**Industrial Professional Services** Looking at the 120 studies, it is clear that the majority have taken place in the consumer market, using products, and that all the studies have focused on the profit making sector. (See [table 4](#).) It is curious that the areas of not-for-profit and industrial services have received little or no attention. Areas for further investigation might include not-for-profit organisations such as charities, voluntary agencies, central and local government and, in the UK, the health service. Interestingly, many of the not-for-profit organisations are involved in providing services rather than products. If further investigations were conducted, this would also help to redress the product/service imbalance in the literature at the moment.

**Risk and Motivation** On a more speculative note, there appears to be an obvious link between risks which are needs based and theories of motivation which are needs based. For

example, the psychosocial risks of wearing an unacceptably dirty suit are based on the need for social acceptability. The level of need which is primarily being satisfied by the purchase is likely to be translated into the main type of risk involved in the purchase. Additional work, both empirical and conceptual, is needed to determine the nature of the changes which occur in perceived risk and risk reduction as consumers' motivations change. How strong is the relationship between need satisfaction, perceived risk and loss type? Is psychological loss only discernable in consumers who are nearing the point of self-actualisation? The answers to these questions might enable further development of perceived risk and its role as a fundamental theory of consumer behaviour.

## REFERENCES

A full list of all 120 references is available from the author on request: V.-W. Mitchell, Manchester School of Management, UMIST, P.O. Box 88, Manchester M60 1QD, ENGLAND.



# **SOLVING OPTIMISATION PROBLEMS IN MARKETING USING TABU SEARCH**

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## **ABSTRACT**

In this paper we consider the application of tabu search to the field of market management. We describe the background and fundamentals of the technique and give, following a literature review, a list of relevant marketing areas to which tabu search can be applied. We present two worked examples; one in site location and the other in segmentation. These indicate how tabu search can be applied beneficially to market management optimisation problems.

Tabu search is an iterative procedure for solving discrete combinatorial optimisation problems. The basic idea, suggested by Glover (1977), is to explore the search space of all feasible solutions by a sequence of moves. A move from one solution to another is the best available; however, for each iteration to escape from locally optimal but not globally optimal solutions and to prevent cycling, some moves are classified as forbidden or tabu (or taboo.)

One of the useful aspects of tabu search is the ability to adapt a rudimentary prototype implementation to encompass additional model elements, such as new types of constraints and objective functions. Glover, Taillard and de Werra (1993) have illustrated the strategic concerns of tabu search and shown how the technique may be exploited in various contexts.

Many implementations of the technique have shown that it is effective for solving computationally intensive optimisation problems of the sort often encountered in marketing models.

In the first example, tabu search is applied to the site location problem where it is required, given a network of outlets, to find the best subset of these to market a particular product or service. In the second example, the problem is to determine the maximum likelihood hierarchical tree representation, given only scanner panel purchase data, on similar lines to Ramaswamy and DeSarbo (1990).

## **REFERENCES**

- Glover, F. (1977). "Heuristics for integer programming using surrogate constraints." Decision Sciences, 8, 156-166.
- Glover, F., E. Taillard and D. de Werra (1993). "A User's Guide to Tabu Search." Annals of Operation Research, 41, 3-28.
- Ramaswamy, V. and W.S. DeSarbo (1990), "SCULPTURE: A New Methodology for Deriving and Analyzing Hierarchical Product-Market Structures from Panel Data." Journal of Marketing Research, 27, 418-427.

# HOTEL RESERVATION SYSTEMS - AN EVALUATION OF PRACTICES IN BRITISH HOTELS

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## ABSTRACT

This paper investigates the various reservation methods used by British hotels and their relative importance. It is the first published study of this kind related to the British hotel

sector. The results suggest that the most important reservation methods are those that contribute to improved 'personalised service' to guests or/and 'marketing planning'.

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## INTRODUCTION

The reservation function is of critical importance in marketing any hotel, since this is the first stage in the room selling process. An efficient reservation approach, ensures that customers' requirements are met and that hotels' occupancy rates are higher than otherwise.

The reservation activity in any hotel has basically three major functions:

1. It handles guests' correspondence with regard to booking hotel services and produces confirmation of reservations.
2. The hotel reservation centre monitors future room availability for weeks and months ahead. If hotel reservationists could track future room availability systematically, it might assist hotels' managers in analysing the hotel marketing plans.
3. The hotel reservation centre develops forecasts of room sales and occupancy loads. An accurate forecasting of occupancy loads could help hotel managers to make effective planning of the hotel's capacity utilisation for profit maximisation.

This paper seeks to investigate the reservation methods used by hotels in the United Kingdom and their relative importance for successful hotel marketing. With this sector coming slowly out of the recession, identification of the importance attached to these methods/approaches is of paramount practical magnitude.

## THE METHODS AVAILABLE FOR MANAGING ROOM RESERVATIONS

The literature suggests that there are six

major methods for managing hotel reservations:

- (1) Overbooking policy (Lefever, 1988);
- (2) Forecasting room availability (Lambert, et al., 1989);
- (3) The yield management technique (Kimes, 1989);
- (4) Computerise hotel's reservation system (Durocher and Neil, 1991);
- (5) Training those responsible for booking reservation (Ross, 1990);
- (6) Employing an approach for minimising hotel's loss of 'no-shows' e.g. taking credit card or fax no. (Prg, 1989).

In order to identify the various hotel reservation systems and their importance, a literature review and interviews with reservation managers at twelve different hotels (in terms of size, ownership and location) have been carried out. As a result, 22 approaches to handling reservation systems in UK hotels have been identified including the previously mentioned six methods (marked on [Table I](#) with an asterisk).

## METHODOLOGY

A questionnaire asking the hotel management to indicate the relative importance of each of the various reservation methods along a seven-point scale (from 1 = not at all important, to 7 = extremely important) was developed. The questionnaire has been pilot tested in ten hotels, and subsequently the reviewed questionnaire has been mailed to a random sample of 120 London hotels selected from the London Hotel Business Directory. The sampling frame of this study was defined as the hotel reservation managers in London hotels in late

1992. During the last few years the hotel industry in the UK has been in deep recession - the exception was London, where the demand was still fairly strong and thus the use of reservation methods still fairly widespread amongst hotels. Despite the fact that all the hotels interviewed were in London, we believe the sample reflects the national distribution of the hotels in the United Kingdom (not inclusive of rural, coastal, small hotel and pensions/guest houses.)

**Table I** presents the relative importance of these 22 methods of managing hotels' reservation systems by calculating the mean scores for the 57 hotels (a 47.5% response rate) that replied to the questionnaire. Also, factor analysis was employed to summarise the 22 reservation approaches in order to identify the underlying constructs of the methods/approaches in use for managing reservations in British hotels. Factor analysis (R type, orthogonal rotation) was used to investigate whether any specific constructs or dimensions underlie the set of 22 methods that play a role in hotel reservation management. As it is known, factor analysis is one of the most commonly used analyses of interdependence (Churchill 1991). It defines a set of dimensions that are not directly observable and summarises them in terms of relatively few categories, or factors. The statistical package employed was SPSS (Statistical Package for the Social Sciences).

## STUDY RESULTS

As can be seen from **table I**, training hotel reservationists is considered the most important reservation method by hotel managers (mean score = 6.172). Since hotels' customers have now become more sophisticated than before, only the well-trained hotel reservationists could rapidly identify their customers' needs, provide essential booking information and win customers from other establishments. This finding was supported also by the very low standard deviation (S.D. = 0.62) the lowest of all the 22 methods of handling hotel reservations. (The standard deviations are not presented in **Table I** due to lack of space). This indicates that the reservation managers' opinions are fairly consistent and their views do not differ significantly on the importance of this approach to managing hotels' reservation systems.

The next most important method for managing hotels' reservations was to have people

with a good knowledge of the hotel's products in the reservation centre (Mean = 6.65). Since many large hotels' products are constantly modified to meet customers' changing needs, these establishments require people with sound knowledge of their hotels' products in the reservation centre in order to efficiently sell to their guests. The standard deviation here is higher (S.D. = 1.62) denoting the fact that hotel reservation managers vary quite a lot on their rating of the importance of this approach.

The third most important approach is taking credit card details on booking (mean = 6.35). The standard deviation here is fairly low (S.D. = 1.14), indicating a relatively high degree of agreement on the part of the respondents. It is interesting to note that adopting the yield management technique is not considered particularly important by the hotel industry in this country, although it is employed quite extensively in American hotels (Jones and Hamilton 1992).

**Table I** presents the five factors identified, and the loadings of the relevant methods/approaches of managing hotel reservations, on the particular factors. A method/approach was said to load heavily on a factor, if its rotated factor loading was greater than 0.50. The following reservation methods were heavily loaded on factor 1:

- (1) Acquiring access to Local or World CRS (Computer Reservation Systems); loading = 0.7776.
- (2) Adopting yield management (loading = 0.7048).
- (3) Using a computerised reservation system (loading = 0.6509).
- (4) Consolidate reservation systems for economies of scale (loading = 0.6250).
- (5) Diversify hotel rooms distribution channels (loading = 0.6123).

Consequently, this factor was labelled COST-EFFICIENCY factor, since all five methods aimed primarily at increasing booking efficiency with less costs in operating hotels' reservations. Similarly the remaining four factors have been labelled, all 5 factors explaining almost 60% of the variation in the data.

- Factor 2: Personalised Service,
- Factor 3: Marketing Planning,
- Factor 4: Administrative System, and
- Factor 5: Customer Care.



The relative importance of these factors was calculated by weighting the methods of reservation heavily loaded on particular factors, with their mean scores; i.e.

$$S = \frac{\sum_{i=1}^n a_i \cdot b_i}{\sum a_i}$$

Where  $S$  is the score indicating the relative factor importance,  $a_i$  = factor loading, i.e. the methods of reservations that have a factor loading greater than 0.50 on that particular factor (See Table I; e.g. for factor 1, the first five methods of hotel reservation are in this category) and  $b_i$  = mean rating of importance of each of the  $a_i$  loading.

As can be seen, the most important factors are personalised service (factor 2) and marketing planning (factor 3). Both these factors are considered VERY IMPORTANT (6.5 and 6.2 respectively). Factors 1 and 5 are considered IMPORTANT (with scores of 5.6 and 5.3 respectively); Factor 4 (Administrative system) is perceived as of relatively 'neutral' importance (4.2 score).

## CONCLUSIONS

The results of this study suggest that the most important underlying factors are those that comprise of methods/approaches that indicate either "personalised service" or "marketing planning". Factors such as "cost-efficiency" and "customer care" are less important than initially thought. The findings suggest that the most important/preferred approaches for managing hotel reservations are . . .

- "training hotel reservationists",
- "employing reservation staff with good product knowledge," and
- "taking credit card details on booking."

Training hotel reservationists was considered by hotel reservation managers in the hotels investigated as the most important reservation method of the 22 listed methods in the questionnaire. Since hotel customers had become more sophisticated than before, only the well-trained reservationists could rapidly identify customers' needs, provide essential booking information to them, and win customers from other hoteliers. The most important factor was identified as the "personalised service" factor. Thus hotel marketers should reemphasise and put more efforts on personalising their hotel services in order to differentiate themselves from other hotels via personalised

service, provide essential information and identify their customers' needs. Most of the hotels did not emphasise the computerising of their reservation system. Yet in the future most of the hotel groups may have to increase their reliance on computerised reservation systems. Increasingly sophisticated software should enable a wider range of tasks to be handed over to such systems. Already Hilton International had designed a system - based on well-proven airline concepts of yield control - to handle the consolidation of hotel bookings, to forecast the sales mix, and to control the sale of rooms at various rates in order to maximise profit margins. One could only assume that hotel marketers in the UK, do not realise the potential benefits of computerised reservation systems for forecasting and control of marketing operations.

The study findings might offer the following predictors for better marketing management of hotel reservations:

1. In order to achieve higher occupancy rates, more emphasis on training for reservationists, forecasting room availability, negotiating room rates with sales department, and generating reservation records for marketing purposes, are required.
2. In order to have smaller losses from non-guarantee no-shows, hoteliers require more effort in chasing guarantee reservations, taking credit card details with bookings, and tracking hotel guest histories.
3. Adopting yield management techniques. Though widely used by American hotels, is still underused in British establishments. With increase in competition and in hotel overbooking, British hotels will have to give more attention to the "reservation issue" in a hotel, since this is critical to the establishments' marketing success.

This research can, of course, be enhanced by examining the use of the above named reservation methods by various types of hotels, differentiating between hotels with high vs. low occupancy rates; large vs. small hotels; high tariff hotels vs. those with more modest tariffs; hotels with regular vs. irregular guests.

## REFERENCES

- Churchill, G.A. (1991), Marketing Research: Methodological Foundations 5th Edition. Illinois, The Dryden Press.

Durocher, J.F. and B.Neil (1991), "Automated Guest Relations that Generate Hotel Reservations", Information Strategy: The Executives Journal 7,3 (Spring): 27-30.

Jones, P. and D.Hamilton (1992), "Yield Management: Putting People in the Big Picture", The Cornell Hotel and Restaurant Administration Quarterly, 32, 4 (February): 32-36.

Kimes, S.E. (1989), "The Basics of Yield Management", The Cornell Hotel and Administration Quarterly 30, 3 (November): 17-21.

Lefever, M.M. (1988), "The Gentle Art of Overbooking", The Cornell Hotel and Restaurant Administration Quarterly, 29, 3 (November): 7-8.

Prg, I.P.L. (1989), "Reservations: Customer Insurance in the Marketing Capacity", Marketing Science 8,(Summer): 248-264.

Ross, B. 1990. "Training: Key to Effective Reservations", The Cornell Hotel and Restaurant Administration Quarterly, 31, 3 (November): 71-79.

Short, H. 1992. "Days Inns Greets Guests with New Reservations Technology", Communications News, 29, 1 (February): 33-34.

**TABLE I: FACTOR ANALYSIS OF HOTEL RESERVATION METHODS - FACTORS, METHODS, LOADING AND FACTORS' RELATIVE IMPORTANCE AND RELATIVE IMPORTANCE OF HOTEL RESERVATION METHODS (MEAN SCORES)**

| Methods/ Approaches In Use for Managing Hotels' Reservations                  | Mean Scores | Factor 1 | Factor 2 | Factor 3 | Factor 4 | Factor 5 |
|-------------------------------------------------------------------------------|-------------|----------|----------|----------|----------|----------|
| Acquiring access to Local or World-Wide CRS                                   | 5.75        | 0.7776   |          |          |          |          |
| Adopting yield management*                                                    | 5.81        | 0.7048   |          |          |          |          |
| Using a computerised reservation system*                                      | 5.86        | 0.6509   |          |          |          |          |
| Consolidate reservation systems for economies of scale                        | 5.35        | 0.6250   |          |          |          |          |
| Diversify hotel rooms distribution channels                                   | 4.96        | 0.6123   |          |          |          |          |
| Training reservationists to speed up booking*                                 | 6.72        |          | 0.7860   |          |          |          |
| Taking credit card details at booking*                                        | 6.35        |          | 0.7654   |          |          |          |
| Employing reservationists with good product knowledge                         | 6.65        |          | 0.7468   |          |          |          |
| Tracking guest history to build up preference information                     | 6.18        |          | 0.6865   |          |          |          |
| Generating reservation records for marketing purposes                         | 5.65        |          |          | 0.8714   |          |          |
| Forecasting demand for hotel rooms*                                           | 6.02        |          |          | 0.6908   |          |          |
| Minimise hotel loss by chasing confirmed reservations and/or taking insurance | 5.09        |          |          |          | 0.7985   |          |
| Adjusting room commission with sales agents                                   | 3.32        |          |          |          | 0.7351   |          |
| Avoid sending away overbooked guests                                          | 5.25        |          |          |          |          | 0.7841   |
| Increasing customers awareness to make direct booking                         | 5.25        |          |          |          |          | 0.6483   |
| Sending confirmation letters                                                  | 5.30        |          |          |          |          | 0.5340   |
| Overbooking policy*                                                           | 5.35        |          |          |          |          |          |
| Contracts with agencies and/or hotel representatives                          | 5.96        |          |          |          |          |          |
| Maintain close relationships with competitors                                 | 5.40        |          |          |          |          |          |
| Negotiating room rates with sales departments                                 | 4.98        |          |          |          |          |          |
| Linkage with hotel external room distribution channels                        | 5.35        |          |          |          |          |          |
| Guarantee guest desired amenity (room etc.) before arrival                    | 5.65        |          |          |          |          |          |
| Eigenvalue                                                                    |             | 6.1      | 2.3      | 1.6      | 1.5      | 1.3      |
| Percentage Variance                                                           |             | 27.9     | 10.6     | 7.4      | 6.6      | 5.9      |
| Cumulative Variance                                                           |             | 27.9     | 38.5     | 46.0     | 52.6     | 58.5     |
| Factor Importance                                                             |             | 5.6      | 6.5      | 6.2      | 4.2      | 5.3      |

# INFORMATION INTENSITY AND MARKETING EFFECTIVENESS: A CONCEPTUAL FRAMEWORK

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## ABSTRACT

The impact of information and information technology on present marketing practice appears to be substantial. Consequently, research is imperative into the linkage between information and information technology, and marketing

effectiveness. It is the purpose of this paper to conceptualize the relationship between these variables and to provide direction for further investigation.

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## INTRODUCTION

The information revolution has significantly impacted the manner in which many firms conduct business through their application of information and information technology to business problem solution and to the means through which sustainable strategic advantage over competitors is achieved. The significance of formal investigation into marketing practice and the information environment can be found in the essence of the marketing discipline as a facilitator of exchange. Market offerings move upstream along the value chain from supplier to firm to distributor to consumer (Porter 1985) while related information moves both upstream and downstream, establishing a communications vehicle for enhancing marketing effectiveness. In other words, information technology results in increased information, greater speed of communication, and new patterns of information within the value chain, all components likely to foster sustainable competitive advantage in dynamic environments. Yet, such information is costly. Year after year, the typical large business invests as much as 8% of annual revenue in telecommunications, computer hardware, software and related high-tech gear. Overall, information technology soaks up a large and growing share of corporate spending, accounting for over 14% of U.S. capital investment in 1992 as compared to only 8% in 1980 (Sherman 1993).

Unquestionably, the impact of information and information technology on marketing practice is broad and all-inclusive. Nonetheless, it

behooves researchers to begin a program of exhaustive investigation into the linkage of information and information technology and marketing effectiveness in this new global age of an information economy. The problem, though, is how to determine the impact on marketing practice. The crucial issue centers around the difficulty in measuring the value added by marketing related information and its associated impact on marketing performance or effectiveness. Consequently, it is the purpose of this paper to conceptualize the relationship between information and information technology and marketing effectiveness and to provide a pathway for future research in this continuing revolution.

## DISCUSSION

### Information Intensity and Its Measurement

In recent years, there have been several attempts to specifically measure the impact of information on business systems, both conceptual and empirical. While none are wholly complete in addressing the issue of measurement, all seem to provide valuable perspectives for further understanding. According to Glazer (1991), the concept of information intensity is closely related to the value of information. In his conceptualization, information intensity is the density of information along the value chain. Glazer suggests that the higher the information intensity of a firm, the higher the value of information for the firm. The information construct is context-dependent and multi-dimensional and information intensity is also

multidimensional as well. Porter and Millar (1985) propose a matrix to value information intensity for a firm. The matrix assesses existing and potential information intensity in a product's informational components and in the value chain, upstream and downstream. These assessments help identify those business units that could benefit from investment in information technology. Yap and Walsham (1986) utilize a manpower profile to assess changing proportions of managers, information workers, and non-information workers in organizations. They use work-force composition as a measure of the impact of information and, therefore, the information intensiveness of the organization. Vincent (1990) suggests that a firm's capital composition be employed to measure the proportion of investment in information and information technology as an indicator of intensity. Haeckel (1985) views information technology as a product and suggests that stages of technology assimilation mirror that of the product life-cycle. His approach presumes that firms in varying stages of information technology assimilation may possess different levels of information intensity. Lastly, a number of research studies have concentrated on firm usage of hardware and software (Higby and Farah 1991; McLeod and Rogers 1982, 1985; Mentzer, Schuster, and Roberts 1987). Conceivably, varying levels of usage would imply respective degrees of information intensity. Therefore, the higher a firm usage level for hardware and software, the higher the information intensity.

### **Marketing Performance and Marketing Effectiveness**

In order to fully determine the impact of information on marketing practice, it is clear that future research must also rely on some measure of marketing performance which is the result or outcome of marketing efforts that utilize such information. The key question here is what criteria should be used to define "good" marketing performance. Early authors concentrated on developing criteria for measuring marketing efficiency where the construct was defined as the ratio between marketing resource input and the resulting output such as 'man-hour' of sales (Turck 1948). However, other researchers use marketing efficiency and marketing effectiveness interchangeably, a perspective adhered to in the discussion below. Yet traditional accounting and finance

approaches view marketing effectiveness through more quantitative measures such as evaluating marketing waste and inefficiencies (Feder 1965) and financial criteria such as contribution margins and net profits (Lusch and Bentz 1980). In comparison, Kotler (1988) uses only qualitative measures to assess marketing effectiveness. However, it is left to Meidan and Chan (1992) to provide the most comprehensive approach to the measurement of marketing effectiveness. They develop an index to measure both quantitative and qualitative aspects of marketing performance.

### **STATEMENT OF THE PROBLEM: A CALL FOR RESEARCH**

The development of a global information economy has had a profound effect on business firm operations both here in the U.S. and around the world. In particular, evidence would suggest that the impact of information on marketing management and practice has been substantial in facilitating exchange and sustaining competitive advantage in today's dynamic environment. However, in order to successfully formulate business marketing strategy to achieve favorable competitive gains, it is essential to determine the specific impacts that such information has on marketing practice. Yet, the crucial issue remains, how to measure the value added by marketing related information and assess the information impact on marketing effectiveness. While there has been significant work over time on the subjects of information technology, information, and marketing performance and effectiveness, it has been less than complete. With the exception of Glazer (1991), there has been little, if any, effort directed toward establishing a conceptual framework that would link all three variables, providing future researchers with a means to assess the impact of information on marketing effectiveness. To that end, the following framework is provided.

### **CONCEPTUAL FRAMEWORK**

The conceptualization of relationships between information technology, information, and marketing effectiveness is developed and presented in two stages. The first stage is directed at the major components and measures of information intensity in marketing and marketing effectiveness while the second involves the establishment of a research framework for

determining the impact of information on marketing practice.

### Information Intensity in Marketing

There are several studies that would contribute to establishing an appropriate conceptual framework. For example, McLeod and Rogers (1982, 1985) examined the usage of marketing information systems by Fortune 500 and 1000 firms while Higby and Farah (1991) identified the development, present use, and possible future applications of marketing information systems, decision support systems and expert systems in marketing. Finally, Mentzer, Schuster, and Roberts (1987) measured the extent of microcomputer usage as against mainframe usage by professionals in marketing decision-making. Consequently, it is suggested that the multidimensional construct of information intensity in marketing be built around two independent variables: (1) a firm's information infrastructure (i.e. availability of hardware and software) and, (2) the level of information technology use in specific marketing activities.

**Information Infrastructure:** Haeckel (1985) defines information infrastructure as a coherent information provider to an information-user system comprised of hardware, software, and service components. Insofar as the information revolution is predicated on the centrality of information as a resource, access to and exploitation of that resource requires establishment of an appropriate information infrastructure (Vincent 1990). It is thus suggested that information infrastructure or the availability of hardware and software for a firm be used as a surrogate measure for one aspect of information intensity. Based in part on Higby and Farah (1991), measurement components would include the following:

- Hardware:
  - Mainframe computers.
  - Hand-held computers.
  - Minicomputers.
  - Minicomputers (linked to mainframes).
  - Workstations.
  - Local-network area (multi-user computers).
  - Microcomputers (single users).
  - Wide-network area (linked to national and international networks).
  - Laptop computers.
- Software:
  - Offshelf packages (word processors, spreadsheets, statistical packages, etc.).
  - Customized packages.

**Information Technology Use:** The investigation of information infrastructure, however, would only seem to reveal the possibility of information technology use in marketing. Therefore, a second and necessary aspect of information intensity measurement would involve an assessment of the levels of information technology use in specific marketing activities. These marketing activities would include (Higby and Farah 1991):

- Sales forecasting.
- Brand tracking and order processing
- Budgeting.
- Automatic coding, competitive brand tracking, and new product evaluation.
- Pricing decisions.
- Competitive analysis.
- Qualitative research, simulated test markets, trade channel analysis, and copy evaluation.
- Statistical analysis.
- Customer profile analysis.
- Promotional planning, media selection, sales force allocation, and sales force analysis.
- Inventory control.
- Price quotes and project design.
- Facility location and sales force territory assignment.
- Questionnaire design.

### Marketing Effectiveness

As referred to previously, one of the most comprehensive measures of marketing effectiveness can be found in an index developed by Meidan and Chan (1992). It not only measures quantitative aspects of marketing performance but also qualitative aspects. It is suggested that this index would be appropriate as a measurement of marketing effectiveness. The index would include:

- Qualitative:
  - Company image.
  - Promotional effectiveness.
  - Brand reputation.
  - Marketing investment intensity.
  - Distribution effectiveness.
  - Quality of marketing managerial personnel
- Quantitative:
  - Sales volume growth.
  - Profitability.
  - Market share growth.
  - Return on capital.

### A Research Framework

As mentioned previously, there has been

scant research directed at the relationship between information intensity in marketing and marketing performance or effectiveness. Unquestionably, work in this area is difficult and fraught with problems. While information is both context-dependent and multidimensional (Glazer 1991), performance is also multidimensional as well (Ronan and Prien 1973). Thus, both are difficult to measure. Consequently, it is suggested that researchers specifically focus on the relationships between three key variables and their components: information intensity in terms of information infrastructure (hardware & software) and information technology use (marketing activities), and marketing effectiveness (qualitative & quantitative performance). These relationships are depicted above where information infrastructure and information technology use are measures of information intensity and are considered to be independent variables with marketing effectiveness as dependent. However, it may be plausible to consider components of information technology use as a mediating variable, but that is a question for future researchers to resolve.

### RESEARCH ISSUES

Issues regarding the impact of information on marketing practice focus on the level of information infrastructure available to a firm and the degree of use of information technology by a firm in order to obtain a desired level of marketing effectiveness. As a result, research questions such as the following arise:

- Does greater availability of hardware and software (information infrastructure) result in greater information intensity in marketing?
- Does greater use of information technology in marketing activities result in greater information intensity in marketing?
- Is there a relationship between information infrastructure and information technology use?
- Does greater information intensity in marketing result in greater marketing effectiveness?

### CONCLUSION

The significance of this topic and the implications for future research are severalfold. First, it is clear that well-founded research into the linkage between information technology, infor-

mation, and marketing effectiveness will expand academic knowledge and improve managerial capability for marketing practice and competitive strategy. Such research will provide valuable insight into the multidimensional components of information intensity and marketing effectiveness. Also, it will provide data on which information variables and associated components are perceived as most important in achieving competitive gains through increased marketing effectiveness.

Hopefully, the conceptual framework provided, herein, will assist future investigators in moving a step closer to these goals and providing a clearer and more exhaustive picture of the linkages between information intensity in marketing activities and marketing effectiveness.

### REFERENCES

- Feder, R.A. (1965), "How to Measure Marketing Performance," Harvard Business Review, (May-June), 132-142.
- Glazer, R. (1991), "Marketing in an Information intensive Environment: Strategic Implications of Knowledge as an Asset," Journal of Marketing, 55 (October), 1-19.
- Haeckel, S.H. (1985), "Strategies for Marketing the New Technologies: Commentary," Marketing in an Electronic Age, R. Buzzell, ed. Cambridge, MA: Harvard University Press.
- Higby, M.A., and N. Farah (1991), "The Status of Marketing Information Systems, Decision Support Systems and Expert Systems in the Marketing Function of U.S. Firms," Information and Management, 20 (January), 29-35.
- Kotler, P. (1988), Marketing Management: Analysis, Planning, and Control. New Jersey: Prentice-Hall, Inc.
- Lusch, R.F., and W.F. Bentz (1980), "A Marketing-Accounting Framework for Control Product Profitability," Management Accounting, (January), 17-25.
- McCleod, Jr., R., and J.C. Rogers (1982), "Marketing Information Systems: Uses in the Fortune 500," California Management Review, 25 (Fall), 106-118.

- \_\_\_\_\_ (1985), "Marketing Information Systems: Their Current Status in Fortune 1000 Companies," Journal of Management Information Systems, 15 (Spring), 57-75.
- Meidan, A., and R.S. Chan (1992), "A Marketing Effectiveness Index (MEI) Tool for Strategic Marketing Planning," Proceedings of the Annual Conference of the Academy of Marketing Science, 15, 480-485.
- Mentzer, J.T., C.P. Schuster, and D.J. Roberts (1987), "Microcomputer Versus Mainframe Usage by Marketing Professionals," Journal of the Academy of Marketing Science, 15 (Summer), 1-9.
- \_\_\_\_\_ 1985, Competitive Advantage: Creating and Sustaining Superior Performance. New York: The Free Press.
- \_\_\_\_\_ and V.E. Millar (1985), "How Information Technology Gives You Competitive Advantage," Harvard Business Review, 85 (July-August), 149-160.
- Ronan, W.W., and E.P. Prien (1973), "Analysis of Organizational Behavior and Organizational Performance," Organizational Behavior and Human Performance, (February), 78-99.
- Sherman, S. (1993), "How to Bolster the Bottom Line," Fortune, 128 (Autumn), 15-22.
- Turck, F.B. (1948), "Man-hour as a Measurement of Marketing Efficiency," Journal of Marketing, 12 (April), 499-500.
- Vincent, D.R. (1990), The Information-Based Corporation: Stakeholder Economics and the Technology Investment. Homewood, IL: Dow Jones-Irwin, Inc.
- Yap, C.S., and G. Walsham (1986), "A Survey of Information Technology in the U.K. Service Sector," Information and Management, 5 (May), 267-274.



# THE IMPACT OF ENVIRONMENTAL HETEROGENEITY ON THE CREATION AND IMPLEMENTATION OF DISTRIBUTION CHANNEL STRATEGY

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## ABSTRACT

The process by which firms create strategy has become an increasingly popular research topic in recent years. This is evidenced by the number of typologies that have been produced

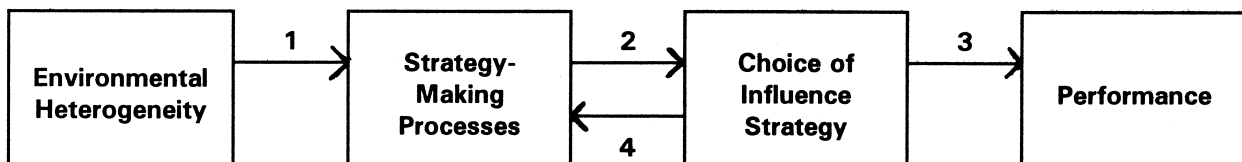
(Hart 1992). This paper proposes a theoretical model to explain how environment affects firm success by impacting strategy formulation and, in turn, marketing communication strategy.

## INTRODUCTION

Recently many researchers have examined the impact that extant environmental conditions have on the relationship between strategy and performance (Hambrick 1986; Hitt, Ireland, & Stadter 1982; Jauch, Osborn, & Gluck 1980). Prescott (1986) believes that the environment is critical "because it establishes the context in which to evaluate the importance of various relationships between strategy and performance." Both strategic management and industrial economics views the external environment as the primary determinant for the successful implementation of a given strategy. According to Prescott (1986), the issue of precisely how the environment impacts strategy and performance has not been adequately addressed. However, before we can fully understand how the environment affects the implementation of strategy, we must first understand how it affects the creation of strategy. Before a strategy can be successfully implemented it must be developed by key personnel within the firm and then communicated to channel partners. This paper proposes a model that seeks to explain how the extant environment impacts the successful creation of distribution channel strategy by directly influencing the process of strategy creation as well as the resulting marketing communication tactics.

The marketing communications between channel members which result from the strategy creation process have largely been ignored by previous strategy researchers. Influence strategies refer to the content and structure of communications by boundary personnel in a "source" firm which is intended to change behaviors in a channel partner called the "target" firm (Boyle, Dwyer, Robicheaux, and Simpson 1992). Research involving influence strategies has evolved out of the study of power within marketing channels. Classified as coercive or noncoercive, previous research has shown that interfirm agreement (Frazier and Summers 1984), perceived supplier power (Kale 1986, 1989; Frazier, Gill, and Kale 1989), and perceived conflict (Frazier, Gill, and Kale 1989) are all impacted by the type of influence strategy chosen. Thus it seems logical to assume that the choice of communication tactics a firm chooses will impact the success of the overall strategy. However, no research has yet been conducted that examines this crucial link. The effects of influence strategy used within channels of distribution on the successful implementation of overall strategy certainly warrants a closer investigation by marketing researchers. Figure 1 illustrates the simple schematic model that is being proposed. The remainder of the paper will focus on the theoretical reasoning behind each link.

FIGURE 1



## THE IMPACT OF ENVIRONMENTAL HETEROGENEITY ON STRATEGY-MAKING PROCESSES

Environmental heterogeneity reflects the degree of dissimilarity between elements of the population dealt with (Achrol, Reve, Stern 1983), and the minimal extent to which these entities are structured (Dwyer and Welsh 1985). These population elements include organizations, individuals, and sociopolitical forces affecting resources. Heterogeneous environments cause greater uncertainty for firms because of greater difficulty in "obtaining and assimilating information about diverse environmental entities and in formulating effective strategic programs and responses when the drivers entities are relatively unstructured" (Dwyer and Welsh 1985).

The creation of a successful strategy will be impacted by the degree of heterogeneity in an environment because of the uncertainty associated with it. Using Hart's (1992) integrative framework for strategy-making processes, it is theorized that the command mode, rational mode, and transactive mode would not be effective in a highly heterogeneous environment. With a command mode strategy, there exists a highly centralized decision structure with only a few individuals in control of the organization. Hart writes, "strategy-making is a conscious, controlled process that is centralized at the very top of the organization." Strategy-making is also a highly formalized procedure. Typically firms in highly heterogeneous environments have great difficulty in collecting and processing information that is relevant to each environmental element (Dwyer and Welsh 1985). For a single individual or even a small group of people it would be impossible to comprehend the complex nature of their environment (Dess and Beard 1984). Therefore, the command mode should not be able to function well in an extant environment that is high in complexity.

The rational mode assumes that strategy-making is a logical behavior. This mode is based on the neoclassical economic assumption of "economic man" and hence requires management to have complete information. Thus, an extraordinary amount of information processing must occur (Miller 1989). For a variety of reasons this level of analysis makes the rational mode unsuitable for a highly heterogeneous

environment (Fredrickson 1983). First, a large amount of time is needed to complete the comprehensive analysis. Yet heterogeneous environments are dynamic and constantly changing. The needed time would not be available in this kind of environment. Also, the strategy maker risks having cognitive overload due to the demanding analysis that is required (Hart 1992). Consequently, the more dynamic and changing the environment, the more likely it is that cognitive overload will occur.

The key to the transactive mode is ongoing communication with employees, suppliers, customers, government officials, and regulators. Through these channels the firm learns about its environment. The firm is able to create an iterative strategy through this learning. Hart (1992) writes, "this mode necessitates the creation of lateral (cross-functional) communication channels and new mechanisms for involving customers and other key stakeholders in planning and decision making." A major disadvantage of this mode is the time required in the communication and learning process. Like the rational mode, this strategy-making process is not well-suited to a highly heterogeneous environment.

The remaining two modes (symbolic and generative) are better suited for heterogeneous environments. With the symbolic mode top management creates a mission statement that permeates the entire organization. According to Hart (1992), this vision "gives meaning to the company's activities and provides a sense of identity for employees." This mode allows for the flexible, fast strategy making that is required by dynamic environments. The generative mode is characterized by autonomous strategy-making at the individual level. Organizational employees are encouraged to be creative in producing strategy. The role of top management is to promote experimentation and risk taking on the part of employees within the firm and "to nurture the development of the highest potential idea" (Hart 1992). Emery and Trist (1965) feel this type of strategy making is well-suited for heterogeneous environments. This mode takes much less time than do the rational and transactive modes. Thus, quick strategy decisions are possible. This discussion suggests the following research hypothesis:

**H1:** In highly heterogeneous environments, the symbolic mode and generative mode strategy-making approaches will be most effective.

## STRATEGY-MAKING PROCESSES IMPACT ON CHOICE OF INFLUENCE STRATEGY

The type of strategy that a firm chooses impacts the kind of influence strategy that it will use. Certain strategies will be more effectively implemented through differing influence strategies. For instance, with a command mode strategy the role of top management is synonymous with that of a commander in the army. The organizational members represent soldiers who are to obey the dictates of top management (Hart 1992). Given the fact that the strategy is driven by top management, it is expected that firms implementing this strategic mode will use more coercive influence strategies than they would with other modes.

As was discussed in the previous section, the rational mode involves a high level of information processing. Since firms in highly heterogeneous environments have extreme difficulties in gathering and processing information, this mode is better suited for more stable environments. Firms in homogeneous environments can develop higher-control structures easier than firms in heterogeneous environments (Dwyer and Welsh 1985). Thus, it is expected that firms in stable environments will use coercive influence strategies more frequently than firms in turbulent environments.

The other three strategic modes will be more effectively implemented with noncoercive influence strategies. For instance, management using the symbolic mode play a role that is similar to a coach in athletics. Nonaka (1988) feels that their role is to motivate and inspire. Hart (1992) writes, "the symbolic mode creates an implicit control system, which is based on shared values" (Pascale 1985; Weick 1987). Noncoercive influence strategies will be more effective in fostering a climate where members will be motivated and inspired through a shared value system. Coercive influence strategies would not work in this situation since they have been found to lead to higher levels of resistance and conflict (Johnson, Sakano, and Onzo 1990).

As was discussed earlier, the continuous communication between the firm and its key stakeholder is critical for the success of the transactive mode. Coercive influence strategies tend to alienate the target, which in this case is the stakeholders. Therefore, this type of

influence strategy would be inappropriate to use the transactive mode.

Finally, with the generative mode top management exercises very little strategic control. This mode works best if top management stays out of the way and lets the individual members be creative. Given the low amount of control required, management will focus on building low-control, less bureaucratic relationships. This mode also fosters joint planning between the parties involved instead of dictates from top management. It typically fosters high interdependence. All of these characteristics are similar to Mohr and Nevin's (1990) notion of relational exchange. Mohr and Nevin (1990) found that in these types of relationships communication patterns will be more informal and indirect in mode and content. Frazier and Summers (1984) demonstrated this when they showed that in channel relationships characterized by high levels of interdependency, firms rely most heavily on information exchange. This is followed by request, recommendations, and promises (all of which are considered to be noncoercive). There was very little use of coercive influence strategies. The above discussion suggests the following research hypothesis:

**H2:** Firms using a command mode or rational mode approach to strategy-making will use coercive influence strategies more frequently than will firms using the symbolic, transactive, or generative mode approaches.

## INFLUENCE STRATEGY IMPACT ON CHANNEL PERFORMANCE

The marketing literature acknowledges that communication within the channel of distribution plays a critical role in its functioning (Grabner and Rosenberg 1969; Stern and El-Ansary 1988; Mohr and Nevin 1990). However, little empirical research has been conducted that examines this crucial link. Mohr and Nevin (1990) write, "The role of channel communication is sparse. The role of channel communication as a moderator between structural/behavioral conditions and channel outcomes (e.g., channel member coordination, satisfaction, commitment levels, and *performance*) has been largely ignored by marketing academicians" (emphasis added). For this reason, the crucial, causal link between influence strategy and channel performance warrants investigation.

Past research has shown that influence strategies impact a multitude of channel variables. Some of these include: channel member satisfaction (Hunt and Nevin 1974), interfirm agreement (Frazier and Summers 1984), perceived supplier power (Kale 1986, 1989; Frazier, Gill, and Kale 1989), and perceived conflict (Frazier, Gill, and Kale 1989). Hunt and Nevin (1974) found that satisfaction increased with noncoercive power sources whereas it was reduced with coercive power sources. In support of this study, Schul, Little, and Pride (1985) found that channels which exhibit supportive climates tend to be associated with higher levels of satisfaction by the channel members.

Given these findings, it is felt that the use of coercive influence strategies will have a deleterious effect on channel performance. Gaski and Nevin (1985) agree with this when they write, "the use of coercive power sources is more likely to backfire and reduce performance level than is the use of reward power sources." For an example, we only have to look to the world of athletics. Regardless of the sport, the great coaches would agree that teamwork is a secret to success. Coach Paul "Bear" Bryant was a master at taking average players and molding them into a team. When his players stepped onto the playing field they represented a unified, cohesive group. As a result, Bryant is one of the most successful college football coaches of all times. It is unlikely that this type of unity and cohesion can occur if there is conflict and dissatisfaction among the members. Yet past research has shown that coercive influence strategies foster conflict and dissatisfaction. An ancient saying over two thousand years old states, "Any kingdom divided against itself is laid waste; and a house divided against itself falls." It is this author's contention that the same is true of today's distribution channel. This discussion suggests the following hypothesis:

**H3:** The greater the frequency of coercive influence strategy communication within a channel of distribution, the lower the performance level of the entire channel.

#### **INFLUENCE STRATEGY IMPACT ON STRATEGY-MAKING PROCESSES**

As seen in [Figure 1](#), the strategy type and influence strategy constructs have two straight single-headed arrows connecting them. This signifies a feedback relationship. [Link 4](#)

proposes that the influence strategy a firm uses will ultimately impact the type of strategy which it can use. To see this, let us consider a hypothetical Firm X. If Firm X's environment changes it will cause the firm to reevaluate its current strategy ([link 1](#)). While deciding on the appropriate strategy, Firm X must be aware of the existing perceptions other member firms have of it. If it has a reputation of using coercive influence strategies, Firm X will only be able to effectively implement the command and rational strategy modes ([link 2](#)). To use another strategy would mean having to use noncoercive influence strategies. Yet member firms would likely not trust these due to their preexisting perceptions. For instance, if Firm X used a request influence strategy in a situation where it typically used a threat, member firms would be suspicious. This might cause them to alter their response in a less than optimal way. It might even cause them to totally reject the request. Either way, Firm X will not be able to effectively implement the strategy. As a result, the strategy will be unsuccessful. The above discussion suggests the following:

**H4:** Firms perceived by member firms as frequently using coercive (noncoercive) influence strategies will use the command and rational mode strategies (symbolic, transactive, and generative modes).

#### **CONCLUSION**

This paper provides a theoretical model that seeks to explain the impact of environmental heterogeneity on the relationship between strategy-making processes, communication strategies, and performance in a distribution channel setting. Much work remains, however, to operationalize and apply the proposed model. It is hoped this paper will fuel future research in this critical area. In particular, need exists for future researchers to empirically validate the hypotheses presented here. Also, future research should extend this one-dimensional scheme to include other aspects of the macro environment. Environmental variability and munificence represent a good starting point for extending this scheme.

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# A CROSS FUNCTIONAL ANALYSIS OF PERFORMANCE MEASURES IN BUSINESS RESEARCH

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## ABSTRACT

This paper seeks to initiate a cross functional approach to scrutiny of the performance construct by examining performance measure-

ments in the areas of accounting/finance, economics, management, marketing, and logistics research.

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## INTRODUCTION

Marketing research, e.g., product strategy, promotional strategy (e.g., advertising and personal selling), pricing strategy, and distribution strategy frequently includes assessments of performance as a dependent variable. However, "the 'appropriate' way to measure performance is a dispute that lingers in the literature" (Churchill, Ford, Hartley, and Walker (1985, p. 113). There exist few guidelines on which traits (i.e., dimensions) are relevant and which measurement methods are appropriate (Bourgeois 1980; Ruekert, Walker, and Roering 1985; Venkatraman and Ramanujam 1986, 1987).

This paper takes a brief look at how the performance construct is dimensionalized and measured in five business disciplines in order to stimulate methodological research that might result in guidelines concerning pertinent dimensions and suitable measurement methods for specific research contexts. The performance measures discovered in this survey can be found in [Table 1](#), which organizes performance measures on the basis of five factors:

- objective/subjective;
- internal/external or primary/secondary;
- operational/financial;
- process/outcome; and
- profit(ability)/growth.

The objective/subjective, internal/external, and operational/financial factors were suggested by Venkatraman and Ramanujam (1986, 1987); the process/outcome and profit(ability)/growth factors were suggested by the survey of literature examined in this paper. The classification scheme in [Table 1](#) is not meant to be a mutually exclusive and collectively exhaustive classification scheme; there are clearly cases where the classification of a measure is some-

what ambiguous. Nonetheless, it was felt that some attempt at categorizing the measures discussed in the paper would facilitate this initial effort to generate further methodological research on the performance construct.

## SURVEY OF PERFORMANCE MEASURES

*Accounting/finance* measures of performance (which occur primarily in cells **2**, **10**, and **18**) may fail to capture all dimensions of the performance construct because they are subject to systematic bias due to differences in accounting methods (e.g., inventory valuation, depreciation schedules, amortization of intangible assets), are primarily concerned with outcome and may ignore process, and have a short rather than long-term emphasis (Morsicato and Radebaugh 1980; Fisher and McGowan 1983; Markus and Pfeffer 1983; Fisher 1984; Govindarajan 1984; Long and Ravenscraft 1984; Martin 1984; Van Breda 1984; Salamon 1985).

Performance evaluation in *economics* research favors market indicators of performance. Performance measurements used in economics are found in cells **2**, **4**, and **8**. (Salamon (1985) and Bentson 1985; Jacobson 1987).

*Management* research demonstrates a wider range of dimensions and methods of performance measurement than accounting/finance or economics literature, as well as presenting empirical evidence (through confirmatory factor analysis (CFA) (Venkatraman and Ramanujam 1986, 1987)) of both trait (dimension) and method variance in performance measurement. Performance measures found in management literature occur in cells **2**, **4**, **6**, **8**, **10**, **14**, **18**, **22**, **26**, and **30** (Dalton et al. 1960; Buzzell and Wiersema 1981; Hambrick, MacMillan and Day 1982; Hambrick 1983; Dess and Davis 1984; Shrader, Taylor and Dalton 1984).



*Marketing's* emphasis on the "marketing concept" is probably responsible for a number of alternative performance measures, e.g., customer satisfaction ratings, brand loyalty measurements, anticipation of future interactions, and relationship quality (see Table 1). A survey of marketing research reveals performance measurements occurring in cells 2, 4, 6, 10, 14, 18, 26, 27, 28, 30. Additionally, marketing researchers have delineated three dimensions of performance adapted from organizational behavior: effectiveness, efficiency, and adaptability (Weitz 1981; Churchill, Ford, Hartley, and Walker 1985; Cook 1985; Copacino, William and Donald B. Rosenfield 1985; Jacobson and Aaker 1985; Ruekert, Walker and Roering 1985; Varadarajan 1986; Walker and Ruekert 1987; Day and Wensley 1988; McKee, Varadarajan and Pride 1989; Crosby, Evans and Cowles 1990; Kohli and Jaworski 1990; Narver and Slater 1990; Deshpande, Farley, and Webster 1993).

Performance evaluations in *logistics* tend to tap the outcome, rather than process dimension of performance, and are primarily operational

(rather than financial), and can be found in cells 2, 10, 27, and 28 (Ballou and Helfrich 1983; Germain 1989; Clarke and Gourdin 1991; Kleinsorge, Schary and Tanner 1991; Mentzer and Konrad 1991).

## CONCLUSION

This paper has attempted to provide a brief, cross-functional survey of performance measurement practices in business research. Methodological research needs to examine internal/external and subjective/objective methods as well as address additional traits (dimensions) (e.g., financial/operational, process/outcome, and efficiency/effectiveness/adaptiveness). A systematic investigation of trait (dimension), method factor combinations could improve understanding of the methods and traits able to provide convergence and discriminance for the construct of performance. This would be beneficial when access to particular types of data is constrained (e.g., if only external, subjective performance data are available, it would help to have some idea of which measures provide the most valid assessment of performance).

| O<br>B<br>J<br>E<br>C<br>T<br>I<br>V<br>E |                                                     |                            | INTERNAL                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                     | EXTERNAL |                                                                                                                                          |
|-------------------------------------------|-----------------------------------------------------|----------------------------|--------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|------------------------------------------------------------------------------------------------------------------------------------------|
|                                           |                                                     |                            | PROCESS                                                                                    | OUTCOME                                                                                                                                                                                                                                                                                                                                                                                                                             | PROCESS  | OUTCOME                                                                                                                                  |
|                                           | F<br>I<br>N<br>A<br>N<br>C<br>I<br>A<br>L           | P<br>R<br>O<br>F<br>I<br>T | 1                                                                                          | 2 ROC/ROA/ROE/ROI <sup>1</sup> , EPS <sup>2</sup> , Cash Flow, CFOI <sup>3</sup> , Revenue, Ret on Revenue, Avg Return on Assets, Selling Costs (Sales Expenses), Profit, Gross Profit, Profit Margin, Total (Absolute) Cost, Operating Income, IRR <sup>10</sup> , RPR <sup>4</sup> , Capital, Profit as % of Sales, Storage Cost against Budget                                                                                   | 3        | 4 P/E Ratio <sup>7</sup> , Stock Price, Dividend, Dividend Yield, Mkt Return, PIMS Calcul'd ROI, ROI <sup>5</sup> , ROA/ROE <sup>8</sup> |
|                                           |                                                     | G<br>R<br>O<br>W<br>T<br>H | 5                                                                                          | 6 Growth, Growth in Capital, Growth in Net Earnings, Growth in Net Income, Growth in EPS <sup>2</sup>                                                                                                                                                                                                                                                                                                                               | 7        | 8 Growth in Stock Price, Growth in Dividend Yield, Growth <sup>5</sup> , Net Income Growth <sup>5</sup>                                  |
|                                           | O<br>P<br>E<br>R<br>A<br>T<br>I<br>O<br>N<br>A<br>L | P<br>R<br>O<br>F<br>I<br>T | 9                                                                                          | 10 Mkt Share, Relative Mkt Share, Sales <sup>1</sup> , Sales Volume, New Product Sales, Cross Selling, Service Level, Net Sales <sup>1</sup> , Sales, Productivity, Services Rendered, % of Sales "New" Products, # Sales Calls/Demonstrations, Costs vs Sales/ Budget, Resources Used versus Budgeted, Weight (Un)Loaded/Labor Hours, Miles Driven/Fuel Used, Orders Throughput vs Planned, # On Time Deliveries, Billing Accuracy | 11       | 12 Market Share Rank, Relative Market Share <sup>6</sup> , Customer Brand Loyalty Survey Results                                         |
| G<br>R<br>O<br>W<br>T<br>H                |                                                     | 13                         | 14 Percentage Change in Market Share (MSC), Average Annual Sales Growth, Sales Growth Rate | 15                                                                                                                                                                                                                                                                                                                                                                                                                                  | 16       |                                                                                                                                          |

TABLE 1 PERFORMANCE MEASUREMENTS (Continued on next page)

|                                                |                                                     |                            | INTERNAL |                                                                                                                                                                                                                                                                                              | EXTERNAL                                                                                                                                                                                                       |                                                                                                                                                             |
|------------------------------------------------|-----------------------------------------------------|----------------------------|----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                |                                                     |                            | PROCESS  | OUTCOME                                                                                                                                                                                                                                                                                      | PROCESS                                                                                                                                                                                                        | OUTCOME                                                                                                                                                     |
| S<br>U<br>B<br>J<br>E<br>C<br>T<br>I<br>V<br>E | F<br>I<br>N<br>A<br>N<br>C<br>I<br>A<br>L           | P<br>R<br>O<br>F<br>I<br>T | 17       | 18 Mgt Evaluation of ROA/ROI/Overall Performance <sup>9</sup> , Mgt Evaluation of Profitability <sup>9</sup> , Mgt Evaluation of Sales Expenses                                                                                                                                              | 19                                                                                                                                                                                                             | 20                                                                                                                                                          |
|                                                |                                                     | G<br>R<br>O<br>W<br>T<br>H | 21       | 22 Mgt Evaluation of Growth, Mgt Evaluation of Net Income Growth                                                                                                                                                                                                                             | 23                                                                                                                                                                                                             | 24                                                                                                                                                          |
|                                                | O<br>P<br>E<br>R<br>A<br>T<br>I<br>O<br>N<br>A<br>L | P<br>R<br>O<br>F<br>I<br>T | 25       | 26 Supervisor Appraisal of Employee Performance, Mgt Evaluation of Sales <sup>9</sup> , Mgt Evaluation of Sales Volume <sup>9</sup> / Market Share <sup>9</sup> / Size of Firm <sup>9</sup> /Number of Sales Calls/Demonstrations, Mgt Evaluation of Market Share Rank/Relative Market Share | 27 Customer Satisfaction Survey Results, Relationship Quality, Anticipation of Future Sales Interactions, Reliability, Responsiveness, Courtesy, Communication, Understanding of the Customer, Trustworthiness | 28 Perceived Brand Loyalty, Perceived Logistic System Response to Disruption, Perceived Transportation / Handling/Storage/ Inventory/ Order Process Service |
|                                                |                                                     | G<br>R<br>O<br>W<br>T<br>H | 29       | 30 Mgt Evaluation of Growth in Sales <sup>9</sup> , Mgt Evaluation of Growth in ROA, Mgt Evaluation of Growth Rate <sup>9</sup>                                                                                                                                                              | 31                                                                                                                                                                                                             | 32                                                                                                                                                          |

TABLE 1 (Continued) PERFORMANCE MEASUREMENTS

<sup>1</sup> Absolute, Average, Compared to Budget

<sup>2</sup> Earnings Per Share

<sup>3</sup> Cash Flow on Investment

<sup>4</sup> Return per Risk

<sup>5</sup> Compustat Database

<sup>6</sup> Calculated by PIMS Research

<sup>7</sup> Price/Earnings Ratio

<sup>8</sup> External Rating Service

<sup>9</sup> Absolute and Relative to Competition

<sup>10</sup> Internal Rate of Return

## REFERENCES

Benston, George J. (1985), "The Validity of Profits-Structure Studies with Particular Reference to the FTC's Line of Business Data," The American Economic Review, Vol. 75 (March), No.1, 37-67.

Bourgeois, L. J. III (1980), "Performance and Consensus," Strategic Management Journal, Vol 1, 227-248.

Buzzell, Robert D. and Frederick D. Wiersema (1981), "Modeling Changes in Market Share: A Cross Sectional Analysis," Strategic Management Journal, Vol. 2, 27-42.

Churchill, Gilbert A., Neil M. Ford, Steven W. Hartley, and Orville C. Walker, Jr. (1985), "The Determinants of Salesperson Performance: A Meta-Analysis," Journal of Marketing Research, 22 (May), 103-118.

Clarke, Richard L. and Kent N. Gourdin (1991), "Measuring the Efficiency of the Logistics Process," Journal of Business Logistics, Vol. 12, No. 2, 17-33.

Cook, Victor J. (1985), "The Net Present Value of Market Share," Journal of Marketing, Vol. 49 (Summer), 49-63.

Copacino, William and Donald B. Rosenfield (1985), "Analytic Tools for Strategic Planning," International Journal of Physical Distribution and Materials Management, Vol. 15, No. 3, 47-61.

Dalton, Dan R., William D. Todor, Michael J. Spendolini, Gordon J. Fielding and Lyman W. Porter (1980), "Organization Structure and Performance: A Critical Review," Academy of Management Review, Vol. 5, No. 1, 49-64.

Day, George S. and Robin Wensley (1988), "Assessing Advantage: A Framework for Diagnosing Competitive Superiority," Journal of Marketing, Vol 52 (April), 1-20.

Deshpande, Rohit, John U. Farley and Frederick E. Webster, Jr. (1993), "Corporate Culture, Customer Orientation, and Innovativeness in Japanese Firms: A Quadrad Analysis," Journal of Marketing, Vol. 57 (January), 23-27.

- Dess, Gregory G. and Peter S. Davis (1984), "Porter's (1980) Generic Strategies as Determinants of Strategic Group Membership and Organizational Performance," Academy of Management Journal, Vol. 27, No. 3, 467-488.
- Dess, Gregory G. and Richard B. Robinson (1984), "Measuring Organizational Performance in the Absence of Objective Measures: The Case of the Privately-held Firm and Conglomerate Business Unit," Strategic Management Journal, Vol. 5, 265-273.
- Fisher, Franklin M. and John J. McGowan (1983), "On the Misuse of Accounting Rates of Return to Infer Monopoly Profits," The American Economic Review, Vol. 73 (March), No. 1, 83-97.
- Fisher, Franklin M. (1984), "The Misuse of Accounting Rates of Return," The American Economic Review, Vol. 74, No. 3, 509-517.
- Germain, Richard (1989), "Output Standardisation and Logistical Strategy, Structure and Performance," International Journal of Physical Distribution and Materials Management, Vol. 19, No. 1, 21-19.
- Govindarajan, V. (1984), "Appropriateness of Accounting Data in Performance Evaluation: An Empirical Examination of Environmental Uncertainty as an Intervening Variable," Accounting, Organizations and Society, Vol. 9, No. 2, 125-135.
- Hambrick, Donald C. (1983), "Some Tests of the Effectiveness and Functional Attributes of Miles and Snow's Strategic Types," Academy of Management Journal, Vol. 26, No. 1, 5-26.
- Hambrick, Donald C., Ian C. MacMillan and Diana L. Day (1982), "Strategic Attributes and Performance in the BCG Matrix - A PIMS-Based Analysis of Industrial Product Businesses," Academy of Management Journal, Vol 25. No. 3, 510-531.
- Jacobson, Robert (1987), "The Validity of ROI as a Measure of Business Performance," The American Economic Review, Vol. 77 (June), No. 3, 471-478.
- Jacobson, Robert and David A. Aaker (1985), "Is Market Share All That It's Cracked Up to Be?" Journal of Marketing, Vol. 49 (Fall), 11-22.
- Kleinsorge, Ilene K., Phillip B. Schary and Ray D. Tanner (1991), "The Shipper-Carrier Partnership: A New Tool for Performance Evaluation," Journal of Business Logistics, Vol. 12, No. 2, 35-55.
- Kohli, Ajay K. and Bernard J. Jaworski (1990), "Market Orientation: The Construct, Research Proposition, and Managerial Implications," Journal of Marketing, Vol 54 (April), 1-18.
- Long, William F. and David J. Ravenscraft (1984), "The Misuse of Accounting Rates of Return: Comment," The American Economic Review, Vol. 74, No. 3, 494-500.
- Martin, Steven (1984), "The Misuse of Accounting Rates of Return: Comment," The American Economic Review, Vol. 74, No. 3, 495-506.
- McKee, Daryl O., P. Rajan Varadarajan and William M. Pride (1989), "Strategic Adaptability and Firm Performance: A Market Contingent Perspective," Journal of Marketing, Vol. 53 (July), 21-35.
- Markus, M. Lynn and Jeffery Pfeffer (1983), "Power and the Design and Implementation of Accounting and Control Systems," Accounting, Organizations and Society, Vol. 8, No. 2/3, 205-218.
- Mentzer, John T. and Brenda Ponsford Konrad (1991), "An Efficiency/Effectiveness Approach to Logistics Performance Analysis," Journal of Business Logistics, Vol. 12, No. 1, 33-62.
- Morsicato, Helen G. and Lee H. Radebaugh (1980), "Internal Performance Evaluation of Multinational Enterprise Operations," The International Journal of Accounting, Education and Research, Vol. 15 (Spring), No. 1, 77-94.
- Narver, John C. and Stanley F. Slater (1990), "The Effect of a Market Orientation on Business Profitability," Journal of Marketing, Vol. 54 (October), 20-35.



- Ruekert, Robert W. and Orville C. Walker (1990), "Shared Marketing Programs and the Performance of Different Business Strategies," in Review of Marketing, V. Zeithaml ed., Chicago: American Marketing Association.
- Ruekert, Robert W., Orville C. Walker and Kenneth J. Roering (1985), "The Organization of Marketing Activities: A Contingency Theory of Structure and Performance," Journal of Marketing, Vol. 49 (Winter), 13-25.
- Salamon, Gerald L. (1985), "Accounting Rates of Return," The American Economic Review, Vol. 75 (June), No. 3, 495-504.
- Shrader, Charles B., Lew Taylor and Dan R. Dalton (1984), "Strategic Planning and Organizational Performance: A Critical Review," Journal of Management, Vol. 10, No. 2, 149-171.
- Van Breda, Michael F. (1984), "The Misuse of Accounting Rates of Return: Comment," The American Economic Review, Vol. 74, No. 3, 507-508.
- Venkatraman, V. and Vasudevan Ramanujam (1986), "Measurement of Business Performance in Strategy Research: A Comparison of Approaches," Academy of Management Review, Vol. 11, No. 4, 801-814.
- \_\_\_\_\_ and \_\_\_\_\_ (1987), "Measurement of Business Economic Performance: An Examination of Method Convergence," Journal of Management, Vol. 13, No. 1, 109-122.
- Walker, Orville C. and Robert W. Ruekert (1987), "Marketing's Role in the Implementing of Business Strategies: A Critical Review and Conceptual Framework," Journal of Marketing, Vol. 51 (July), 15-33.
- Weitz, Barton A. (1981), "Effectiveness in Sales Interactions: A Contingency Framework," Journal of Marketing, 45 (Winter), 85-103.

# THE ETHICAL JUDGMENT OF AN ADVERTISEMENT AND ITS EFFECTS

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## ABSTRACT

Occasionally marketers develop advertisements that many consumers find unethical. For example, some ads contain nudity, suggestive poses, and even embedded figures and words, all of which some consumers find unethical (Widing, et al. 1991). Despite the use of such questionable ad content, the relationship of the ethical judgment of an ad and consumer responses to the ad has received relatively little attention. The purpose of the current research is to fill this void by examining the relationship of ethical judgment of an advertisement and selected advertising effectiveness response variables.

An advertisement selected for its potential to evoke ethical considerations of the ad (see Widing, et al. 1991) was shown to a sample of 312 college students from two Southern universities via slide projector. Respondents completed a questionnaire about the ad designed to measure ethical judgment of the ad, perceived ad credibility, attitude toward the advertiser, toward advertising, evoked pleasure and arousal from the ad, and the more traditional ad effects measures attitude toward the ad, attitude toward the brand, purchase intention.

Ethical judgment of the ad was found to be significantly correlated with all ad effects measured in the study. Further, the sample was divided into the top third and low third on ethical perception of the ad to serve as the dependent variable in a multivariate analysis. Results indicate that the effects of ethical judgment on all independent variables used were statistically significant.

This is the first known research to offer evidence about the relationship between ethical judgment of an advertisement and consumer responses to the ad. The findings of the research indicate a strong effect of ethical judgment of an advertisement on the key consumer response variables purchase intention, attitude

toward the brand, attitude toward the ad, and the antecedents of  $A_{ad}$ .

Although ethical judgment was expected to affect the selected measures, the pervasiveness of the effect on all measures is especially noteworthy. While recent advertising effectiveness research has emphasized the importance of mood/emotions, ad credibility, and advertiser reputation (MacKenzie and Lutz 1989) evoked by an advertisement and the resulting effects on advertising response variables, this research indicates that the ethical judgment evoked by an advertisement has a significant influence on *all* consumer response measures used in this study.

The implication of these findings to advertisers is rather straightforward. The use of perceived unethical factors in advertisements may significantly affect consumer responses to ads in a negative manner; thus, the use of potentially unethical advertisements may have negative ramifications for advertisers. The results highlight the importance of assessing consumer ethical evaluations of potentially problematic ads by consumers prior to their use in marketing programs.

## REFERENCES

- MacKenzie, Scott B. and Richard J. Lutz (1989), "An Empirical Examination of the Structural Antecedents of Attitude Toward the Ad in an Advertising Pretesting Context," *Journal of Marketing*, 53 (April), 48-65.
- Widing, Robert E. II, Ronald Hoverstad, Ronald Coulter, and Gene Brown (1991), "The VASE Scales: Measures of Viewpoints About Sexual Embeds in Advertising," *Journal of Business Research*, 10 (April), 285-293.

# GENDER AND AD EFFECTIVENESS: THE ROLE OF SOCIAL RISK

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## ABSTRACT

Traditional feminine roles as mothers and homemakers tend to emphasize compassion and rapport building. Study of conversational styles (Tannen 1990) also suggests that women tend to be concerned with belonging, and group cohesiveness as opposed to standing out and taking social risks to get ahead. Based

on these ideas it was thought that women would tend to prefer socially safe appeals to more socially risky appeals and that men would tend to prefer socially risky appeals. An experiment failed to support these ideas. Potential reasons for the findings and suggestions for future research are presented.

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## INTRODUCTION

As part of the continuing effort to improve advertising effectiveness, the relationship between target gender and advertising message has been explored. A fuller understanding of this relationship has become increasingly important as many products which were traditionally gender specific (i.e. detergents and automobiles) are now being targeted to both genders (Rosen 1985; Gentry, Doering, and O'Brien 1978). Researchers (c.f. Abstrachan 1984; Auchmuty 1985) have attributed this change in targeting to an increased divorce rate, a larger number of two career marriages, and a growing number of households headed by single females. Debevec and Iyer (1986) point out that even though many products are no longer gender specific, the advertising for these products is still gender targeted. Thus, understanding of the gender/advertising message relationship remains important in increasing advertising effectiveness.

### Relevant Research

In an investigation of advertising persuasiveness, Sternthal (1986) reports that males tend to prefer ad messages which present a single idea while female respondents seem equally comfortable with single and multi-idea messages indicating a gender based difference in processing selectivity. Debevec and Iyer (1986) report that products which tend to be either "female" or "male" in nature become more so if the gender of the ad spokesperson matches the dominant gender of the product. Bellizzi and

Milner (1991) found that female targets responded favorably to a "female positioning" of traditional male products. However, other researchers (c.f. Steinberg 1988) point out the danger of alienating the traditional male purchasers of such products. Lonial and Aukun (1986), in a study of children, found that older females often identified with male rather than female characters in advertisements rejecting the concept of always matching spokesperson and target gender.

A seemingly fruitful avenue for research in gender-based advertising effectiveness would be to gain an understanding of the differences in motives between males and females. Traditionally, men have been seen as providers for the family who struggled with the "outside" world while women seem to have played more gentle and compassionate roles as mothers and homemakers.

A recent investigation of value systems and associated motivations supports the idea that values such as belonging and warm relationships tend to be held among women whereas values associated with "success" and "achievement" tend to be held among men (Kamakura and Novak 1992). In her gender-based linguistics research, Deborah Tannen (1990; 1986) describes differences in conversational motives between males and females stating that females tend to be more "rapport" oriented while males tend to be more "report" oriented. According to Tannen, males tend to use conversational exchange as a means of gaining advantage over conversational partners. Therefore, they often

try to "report" information that others may not know as a means enhancing their power and worth. According to Tannen males are willing to take risks and stand out from the crowd to obtain social advantage. Females, however, tend to try to increase group cohesiveness and achievement through conversation. Thus, they are more likely to take positions which emphasize belongingness and social safety in conversations.

Based upon the traditional roles played by men and women as well as Tannen's contention that motivational bases and conversational styles differ among men and women, it seems plausible that advertisements which feature socially safe belonging themes would be more appealing to females than ads which feature more socially risky (getting ahead) themes thought to be preferred by men. If this is true it would be significant for the advertising industry because ads designed to sell traditionally male oriented products to women might have to be made more gentle and rapport oriented than the ads which appeal to men. The following study was designed to explore this idea.

## **METHOD**

### **Subjects and Procedure**

Ninety-six students enrolled in a business class at a large midwestern university participated in this research. Individuals were provided a cover story that they were participating in research related to the development of new measurement instruments. They were informed that the study would involve viewing overhead transparencies of print ads and completing measures for each ad viewed. Next, instructions were provided for completing the measures. Subjects were then exposed to a series of ads which utilized belonging and more socially risky appeals. After a one-minute viewing of each ad, participants completed related measures.

### **Stimulus Ads**

The nature of the belonging appeals was to emphasize such values as belonging, conforming, social risk avoidance, and being safe socially. The more socially risky ads featured social risk taking, power, and standing out from the crowd. Four, full-page print ads were used in this study, one pair related to alcoholic beverages and one pair related to automobiles.

These were highly vivid ads which seemed to create an overall impression consistent with belonging or taking social risks (manipulation checks presented below confirm the expected differences in the appeals). One of the alcoholic beverage ads featured a "drink responsibly" orientation. This theme was felt to represent a socially safe and conformist appeal. In contrast, the second alcoholic beverage ad portrayed a woman wearing a tight fitting, sleeveless, short red dress along with the headline "Paint the Town Red." This ad was thought to represent a socially risky appeal.

A pair of ads for automobiles was also used in this study. The first ad portrayed a couple who had been involved in a collision in which the safety features of their car had saved them from serious injury. The couple was pictured hugging one another with related copy explaining that they were both employed by the car company with the implication that the car is an "American" product which could save their "American" jobs. Furthermore, the copy stated that the couple planned to spend the afternoon at home "together" after having survived this traumatic event. This ad was felt to represent a socially safe and conformist appeal. In contrast, the second ad (for the same make and model automobile as in the first ad) featured a somewhat athletic, independent looking woman wearing boots and outdoor clothing. The print portion of the ad emphasized that she was an adventurer and individualist. The purchase of the car was portrayed as fitting in with her values and lifestyle. This ad was viewed as representing a more socially risky appeal.

### **Measures**

The measurement packet contained assessments of attitude toward the ad and measures of perceptions of stimulus ads as a means of verifying the researchers' categorizations of ads. The effectiveness of an ad in impacting brand attitudes and consequent purchase decisions is often a function of audience attitude toward the ad. In fact, it has been shown to influence brand attitude independent of the audiences' level of involvement with the message and executional elements of the ad (Homer 1990; MacKenzie and Lutz 1989; Muehling, Laczniak, and Stoltman 1991). As such, the dependent variable in this study was attitude toward the ad. Attitude toward the ad was assessed via three 7-point semantic differential-

like items: good-bad, pleasant-unpleasant, and favorable-unfavorable (Mackenzie and Lutz 1989). In order to test the degree to which the ads conformed to their intended appeal types, manipulation checks were performed with multiple-item scales designed to assess two major characteristics of the ads: belonging and socially safe. Measures of these aspects of ads had been developed and used in previous studies by the researchers. The first characteristic was the extent to which the ads conveyed a sense of belongingness. The items measuring belonging were 7-point semantic-differentials anchored by belonging-not belonging, social acceptability-social risk-taking, conformity-nonconformity, and fitting in-standing out.

The second ad characteristic concerned the degree to which the subjects perceived the ad to portray a socially safe image. Four 7-point Likert-type scales were used with items relating to reducing social fears, avoiding social disapproval, portraying a socially safe image, and getting along socially.

## RESULTS

### Reliabilities

Cronbach's coefficient alpha was used to assess the internal consistency of the multiple item measures used in this study. The dependent variable measure was found to be quite reliable ( $\alpha = .92$ ). With respect to the manipulation checks, coefficients across ads ranged from .73 to .85 for belonging and from .63 to .74 for socially safe. Overall, the internal consistency estimates for measures used in this research compare favorably with estimates reported in related research.

### Manipulation Checks

Manipulation checks confirmed researchers' categorization of stimulus ads. For the alcoholic beverage ads, the "drink responsibly" appeal was viewed as more belonging oriented and socially safe compared to the "paint the town red" appeal. For the automobile ads, the "couple" version was perceived as more belonging oriented and socially safe relative to the "individualist" version (see Table 1 for means and t-values).

### Dependent Variable Mean Comparisons

In order to explore the notion that women prefer more belonging oriented ads in comparison to more socially risky ads, paired t-tests

were used to examine dependent variable means for each pair of ads matched by product type for females. Results are presented in Table 2. For each comparison the ads were not significantly different from one another with respect to attitude toward the ad.

In addition, as a means of examining the idea that men prefer more socially risky ads in comparison to more belonging oriented ads, paired t-tests were performed on the dependent variable for each pair of ads matched by product type for males. Results are presented in Table 3. As with females, the results are nonsignificant.

## DISCUSSION

The intent of this study was to examine the idea that advertisements which feature rapport (belonging) themes would be more appealing to females than ads which feature more socially risky themes thought to be preferred by men. This idea was derived from Tannen's (1990; 1986) contention that motivational bases and desired communication styles differ between men and women. Differential effects of the ad appeals on attitude toward the ad for females and males were not found. However, as a "first step," the present study highlights issues which may hold important implications for future research in this area.

This study raises questions as to the "transferability" of conversational (i.e., interpersonal) motives and associated preferences to the mass communication realm. Tannen's perspective may indeed be operative at the interpersonal (individual/small group) level. However, motives and preferences operative in personal communication contexts are perhaps not operative or not as strongly operative in mass communication (i.e., advertising) contexts. Personal communication may require interaction, but most mass communication does not. Certainly the reception of mass communication involves little if any social risk compared to personal conversation. This lack of immediate social risk may be a factor accounting for the lack of differences in the effectiveness of belongingness versus socially risky ads. Also, the current study used print ads, perhaps radio ads in which actual conversational style rather than ad theme was manipulated would produce stronger effects.

The use of college students as subjects for research in this area also raises questions as to

the presence of gender differences on conversational motives and preferences. Perhaps younger generations are no longer socialized (or not as strongly socialized) along gender lines to adopt rapport (belonging) and report (getting ahead) orientations. An older adult sample may reflect stronger gender differences in terms of rapport and report communication orientations. Furthermore, the sample was comprised of business students. It is likely that women who choose a business career hold more in common with their male counterparts than do other women; but Jacobs (1992) has found that women managers rank order the importance of work-related values the same as their male counterparts. There are probably overlapping distributions with respect to conversational style and a direct measure of an individual's rapport orientation might relate more predictably to ad appeal effectiveness than gender.

It is also possible that, in our attempt to accentuate differences between the belonging and socially risky ads, other factors may have differed which could have overwhelmed the intended manipulation. For example, in the alcoholic beverage ads different types of beverages were shown. However, both automobile ads featured the exact same car in the same color.

In conclusion contrary to expectations this study did not find that women prefer belonging appeals as opposed to more socially risky appeals. Researchers interested in this topic might proceed by examining this idea with a more diverse group of women than the business students sampled in this study.

## REFERENCES

- Abstrachan, A. (1984), "Marketing to Men," Advertising Age, 4 (October): 11-13.
- Auchmutey, J. (1985), "Marketing to Women," Advertising Age, 12 (September): 15-38.
- Bellizzi, J. and L. Milner (1991), "Gender Positioning of a Traditionally Male-Dominant Product," Journal of Advertising Research. (June-July): 72-79.
- Debevec, K. and E. Iyer (1986), "Sex Roles and Consumer Perceptions of Promotions, Products, and Self: What Do We Know and Where Should We Be Headed?" in Advances in Consumer Research, ed. R.J. Lutz. Ann Arbor, MI: Association for Consumer Research (13): 210-14.
- Gentry, J., M. Doering, and T. O'Brien (1977), "Masculinity and Femininity Factors in Product Perception and Self-Image," in Advances in Consumer Research, ed. H. Keith Hunt, 326-32.
- Homer, P. (1990), "The Mediating Role of Attitude Toward the Ad: Some Additional Evidence," Journal of Marketing Research, 27 (February): 78-86.
- Jacobs, Jerry A. (1992), "Women's Entry Into Management: Trends in Earnings, Authority, and Values Among Salaried Managers," Administrative Science Quarterly 37 (June): 282-301.
- Kamakura, Wagner A. and Thomas P. Novak, "Value-System Segmentation: Exploring the Meaning of LOV," The Journal of Consumer Research, 19 (June): 119-132.
- Lonial, S. and S. Van Auken (1986), "Wishful Identification with Fictional Characters: An Assessment of the Implications of Gender in Message Dissemination to Children," Journal of Advertising (15): 4-11.
- Mackenzie, S. and R. Lutz (1989), "An Empirical Examination of the Structural Antecedents of Attitude Toward the Ad in an Advertising Pretesting Context," Journal of Marketing, 53 (April): 48-65.
- Muehling, D., R. Lacznik, and J. Stoltman (1991), "The Moderating Effects of Ad Message Involvement: A Reassessment," Journal of Advertising, 20 (2): 29-38.
- Rosen, J. (1985), "Marketing to Men," Advertising Age, 14 (March): 15-27.
- Steinberg, J. (1988), "Signs Point to Great Reach via Outdoors," Advertising Age (March): 121.
- Sternthal, B. (1986), "Advertising and Gender Response."
- Marketing and Media Decisions (March): 136.
- Tannen, D. (1986), That's Not What I Meant! How Conversational Style Makes or Breaks Your Relations with Others. New York: William Morrow.
- \_\_\_\_\_ (1990), You Just Don't Understand, New York: Ballantine.

**Table 1**  
**Manipulation Checks: Means and t-Test Results**

| Measures           | Stimulus Ads Means |                | t-values          |
|--------------------|--------------------|----------------|-------------------|
| Alcoholic Beverage |                    |                |                   |
|                    | Drink Responsibly  | Paint the Town |                   |
| Belonging          | 15.7               | 9.7            | 5.38 <sup>*</sup> |
| Socially Safe      | 20.6               | 14.9           | 5.91 <sup>*</sup> |
| Automobile         |                    |                |                   |
|                    | Couple             | Individualist  |                   |
| Belonging          | 14.0               | 9.4            | 4.26 <sup>*</sup> |
| Socially Safe      | 20.5               | 17.3           | 4.72 <sup>*</sup> |

\* p < .01

**Table 2**  
**Dependent Variable Mean Comparisons for Females**

| Dependent Variable     | Stimulus Ads Means |                | t-values |
|------------------------|--------------------|----------------|----------|
| Alcoholic Beverage     |                    |                |          |
|                        | Drink Responsibly  | Paint the Town |          |
| Attitude Toward the Ad | 9.9                | 11.1           | 1.41     |
| Automobile             |                    |                |          |
|                        | Couple             | Individualist  |          |
| Attitude Toward the Ad | 7.2                | 7.3            | .04      |

**Table 3**  
**Dependent Variable Mean Comparisons for Males**

| Dependent Variable     | Stimulus Ads Means |                | t-values |
|------------------------|--------------------|----------------|----------|
| Alcoholic Beverage     |                    |                |          |
|                        | Drink Responsibly  | Paint the Town |          |
| Attitude Toward the Ad | 10.2               | 9.5            | .92      |
| Automobile             |                    |                |          |
|                        | Couple             | Individualist  |          |
| Attitude Toward the Ad | 7.8                | 7.0            | 1.57     |

# WOMEN'S ROLE STEREOTYPES IN MAGAZINE ADS: A 25 YEAR PERSPECTIVE - FROM SUBURBIA THROUGH THE FEMININE MYSTIQUE TO LIBERATION

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## ABSTRACT

This paper contains a summary and analysis of the findings of a number of scholars concerning the trends in female role stereotype portrayal in magazine advertising over the

period from 1958 through 1983. The findings were mixed but tend toward positive change in women's portrayal.

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## INTRODUCTION

This paper is a summary and analysis of the findings of the works of a number of scholars published from the late 1950's through the early 1980's. The focus of the piece is on four stereotypical roles attributed to women in the magazine advertising of the period. This time frame was chosen because of the shifting roles of women in the U.S. as they moved from the suburban dream of the 1950's through the great protests and new found freedom of choice of the late 1960's and early 1970's to the wider role opportunities of the late 1970's and early 1980's.

One could argue that advertising plays a vital role in reflecting and/or perpetuating lifestyles, values and stereotypes in American Society. When these stereotypes reflect or portray a negative or limited image range of options for a group -- this may be seen as offensive by members of the group. Further, advertising has become, according to Barthel (1988), one of the means through which people develop a sense of self. That is, individuals begin to use their stereotypical group image as the image against which they compare themselves. In an earlier study, Betty Friedan found women to be comparing their image to stereotypical group images in the early 1960's and, concurrently, analyzed the content of a number of magazines. She noted that there was discrepancy between the reality of women's lives and the "ideal" image portrayed in the magazines of the day (1963). Friedan call this discrepancy, the "Feminine Mystique."

Courtney and Lockeretz (1971) were among the first to examine advertising in magazines to see if feminist criticism of as negative stereotypical portrayal of women was justified. Their focus was on what they viewed as "limited" or "negative" role portrayal. They concluded that four limited or negative female role stereotypes were indeed present. These were 1) a woman's place is in the home, 2) women are dependent on men and need men's protection, 3) women do not make important decisions or do important things, and 4) men regard women primarily as sexual objects; they are not interested in women as people.

## FINDINGS

The first stereotype suggested by Courtney and Lockeretz (1971) was "**a woman's place is in the home.**" A number of other studies were found to have reported results that could be translated into this particular dimension (Belkaoui and Belkaoui 1976, Kerin, Lundstrom and Sciglimpaglia 1977, Pingree et al. 1976, Sexton and Haberman 1974, Sullivan and O'Connor 1988, Venkatesan and Losco 1975, Wagner and Banos 1973, and Weinburger, Petroschius and Westin 1979). Most of these studies were conducted to see whether or not a woman was portrayed in a working role outside of the home.

In 1958 most of the women were shown in situations other than working outside of the home. It is of interest to note that only 13 percent were portrayed as working and when this was the case it was often made clear in the



ads that they were not enjoying their activities (Belkaoui and Belkaoui 1976). Also, one-half of the men in the ads studied were shown in working roles. Courtney and Lockeretz (1971) found about 9 percent of their sample showed women working. This did not proportionally represent the 33 percent of women who were full time employed in the U.S. Wagner and Banos (1973) replicated the Courtney and Lockeretz effort and found about 21 percent of the women were working, an increase of 12 percentage points over the twenty month period between studies. Venkatesan and Losco (1975) conducted a series of three content analyses from 1959-1971. They found that women were portrayed less in home settings and more in the work force from the beginning to the end of period. In 1978 Weinburger, Petroschius and Westin (1979) found that the share of females portrayed in occupational roles was 12 percent. This apparent decrease can be attributed to the more narrowly defined "occupational roles" compared to "working roles" in the earlier work.

Pingree et al. (1976), reporting on the 1973-74 time period, found that women were most often portrayed as either "sex objects" or engaged in traditional activities mainly associated with the home. In the 1988 piece by Sullivan and O'Connor women in magazine ads were shown working away from home in 23 percent of the cases in 1983.

In 1958 the share of ads studied where women were depicted in nonworking roles was 24 percent. It declined to 23 percent and 19.3 percent in 1970 and 1972, respectively (Weinburger, Petroschius and Westin 1979). Interestingly, there was a slight decline in men being portrayed in family roles over the same three measurement years.

The second stereotype theorized by Courtney and Lockeretz (1971) was described as **"women are dependent on men and need men's protection."** These authors further went on to say that, "the advertisements suggest that there are certain businesses and social activities which are still inappropriate for women to perform on their own." Women were more likely than men to be shown in the company of one or more members of the opposite sex. In addition, when women were portrayed alone or with other women, 90 percent were in nonworking roles. On the other hand,

of the men depicted alone or with other men, 63 percent were working.

In the situation where both sexes were pictured in an ad, only 29 percent of the men were shown working with women. Also in these both-sex magazine ads, the most common nonworking role was recreational. When women were shown alone, they were often taking care of themselves or their homes. Venkatesan and Losco (1975) used the same two criteria as Courtney and Lockeretz and had reasonably consistent results where about one fourth of the ads over the 12 year span reinforced the stereotype.

In the study by Belkaoui and Belkaoui (1976) the conclusions reached were that women were almost always shown isolated. Interestingly, their findings were that 74.5 percent of women in the magazine ads studied in 1958 were in nonworking, decorative roles alone, or with other women and that this share increased to 95 percent by 1972.

**"Women do not make important decisions or do important things,"** was the third stereotype put forth by Courtney and Lockeretz (1971). They positioned women against this stereotype on the bases of the occupational and nonworking roles portrayed in the ads. They found that women were most often portrayed using or selecting cleaning products, food products, over the counter drugs, clothing and home appliances. And that the magazine ads for major decisions products, such as appliances and furniture, showed women joined by a man. Also, important business and societal institutions did not feature them very often in their ads. In the 1972 replication no significant changes in the portrayal of women were found (Belkaoui and Belkaoui 1976).

A study by Sullivan and O'Connor (1988) in 1983 led them to conclude that change had occurred though they offered no empirical proof. Their justification was based on findings that 1) there had been an increase in the share of women portrayed in working roles--especially in the areas of women as professionals, business executives, salespersons and mid-level managers and 2) they asserted that "work is not the sole meaningful and important pursuit in life."

The fourth and final stereotype that Courtney and Lockeretz suggested was **"men**

**regard women primarily as sexual objects; they are not interested in women as people."** Ads were evaluated on this dimension by identifying whether women were portrayed in nonworking, decorative (or inactive) roles. In about half of the ads where women were present, but no men were, the women were assessed to be in a decorative role. When women were in magazine ads either alone or with other women, 90 percent were in nonworking roles. Of those in nonworking roles, 70 percent were portrayed in a decorative manner.

Belkaoui and Belkaoui (1976) found in 1958 that 47 percent of the ads involving women placed them as decorative. By 1972 the share had increased to 56 percent. Sexton and Haberman (1974) concluded that there were substantial increases in the proportion of ads where women were serving in decorative roles.

In 1975, a study was published that showed the frequency of sex object role portrayal had decreased from 44 percent in the 1959-1963 time frame to 33 percent in the 1969-1971 period (Venkatesan and Losco). However, Belkaoui and Belkaoui (1976) asserted that the share was 70 percent in 1970 and 94 percent in 1972. Also these authors found that the percentages of women shown with men in purely decorative situations increased from about 13 percent in 1958 to 32 percent in 1972. Others have also reported the increase in females being portrayed in decorative roles over the 25 year historical period of the study (Kerin, Lundstrom and Sciglimpaglia 1979; Pingree et al. 1976; Sullivan and O'Connor 1988; Weinburger, Petroschius and Westin 1979).

## CONCLUSIONS AND IMPLICATIONS

This review of selected research on female role stereotypes in magazine ads over the quarter century from 1958 through 1983 is of interest because of the changing social fabric for women in the U.S. during that period.

It appears that the advertisers, after realizing that some of the negative stereotypes proposed by feminists and others were evident, have responded. There is still room for improvement, but there was a change for the better in the way women were portrayed over the 1958-1983 time frame. What appears to have happened is that as women's roles (and men's

roles) change, advertising reflects these changes.

There is the need for sensitivity to a broad spectrum of views on the part of women as to what roles are appropriate and fulfilling for them. Further, understanding how a product or service fits into a woman's life style, what criteria she uses to choose it from among alternatives and what the connection is between her self-image and the product/service itself, all point toward the kinds of advertising executions that are appropriate and acceptable.

We must be cautious as researchers and scholars that we look at things with the "eyes of the respondents" or group being studied, rather than from our personal, subjective frame of reference. A number of the studies considered over the 25 year period gave evidence of the use of the latter position over the former. As Kuhn (1970) observed, "understanding a paradigm different from one's own is a difficult task because it requires seeing the world from a new perspective." Here there are basic assumptions by the researchers that are really not put to empirical testing, but are treated as "unquestionable givens." also there is a question as to whether the researcher should or should not use the existential-phenomenological view where one does not try to study individuals as separated from their environments or the interaction of the two. Its a study of human beings in their world setting (Thompson, Locander and Pollio (1989).

## REFERENCES

- Barthel, Diane (1988), Putting On Appearances, Philadelphia: Temple University Press.
- Belkaoui, Ahmed and Janis M. Belkaoui (1976), "a Comparative Analysis of the Roles Portrayed by Women in Print Advertisements: 1958, 1970, 1972," Journal of Marketing Research, 13, May, 168-171.
- Courtney, Alice E. and Sarah W. Lockeretz (1971), "A Woman's Place: An Analysis of the Roles Portrayed by Women in Magazine Advertisements," Journal of Marketing Research, 8, February, 92-95.
- Friedan, Betty (1963), The Feminine Mystique, New York: Norton Publishing Co.

- Kassarjian, Harold H. (1977), "Content Analysis in Consumer Research," Journal of Consumer Research, 4, June, 8-17.
- Kerin, Roger A., William Lundstrom and Donald Sciglimpaglia (1979), "Women in Advertisements: Retrospect and Prospect," Journal of Advertising, Summer, 37-42.
- Kuhn, Thomas S. (1970), The Structure of Scientific Revolutions, Chicago: University of Chicago Press.
- Pingree, Susan et al. (1976), "A Scale for Sexism," Journal of Communication, 26, Autumn, 193-200.
- Sexton, Donald E. and Phyllis Haberman (1974), "Woman in Magazine Advertisements," Journal of Advertising Research, 14, August, 41-46.
- Statistical Abstract of the United States, Washington, DC: U.S. Department of Commerce, Bureau of Statistics.
- Sullivan, Gary and P.J. O'Connor (1988), "Women's Role Portrayals in Magazine Advertising: 1958-1983," Sex Roles.
- Thompson, Craig J., William B. Locander and Howard R. Pollio (1989), "Putting Consumer Experience Back into Consumer Research: The Philosophy and Method of Existential-Phenomenology," Journal of Consumer Research, Vol. 16, No. 2 (September), 133-46.
- Venkatesan, M. and Jean Losco (1975), "Women in Magazine Ads 1959-1971," Journal of Advertising Research, 15, October, 49-54.
- Wagner, Louis C. and Janis B. Banos (1973), "A Woman's Place: A Follow-Up Analysis of the Roles Portrayed by Women in Magazine Advertisements," Journal of Marketing Research, 10, May, 213-214.
- Weinburger, Marc G., Susan M. Petroschius and Stuart A. Westin (1979), "Twenty Years of Women in Magazine Advertising: An Update," in 1979 Marketing Educators' Conference Proceedings ed. by N. Beckwith et al., Chicago: American Marketing Association, 373-377.

# A SYSTEMATIC CLASSIFICATION OF SERVICES TO GAIN STRATEGIC MARKETING INSIGHTS

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## ABSTRACT

This article proposes a systematic classification of services. The classification was developed following the principles and criteria suggested by Hunt (1991) and Bunge (1967) for

the development of classifications. The structure of the systematic classification, an example and the managerial and theoretical contributions are provided.

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## INTRODUCTION

Hunt (1991) says that "Classificational schemes are the primary means for organizing phenomena into classes or groups that are amenable to systematic investigation and theory development." In this regard, some researchers state that a classification scheme is a scientific tool that: 1. reduces information in convenient categories (Carper and Znizek 1980); 2. permits the combination of a great number of variables in a simple construction to facilitate the study of a complex phenomena (Oliver 1980) ; 3. could be strategically helpful for refining hypothesis (Haas, Hall and Johnson 1966); 4. could serve as a basis for predicting decisions or changes (Haas, Hall and Johnson 1966).

Many national and international classifications of services have been developed [e.g. Lovelock (1983) and Vandermerwe and Chadwick (1989)], but these classifications are basically logical partitioning (single level) or two by two matrices that: 1. offer limited or partial understanding of the nature of the service; 2. do not offer an integrated and complete vision of the characteristics of the service; 3. are not helpful in predicting the effects of changes; 4. partially fulfill Hunt's usefulness criteria (Hunt 1991). Therefore, I am proposing a Systematic Classification of Services.

## SYSTEMATIC CLASSIFICATION

A systematic classification is the outcome of an operation where concepts are related to one another in such a way that some sort of connectedness or system is made apparent. The concepts are made to hang together in a logically definite way, namely via the relation of

class inclusion (Bunge 1967).

The best known systematic classification is the classification of living organisms. In this classification every major group is divided into subordinated groups, every one of which is not made of subsets, but of concrete populations or of individuals (species) (Bunge 1967).

### Systematic Classification of Living Organisms in Biology

(Human Beings)

KINGDOM (Animalia)

PHYLUM (Chordata)

CLASS (Mammalia)

ORDER (Primates)

FAMILY (Hominidae)

GENUS (Homo)

SPECIES (Homo

Sapiens)

In summary, a systematic classification consists in the organization of an array of concepts in a hierarchic form that is based in the subordination or subsumption of concepts by establishing a system, but a system of concepts (Bunge 1967).

## SYSTEMATIC CLASSIFICATION OF SERVICES

The systematic classification of services developed is comprised of seven major classificatory levels. The levels are organized in such a way that the structure describes the marketing process:

LEVEL 1 - Nature of Organization,

LEVEL 2 - Nature of the Service,

LEVEL 3 - Customer Relationship,

LEVEL 4 - Nature of Demand,

LEVEL 5 - Service Package,

LEVEL 6 - Delivery Method, and

LEVEL 7 - Service Name.

Each major classificatory level is divided in sublevels and these sublevels are subdivided into other categories. These divisions form a ramified classificatory diagram of bifurcated lines in which many existing and non existing services are described (see EXAMPLE).

The structure of the systematic classification of services is as follows:

#### LEVEL I - NATURE OF THE ORGANIZATION

##### SUBLEVEL A - Purpose of the Organization

- 1 - Satisfy persons need
- 2 - Satisfy needs of businesses
- 3 - Satisfy needs of persons and businesses

##### SUBLEVEL B - Type of Organization

- 1 - Public
  - a - profit
  - b - non profit
- 2 - Private
  - a - profit
  - b - non profit
- 3 - Quasi-public
  - a - profit
  - b - non profit

##### SUBLEVEL C - Business Domain of the Organization

1. National
2. International
  - a. Types of International trade
    - i) cross-border services
    - ii) foreign investment
    - iii) licensing or franchising
  - b. Barriers or regulations
    - i) tariff
    - ii) non-tariff

#### LEVEL II - NATURE OF THE SERVICE

##### SUBLEVEL A - Degree of Tradeability (Relative Involvement of Goods)

- 1 - embodied services (tangible)
- 2 - pure services (intangible)
- 3 - services with some goods or delivered through goods

##### SUBLEVEL B - Action directed to ...

- 1 - persons
  - a - body
  - b - mind
  - c - mind and body
- 2 - things
  - a - tangible
  - b - intangible
  - c - tangible and intangible

##### SUBLEVEL C - Degree of Merchantability

- 1 - High (arm's length transactions)
- 2 - Medium
- 3 - Low (organization goes to the consumer or consumer goes to the organization)

#### LEVEL III - CUSTOMER RELATIONSHIPS

##### SUBLEVEL A - Type of relationship

- 1 - formal or membership
- 2 - informal
- 3 - formal and informal

##### SUBLEVEL B - Degree of participation of the customer

- 1 - the presence of the client is necessary in the process of the service
- 2 - the client has to start and finish the service
- 3 - the client has to start the service
- 4 - the client has to finish the service
- 5 - the client does not have to be present

#### LEVEL IV - NATURE OF DEMAND

##### SUBLEVEL A - Level of demand

- 1 - Demand exceeds capacity
- 2 - Demand does not exceeds capacity
- 3 - Sometimes demand exceeds capacity

##### SUBLEVEL B - Degree of fluctuation

- 1 - wide
- 2 - narrow
- 3 - variable
- 4 - no fluctuation

#### LEVEL V - SERVICE PACKAGE

##### SUBLEVEL A - Number of Services

- 1 - delivery of one service
- 2 - delivery of one service and one product
- 3 - delivery of one service and various products
- 4 - delivery of various services
- 5 - delivery of various services and one product
- 6 - delivery of various services and various products

##### SUBLEVEL B - Units of service

- 1 - units defined by situation or event
- 2 - units defined by time
- 3 - units defined by time and situation

##### SUBLEVEL C - Equipment based

- 1 - high 2 - medium 3 - low 4 - none

##### SUBLEVEL D - Level of contact with personnel or Degree of Customer/Producer Interaction

- 1 - high 2 - medium 3 - low 4 - no contact

##### SUBLEVEL E - Degree of customization

- 1 - high 2 - medium 3 - low 4 - standardized

##### SUBLEVEL F - Degree of durability of the benefits

- 1 - high (or durable)
- 2 - medium (or semi-durable)
- 3 - low (or perishable)
- 4 - relative to the client
- 5 - cannot be defined

## LEVEL VI - DELIVERY METHOD

### SUBLEVEL A - Service center availability

- 1 - one center or single site
- 2 - various centers or multi-site
- 3 - no center or no site

### SUBLEVEL B - Nature of the service delivery method

- 1 - continuous
- 2 - discrete
- 3 - continuous and discrete

### SUBLEVEL C - Type of Consumption

- 1 - independent
- 2 - collective
- 3 - partially independent and partially collective

### SUBLEVEL D - Allocation of the service capacity

- 1 - reservation
- 2 - by order of arrival
- 3 - preferential service
- 4 - with reservation and by order of arrival
- 5 - with reservation and by preferential service
- 6 - by order of arrival and by preferential service
- 7 - reservation, order of arrival and by preferential service.

## LEVEL VII - SERVICE NAME

In summary, the systematic classification of services developed:

- is a synthesis of previous classification of services.
- proposes new levels or categories.
- considers simultaneously multiple dimensions of services on a model of multiple interrelated attributes.
- provides a complete vision of the composition of services.
- follow for its construction the principles and criteria suggested by Hunt (1991) and Bunge (1967).

## MANAGERIAL AND THEORETICAL CONTRIBUTIONS

The Systematic Classification of Services can contribute to the managerial practice in four ways. First, by providing a definition for national and international services. Second, by providing a better illustration of the service characteristics and of their relationships. Third, by helping in the identification of the levels or categories that need to be strategically developed or that are significant in the marketing of services at the international and national levels. Fourth, by providing the service manager an

understanding of the characteristics that their own service share with other services (communalities) and in turn increasing cross-fertilization through the application and exchange of operational and marketing strategies between services that share similar characteristics.

The systematic classification of services may contribute to the development of theories in two ways. First, by helping in the refinement of hypotheses and in the development of law-like generalizations related to the nature of services, their characteristics and relationships between characteristics. Second, by serving as a basis for predicting the effects that changes in levels of the service will produce in other levels, sublevels or categories.

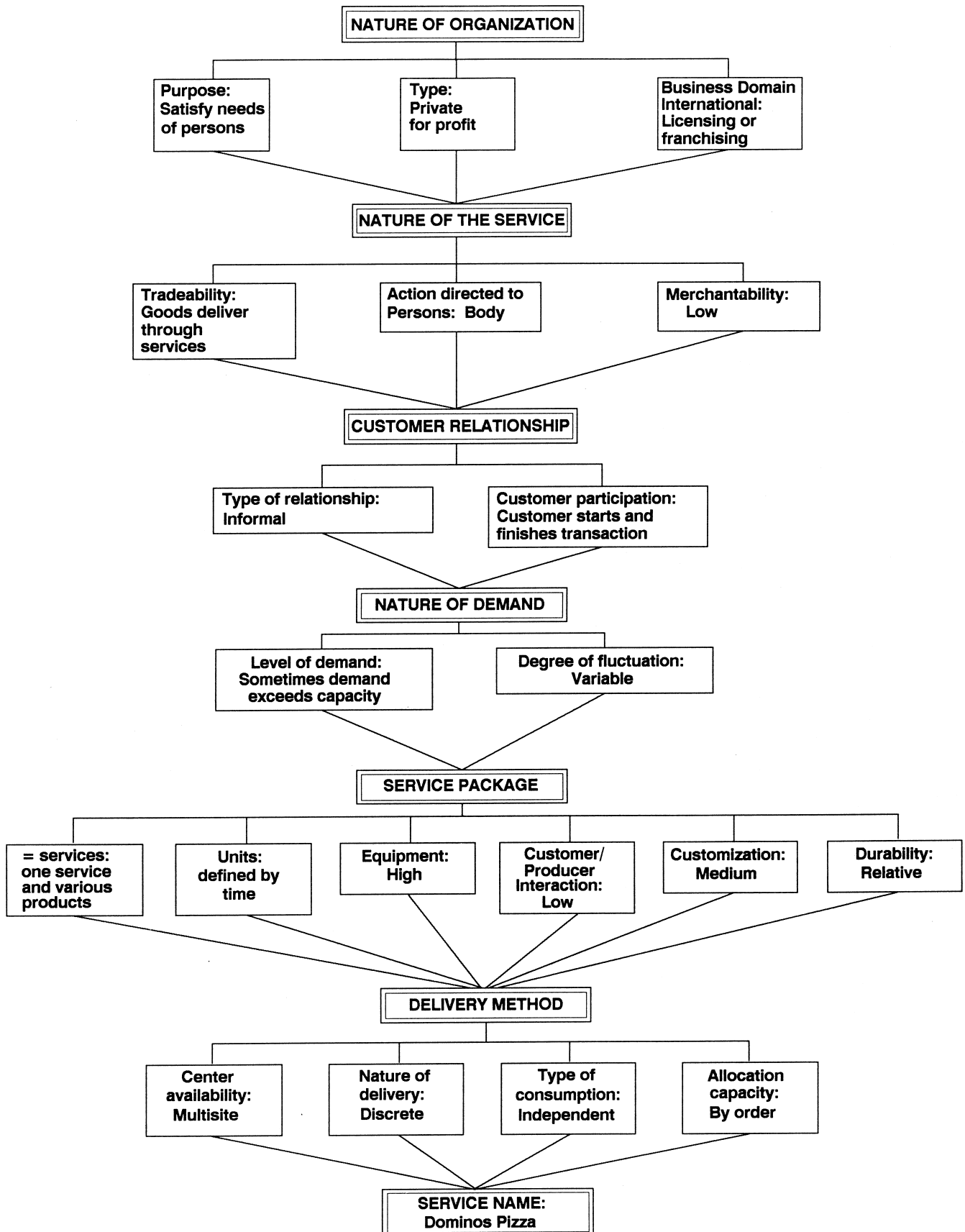
## FUTURE RESEARCH

Future research is needed to refine the scheme proposed. Researchers need to examine the appropriateness of the systematic structure, the applicability of the classification to different national and international service industries and the managerial and theoretical utility of the classification.

## REFERENCES

- Bunge, M. (1967), Scientific Research I: The Search for System. Springer-Velay. Vol 1.
- Carper, W. B. and W.E. Zmizek (1980), "The Nature and Types of Organizational Taxonomies: An Overview," Academy of Management Review, 5 (1).
- Haas, J.E., R.H. Hall and N.J. Johnson (1966), "Towards an Empirical Derived Taxonomy of Organizations," Studies on Behaving Organizations: A Research Symposium. Athens: University of Georgia Press, 157-160.
- Hunt, S.D. (1991), Modern Marketing Theory. Cincinnati, Ohio: Southwestern, Chapter 7.
- Lovelock, C.H. (1983), "Classifying Services to Gain Strategic Insights," Journal of Marketing, 47 (Summer), 9-20.
- Oliver, J. (1980), "An Instrument for Classifying Organizations," Academy of Management Review, 25 (4).
- Vandermerwe, S. and M. Chadwick (1989), "The Internationalisation of Services," Services Industries Journal, 8 (1), 79-93.

**EXAMPLE**  
**Systematic Classification of Dominos Pizza Delivery Service**



# THE EFFECTS OF SERVICE ATTRIBUTES ON PERCEIVED RISK COMPONENTS: A STRUCTURAL MODEL

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## ABSTRACT

Extant services literature has shown services to have higher overall perceived risk than goods. Furthermore, services are perceived as more risky than goods across all six components of perceived risk (financial, performance, physical, psychological, social, and time/convenience loss). If we can assume that consumers strive to reduce risk, then an important question is what causes the enhanced perception of risk for services? The present paper develops a conceptual framework linking the four major service attributes of intangibility, heterogeneity, inseparability, and perishability to the six perceived risk components to further explicate and understand previous research findings. Hypotheses are presented which suggest specific relationships between the individual constructs.

Since previous literature has relied on single item measures of service attributes and two-item measures of perceived risk, multi-item scale development was undertaken for all ten constructs. Coefficient alphas ranged from

.591 to .828, with eight constructs having alphas above .70. Measurement models for both service attributes and risk components were tested using LISREL 7. Each exhibited modest fit ( $p = .078$ , AGFI = .828 and  $p = .149$ , AGFI = .817 respectively).

Pretest results of the structural model had tentative fit indices, but indicated that several of the hypotheses are supported. Specifically, significant relationships are found between inseparability and physical risk, social risk, and psychological risk. Final data collection and further testing of the model is being undertaken.

Support for the service attribute-perceived risk component framework should have strong implications for services marketing managers in that it can provide guidelines for designing marketing plans, employee training, and marketing communications for more efficient and effective corporate results and customer satisfaction.



# BIAS IN CONSUMER EXPECTATIONS OF SERVICES: IMPLICATIONS FOR CUSTOMER SATISFACTION MEASURES

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## ABSTRACT

Self-reports of customer satisfaction are known to yield distributions that are biased toward satisfaction rather than dissatisfaction. An analyses of subjects' responses to expectations

of a service also yielded similar positively biased distributions. It is argued that these phenomena are a fall out of the Pollyanna Effect.

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## INTRODUCTION

When asked to evaluate a product or service, customers tend to indicate a high degree of satisfaction. Peterson and Wilson (1992) demonstrated that self-reported scores of customer satisfaction invariably possess distributions that are negatively skewed and positively biased. Their research focused on methodological contamination and confounding artifacts that may lead to this phenomenon such as response rate bias, data collection mode bias, question form, question context, measurement timing, and response styles.

While highlighting the methodological contamination problems, Peterson and Wilson (1992) also acknowledge the possibility that a more fundamental reason for the positively biased distributions may exist. They speculate that antecedent conditions may be "influencing the shape and level of the observed distributions" of consumer satisfaction. This study explores this possibility. The anchor of customer satisfaction, i.e. consumers prior expectations, is empirically examined, its distribution characteristics, and how this in turn may be influencing the positive bias found in self-reported customer satisfaction scores. It is highly likely that satisfaction scores possess positively biased distributions because they are based on the expectations consumers had prior to the service which we hypothesize also to be positively biased.

## THE RESEARCH THESIS

The primary thesis in this study is that:  
**"Evaluative measures of consumer expectations**

**of services, which are antecedent to customer satisfaction, will be negatively skewed and positively biased."** Customer expectations, seen as the benchmark or standard by which the service experience is judged, has been defined as pretrial beliefs (Olson and Dover 1979), wished-for, desired, ideal levels of service (Miller 1977, Swan and Trawick 1980), and what customers believe will happen or what is anticipated during a future service encounter (Oliver 1981; Miller 1977; Swan and Trawick 1980; Prakash 1984). These expectations are primarily based on an individual's past experience with a firm (Bitner 1990; Woodruff, Cadotte, and Jenkins 1983; Zeithaml, Berry, and Parasuraman 1993). However, even for service firms which have never been patronized, customers have specific expectations of what they believe will occur (Clow, Kurtz, and Ozment 1991).

In the area of customer satisfaction a unique feature of survey instruments, whether measuring customer inputs (eg. attitudes, expectations) or outcomes (eg. satisfaction), is the evaluative nature of the semantics used to develop the indicants. The indicants, or their scale anchors, implicitly or explicitly reflect positive (good) or negative (bad) connotations. Subjects are asked to express the extent to which their attitudes, expectations or their experiences has been positive or negative. They are in effect evaluating the service provider.

Research studies discovered that people more frequently used words with positive connotations than words with negative connotations (Bousfield 1944; Amster 1964; Ansfield and Lambert 1966). The phenomena was also found to occur across different cultures and age

levels (Yavuz 1963; Osgood 1964; DiVesta 1966; Boucher and Osgood 1969). The human tendency to use evaluatively positive words more frequently, diversely, and facily than evaluatively negative words was called the "Pollyanna Hypothesis" by Boucher and Osgood (1969). A recent study further showed that subjects not only choose, but also recall more positive adjectives than negative adjectives (Ruisel 1988).

In a notable extension of the 'Pollyanna Hypothesis,' Matlin and Stang (1978) predicted and confirmed that trait inferences will be made more rapidly for evaluatively positive targets and/or traits than for negative ones. This phenomena was called the "Pollyanna Principle." Hampson and Dawson (1985) further showed that subjects took much longer time to negatively evaluate targets they disliked, implying an inherent difficulty to do so. It seems that people generally find it hard to negatively evaluate a target. This is consistent with the works of Shepherd (1972) and Warr (1969). Shepherd's study showed that when traits do not carry evaluative connotations the above phenomenon does not manifest itself.

Only one study seems to have suggested the role of the 'Pollyanna Hypothesis' in marketing. Pinson, Malhotra, and Jain (1984) consistently found subjects to have more differentiated judgments of negatively valenced products than for positively valenced products across three distinct samples. An important but less realized contribution of Pinson et al. was the affirmation of DuCetle and Soucar (1974) finding that Pollyanna effects may occur even in the context of inanimate, non-human targets.

Based on these studies it appears that customers are naturally inclined to have positively biased evaluative attitudes about products or services. These attitudes are then used to form predictive expectations of a service. Thus, when customers are asked their expectations with respect to a product or service, a positive bias in the responses is expected given their pre-existing, positively-biased evaluative reference point, in the shape of their attitudes. We call this the "Pollyanna Effect."

Because past experience impacts consumer expectations of future service encounters, the first research hypothesis addresses the distribution of responses of customers expectations

of a service prior to any patronage experience with a firm. For this study, consumer expectations are defined as predicative, anticipated, or expected expectations for the next service encounter with a specific firm.

Research has suggested that in the short-run consumer expectations of services are quite stable and the recall of prior predictive-expectations of customers will tend to shift after a patronage experience (Clow and Vorhies 1992). The Pollyanna Theory, however, predicts that the shift in recall of the predictive-expectations would have no effect on the bias of the distribution. Thus, the post-experience recall of prior expectations should still be positively biased and is addressed in the second hypothesis.

In measuring customer satisfaction, there is one methodology available to business managers which, if correctly applied, should eliminate the problems created by the Pollyanna Bias. Called the "Gap Theory," it was first introduced by Parasuraman, Zeithaml, and Berry (1985; 1988). In this method, customer expectations scores are subtracted from a customer's evaluation of perceived service quality. However, research by Clow and Vorhies (1993) indicated consumer expectations measured after a service experience will be effected by the patronage experience. To eliminate this patronage bias from occurring, customer expectations must be measured prior to the service experience and perceived service quality must be measured after it. If this procedure is utilized, the size and direction of the gap between expectations and experience will be void of both the patronage bias and the Pollyanna Bias. Thus, the three hypotheses are as follows:

- H1:** The central tendencies of the distribution of responses of consumer expectations of a service prior to patronizing the firm, as measured by the means, are positively biased for all individual test items.
- H2:** The central tendencies of the distribution of responses of prior consumer expectations of a service encounter recalled, after patronizing a service firm, as measured by the means, are positively biased for all individual test items.
- H3:** The central tendencies of the distribution of scores obtained when consumers' expectations prior to the service are subtracted from the consumers' evaluations of the service experience for all test items are not positively biased.

## METHODOLOGY

The data utilized in the study were collected from 272 students and faculty at a moderate size university. After obtaining responses concerning their expectations of any local restaurant they had never patronized, the participants were then asked to patronize the restaurants indicated. Approximately three months later, the respondents were again surveyed concerning their recall of the expectations they had prior to patronage and their evaluation of the patronage experience. A total of 106 of the 272 original respondents had patronized the restaurant. Nineteen 7-point semantic differential items were used to assess the participants' expectations of the restaurant they had designated, with scales anchored at best-worst, slowest-quickest etc. for indicants such as image, prestige, professionalism, etc. These nineteen items were generated from a 2-hour focus interview with 25 patrons of restaurants.

The utilization of students and faculty for this survey is justified because of their active patronage of restaurants. The mean monthly expenditure of respondents was \$80.19, almost \$1,000 annually, and the average number of meals eaten at restaurants was 10.23 per month. Both statistics indicate participants in the study are active patrons of restaurants lending support to the face validity of the sample selected and the generalizability of the results.

The data were divided into 2 data sets. The first data set consisted of 272 respondents who participated in the first phase of the study. The second data set consisted of 106 respondents who did patronize the restaurant indicated in phase one. Four was subtracted from all scores of consumer expectations and satisfaction to anchor each score at the scale's mathematical mid-point. T-tests were run on the satisfaction measures of the 18 indicants and the over-all opinion of their experience to ensure the data was comparable to data reported by Peterson and Wilson (1992). To test for bias in expectations scores and the level of service quality, t-tests were used.

## RESULTS

In measuring consumer expectations, for the 272 respondents who participated in the first phase of the study only one item (waiting time

for food) was not biased at the .10 level of significance (see [TABLE 1](#)). Of the 106 respondents who did patronize a restaurant, only three of the 19 items were not significant at the .10 level of significance. In addition to waiting time for the food; speed of service, and waiting time to order were also not significantly different from zero. Thus both hypothesis one and two were supported.

It was hypothesized that using the gap theory to measure service quality would eliminate the positive bias since both the expectation score and the experience score were being affected by the Pollyanna bias. Hypothesis three was supported. Of the 19 indicants, six were significant but of the six, three were positive and three were negative indicating no consistent positive bias.

## DISCUSSION

The Pollyanna Hypothesis seems to play a role in customers' explication of their expectations of services and appear to be a primary factor in the positive bias found in their responses to satisfaction measures. Since past experiences form a reference point for future expectancies, the positive bias in the predictive expectancies may be the result of previous experiences. However, even for service firms which have never been patronized, consumer expectations of impending encounters are positively biased. Driven by human nature, customers generally evaluate and predict products and services will be good.

Scale items which do not connote the bipolar dichotomous concepts of "goodness" or "badness" do not appear to exhibit the "Pollyanna Effect." Evaluative judgments on such items as "waiting time to order," "waiting time for food," and "speed of service" do not connote "goodness" or "badness." Respondents, as a group, did not know whether waiting for a long time or a short time was a positive evaluation of the service characteristic. Similarly, it is difficult to decide on whether a quick service or a slow service is good.

The implications of the Pollyanna Bias are far-reaching for managers of business firms. Managers often use self-reported surveys to measure the pulse of their customers and to revise or design marketing strategies and operational procedures. Frequently, they gauge

customers' expectations of their services, their evaluation of service quality performance, and their level of satisfaction or dissatisfaction. Interpretations of these responses form the basis for developing both marketing and operational strategies. Errors in the interpretations of the data may lead to inappropriate strategies which do not produce the desired and expected results, or worse, have a negative impact on their firm's performance. The support found in this research for the presence of Pollyanna Effect in self-reported scores underscores the critical importance of 1) developing instruments that do not activate this bias when products or services are to be evaluated and 2) making allowances for the presence of the Pollyanna Bias in the interpretation of the data.

Because consumer expectations are biased due to the Pollyanna Effect, several important conclusions concerning the measurement of expectations, service quality, and customer satisfaction are possible:

- *First*, measures in the area of customer expectations must consider the fact that customers have an inherent positive bias.
- *Second*, measures of customer satisfaction and service quality will also be inherently biased.
- *Third*, to obtain bias-free measures of customer satisfaction, Gap Theory Methodology must be utilized with expectations measured prior to the service encounter and service quality measured after the service encounter.
- *Fourth*, managerial actions must take into account the Pollyanna Effect in formulating effective marketing strategies and operating procedures.
- *Fifth*, because measures of customer expectations and satisfaction are biased, managers need to interpret the findings of their research conservatively, and cautiously.

## LIMITATIONS AND FUTURE RESEARCH

There are several limitations to this study which highlight the need for future research. The findings at present are only tentative, given the lack of experimental controls in the study.

The Pollyanna Hypothesis, espoused and verified in the psychology literature, was tested using bi-polar semantic differential scales. Extension of the theory to other types of scales would help understand the phenomenon better. Related and more crucial research would be an

investigation of the magnitude of the bias to see if it is predictable and what effect the passage of time has upon this bias magnitude.

## REFERENCES

- Amster, H. (1964), "Evaluating Judgement and Recall in Incidental Learning," Journal of Verbal Learning and Verbal Behavior, Vol. 3, 466-473.
- Ansfield, M. and W.E. Lambert (1966), "When are Pleasant Words Learned Faster Than Unpleasant Words?" Journal of Verbal Learning and Verbal Behavior, Vol. 5, 132-141.
- Bitner, M. (1990), "Evaluating Service Encounters: The Effects of Physical Surroundings and Employee Responses," Journal of Marketing, Vol. 54 (April), 69-82.
- Boucher, J. and C.E. Osgood (1969), "The Pollyanna Hypothesis," Journal of Verbal Learning and Verbal Behavior, Vol. 8, 1-8.
- Bousfield, W.A. (1944), "An Empirical Study of the Production of Affectively Toned Items," Journal of General Psychology, Vol. 30, 205-215.
- Clow, K., D. Kurtz, and J. Ozment (1991), "How Consumers Form Expectations of Service Quality Prior to a First Time Purchase," Symposium on Patronage Behavior and Retail Strategy: Cutting Edge II, eds. Darden et al., Baton Rouge, LA: American Marketing Association and Louisiana State University, 99-110.
- \_\_\_\_\_ and D. Vorhies (1992), "Building a Competitive Advantage For Service Firms Through Accurate Measurement of Consumer Expectations and Service Quality," Working Paper.
- DiVesta, F. J. (1966), "A Developmental Study of the Semantic Structures of Children," Journal of Verbal Learning and Verbal Behavior, Vol. 8, 1-8.
- DuCette, J. and E. Soucar (1974), "A Further Investigation of the Vigilance Hypothesis With the Use of Random Shapes as Stimuli," The Journal of Social Psychology, Vol. 92, 109-113.

- Hampson, S. and W.J. Dawson (1985), "Whatever Happened to Pollyanna? The Effects of Valuable Congruence on Trait Inference," Personality and Social Psychology Bulletin, Vol. 11, No. 1 (March), 106-117.
- Matlin, M.W. and D.J. Stang (1978), "Pollyanna Principle," Psychology Today, Vol. 11, No. 10, 56-64.
- Miller, J. (1977), "Studying Satisfaction, Modifying Models, Eliciting Expectations, Posing Problems, and Making Meaningful Measurements," Conceptualization and Measurement of Consumer Satisfaction and Dissatisfaction, ed. Hunt, Bloomington: Indiana University, 2-6.
- Oliver, R. (1981), "Measurement and Evaluation of Satisfaction Process in Retail Settings," Journal of Retailing, Vol. 57 (Fall), 25-48.
- Olson, J. and P. Dover (1979), "Disconfirmation of Consumer Expectations Through Product Trial," Journal of Applied Psychology, Vol. 64 (Apr.), 179-189.
- Osgood, C.E. (1964), "Semantic Differential Technique in the Comparative Study of Cultures," American Anthropologist, Vol. 66, 131-200.
- Parasuraman, A., V. Zeithaml, L. Berry (1985), "A Conceptual Model of Service Quality and Its Implications for Future Research," Journal of Marketing, Vol. 49 (Fall), 41-50.
- Peterson, R. and W. Wilson (1992), "Measuring Consumer Satisfaction: Fact and Artifact," Journal of the Academy of Marketing Science, Vol. 20 (Winter), 61-71.
- Pinson, C., N.K. Malhotra, and A.K. Jain (1984), "Cognitive Differentiation in Consumer Product Judgements," Journal of Economic Psychology, Vol. 5, No. 4 (December), 353-363.
- Prakash, V. (1984), "Validity and Reliability of the Confirmation of Expectations Paradigm as a Determinant of Consumer Satisfaction," Journal of the Academy of Marketing Science, Vol. 12 (Fall), 63-76.
- Ruisel, I. (1988), "Memory Within the Context of Personality," Studia Psychologica, Vol. 30, 179-183.
- Shepherd J. W. (1972), "The Effects of Variations in Evaluativeness of Traits on the Relation Between Stimulus Effect and Cognitive Complexity," Journal of Social Psychology, Vol. 88, 233-239.
- Swan, J. and F. Trawick (1980), "Satisfaction Related to Predictive vs. Desired Expectations," in Refining Concepts and Measures of Consumer Satisfaction and Complaining Behavior, Hunt and Day, eds., Bloomington: Indiana University, 7-12.
- Warr, P. B. (1969), "Inferences about Personal Traits," Administrative Science, Vol. 26, 206-214.
- Woodruff, R., E. Cadotte, and R. Jenkins (1983), "Modeling Consumer Satisfaction Processes Using Experience-Based Norms," Journal of Marketing Research, Vol. 20 (Aug.), 296-304.
- Yavuz, H.S. (1963), "The Retention of Incidentally Learned Connotative Responses," Journal of Psychology, Vol. 55, 609-618.
- Zeithaml, V., L. Berry, and A. Parasuraman (1993), "The Nature and Determinants of Customer Expectations of Services," Journal of Academy of Marketing Science, Vol. 21 (Winter), 1-12.

**TABLE 1**  
**Mean**

| Items               | Expectations<br>Prior to<br>Patronage<br>n = 272 | Expectations<br>After Patronage<br>n = 106 | Satisfaction<br>Scores<br>n = 106 | Gap<br>Theory<br>n = 106 |
|---------------------|--------------------------------------------------|--------------------------------------------|-----------------------------------|--------------------------|
| Exterior            | 0.313***                                         | 0.387***                                   | 0.093**                           | -.094                    |
| Interior            | 0.423***                                         | 0.415***                                   | 0.462***                          | .047                     |
| Cleanliness         | 0.783***                                         | 0.632***                                   | 0.868***                          | .236*                    |
| Prices              | 0.794***                                         | 0.774***                                   | 0.509***                          | -.264**                  |
| Value               | 0.518***                                         | 0.208**                                    | 0.283***                          | .076                     |
| Selection of food   | 0.662***                                         | 0.642***                                   | 0.698***                          | .056                     |
| Assortment of food  | 0.452***                                         | 0.462***                                   | 0.594***                          | .132                     |
| Quality of food     | 1.147***                                         | 0.991***                                   | 1.028***                          | .038                     |
| Prestige            | 0.651***                                         | 0.585***                                   | 0.311***                          | -.274**                  |
| Atmosphere          | 0.640***                                         | 0.321**                                    | 0.359***                          | .038                     |
| Image of restaurant | 0.790***                                         | 0.793***                                   | 0.557***                          | -.236**                  |
| Professionalism     | 0.335***                                         | 0.387***                                   | 0.396***                          | .009                     |
| Friendliness        | 0.621***                                         | 0.755***                                   | 0.726***                          | -.028                    |
| Quality of service  | 0.735***                                         | 0.669***                                   | 0.585***                          | -.085                    |
| Appearance of staff | 0.232***                                         | 0.198*                                     | 0.377***                          | .179                     |
| Waiting time/order  | 0.143*                                           | -0.038                                     | 0.000                             | .038                     |
| Speed of service    | 0.199***                                         | 0.160                                      | 0.349***                          | .189                     |
| Waiting time/food   | -0.004                                           | -0.170                                     | 0.056                             | .226*                    |
| Over-all opinion    | 0.805***                                         | 0.557***                                   | 0.793***                          | .236*                    |

\* Significant at  $p < .10$

\*\* Significant at  $p < .05$

\*\*\* Significant at  $p < .01$

# THE QUALITY LENS MODEL: A MARKETING TOOL FOR IMPROVING CHANNEL RELATIONSHIPS

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## ABSTRACT

The Quality Lens Model suggests that parties in a channel relation act as though they assess product attributes through a cognitive lens that may distort perceptions of service

quality. This model provides a quantitative means of analyzing and comparing channel members' perceptions with objective measures of product or service quality.

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## INTRODUCTION

Dwyer, Schurr, and Oh (1987) suggested that in order for exchange relationships formed within a channel of distribution to endure, each channel member must have an understanding of the product and service attributes that the other desires. Unfortunately, channel relationships are often characterized by a lack of such understanding (Levy 1991; Stern and El Ansary 1992). As such, channel members are likely to experience conflicting impressions of the attributes desired in the product exchanged. (Here the term "product" is used broadly to indicate a good and/or service.)

Such perceptual differences have often been cited as a cause of channel conflict (Rosenberg and Stern 1971; Ross and Lusch 1982). Most channels research that has compared the perceptions of multiple channel members found differing perceptions on the variables studied (John and Reve 1983; Ross and Lusch 1982). Even where agreement is substantial, some perceptual differences are likely to exist (Anderson and Narus 1990; Rinehart and Page 1992).

In sum, researchers have accepted the existence and importance of understanding perceptual differences in the evaluation of product quality by channel members. However, to this date little or no work has been done to develop procedures that will provide accurate, ongoing assessment of such differences. The authors propose a new approach, the Quality Lens Model (QLM), as a way to resolve differences between channel member perceptions of

product quality. The model uses statistical process control (SPC) measures to identify and quantify the extant quality of key attributes of the channel product. It then assesses channel member perspectives of the product, using the SPC measures as evaluative yardsticks against which quality as perceived by channel members can be compared. The model also allows for comparisons of the supplier's managers' perceptions of quality with the actual measures. Finally, the perceptions of each member of the exchange are compared. We propose that applying the QLM to a marketing channel setting can assist managers in determining "quality discrepancies" between their own firm's perceptions of performance and the perceptions of other exchange members regarding that same performance.

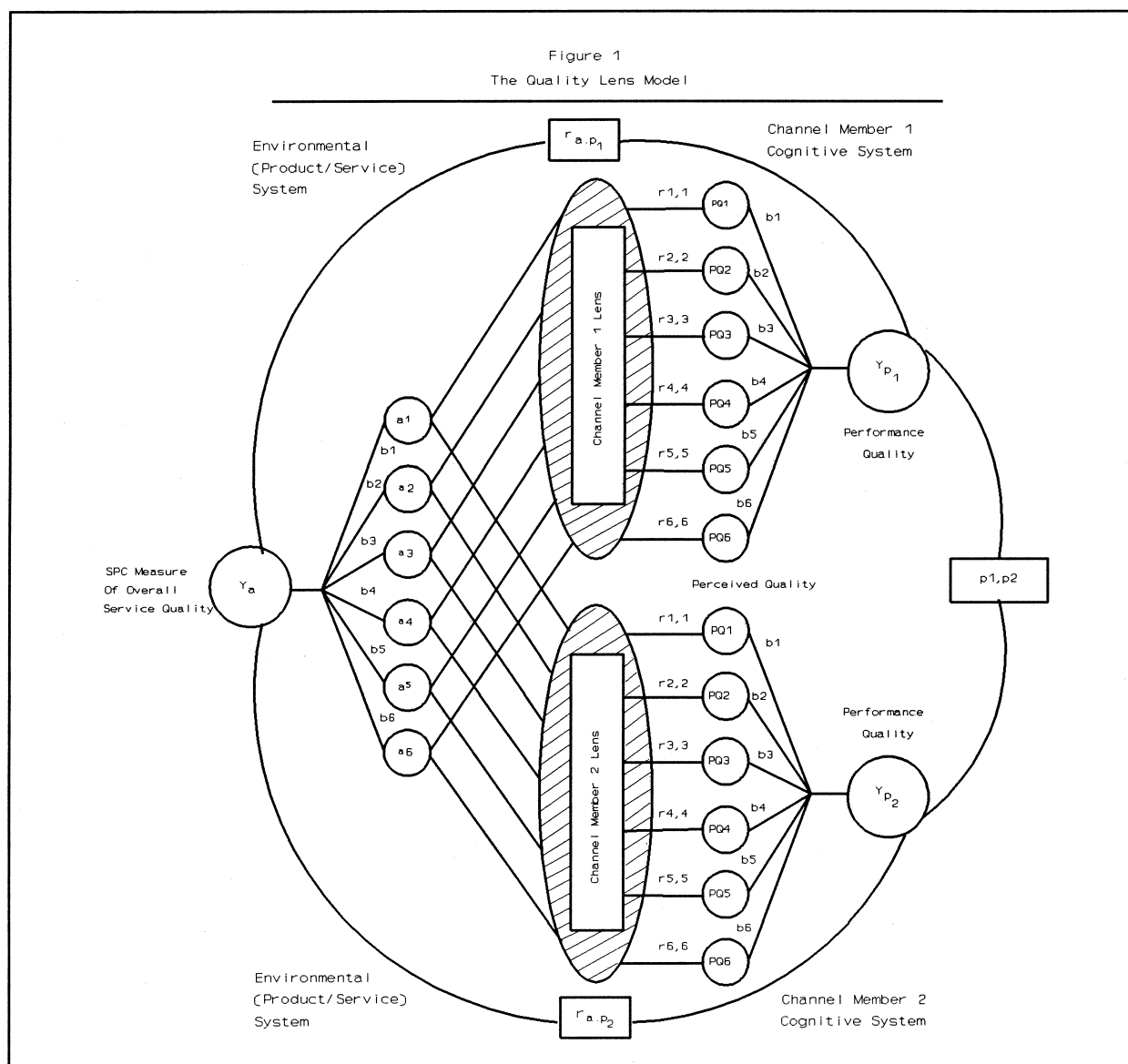
This paper is divided into three major sections. First, an overview is presented of the QLM and the Brunswick Lens Model on which it is based. Second, the details of the QLM are developed by employing it to analyze a "real world" case study involving the Stone Container Corporation. The final section of the paper discusses directions for future research and implications for managers.

## THE QUALITY LENS MODEL

Fifty years ago Egon Brunswick developed the Brunswick Lens Model, which is based on the underlying concept that the stimuli in an individual's environment are viewed and interpreted through a cognitive lens and that one person's image of his or her environment is very likely to differ from a second person's

perception of the same milieu (1943). The QLM is built upon this framework and related work by Claycomb and Mowen (1992). As indicated in **Figure 1**, on the left side of the lens is the environmental (i.e., the product) system, consisting of the global assessment and the associated **measured** attributes of the product. In the QLM model, the environmental side of the system will be assessed by statistical process control (SPC) procedures. Specific SPC measures of quality are obtained on all possible product attributes. Where possible, an overall measure of global quality is obtained. On the right side of the model is the cognitive system, consisting of the channel members'

**perceptions** of the quality of the product and its attributes. The lens represents the various factors that may distort the channel members' perceptions of the product. Such factors may include erroneous or incomplete information, idiosyncratic needs and wants, information processing biases, and environmental noise that may hinder message reception. Although the lens itself cannot be measured reasonably, its impact is assessed by comparing the disparate measures of the product and service level attributes. The following case is presented to demonstrate the models' use in analyzing exchange relationships within a channel of distribution.





## Stone Containers and the Quality Lens Model

Stone Container Corporation, the world's largest producer of brown paper, paperboard, boxes, and bags, is flourishing because of its customer orientation and its strenuous statistical process control program (Tonkin 1991). The ability to satisfy its customers depends upon the firm's accurate identification of the needs of those customers. The firm's sales representatives, packaging engineers, product designers and marketing managers meet with customers to identify the attributes sought and appropriate quality standards for the products.

When customer requirements are analyzed, six key attributes consistently reappear: total cost, product conformance, design aesthetics, flexibility, delivery, and environmental sensitivity. To track production performance, the firm uses statistical process control (SPC) procedures, including daily measures of box thickness, glue strength, gap sizes, printing quality, and box squareness. Design aesthetics and service flexibility, more subjective and difficult to measure, are monitored to some degree through customer interaction. Specific measures of delivery performance are in place. Environmental sensitivity includes measurement of categories of waste and standards for each, as well as goals for use of recycled materials. Whenever possible, benchmarks are set for each attribute.

Stone Container Corporation's goal is "to be the best in customer service" (Tonkin 1991, p.32) in a highly competitive industry in which margins are exceedingly thin. During the recession of the early 1990s, profits dropped dramatically. As a result, Stone faces a dilemma: the firm must lower costs while at the same time serving customers effectively. How can these often inconsistent objectives be accomplished? The authors propose using the Quality Lens Model to link actual performance measures with channel members' perceptions of the same performance. Differences in exchange members' perceptions can be identified, and problems resulting from such differences can be addressed effectively.

### The Quality Lens Model and the Stone Container Case

Figure 1 diagrams the QLM as applied to

the Stone Container case. The figure identifies the attribute dimensions on which the product is evaluated, including total cost, product conformance, design aesthetics, flexibility, delivery, and environmental sensitivity as measurable dimensions. Although these particular attributes apply specifically to the Stone Container case, they reflect frequently considered concerns in channel exchanges (Blanding 1990; Johnson and Wood 1990). Of course, the relevant attributes and differences will be specific to each particular channels transaction.

### Measuring the Environmental Side of the Lens

The objective assessments of attribute quality (a1 ... a6 in Figure 1) are obtained statistically by comparing measures of product conformance to benchmark standards. It is also possible to employ outside parties not involved in the exchange process to obtain criterion measures that give as objective a view as possible of product performance on the attributes. Overall measures of the actual quality of the product are more difficult to obtain. Again, it may be possible to employ impartial outside observers to provide such evaluations. Another approach is to sum the SPC developed ratings on each of the attribute dimensions to form an overall measure of product/service quality ( $Y_a$ ).

It is also important to identify weights for each of the attribute dimensions. Thus, cost might be a much more important attribute than aesthetics. If an overall quality score can be obtained, the weights can be derived by regressing the individual SPC derived scores on the overall quality measure. It may also be possible to have the channel members assign weights to the attributes. The product attributes can then be multiplied by the weights to obtain an overall SPC measure of product quality.

In the Stone Container case, product conformance might be measured on such dimensions as strength, durability, and freedom from defects. Total cost can be assessed on a per-item basis or total usage cost basis. Other performance attributes, such as flexibility and design aesthetics, are more difficult to measure. An outside consultant may be needed to determine whether the supplier responds to special needs, is willing to expedite orders or use express delivery, requires a strict ordering schedule, will sell in non-standard quantities, or

responds effectively to buyer needs in other relevant ways. Delivery can be tracked for percentage of on-time deliveries, merchandise condition, and/or delivery time using SPC approaches. Environmental sensitivity measures might include the assessment of material waste, the use of recycled materials, and biodegradability. The firm has a choice: its current performance levels may be used as the norm in developing these measures or the firm may position itself against an appropriate "benchmark" -- e.g., the performance level of its strongest competitor, next best competitor, or even a successful firm in a noncompeting industry.

### Measuring the Cognitive Side of the Lens.

On the individual cognition side of the model, channel member 1 will have perceptions of the quality of product attributes ( $PQ_{1,1} \dots PQ_{6,1}$ ), as will channel member 2 ( $PQ_{1,2} \dots PQ_{6,2}$ ). These quality perceptions should be obtained from each level of the marketing channel, usually by survey methods. Questionnaires are used to measure each channel member's perceptions of the quality of each attribute selected for the model. Overall measures of quality are also included. Typically, multiple informants' views are gathered and aggregated within the firm, unless a single informant can be logically identified. Because extensive research on measuring satisfaction and related issues (e.g., Oliver 1981; Parasuraman, Zeithaml and Berry 1988) has been presented in previous marketing literature, measurement details will not be discussed here.

### Comparing the Environmental and Cognitive Sides of the Lens

Data from the environmental (left) side of the model is compared to the cognitive (right) side to obtain a meaningful picture of discrepancies in channel member perceptions of product and service quality. As seen in [Figure 1](#), several such comparisons are made. First, the researcher examines the correlation between channel member perceptions of quality and the SPC measures of quality ( $r_{1,1} \dots r_{6,6}$ ). Each channel member's overall rating of product quality ( $Yp_1$ ;  $Yp_2$ ) and the overall SPC measure of product quality ( $Ya$ ) are also compared ( $ra,p_1$ ;  $ra,p_2$ ). A final comparison ( $p_1,p_2$ ) looks at the correlation between the overall ratings of product quality by channel member 1 ( $Yp_1$ ) and

the same rating by channel member 2 ( $Yp_2$ ). This process allows the researcher to determine where and in what ways individual channel member perceptions of quality differ from SPC or other objective measures of product quality as well as from the perceptions of other channel members.

## DISCUSSION AND RESEARCH IMPLICATIONS

The Quality Lens Model offers channel members a managerial tool with the potential to improve channel relationships. The QLM allows managers to determine whether channel members disagree on ratings of the quality of product attributes or on the weightings of the rated attributes. The model promotes effective use of resources; improvements can be added where they are needed and not wasted on enhancement of unimportant attributes or on attributes that already meet or exceed the needs of other channel members. Where exchange member perceptions are inaccurate but the performance of the attribute appears strong when measured objectively, advertising and sales techniques can be used to inform consumers. Regardless of whether the product or the perception is altered, the quality of the exchange itself is increased and the needs of both parties to the exchange are better met.

Another advantage of the QLM is that it represents a dynamic, not static, approach to performance assessment. Thus, the model attacks the primary weakness of "one-shot" performance assessments that do not capture the ongoing nature of marketing relationships. SPC techniques are designed to be used on a regular and frequent basis. Carefully designed exchange member assessments can also be conducted at regular intervals and analyzed as elements within the relationship change.

### Future Research

A number of research implications can be derived from the Quality Lens Model. First, although extensive support for the Brunswick Lens Model has been demonstrated, no empirical research has been conducted on the QLM. Thus, a logical next step is an empirical assessment of the QLM's ability to act as an effective diagnostic tool for managers. The theoretical base is well-established in the Brunswick Lens model, and the techniques are in place for practical application.

Future research should involve relationships within the model, such as assessing trends in relative importance of attributes. Longitudinal analysis of perceptual differences can be examined with respect to environmental changes such as market structure. One of this models' greatest strengths is its ability to reflect changes in attributes and relationships.

## REFERENCES

- Anderson, James C. and James A. Narus. (1984), "A Model of the Distributor's Perspective of Distributor-Manufacturer Working Relationships," Journal of Marketing, 48 (Fall), 62-74.
- Blanding, Warren (1982), Blanding's Practical Physical Distribution, Washington: Traffic Service Corporation.
- Brunswik, Egon (1943), "Organismic Achievement and Environmental Probability," Psychological Review, 62, 255-272.
- Claycomb, Vincentia A. and John C. Mowen (1992), "On Linking Consumer Quality, Satisfaction, and Value Judgments to Statistical Process Control Procedures: The Marketing Lens Model," Quality In Services III, International Services Quality Association, Karlstad, Sweden. Forthcoming.
- Dwyer, F. Robert, Paul H. Schurr, and Sejo Oh (1987), "Developing Buyer-Seller Relationships," Journal of Marketing, 51 (April), 11-27.
- John, George and Torger Reve (1983), "The Reliability and Validity of Key Informant Data from Dyadic Relationships in Marketing Channels," Journal of Marketing Research, Vol. XIX (November 1982), 517-524.
- Johnson, James C., and Donald F. Wood (1990), Contemporary Logistics, 4th ed. New York: Macmillan Publishing Company.
- Levy, Michael. (1981), "Customer Service: A Managerial Approach to Controlling Marketing Channel Conflict," International Journal of Physical Distribution and Materials Management, 11 (7), 38-52.
- Oliver, Richard L. (1981), "A Cognitive Model of the Antecedents and Consequences of Satisfaction Decisions," Journal of Marketing Research, 23 (November), 460-69.
- Parasuraman, A., Valarie A. Zeithaml, and Leonard L. Berry. (1988), "SERVQUAL: A Multiple-Item Scale for Measuring Consumer Perceptions of Service Quality," Journal of Retailing, 64 (Spring), 12-40.
- Rinehart, Lloyd M. and Thomas J. Page, Jr. (1992), "The Development and Test of a Model of Transaction Negotiation," Journal of Marketing, 56 (October), 18-32.
- Ross, Robert H. and Robert F. Lusch. (1982), "Similarities between Conflict and Cooperation in the Marketing Channel," Journal of Business Research, Vol. 10, No. 2 (June), 237-250.
- Stern, Louis W. and Adel I. El-Ansary. (1992), Marketing Channels, 4th Edition, Englewood Cliffs, NJ: Prentice Hall.
- Tonkin, Lea. (1991), "Unadorned Excellence: Stone Container Corporation, Corrugated Container Division, North Chicago, IL," Target, 7 (Summer), 32-40.

# RELATIONAL EXCHANGES: A THEORETICAL MODEL OF NEGOTIATION

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## ABSTRACT

Marketing research has narrowly focused on the dynamics of the negotiation process within a relational exchange context. The purpose of

this paper is to offer a theoretical model that explains how the negotiation process may affect long-term buyer-seller relations.

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## INTRODUCTION

Buyer-seller exchanges are increasingly typified by closer, more cooperative relationships (Salmond and Spekman 1986). According to Webster (1992), networks of buyer-seller relationships and strategic alliances are replacing simple market-based transactions to gain competitive advantages. As buyers and sellers recognize their interdependence, the value of collaborative strategies rises in importance. One such strategy, which has been given little attention in the marketing literature, is negotiation or bargaining (Dwyer, Schurr, and Oh 1987).

Negotiation refers to the process in which two or more parties communicate with one another so as to arrive at some sort of agreement or compromise (Bacharach and Lawler 1981). Included in this process are two types of bargaining, competitive and cooperative (also referred to as distributive and integrative bargaining respectively) (Bacharach and Lawler 1981; Pruitt 1981; Walton and McKersie 1965). Competitive bargaining is characterized by competitive behavior directed toward maximizing self gain at the expense of the other party (Walton and McKersie 1965). Cooperative bargaining, on the other hand, is characterized by cooperative behavior directed toward maximizing the joint gains of the negotiating parties (Pruitt 1981). To the extent that long-term relationships are sought, cooperative bargaining becomes increasingly important (Walton and McKersie 1965).

The purpose of this paper is to offer an integrative theoretical model of negotiations which focuses not only on the outcomes, but also on how such bargaining outcomes affect the buyer-seller relationship. By examining

negotiations in the context of ongoing buyer-seller relational exchanges, we gain an increased understanding of the dynamics of the bargaining process. It should be noted that *relational exchanges* are defined as long-term, future oriented exchanges (Macneil 1981).

**Figure 1** is a graphic representation of the negotiation process model developed here. As shown in the figure, the model explores *negotiation tactics* of communication facets (quality, content, and direction) and power; *negotiation strategies* of cooperation and competition; *relational outcomes* of trust, commitment, and conflict; and *relational exchanges*, defined as long-term, future oriented interactions. A contingency theory is developed in which the type of negotiation strategy employed (cooperative or competitive) is contingent upon the interaction between communication facets and power. This interaction, in turn, affects the nature of the relational exchange. Therefore, as depicted in the model, not only does the negotiation process affect the relational exchange, but the relational exchange also affects the negotiation process.

## NEGOTIATION TACTICS

Negotiation tactics are the behavioral mechanisms that buyers and sellers use to influence each other (Bacharach and Lawler 1980). In the model presented here, two tactics are examined: power and communication. According to Bacharach and Lawler (1981, p. 47), power is a major determinant of tactical action. During bargaining, negotiators use power to influence their opponent's perceptions and behaviors. Communication, on the other hand, provides the means through which negotiators can transmit their power perceptions, as well as their goals and bargaining strategies, to their

opponents. In this regard then, tactical action involves the use of power and communication to influence the information transmitted to the opponent.

In the negotiation process, the relationship between power and communication is inter-linked, as communication provides the means through which power may be transmitted. With regard to the communication facets of this model, the following integrative arguments can be made. When negotiating parties are equal in power, communication tends not only to be open (i.e., bidirectional) (Bacharach and Lawler 1980), but also accurate, relevant, and timely (cf. Putnam and Poole 1987; Walton and McKersie 1965). In addition, communication content tends to be noncoercive in nature (cf. Mohr and Nevin 1990). Shared power situations foster the exchange of relevant information so that negotiating parties may better understand each other's intentions, aspirations, and orientations toward the negotiation process. As both parties are working toward joint goals, communication is used to foster positive interactions.

In contrast, when power conditions are asymmetrical, communication is often obstructed (Bacharach and Lawler 1980) and deceptive (i.e., low quality) in nature (Putnam and Poole 1987). As Lewicki and Litterer (1985) suggest, the more powerful party will often withhold, screen, or misrepresent information in order to increase his competitive advantage. In addition, the more powerful member may use coercive influence attempts to force or pressure his partner to consent to his demands (Dwyer and Walker 1981). More formally . . .

P<sub>1</sub>: Under symmetrical (asymmetrical) power conditions, communication has: a) higher (lower) quality, b) more bidirectional (unidirectional) flows, and c) more non-coercive (coercive) content.

The combination of communication facets outlined in the above proposition (e.g., high quality, bidirectional, and noncoercive) can be united to form distinct "communication strategies." Like Mohr and Nevin (1990), "communication strategies" refer to particular combinations of communication facets. In the model presented here, two specific combinations of communication facets emerge. The first combination includes higher quality, more

bidirectional flows, and noncoercive content, and is termed "*cooperative communication strategy*." This combination, as stated above, is likely to occur when power between negotiating parties is symmetrical. The second combination includes lower quality, more unidirectional flows, and coercive content, and is termed "*competitive communication strategy*." This combination is likely to occur when power between negotiating parties is asymmetrical. Such combinations of communication strategies and power may be more broadly defined as negotiation strategies.

## NEGOTIATION STRATEGY

Negotiation strategies may be defined as general plans comprised of specific tactics (Wall 1985). The two negotiating strategies explored here are cooperation and competition. *Cooperative* behavior refers to "complementary coordinated actions taken by (parties) in interdependent relationships to achieve mutual outcomes, or singular outcomes with expected reciprocity over time" (Anderson and Naurus 1990, p. 45). *Competitive* bargaining, on the other hand, refers to non-coordinated actions directed toward maximizing individual gain.

Both power and communication are associated with competitive and cooperative bargaining behavior. Regarding *power*, mutual dependence between negotiating parties is typically associated with cooperative bargaining behavior as both parties are working toward joint goals (cf. Putnam and Poole 1987; Bacharach and Lawler 1980). In contrast, imbalanced dependence between negotiating parties is commonly linked with competitive bargaining behavior, as the more powerful member often engages in activities to maximize self gain at the expense of the other party (cf. Dwyer and Walker 1981).

With regard to *communication*, the open, accurate, and reliable sharing of information (reflective of cooperative communication strategies) is related to cooperative bargaining behavior (cf. Putnam and Poole 1987; Salmond and Spekman 1986). According to Lewicki and Litterer (1985), relevant information exchange serves to define problems, explore causes, and generate alternative solutions to meet the joint objectives of the negotiating parties. In contrast, obstructed and deceitful communication (reflective of competitive communication



strategies), is characteristic of competitive bargaining behavior (cf. Putnam and Poole 1987; Deutsch 1969). As Bacharach and Lawler (1980) suggest, the overt manipulation or distortion of information serves to increase the likelihood of a win-lose situation.

Based on the preceding discussion, it can be argued that pure cooperative or competitive bargaining behaviors are contingent on a correct "match" between power and communication strategy. Specifically, a correct "match" is determined by the theoretical development of proposition one ( $P_1$ ), and is thus present when either: a) symmetrical power is combined with cooperative communication strategies, or b) asymmetrical power is combined with competitive communication strategies. In "mismatch" conditions (i.e., when symmetrical power is combined with competitive communication strategies, or when asymmetrical power is combined with cooperative communication strategies), cooperative or competitive negotiation strategies are still assumed to prevail, however to a lesser extent. These predictions are set forth in the second proposition.

$P_2$ : Power and communication strategy interact to influence the type of negotiation strategy:

- a. When power is *symmetrical* and communication strategy is *cooperative* (competitive), *cooperative bargaining behavior* will be high (low).
- b. When power is *asymmetrical* and communication strategy is *competitive* (cooperative), *competitive bargaining behavior* will be high (low).

### RELATIONAL OUTCOMES

As depicted in the model, the negotiation process affects three relational outcomes variables: trust, commitment, and conflict. *Trust* is defined as "the belief that a party's word or promise is reliable and that a party will fulfill his/her obligations in an exchange relationship" (Schurr and Ozanne 1985, p. 940). *Commitment* refers to "an implicit or explicit pledge of relational continuity between exchange parties" (Dwyer, Schurr, and Oh 1987, p. 19). Commitment further suggests a future orientation toward the relationship in which short-term sacrifices may be made for the purpose of realizing long-term benefits (Anderson and Weitz 1992). According to Dwyer, Schurr, and Oh (1987),

both trust and commitment are integral to the promotion of long-term relational exchanges.

*Conflict* is defined as a situation involving interdependent parties who have incompatible goals and who perceive the other party as preventing or impeding the realization of these goals (Putnam and Poole 1987). The two types of conflict examined in this model include productive and destructive conflict. According to Deutsch (1969), *productive conflict* stimulates harmony within a relationship by fostering joint problem solving between parties. Moreover, productive conflict acts to alleviate tension between parties and thus stabilizes the relationship (Deutsch 1969). *Destructive conflict*, on the other hand, refers to the conscious blocking of a party's goals by another party (Pondy 1967). Such conflict aggravates the relationship and promotes an increased reliance upon the use of threat, coercion, and deception (Deutsch 1969).

Taken together, trust, commitment, and conflict can be linked with both types of bargaining behavior (cooperative and competitive), albeit at different levels. For example, it is postulated that cooperative bargaining behavior leads to increased levels of productive conflict, trust, and commitment within the relational exchange. In direct opposition to cooperative bargaining behavior, competitive behavior leads to decreased levels of trust and commitment, and increased levels of destructive conflict. These predictions regarding the relationship between negotiation strategies and relational outcomes are formally stated in the third proposition.

$P_3$ : Enhanced cooperative bargaining behaviors (competitive bargaining behaviors) are positively (negatively) related to: a) trust, b) commitment, and c) productive conflict.

### ASSOCIATION BETWEEN RELATIONAL OUTCOMES, RELATIONAL EXCHANGE, AND THE NEGOTIATION PROCESS

As stated in the introduction, relational exchanges are defined as long-term future-oriented exchanges (Macneil 1981). According to Salmond and Spekman (1986), exchanges such as these can be further distinguished as either bilateral or unilateral in nature. In bilateral relationships, exchange parties tend to share power equally and are likely to communicate in an open, honest fashion. In unilateral relation-

ships, power is typically unequally divided between parties and communication is impoverished and unreliable (cf. Putnam and Poole 1987).

Both the level of trust and commitment, and the type of conflict, affect the nature of the relational exchange. It can be argued that if the negotiation process produces increased levels of trust, commitment, and productive conflict, then the existing buyer-seller relationship will be reinforced (cf. Schurr and Ozanne 1985 and Cummings 1984; and Deutsch 1969 respectively). In contrast, if the negotiation process causes decreased levels of trust and commitment, and increased levels of destructive conflict, then the existing relational exchange will weaken. Proposition four explicitly states these arguments:

P<sub>4</sub>: Relational outcomes positively (negatively) affect existing relational exchanges so that enhanced (weakened) levels of trust, commitment, and productive conflict enhance (weaken) existing relational exchanges.

Completing the cycle depicted in the model, it is predicted that if the existing relational exchange is strengthened based on past negotiations, then the buyer-seller relationship will, in turn, exhibit more cooperative communication and greater shared dependence between exchange parties. More formally . . .

P<sub>5</sub>: Enhanced (weakened) relational exchanges are associated with:

- a. greater cooperative (competitive) communication strategies, and
- b. greater (less) shared dependence or symmetrical (asymmetrical) power.

Therefore, the more cooperative the bargaining behavior, the stronger the relational exchange and hence the greater the relationship's long-term potential. In contrast, the more competitive the bargaining behavior, the weaker the relationship and the more unstable the relationship's future potential.

## CONCLUSION

This analysis of the role of negotiation within ongoing buyer-seller exchanges suggests two general conclusions. First, negotiation is not a static process. Instead, as depicted by the model, negotiation is a dynamic process that

not only affects the integrity of the buyer-seller relationship, but also affects the nature of future negotiations between these parties. Second, the interaction between power and communication determine the type negotiation behavior exhibited. To the extent that this interaction produces cooperative bargaining behavior, relational outcomes (productive conflict, trust, and commitment) will be enhanced, strengthening the overall buyer-seller relationship. In contrast, if the interaction produces competitive bargaining behavior, the relational outcomes, as well as the relationship itself will suffer. Therefore, to the extent that long-term collaborative exchanges are sought, cooperative bargaining tactics rise in importance.

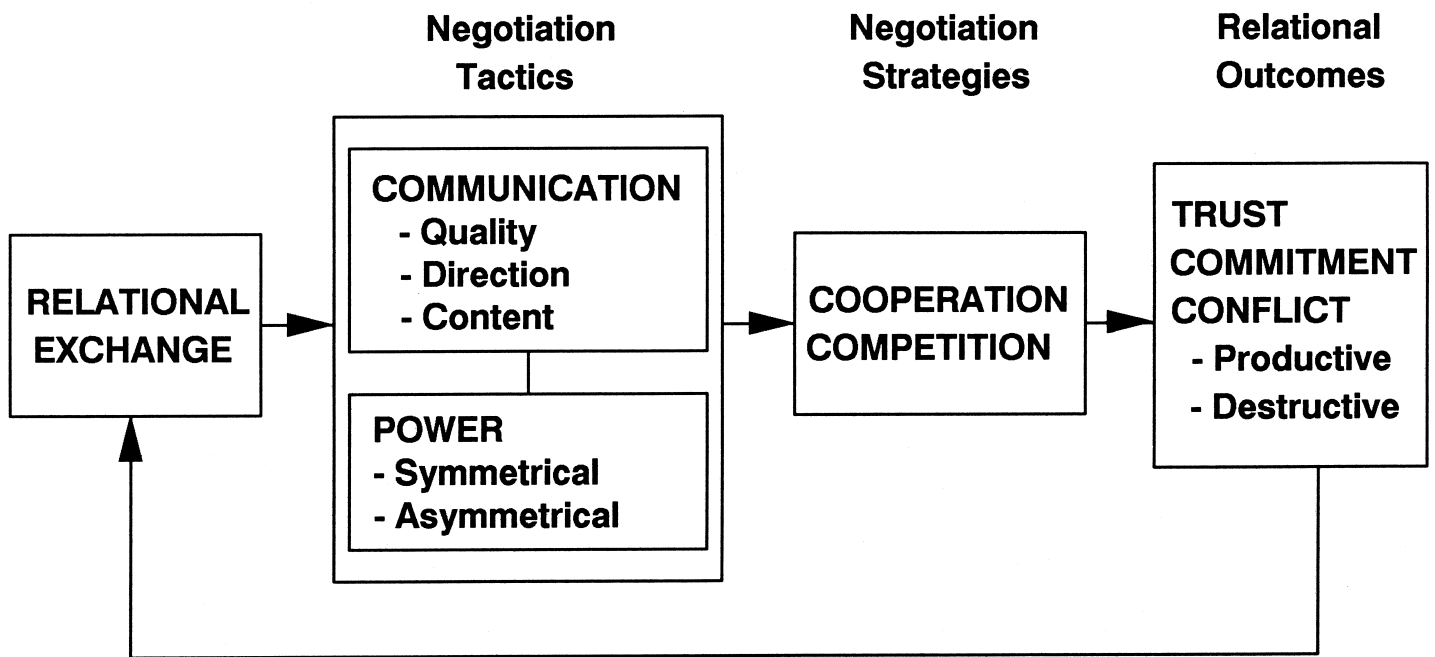
## REFERENCES

- Anderson, E. and B. Weitz (1992), "The Use of Pledges to Build and Sustain Commitment in Distribution Channels," Journal of Marketing Research, 29 (February), 18-34.
- Anderson, J.C. and J. Naurus (1990), "A Model of Distribution Firm and Manufacturer Firm Working Partnerships," Journal Of Marketing, 54 (January), 42-58.
- Bacharach, S.B. and E.J. Lawler (1980), Power and Politics in Organizations, San Francisco: Jossey-Bass.
- \_\_\_\_\_, and E.J. Lawler (1981), Bargaining: Power, Tactics, and Outcomes, San Francisco: Jossey-Bass.
- Cummings, T. (1984), "Transorganizational Development," in Research in Organizational Behavior, 6, 367-422.
- Deutsch, M. (1969), "Conflicts: Productive and Destructive," Journal of Social Issues, 25 (1), 7-41.
- Dwyer, F.R., P. Schurr, and S. Oh (1987), "Developing Buyer-Seller Relationships," Journal of Marketing Research, 51 (April), 11-27.
- \_\_\_\_\_, and O.C. Walker, Jr. (1981), "Bargaining in Asymmetrical Power Structure," Journal of Marketing, 45 (Winter), 104-115.
- Lewicki, R.J. and J. Litterer (1985), Negotiation, Homewood, IL: Irwin.

- Macneil, I. (1981), "Economic Analysis of Contractual Relations: Its Shortfalls and the Need for a 'Rich Classificatory Apparatus'," Northwestern University Law Review, 75, 1018-63.
- Mohr, J. and J.R. Nevin (1990), "Communication Strategies in Marketing Channels: A Theoretical Perspective," Journal of Marketing, 54 (October), 36-51.
- Pondy, L. (1967), "Organizational Conflict: Concepts and Models," Administrative Science Quarterly, 12 (September), 296-320.
- Pruitt, D.G. (1981), Negotiation Behavior, New York: Academic Press.
- Putnam, L.L. and M.S. Poole (1987), "Conflict and Negotiation," in Handbook of Organizational Communication: An Interdisciplinary Perspective, F. Jablin et al., eds. Newbury Park CA: Sage Publications, Inc., 549-599.
- Salmond, D. and R. Spekman (1986), "Collaboration as a Mode of Managing Long-Term Buyer-Seller Relationships," in AMA Educators' Proceedings, Series 52, T. Shimp, et al., eds. Chicago: American Marketing Association, 162-166.
- Schurr P.H. and J. Ozanne (1985), "Influence on Exchange Process: Buyers' Preconceptions of a Seller's Trustworthiness & Bargaining Toughness," Journal of Consumer Research, 11 (March), 939-953.
- Walton, R.E. and R.B. McKersie (1965), A Behavioral Theory of Labor Negotiations: An Analysis of a Social Interaction System, New York: McGraw-Hill.
- Wall, J.A., Jr., (1985), Negotiation Theory and Practice, Glenview, IL: Scott, Foresman.



**FIGURE ONE**  
**RELATIONAL EXCHANGE NEGOTIATION PROCESS**



# ANALYTICAL MODELS OF COMPETITION AND COORDINATION IN MARKETING CHANNELS: A QUALITATIVE REVIEW

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## ABSTRACT

The analytical modeling, or 'management science' approach to the study of channels related problems began in the early 1980s. This review paper qualitatively summarizes and integrates the principal studies from this domain in order to identify patterns of knowledge development. Key results from each paper are listed in the Table, and the relationships among the studies covered are depicted diagrammatically in the [Figure](#). A number of empirically testable research propositions are offered throughout which are derived directly from results of the

modeling papers. Virtually all recent research in the area has built either directly or indirectly upon the seminal work by Jeuland and Shugan (1983) and McGuire and Staelin (1983). An important finding is that there is an emerging emphasis in the modeling literature on the virtues of coordination, or cooperation, among channels partners in lieu of competition. This development complements the present focus on relationship management observed in the research from the 'power and conflict', or more traditional behavioral paradigm.

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## INTRODUCTION

Starting in the early 1980s, a number of quantitative articles began to appear in the marketing and management academic literature that dealt with distribution channels. In contrast with the predominant 'power and conflict' paradigm, the aim of this 'management science' approach to solving channels problems was to develop a mathematical formulation of a complex social situation in a way that was conducive to an analytical solution by conventional means (Stern and El-Ansary 1988). This type of approach inevitably involves a tradeoff between parsimony and the ability to capture the intricacies of the real world. Still, a great deal has been learned from the theoretical models reviewed here, which attempt to characterize the distribution channel structure that might be observed given a set of specified assumptions.

The purpose of this paper is to summarize and synthesize the principal studies of competition and coordination from the analytical channels modeling domain in a qualitative fashion. A number of empirically testable propositions are offered that may be used to validate, generalize and refine the assumptions which underlie these mathematically derived results. Although most of the models discussed incorporate short literature reviews of their own which directly relate to the particular assumptions underlying the specific paper, none are comprehensive in

nature. As the 'management science' approach to the study of channels related problems reaches maturity, a review of the progress made thus far by academic researchers should benefit scholars and practitioners alike. This paper is intended to provide the field with such a review, with emphasis given to integrating and relating the research findings in order to identify patterns of knowledge development.

It is also important to note the similarities among studies of channel systems conducted via the methods covered here and those traditionally utilized in the more familiar survey-based 'power and conflict' literature. These two paradigms need not be viewed as competing or mutually exclusive. They should instead be considered complementary approaches, each possessing unique advantages and disadvantages with regard to concerns such as validity and normative implications. Indeed, the emerging emphasis presently observed in both literature streams on coordination between firms and long-term strategic partnerships provides a salient example of the insight one can obtain from taking the time to understand and appreciate both approaches. As this example illustrates, a potential synergy of knowledge exists when results from both the traditional and analytical paradigms are contemplated together.

Two complementary streams are identified in the following review of past and present

research from the channels modeling literature. The first, inspired by Jeuland and Shugan (1983), concentrates on the study of coordination, or cooperation, between firms in vertical channels systems (e.g., manufacturer 1 - retailer 1). The second, inspired by McGuire

and Staelin (1983), focuses on competition between firms across a channel (e.g., manufacturer 1 - manufacturer 2). Each approach considers the effects of competition between firms within a common channel, but both the setting and objective may vary considerably.

### SUMMARY OF PAPERS REVIEWED

| STUDY                        | MAIN RESULTS                                                                                                                                                                                                                                                     |
|------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Zusman and Etgar (81)        | Profit sharing rules via negotiations enhances channel performance.                                                                                                                                                                                              |
| Jeuland and Shugan (83)      | Cooperative behavior leads to greater total channel profits than a non-cooperative Nash equilibrium. Quantity discounts is the best method to accomplish this objective.                                                                                         |
| Moorthy (87)                 | A two-part tariff is a simpler method than quantity discounts.                                                                                                                                                                                                   |
| McGuire and Staelin (83)     | It is only profitable for manufacturers to decentralize when their products are highly substitutable ( $\Theta > 0.93$ ). Retailers act as a buffer against price competition for manufacturers.                                                                 |
| Shugan (85)                  | As channel members learn about one another's behavior, implicit understandings develop. Profits are highest when both firms learn.                                                                                                                               |
| Jeuland and Shugan (88)      | More formal agreements (than implicit understandings) are needed when a more general demand function is used.                                                                                                                                                    |
| Chu (92)                     | For new product introduction with information asymmetry, manufacturers prefer to signal demand and retailers prefer to screen demand. Slotting allowances produce greater joint profits unless advertising is sufficiently effective.                            |
| McGuire and Staelin (86)     | Integrated firms should always use divisional objectives. Nash retail prices are always lower for integrated structures.                                                                                                                                         |
| Coughlan (85)                | Symmetric channel structures are stable. Mixed structures are unstable and will evolve into pure integrated structures.                                                                                                                                          |
| Shugan and Jeuland (88)      | Intrabrand competition is good for the manufacturer, but creates difficulties for the retailer.                                                                                                                                                                  |
| Coughlan and Wernerfelt (89) | When considering decentralization, coupling between demand and strategic dependence is more important than product substitutability.                                                                                                                             |
| Moorthy (88)                 | The notion of a manufacturer buffering itself from competition is incomplete. The key is the strategic relationship between products. When two products are not demand substitutes but instead are strategic substitutes, decentralization can still be optimal. |
| Choi (91)                    | Retailers are generally better off using product line pricing, especially when products are highly substitutable.                                                                                                                                                |

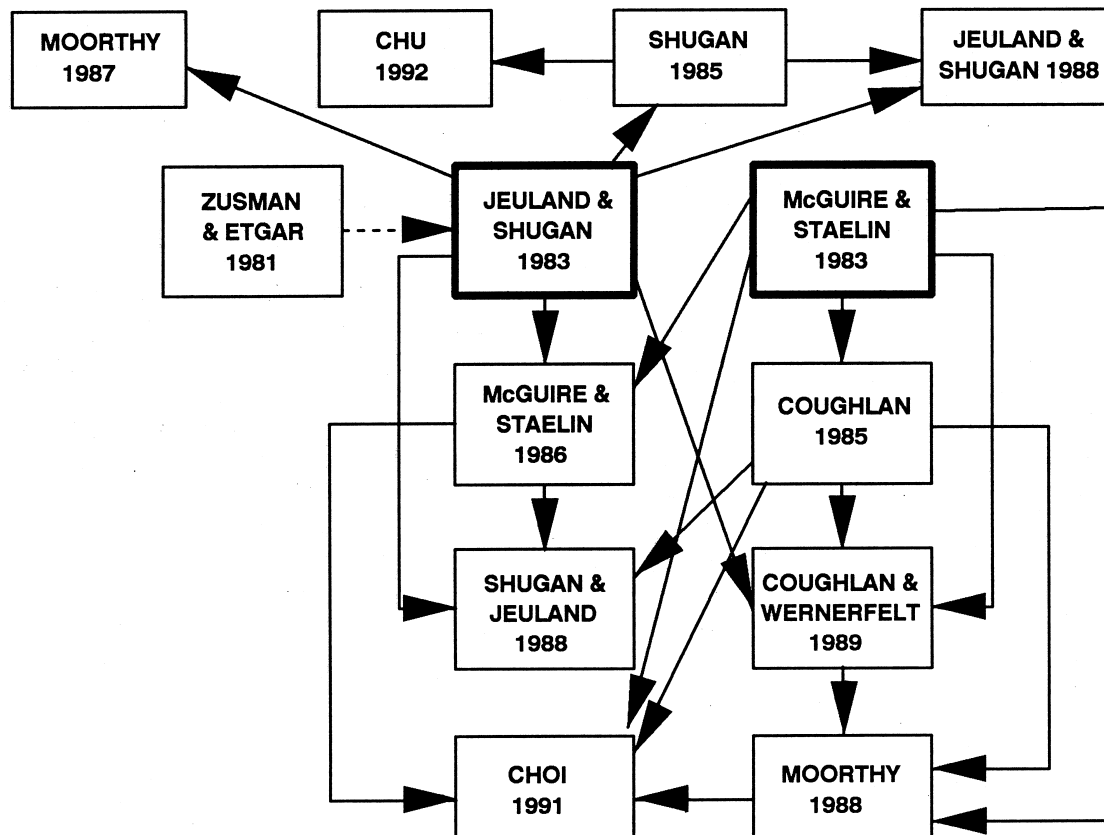
## PROPOSITIONS FOR EMPIRICAL RESEARCH

- P1:** Cooperative channel relationships will result in greater joint profits than competitive channel relationships.
- P2:** For highly substitutable goods, decentralized manufacturers will realize greater profits than integrated manufacturers.
- P3:** Dyadic channel arrangements in which firms understand each others' economic behavior will result in greater total channel profits than dyads in which firms do not.
- P4:** Integrated firms which use divisional objectives will realize greater profits than integrated firms using corporate objectives.
- P5:** Integrated structures will exhibit lower retail prices than decentralized structures.
- P6:** For highly substitutable goods, retail profits will be maximized when product line pricing is used.

## CONCLUSIONS

Despite the vast array of research issues investigated by analytical modelers of channels problems, it appears that a meaningful pattern of knowledge development is taking place. Two classic 1983 articles - by McGuire and Staelin, and Jeuland and Shugan - served as the foundation for others and have withstood the test of time. Both models are remarkably robust, and many of the findings may easily be generalized to include multiple vertical levels within the channel and/or multiple horizontal competitors across a channel. The Table summarizes the main results of the studies covered. Papers are listed in the order they were introduced rather than in chronological order in an effort to facilitate understanding of the relationships. The **Figure** represents an attempt by the author to graphically depict the previously described relationships among the various studies. The two seminal papers are portrayed in bold boxes. All solid arrows are intended to illustrate a direct contribution from one paper to another. The dotted arrow symbolizes the indirect contribution Zusman and Etgar (1981) made to Jeuland and Shugan's (1983) early research.

**FIGURE: Relationships Among Channels Modeling Papers**



There are some limitations of the modeling approach to solving channel coordination and competition problems. At times the simplifying assumptions limit the generalizability of the results. The form of the demand function has been shown to dramatically impact qualitative conclusions in certain instances. A practicing manager would be remiss to ignore the question of how applicable these controlled settings are to his or her firm and industry. Perhaps most important, many researchers discount the significance of retail expertise and local market knowledge along with the value of offering a full line of products when considering vertical integration (Lilien, Kotler and Moorthy 1992).

Future research in this area needs to incorporate more of the marketing mix variables and relax some of the simplifying assumptions. Empirical verification and replication of results is also badly needed. Only one of the papers reviewed here (Coughlan 1985) had any empirical content. Accurate measurement of the demand curve presents a substantial methodological challenge. Managers cannot be expected to manipulate the price of their products across the entire continuum to accomplish this task.

In closing, recent emphasis in the analytical approach to channels research appears to reflect a change of direction. Short-term profit maximization associated with models of competition and Nash equilibrium was the primary objective initially. More recently, the focus has been shifting toward long-term relationship management between firms coordinating their actions to maximize total channel profits, which is also consistent with the present dominant viewpoint in the traditional 'power and conflict' literature. This change presents an excellent opportunity for synthesizing the work of analytical modelers with others who have used more externally valid survey-based approaches to the study of problems in channels of distribution. Researchers who perceive these two different methodologies as complementary are certain to benefit. Moreover, the apparent unification between the two research paradigms with regard to the common emerging emphasis on the superiority of cooperation in lieu of competition among partner firms suggests a final illustrative proposition that might be tested empirically.

**P7:** Cooperative channel relationships will be more stable and enduring than competitive channel relationships.

Although it also seems logical for cooperative relationships to be characterized by higher satisfaction, to make such a claim here would be inappropriate because no study reviewed addresses the salient construct explicitly.

The primary goal of this paper was to provide the field with a straightforward qualitative review of the research conducted by the analytical channels modeling community. Particular attention was given to the concepts of cooperation and competition, and the manner in which the various studies built upon one another. Propositions were offered for the purpose of stimulating additional empirical research specifically designed to test the results of the papers reviewed in real-world settings. By doing so, both scholars and practitioners can advance the state of marketing knowledge by validating and subsequently refining the assumptions behind the mathematical models.

## REFERENCES

- Bergen, Mark, Shantanu Dutta and Orville C. Walker, Jr. (1992), "Agency Relationships in Marketing: A Review of the Implications and Applications of Agency Theory and Related Theories," Journal of Marketing, 56 (July), 1-24.
- Choi, S. Chan (1991), "Price Competition in a Channel Structure With a Common Retailer," Marketing Science, 10 (Fall), 271-296.
- Chu, Wujin (1992), "Demand Signalling and Screening in Channels of Distribution," Marketing Science, 11 (Fall), 327-347.
- Coughlan, Anne T. (1985), "Competition and Cooperation in Marketing Channel Choice: Theory and Application," Marketing Science, 4 (Spring), 110-129.
- \_\_\_\_\_ and Birger Wernerfelt (1989), "On Credible Delegation by Oligopolists: A Discussion of Distribution Channel Management," Management Science, 35 (February), 226-239.
- Jeuland, Abel and Steven Shugan (1983), "Managing Channel Profits," Marketing Science, 2 (Summer), 239-272.

- \_\_\_\_\_ and \_\_\_\_\_ (1988), "Channel of Distribution Profits When Channel Members Form Conjectures," Marketing Science, 7 (Spring), 202-210.
- Lee, Eunkyue (1993), "Vertical Strategic Interaction and Channel Member Pricing Behavior," unpublished dissertation, Duke University, Fuqua School of Business.
- Lilien, Gary L., Philip Kotler and K. Sridhar Moorthy (1992), Marketing Models, Englewood Cliffs, NJ: Prentice Hall.
- McGuire, Timothy W. and Richard Staelin (1983), "An Industry Equilibrium Analysis of Downstream Vertical Integration," Marketing Science, 2 (Spring), 161-190.
- \_\_\_\_\_ and \_\_\_\_\_ (1986), "Channel Efficiency, Incentive Compatibility, Transfer Pricing, and Market Structure: An Equilibrium Analysis of Channel Relationships," in Research in Marketing: Distribution Channels and Institutions, 8, Greenwich, CT: JAI Press, 181-223.
- Moorthy, K. Sridhar (1985), "Using Game Theory to Model Competition," Journal of Marketing Research, 22 (August), 262-282.
- \_\_\_\_\_ (1987), "Managing Channel Profits: Comment," Marketing Science, 6(Fall), 375-379.
- \_\_\_\_\_ (1988), "Strategic Decentralization in Channels," Marketing Science, 7 (Fall), 335-355.
- Shugan, Steven M. (1985), "Implicit Understandings in Channels of Distribution," Management Science, 31 (April), 435-460.
- \_\_\_\_\_ and Abel P. Jeuland (1988), "Competitive Pricing Behavior in Distribution Systems," in Issues in Pricing: Theory and Research, Deninney T.M. (Ed.), Lexington, MA: Lexington Books, 219-237.
- Stern, Louis W. and Adel I. El-Ansary (1988), Marketing Channels, 3rd. Ed., Englewood Cliffs, NJ: Prentice Hall.
- Zusman, Pinhas and Michael Etgar (1981), "The Marketing Channel as an Equilibrium Set of Contracts," Management Science, 27 (March), 284-302.

# TOTAL QUALITY MANAGEMENT: A NEW PARADIGM THAT SHOULD ENHANCE MARKETING EDUCATION

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## ABSTRACT

This paper addresses the application of Total Quality Management (TQM) by marketing educators. A model is presented that identifies tasks a marketing department should complete in adapting a TQM approach to continuous

quality improvement. Critical processes, outcome measures, and suggestions are examined that should enhance the level of student learning.

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## INTRODUCTION

Many business schools today are faced with declining student enrollments due in part to smaller high school graduation classes and less students choosing business as a career. For example, in 1987 there were 2.8 million high school graduates, as compared to 2.3 million in 1993. Moreover, the percentage of freshman who indicated an interest in business was 26% in 1987, and in 1993 that percentage has declined to 15% (Ritzman 1993).

Operating budgets for business schools are also being reduced and faculty members are beginning to feel the pain of reduced availability of resources. In addition, government and taxpayers are increasingly demanding accountability of tax dollars allocated to institutions of higher education.

Given these challenges, collegiate business schools are becoming more concerned with assessing and improving the quality of service delivered. The paradigm of Total Quality Management (TQM) has recently become an accepted practice for enhancing quality for some colleges and universities (Falk, Brewer, and Brewer 1993). The central premise of TQM is "outcome assessment" through proof of quality and continuous improvement. The TQM philosophy argues that all stakeholders need to have input into defining an acceptable level of quality. Stakeholders within higher learning would include students, administration, faculty, staff, and employers.

As business schools begin the challenge of applying TQM, it is likely that marketing departments within those schools will be asked to assess processes they have in place that address

continuous improvement. Moreover, they will have to identify and adopt outcome assessment techniques in order to show "contribution to student learning."

Before these activities take place, however, an overall plan should be developed, with input from all constituencies, that will provide guidance in the adaptation of the TQM paradigm. The objective of this paper is to suggest a model for continuous improvement that marketing educators could use as they address the issues of applying TQM within their departments.

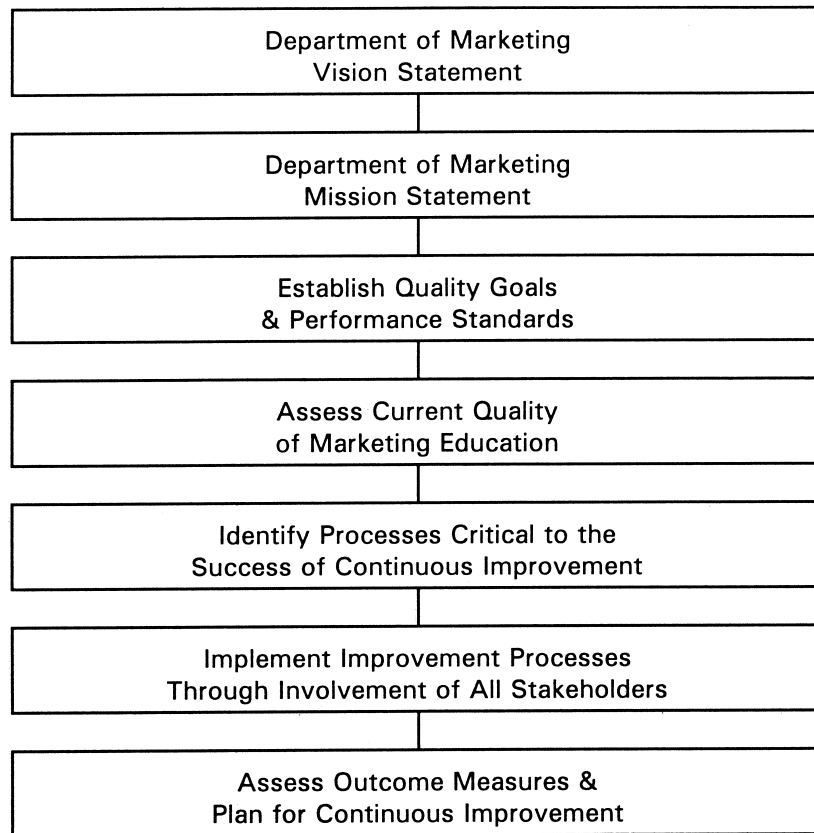
## CONTINUOUS IMPROVEMENT MODEL

As marketing departments begin applying the concepts of TQM, it is likely that they will be asked to assess processes they have in place that address continuous improvement. [Figure 1](#) identifies a model that purposes various tasks a marketing department should complete in adapting a TQM approach to quality improvement. The accomplishment of each task is critical to the overall success of TQM implementation. A discussion of each task is presented below.

### Vision Statement

As identified in [Figure 1](#), the first task that should be completed is the development of a vision statement, which identifies a future desired state of being. The vision statement may be viewed as the department's ultimate goal. This is a statement that implies that the department still has something to accomplish. It should be comprehensive and supported by all stakeholders. An example may be that the marketing department envisions itself as a leader in some area of marketing education.

**FIGURE 1**  
**A Model of Total Quality Management**  
**For Enhancing Marketing Education**



### **Mission Statement**

The mission statement identifies the department's current situation. It specifies would products/services the department provides and the needs it satisfies. A marketing department's mission statement would commonly address such issues as teaching, scholarly inquiry, and service to the university/ community. The department's mission statement should be a natural outgrowth of the business school's mission statement.

### **Establish Quality Goals**

Once the vision and mission statements have been developed, the department must turn to establishing quality goals and performance standards. TQM uses "benchmarking" with industrial leaders as a means for promoting continuous improvement. Outcome goals for marketing departments would revolve around such issues as preparing students for entry

level positions in the job market, student recruitment and retention rates, satisfaction levels of students and employers, and faculty scholarly and service contributions.

### **Assess Current Quality**

Tan (1986) identified three types of studies that have been used to assess quality in higher education. The three types of studies are: 1) reputational - evaluation studies which are based upon administrators' opinions of quality of service in higher education; 2) objective indicator - studies which use faculty research productivity, resource availability, and student attributes as indicators of quality; and 3) correlation studies - studies which identify variables that correlate with such factors as grade point averages and graduation rates of students.

A survey of the marketing literature identifies two approaches for measuring service quality: 1) gap analysis and 2) performance- based



measures. Gap analysis argues that service quality should be defined in terms of the difference between consumer expectations and performance perceptions. This approach defines service quality in terms of how well the service level delivered matches customer expectations (Parasuraman, Zeithaml, and Berry 1988).

Performance-based measures conceptualizes service quality using only performance perceptions. A number of recent studies (Bolton and Drew 1991a,b; Cronin and Taylor 1992) suggest service quality should be measured as an attitude using performance-based measures. Woodruff, Cadotte, and Jenkins (1983) also lend support for performance-based measures by suggesting that consumer expectations introduce redundancy in the measurement of service quality.

A marketing department could choose to use either gap analysis or performance-based measures to operationalize and assess the level of quality currently being provided. However, performance-based measures may lend itself better to the "outcome assessment" approach. Outputs that would logically have to be assessed would be such things as percentage of graduates getting jobs in their area of study, the level of student learning resulting from coursework taken, and employer satisfaction ratings.

#### **Identify Critical Improvement Processes**

Critical improvement processes are activities that must be completed, or at least in place, to enable the department to reach the quality goals and performance standards identified. Many of these processes are probably already established within marketing departments, however, some may need enhanced in order to address and obtain certain outcome goals and standards. Each improvement process should have specified "action plans" that must be accomplished, to include time frames and responsible individuals for each action plan.

#### **Implement Improvement Processes**

For marketing departments to implement continuous improvement processes, it is imperative that all constituencies/stakeholders be included in the processes. For example, when addressing the issue of improving student recruitment and retention rates, faculty, current

students, and alumni could all be used towards this effort. Faculty and students could be campus visits to community colleges and high schools to help in the recruitment process. In addition, alumni could be used to develop contacts with prospective students.

#### **Assess Outcome Measures**

Assessment is an important process from both AACSB and TQM perspectives. Both use assessment as the means of demonstrating "proof of quality." The approach used to assess outcome measures should be consistent with the approach used earlier to measure initial quality levels. If, for instance, the performance-based approach was used to establish initial quality levels, then this method should also be used to assess current outcome quality levels.

### **DISCUSSION**

The TQM philosophy and related processes provide the framework for meeting the responsibility of advancing the level of student learning. However, implementing the TQM processes identified in the model above will not come easy for many marketing educators for a number of reasons. Bemowski (1991) suggests that the current structure of higher education seems to incorporate much of what TQM argues against. For example, TQM calls for a flat organization. However, within the university system there are a number of administrative layers (vice presidents, deans, department heads, etc.). TQM also calls for teamwork, but many faculty argue for autonomy and doing things their own way. Moreover, TQM promotes an environment without fear; the tenure system encourages fear.

In spite of these potential deterrents to implementing TQM processes within the academic environment, it is still a logical goal for marketing educators to adopt the TQM philosophy. Addressing continuous improvement through TQM processes can only result in a positive result for all constituencies involved.

### **REFERENCES**

- Bemowski, Karen (1991), "Restoring the Pillars of Higher Education," Quality Process, (October), 37-42.

- Bolton, Ruth N. and James H. Drew (1991a), "A Longitudinal Analysis of the Impact of Service Changes on Customer Attitudes," Journal of Marketing, 55 (January), 1-9.
- Bolton, Ruth N. and James H. Drew (1991b), "A Multistage Model of Customers' Assessments of Service Quality and Value," Journal of Consumer Research, 17 (March), 375-384.
- Cronin, J. Joseph, Jr. and Steven A. Taylor (1992), "Measuring Service Quality: A Reexamination and Extension," Journal of Marketing, 56 (July), 55-68.
- Falk, Charles F., Peggy D. Brewer, and Virgil L. Brewer (1993), "Total Quality Management in a College of Business: Operations and Administration," Mid-American Journal of Business, 8 (2), 3-11.
- Parasuraman, A., Valarie A. Zeithaml, and Leonard L. Berry (1988), "SERVQUAL: A Multiple-Item Scale for Measuring Consumer Perceptions of Service Quality," Journal of Retailing, 64 (Spring), 12-37.
- Ritzman, Larry P. (1993), "The Winds of Change," Decision Line, 24 (September/October), 34-35.
- Tan, David L. (1986), "The Assessment of Quality in Higher Education: A Critical Review of the Literature and Research," Journal of the Association For Institutional Research, 3 (24), 223-265.
- Woodruff, Robert B., Ernest R. Cadotte, and Roger L. Jenkins (1983), "Modeling Consumer Satisfaction Processes Using Experience-Based Norms," Journal of Marketing Research, 20 (August), 296-304.

# **PERCEPTIONS OF MARKETING FACULTY PUBLICATION OUTLETS: PRELIMINARY FINDINGS**

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## **ABSTRACT**

Academic units within universities and colleges across the world are placing greater emphasis on scholarly productivity in making decisions relating to tenure, promotion, and merit raises for faculty. Their perception of the importance and prestige of a journal is a central aspect of the evaluation process and the value of the publication. At present, there is not a universally standard value assessed to business/marketing journals.

The purpose of this study was to assess faculty members' perceptions of journals and to explore the relationship between faculty member publication records and journal rankings by faculty. The results indicated that attitudes towards journals varied significantly with the

faculty members' publication success. In general, the analysis indicated that those faculty who had published in the higher rated journals tended to give the remaining journals significantly lower ratings. As indicated by the presence of significant negative correlations, the trend was particularly pronounced for those faculty members who had published in the top two rated journal groups. The most parsimonious interpretation of these results is that those marketing faculty who have been successful in having their work published in the more prestigious journals in their field hold a lower opinion of and are negatively biased toward lower ranked journals. A copy of the paper and references are available upon request.

# CHANGING VALUES AND LIFESTYLE TO ACCOMMODATE A SYMBIOTIC VIEW OF CONSUMER CHOICE

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## ABSTRACT

The Symbiotic paradigm is applied to consumer behavior from a macro perspective. Propositions are formed concerning consumer

usage, reusage, and disposition of goods in light of values and lifestyle changes. Implications for future research are discussed.

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## INTRODUCTION

A reawakening of environmental issues has many consumers re-evaluating their values and lifestyles (McIntosh 1991). According to Shabecoff (1993), there have been three identifiable environmental movements in the United States. The first began in the early 1900s. With the closing of the frontier, it became evident that land and its attributes were not infinite in supply. Such an understanding inspired "conservation" and the creation of national parks and national forests. "Toxic waste" prompted the second coming of environmentalism in the early 1970s. Battles against environmental toxins such as DDT were led by mostly white, middle-class men. The third and current incarnation of environmentalism began around the mid 1980s. The environmentally conscious population of the 1990s differs from its predecessors in that the present movement is much broader in both concerns and membership. The topics of interest to this third movement include rain forest preservation, waste disposal, chlorofluorocarbons, acid rain, and dolphin-free tuna among many others. Possibly the most prominent difference between the current environmental embodiment and its predecessors is its membership. Men, women and children of divergent classes, races and locales are involved in this environmental consciousness. Environmentally positive behavior is orchestrated at local, state and national levels by conscious efforts of differing consumer groups.

Environmentally-oriented business literature of the 1970s focused on studies pertaining to ecological issues and their impact on consumers (Kassarjian 1971; Fisk 1973; Webster

1975). Researchers attempted to identify the "socially conscious" consumer primarily for the purpose of market segmentation (Anderson and Cunningham 1972; Webster 1975). However, in these studies, conceptualizations of the "socially conscious" consumer were limited, often excluding environmental dimensions.

The focus of this paper concerns the advancement and extension of the environmentally and socially responsible consumer concept at a macro level. The impact of consumption under the current view is examined, and a Symbiotic paradigm is forwarded. This Symbiotic paradigm centers on balances among humanity, technology and the environment. The major focus of this paradigm is on managed growth and resources through ecodevelopment, i.e., growth within the requirements of the environment (Perlmutter and Trist 1986). For purposes of this paper, the consumer(s) of interest will be those located in the United States, due to the fact that one-third of the world's resources are consumed within the U.S. annually (Rifkin 1989).

## CONCEPTUAL BACKGROUND

### Social Consciousness

Considerable attention was given to environmental issues in the 1970s which is reflected in the consumer behavior and marketing literatures (Kassarjian 1971; Fisk 1973; Webster 1975). Research relative to environmental consciousness has progressed from the notion of the socially responsible consumer, developed primarily as an attempt to provide a foundation for market segmentation (Berkowitz and Lutterman

1968; Anderson and Cunningham 1972). In one of the early articles on social responsibility, the socially responsible personality was defined by rather traditional values such as participating in community activities, doing your best, meeting obligations, helping others even when there is nothing to be gained from it, working for the good of the team rather than for your own good and being strongly opposed to letting your friends down (Berkowitz and Lutterman 1968). This notion of a socially responsible personality was later augmented to the socially conscious consumer of the 1970's with the inclusion of social and environmental consciousness characteristics (Anderson and Cunningham 1972).

Anderson and Cunningham (1972) hypothesized that consumers with a high degree of social consciousness, compared to those with a low level, would differ significantly on demographic and sociopsychological attributes. Anderson et al. (1972) assumed that socially conscious consumers would be more sensitive to and more likely to purchase products that are socially and environmentally beneficial, but did not test this assumption. Their study utilized the Social Responsibility Scale advanced by Berkowitz and Lutterman (1968) as the dependent variable and demographic and sociopsychological variables as independent variables.

The Social Responsibility Scale appears to measure traditional values which are not necessarily the values of a socially and environmentally conscious individual. Furthermore, as noted by Webster (1975), it is not readily apparent that a person who scores highly on the Social Responsibility Scale is a socially and environmentally conscious consumer. Anderson and Cunningham (1972) did not clearly define the concept of the socially conscious consumer and appear to be measuring traditional values which are not necessarily synonymous with those of social and environmental responsibility. The contribution of Anderson et al.'s (1972) study to the present conceptualization is the notion of the socially conscious consumer who is assumed to behave in some environmentally beneficial manner. However, their conceptualization was limited by a focus on traditional values, and ensuing measures do not appear to not have construct validity.

Noting the weaknesses of past studies (Kassarjian 1971; Anderson and Cunningham 1972), Webster (1975) developed a social

involvement model which described the socially conscious consumer as:

"...a person who is in a good position in terms of income, education, and occupation to contribute to the community and his self-concept allows him to take an active role. He acts in a manner consistent with his attitudes, playing an active role not only in organized activities but also in his individual behavior as a consumer" (p.190).

Webster (1975) advanced the conceptualization of the socially conscious consumer by the addition of consumers' awareness of environmental problems, the purchasing of environmentally beneficial products, and the acknowledgment of beneficial disposition behavior (e.g., recycling). Webster (1975) attempted to test his model using attitudinal, personality, social activity and socioeconomic and demographic variables. Webster (1975) concluded that his model was not supported via the collected data. However, the attitudinal variables, "perceived consumer effectiveness" and "perceived power of big business" were significant, as were the personality variables "dominance" and "tolerance."

Webster appeared to reject his model due to the lack of support for the measure of community involvement and social activity. This measure was defined by the number of community organizations a person participated in as well as his/her regular church attendance. These measures, however, are not clearly linked to the environmentally and socially responsible consumer. In a review of the study, Mayer (1976) notes that there is support from Webster's (1975) findings for the view that the socially conscious consumer is a middle-class liberal acting in a socially constructive role as a consumer. Thus, Webster does add to the conceptualization of the socially conscious consumer by incorporating consumer awareness of environmental problems, the selective purchasing of products and beneficial disposition behavior. Recent studies have found that many variables such as demographics, personal values and knowledge are related to environmentally oriented activities (Granzin & Olsen, 1991; Vining & Ebreo, 1990; DeYoung, 1988-1989).

## **Paradigms**

In order to further develop the conceptualization of the environmentally and socially responsible consumer, macro level paradigms

are proposed. As defined by Perlmutter and Trist (1986), a paradigm is . . .

" . . . an overall framework embracing several determinants of behavior: perceptual-cognitive (such as attitudes and premises), axiological (such as values and beliefs), and conative-transactional (such as motivations and interactive modes)" (p.2).

Although consumer behavior in most instances is researched at the micro level, the influence of individuals' attitudes, values and behavior affect all levels of a paradigm for societal transition (Perlmutter and Trist 1986). The present research effort advances the Symbiotic paradigm as an emerging view and examines consumer behavior associated with it. Prior to a discussion of this new paradigm, an overview of the Industrial paradigm is presented.

### **Industrialism**

The focus of industrialism is industrial growth, i.e., the accumulation of resources, materialism, individualism and technology (Rifkin 1980). Industrialism is the view of unlimited expansion and material abundance. Production and consumption are the foundations of this view. Individual self-interest and accumulation of wealth take precedence over concerns for society as a whole in the belief that society will benefit from the increased wealth of individuals. Furthermore, the progression of science and technology is assumed to provide the answers that will result in a more ordered world.

Consumer behavior under Industrialism is largely focused on mass consumption. Value systems have been built around material accumulation where happiness is achieved primarily through the number and monetary value of the possessions one attains (Valaskakis, Sindell, Smith and Fitzpatrick-Martin 1979). Consumers are driven to purchase the "latest" in technology or "most fashionable" material goods and dispose of products, without regard to its decomposition, that are not considered "stylish." This mass consumption affects not only humanity, but also nature (Valaskakis et al. 1979).

The increased awareness of environmental issues has led to the questioning of industrialism as a viable paradigm (Perlmutter and Trist 1986). Environmental degradation and resource scarcity are receiving increased attention at all levels (Perlmutter and Trist 1986; McIntosh

1991). The Industrial Age has been characterized by extracting, processing and discarding resources at a much faster rate than the earth's ecosystem can recycle and/or replenish them (Rifkin 1989).

Industrialism is held as the current paradigm although it appears to be experiencing erosion while a new view is emerging (Rifkin 1989; Perlmutter and Trist 1986). If the current view is undergoing change and consumers are experiencing a societal transition, what is the emerging paradigm and how does it affect consumer behavior?

### **The Symbiotic Paradigm (a normative view)**

If a transition is occurring and a new paradigm is emerging, it appears to be centered around managing growth and resources. The proposed new paradigm is the Symbiotic view within which unregulated growth is replaced with ecodevelopment and environmental respect (Perlmutter and Trist 1986). In this paradigm, presented in [Table 1](#), equilibrium is the key goal. Balance between short- and long-term policies are sought, consequences of these policies are analyzed and short-term gains with possibly high future costs are not accepted (Perlmutter and Trist 1986). Decision-making activities under the Symbiotic paradigm must incorporate a lengthy time horizon as well as a careful assessment of potential effects of decisions made.

It appears that for consumers, the paradigm signifies the current incarnation of the environmentally and socially responsible individual. A shift in values and lifestyles is necessary for this new view to fully emerge. This new "consumer type" evaluates his/her lifestyle within the context of the environment and attempts to balance individual wants and needs with those of society. Moreover, the irresponsible and uncontrolled consumption of resources and goods under industrialism is replaced by prudent consumption. Further, consumption is not the only factor evaluated by consumers, as the usage and disposition of goods is also of environmental concern.

### **A MODEL OF VALUES, LIFESTYLE, AND CONSUMPTION**

As described in past literature, the socially conscious or responsible consumer has some

level of awareness regarding environmental issues, has "ecologically concerned" attitudes and notes the consequences of his/her consumption (Anderson and Cunningham 1972; Webster 1975; and Antil 1979). However, in the present conceptualization, the socially and environmentally responsible consumer is aware of social and environmental issues and holds values that are conducive to a lifestyle under the Symbiotic paradigm.

Adapting a model developed by Carman (1978), individual values and lifestyles are encompassed in the paradigm (Figure 1). According to the model, values are the principle inputs of lifestyle. Lifestyle involves roles, activities and interests and determines patterns of consumption, usage and disposition of goods and resources.

The socially and environmentally responsible consumer embraces the Symbiotic view via his/her personal values and lifestyle. This individual acknowledges the impact of his/her behavior on the environment and society. Consistent with past definitions, values refer to an enduring belief concerning a specific mode of conduct or end-state of existence that is personally or socially preferable (Pitts and Woodside 1984). Under the Symbiotic paradigm, terminal values, which define an individual's desired end-stage of existence, incorporate the notions of a balanced life, harmony with nature and respect for self, society and the environment. Instrumental values, which signify modes of behavior, relate to such characteristics as being responsible, interdependent and prudent. The Symbiotic paradigm's terminal and instrumental values lead to a more simplistic lifestyle away from materialism and the irresponsible consumption of goods and resources.

In the proposed model, the concept of lifestyle is defined in terms of roles, interests and activities. Roles, which are inputs to an individual's activities, are characterized by patterns of behavior, decisions and attitudes. The role of the environmentally and socially responsible consumer involves evaluating personal consumption, usage and disposition of goods and resources while keeping personal needs within the context of the environment.

Mitchell (1983), of the Stanford Research Institute, developed a market segmentation tool referred to as VALS (Values and Life Style). SRI

developed a segmentation approach subsequent to VALS, referred to as VALS II. While the original VALS methodology is a typology related to value systems, VALS II is more applicable to the prediction of consumer behavior, especially purchase decisions. VALS 2 methodology relies less on political and social issues and more on psychological functions (Russell & Lane, 1990). Considering the underlying approach of both VALS and VALS II, coupled with the value and lifestyle orientation of the symbiotic view of consumer choice, the original VALS methodology may be most useful when attempting to identify the Symbiotic paradigm's socially and environmentally responsible consumer. An important input to the VALS methodology was Maslow's hierarchy of needs. The VALS typology incorporates three categories which encompass nine differentiated lifestyles. VALS begins with the "need-drivers" that canopy "survivors" and "sustainers." "Need-drivers" evolve into "outer-directeds" and finally "inner-directeds." It is the category of "inner-directeds," constituted by lifestyles of "I-am-me's," "experientials," and "societally conscious," that is most relative to the Symbiotic argument. "I-am-me" is generally a short-lived transition state from outer- to inner-direction. Both "experientials" and "societally conscious" lifestyles, per VALS typology, are involved with social and human issues. In fact, "societally conscious" individuals are concerned with society, the globe, and the cosmos as a whole. This group supports causes such as conservation, environmentalism and consumerism. The societally conscious are innovative, active, impassioned and knowledgeable about the world around them and seek to live lives that conserve, protect and heal (Smith and Quelch, 1993).

The Symbiotic view suggests that a growing segment of consumers can be associated with the VALS' "inner-directeds" category. Consumers which hold values and lifestyles conducive to the Symbiotic view incorporate a long-term focus into decisions of purchase. A long-term focus involves both conserving and prolonging the useful life of goods and resources. Attitudes are centered on the belief that conservation and thrift are means to a higher quality life. The consumer has some knowledge of environmental and social issues and believes responsible consumption is beneficial to the environment and society as a whole. Therefore, the concept of the environmentally and socially responsible consumer involves more than the ecologically



concerned purchase behavior of past research, it also includes the usage and disposition of goods and resources. The portion of the U.S. population identified as members of the VALS' "inner-directeds" category, via a survey conducted in 1980 which incorporated 1,078 respondents, totals 23% (Holman 1984). It is argued that the general public's growing enlightenment of and concern for environmental issues is the impetus of the Symbiotic view. Therefore, the segment of U.S. society currently reflective of the "inner-directeds" category is hypothesized as being significantly larger than the previously cited 23%. Exogenous forces, demographic and socioeconomic factors represent other variables that influence lifestyle. Exogenous forces are external sources of influence on lifestyle such as social programs, recession or war. Demographic and socioeconomic factors are more conventional sources of influence on lifestyle (Carman 1978). There is support from past findings that there is a relationship between demographic and socioeconomic variables and involvement in environmentally oriented activities (Vining & Ebreo, 1990; Mohai 1985; Belch 1979). Acknowledgment of exogenous, demographic and socioeconomic factors is necessary, however, the focus of the current conceptualization regards the consumption, usage and disposition behavior of the socially- and environmentally-minded consumer.

### Propositions

Under the Symbiotic paradigm, consumers will alter their consumption, usage and disposition behavior to fit their values and lifestyle. The consumption orientation of the consumer operating under the Symbiotic view is akin to Elgin's (1981) voluntary simplicity. Material simplicity lies at the heart of this lifestyle. Also, consumer behavior is increasingly influenced by concerns for the environment and the effects of waste in a purely consumer society. Specific consumption and usage activities of an environmentally and socially responsible consumer (ESRC) operating under the Symbiotic view are forwarded in the following propositions:

**Proposition 1:** An ESRC will tend to purchase high quality and durable goods.

**Proposition 2:** An ESRC is likely to evaluate products in terms of packaging, recyclability and environmental hazard.

**Proposition 3:** An ESRC is likely to purchase products that are environmentally sensitive

such as products with less packaging, products made from recycled materials, or products that are recyclable.

**Proposition 4:** An ESRC is not likely to purchase products for the sake of fashion or change.

**Proposition 5:** An ESRC will tend to use reusable items and forego convenience items such as paper plates, cups and napkins.

Such consumption and usage activities entail careful consideration in the purchasing of goods and investing wisely for the long-term. Consumption and usage activities include buying high quality and durable goods that last longer, thus creating less waste. Schwepker and Cornwell's (1991) suggest that consumers with a favorable ecological attitude were more inclined to purchase ecologically packaged products. Moreover, an ESRC demands environmentally sensitive practices from product producers. Thus, society will shift from a consumer to a conserver by limiting wasteful practices.

The ESRC balances personal needs with those of the environment and society. This individual not only purchases environmentally beneficial products (e.g., those with less packaging, environmentally sound ingredients and produced without harm to the environment), but also evaluates usage (e.g., less waste) and disposition (e.g., recyclable, resale). Specific disposition activities of an ESRC are advanced in the following propositions:

**Proposition 6:** An ESRC will tend to shop at garage sales, flea markets and resale shops.

**Proposition 7:** An ESRC is likely to conduct garage sales and/or donate reusable items to charitable organizations or others.

**Proposition 8:** An ESRC is likely to recycle materials such as glass, newspaper, plastic and aluminum materials.

**Proposition 9:** An ESRC will tend to compost organic materials.

Product disposition focuses on limiting and/or eliminating waste under the Symbiotic paradigm. Consumers will no longer consider garbage as something that should be taken out and dumped elsewhere. Recycling will be a standard practice as consumers demand increased access via more recycling centers and curbside pick-up of recyclable materials. Also, producers of goods will be pressured to make recyclable items or develop the means for current items to be recycled. A further reduction



in "trash" delivered to landfills will be realized by the composting of organic materials. Furthermore, consumers will shop at garage sales and resale stores, and will also put their own goods up for resale or donate those goods to persons in need rather than arbitrarily discarding the items. Thus, the environmentally and socially responsible consumer balances personal wants and needs within the context of society and the environment.

### DIRECTIONS FOR FUTURE RESEARCH

The proposed model of values, lifestyle and consumption under the Symbiotic paradigm provides a framework for further study of the environmentally and socially responsible consumer. The Symbiotic paradigm allows for a macro perspective of consumer behavior research where consumer behavior is viewed as a subsystem of the whole. Past research has focused on consumption and has largely ignored usage and disposition behaviors that are an inherent part of consumer behavior. A test of the propositions developed in this paper is a first step. Many insights may be gained by utilizing a macro perspective and a holistic approach to consumer behavior. Furthermore, a global perspective of consumer behavior would promote an understanding of the symbiotic relationships among the people of different nations.

### SUMMARY AND IMPLICATIONS

The reawakening of environmental issues appears to be affecting consumers. There is support for the notion that consumers are considering the environmental impact of their purchasing behavior (McIntosh 1991). With the increased awareness of environmental issues, many consumers appear to be re-evaluating their values and lifestyles (Elgin 1981; McIntosh 1991). Therefore, it is not only important to understand such changes in consumer behavior, but also to identify the relative "consumer type." This paper has focused on American consumers, thus utilizing an industrialized country's perspective. It is also important to gain an understanding of the effects of consumption, usage and disposition behaviors from a global perspective. What will the Post-Industrial era mean to less developed countries?

The Symbiotic paradigm is advanced as the Post-Industrial view. Industrialism, the current paradigm, is centered around industrial growth,

materialism, individualism, self-interest and the irresponsible and uncontrolled consumption of goods and resources. It appears that a new paradigm is emerging which will influence consumers' values and lifestyles (Perlmutter and Trist 1986; Rifkin 1980). The Symbiotic view is a paradigm where unregulated growth and irresponsible consumption is replaced with eco-development and the environmentally and socially sensitive consumption, usage and disposition of goods and resources.

In the preceding conceptualization, the environmentally and socially responsible consumer balances personal wants and needs within the context of society and the environment. Moreover, this consumer embraces the Symbiotic view through his/her values and lifestyle. The role of consumer takes on additional dimensions which involve the consumption, usage and disposition of goods and resources. It is proposed that the environmentally and socially responsible consumer seeks a balance between personal needs and those of the environment and society. The Symbiotic paradigm appears to signify the coming of age of the environmentally and socially responsible consumer. Thus, it appears that further study is necessary in order to gain a better understanding of this consumer type as s/he emerges.

### REFERENCES

- Anderson, W. Thomas, Jr. and William H. Cunningham (1972), "The Socially Conscious Consumer," Journal of Marketing, Vol 36 (July), 23-31.
- Belch, Michael A. (1979), "Identifying the Socially and Ecologically Concerned Segment Through Life-Style Research," The Conserver Society, Henion, Karl E. and Thomas Kinnear, eds., Chicago: American Marketing Society.
- Berkowitz, Leonard and Kenneth G. Lutterman (1968), "The Traditional Socially Responsible Personality," Public Opinion Quarterly, (Summer), 169-185.
- Brooker, George (1976), "The Self-Actualizing Socially Conscious Consumer," Journal of Consumer Research, Vol. 3 (September), 107-112.

- Carman, James M. (1978), "Values and Consumption Patterns: A Closed Loop," Advances in Consumer Research, Vol. 5, 403-407.
- De Young, Raymond (1988-1989), "Exploring the Difference Between Recyclers and Non-Recyclers: The Role of Information," Journal of Environmental Systems, 18 (4) 341-351.
- Elgin, Duane (1981), Voluntary Simplicity, New York: Bantam Books.
- Fisk, George (1973), "Criteria for a Theory of Responsible Consumption," Journal of Marketing, Vol. 37 (April), 24-31.
- Granzin, Kent and Janeen Olsen (1991), "Characterizing Participants in Activities Protecting the Environment: A Focus on Donating, Recycling, and Conservation Behaviors," Journal of Public Policy and Marketing, Vol. 10, 2, 1-27.
- Henion, Karl E. and Thomas C. Kinnear (1979), The Conserver Society, Chicago: American Marketing Society.
- Holman, Rebecca (1984), "A Values and Life Styles Perspective on Human Behavior," in Personal Values and Consumer Psychology, eds. Robert E. Pitts, Jr. and Arch G. Woodside, Lexington, MA: Lexington Books.
- Kahle, L., Beatty, S., and Homer, P. (1986), "Alternative Measurement Approaches to Consumer Values: the List of Values (LOV) and Values and Life Styles (VALS)," Journal of Consumer Research, Vol. 13, 405-409.
- Kassarjian, Harold H. (1971), "Incorporating Ecology into Marketing Strategy: The Case of Air Pollution," Journal of Marketing, Vol. 35 (July), 61-65.
- Kinnear, Thomas C. and James R. Taylor (1973), "The Effect of Ecological Concern on Brand Perceptions," Journal of Marketing Research, Vol. 10 (May), 191-197.
- Maloney, Michael P., Michael P. Ward, and G. Nicholas Braucht (1975), "Psychology in Action: A Revised Scale for the Measurement of Ecological Attitudes and Knowledge," American Psychologist (July), 787-790.
- Mayer, Robert N. (1976), "Communication Note: The Socially Conscious Consumer-Another Look at the Data," Journal of Consumer Research, Vol. 3 (September), 113-115.
- McIntosh, Andrew (1991), "The Impact of Environmental Issues on Marketing and Politics in the 1990's," Journal of the Market Research Society, Vol. 33 (July), 203-217.
- Mitchell, Arnold (1983), The Nine American Life Styles. New York: Warner.
- Mohai, Paul (1985), "Public Concern and Elite Involvement in Environmental-Conservation Issues," Social Science Quarterly, 66 (December), 820-838.
- Perlmutter, Howard and Eric Trist (1986), "Paradigms for Societal Transition," Human Relations, Vol. 39 (1), 1-27.
- Petulla, Joseph M. (1980), American Environmentalism: Values, Tactics, Priorities. College Station, TX: Texas A&M University Press.
- Pitts, Robert E., Jr. and Arch G. Woodside (1984), Personal Values and Consumer Psychology. Lexington: Lexington Books.
- Rifkin, Jeremy (1980), Entropy: Into the Greenhouse World. New York: Bantam Books.
- Rokeach, Milton (1973), The Nature of Human Values. New York: The Free Press.
- Russell, J. Thomas, and Ronald Lane (1990), Kleppner's Advertising Procedure. New Jersey: Prentice-Hall, Inc.
- Schweper, Jr., Charles and T. Bettina Cornwell (1991), "An Examination of Ecologically Concerned Consumers and Their Intention to Purchase Ecologically Packaged Products", Journal of Public Policy & Marketing, Vol. 10 (2), 77-101.
- Shabecoff, P. (1993), A Fierce Green Fire. New York: Hill and Wang.
- Smith, C. and Quelch, J. (1993), Ethics in Marketing. Boston, MA: Irwin.

Valaskakis, Kim, Peter S. Sindell, J. Graham Smith, and Iris Fitzpatrick-Martin (1979), The Conserver Society: A Workable Alternative for the Future, New York: Harper & Row, Publishers.

Vining, Joanne and Angela Ebreo (1990), "What Makes a Recycler?: A Comparison of Recyclers and Nonrecyclers," Environment and Behavior, 22 (January), 55-73.

Webster, Frederick E., Jr. (1975), "Determining the Characteristics of the Socially Conscious Consumer," Journal of Consumer Research, Vol. 2 (December), 188-197.

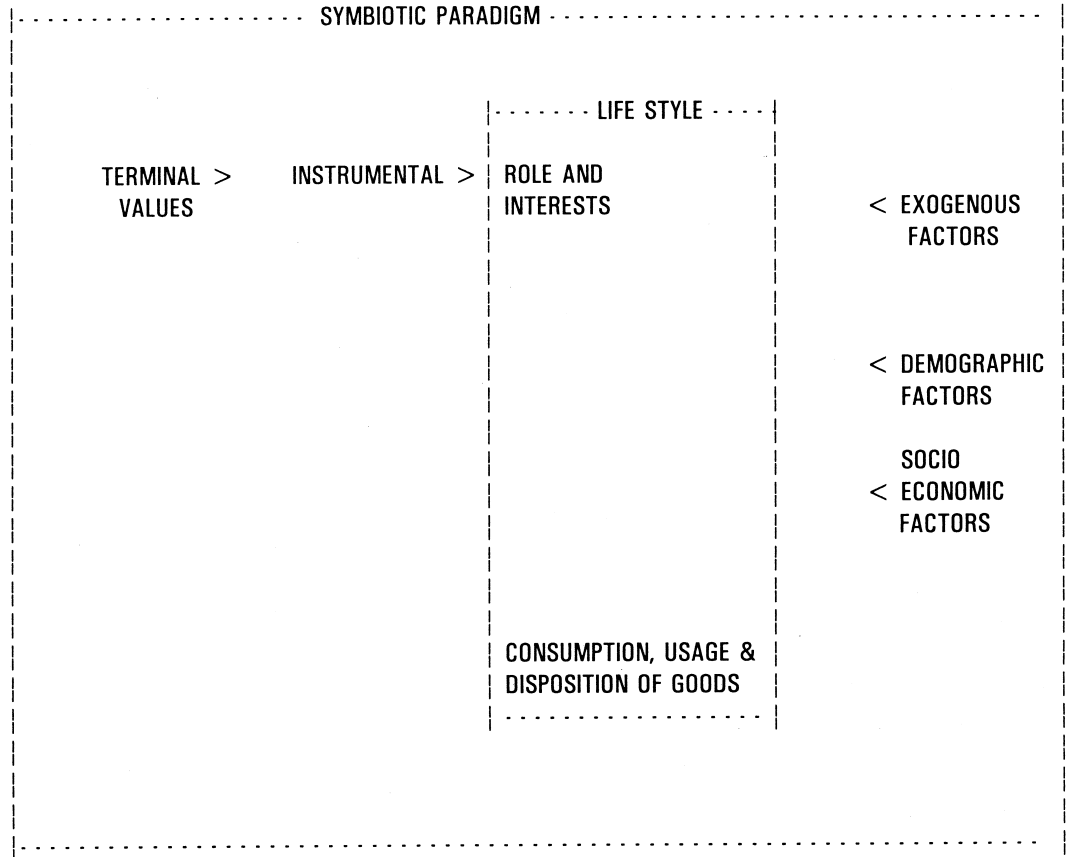
Zikmund, William G. and William J. Stanton (1971), "Recycling Solid Wastes: A Channels-of-Distribution Problem," Journal of Marketing, Vol. 35 (July), 34-39.

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**TABLE 1**  
**SYMBIOTIC PARADIGM**  
Characteristics of Key Institutions

| <u>Institution</u> | <u>Characteristics</u>                                                                                                                                 |
|--------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| Nation/state       | Limited sovereignty; multi-level allegiances; relatively autonomous regions                                                                            |
| Economy            | World, regional, national and local markets, free and regulated; integration of formal and informal economies; selective managed growth                |
| Welfare state      | Wide variety of partnerships among state, community and private sectors                                                                                |
| Political system   | Marriage of short and long term policies, innovative mixes of representative and participative democracy; capacity for major change                    |
| Corporation        | All types and scales; small-in-large; organizational democracy                                                                                         |
| City               | Diffused city or microregion; interdependent urban fields                                                                                              |
| Family             | Multigenerational families with friends and neighbors as age-cohort support                                                                            |
| Individual         | Balance of cooperation and competition; socially and environmentally responsible individual                                                            |
| Science            | Balance of analysis and synthesis, knowledge and wisdom                                                                                                |
| Resources          | Efficient use of nonrenewables, recyclables, shift towards renewable energy sources                                                                    |
| Technological      | Optimization of humans and technology; full range of choice technologies; harmonization of human needs and environmental conservation (ecodevelopment) |
| Education          | Multiple channels and forms of learning; both competence and personal development; balance of generalist-specialist                                    |

FIGURE 1  
 MODEL OF VALUES, LIFE STYLE AND CONSUMPTION  
 UNDER THE SYMBIOTIC VIEW



# THE EFFECT OF CONSUMERSHIP ON FINANCIAL SATISFACTION: ARE "GOOD" CONSUMERS MORE SATISFIED?

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## ABSTRACT

A model of husband and wife financial satisfaction is developed, and related to consumership, a measure of behavioral performance. The model is tested for invariance over lower and higher income groups. The findings are that

"good" consumers are more satisfied, and the marginal impact of increased consumer effort on financial satisfaction is approximately two times greater for the lower income group compared to the higher income group.

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## INTRODUCTION

Despite the abundance of prescriptions for "good" consumer behavior found in the literature of consumer economics, household management and consumer finance, only recently have researchers begun to compare actual consumer behavior with the prescribed behaviors recommended in the normative literature. The objective of this study is to assess the relationship between financial management behavior and financial satisfaction over two income groups. The scope of the study is limited to this single, but important relationship. No attempt is made to offer a complete model of the determinants of financial satisfaction.

## METHOD

The sample of 449 respondents for the study is from a base of 510 completed mail questionnaires provided by members of a consumer panel. The questionnaire contained only items concerning household financial decisions and management, and associated elements, i.e., it was not a "piggyback" to another set of issues. Missing values accounted for the reduction from the available base. No significant differences were found between respondents included in the study and missing respondents for family income, husband age, wife age, wife education level, proportion of wives working, and years of marriage.

The questionnaire had three separate forms. One form, completed by a joint wife and husband effort, reported financial management

behaviors and attitudinal measures. Two separate, but identical, forms that contain the indicators of financial satisfaction were completed independently by the husband and by the wife.

Income served as a dichotomous grouping variable, formed by division at the median income class. Income level partly reflects abilities and motivations that have been found to influence savings behavior and satisfaction with savings (Davis and Schumm 1987). Further, income level is related to a number of other differential characteristics that could relate to financial management behavior and financial satisfaction. Of the 449 available respondents, 230 were classified as in the higher income level and 219 in the lower income level. Profiles of the income groups reflect differences in age, education, length of marriage, and income contribution.

Consumership is taken to be the performance of a set of normative behaviors that will improve the planning and controlling of family income disposition. Five behaviors, most frequently prescribed for better financial management, have been suggested by a literature review and developmental depth interviews (Granbois, Rosen and Acito 1986) for the operationalization of the consumership construct:

- Budgeting: whether a budget is developed for a spending period;
- Savings Policy: whether savings are accumulated on a regular basis;
- Surplus Funds Policy: whether planning occurs for surplus funds;

- Special Accounts: whether special accounts are used for specific purposes;
- Credit Transactions Analysis: whether spending patterns are studied.

A score on consumership may be viewed as a composite of the above five behaviors. A set of normative weights, estimated in a prior conjoint analysis study (Granbois, Rosen and Acito, 1986), are applied to a couple's financial behaviors measurements to obtain a consumership score. Thirty-four percent of the consumership score variance, based on the results of the prior study, is taken to be fixed as measurement error (Hayduk 1987).

In this study, financial satisfaction is defined as the fulfillment of expectations of economic well-being by the disposition of family income. Elements of economic well-being are assumed to be represented by four areas: bill paying abilities, short-term savings for unexpected expenses, long-term savings goals, and financial security. Levels of expectation are internal standards developed in the context of personal experience. This assumption is related to the concept of experience based norms (Cadotte, Woodruff and Jenkins 1987). That is, expectations are developed from "ideal" notions of how to best manage personal finances, but modified by both shared and individual experiences. Thus, it is assumed that a husband and wife have related, but somewhat different, standards of comparison in the assessment of their financial satisfaction. This assumption is supported by the findings of Wilhelm and Iams (1986) that husband and wife have a significant, but not perfect, correlation concerning aspects of household finances.

Five plausible models of financial satisfaction are evaluated.

- M1: A single factor model with eight indicators, which assumes no spouse related factors or specific area satisfaction factors, is the most parsimonious representation.
- M2: The one factor model of M1, but allowing correlated errors. Since the financial satisfaction indicators are the same on the spouse questionnaires, residual covariances might be expected for husband and wife satisfaction with bill paying, short-term savings, long-term savings, and financial security.

- M3: The third model assumes no general spouse satisfaction factors are necessary. This is a four factor model representing the specific areas of bill paying, short-term savings, long-term savings, and financial security.
- M4: A two factor model representing financial satisfaction at the spouse level, with a general satisfaction factor for the wife and a general satisfaction factor for the husband, is postulated as most consistent with past research findings. A rather severe restriction of equal scales for husband and wife latent satisfaction variables is imposed on the model. That is, regressions of observed scores onto latent scores are required to be the same for both husband and wife. Since these regression weights constitute validity coefficients of variables for their respective factors, the equality of scaling units insures that the metrics are consistent in comparing husband and wife.
- M5: The two factor model of M4, with correlated errors.

Selection of the most appropriate model will be based on the fundamental methodological principles of falsification, explanation, and simplicity. Simplicity is indicated by the most parsimonious representation, that is, the model with the greater degrees of freedom. The overall model chi-square test and the incremental chi-square test of nested models are used for falsification assessment.

## ANALYSIS

Confirmatory factor analyses (Bentler 1989) were conducted for each of the five financial satisfaction measurement models. The results are summarized below.

- M1: The one factor model of financial satisfaction showed a very poor fit in both the lower income group ( $\chi^2_{ML}(20)=96.61$ ,  $p<.001$ ) and the higher income group ( $\chi^2_{ML}(20)=101.99$ ,  $p<.001$ ).
- M2: The addition of correlated errors in the one factor model provides an improved fit, but is still unacceptable (lower income:  $\chi^2_{ML}(16)=60.07$ ,  $p<.001$ ), and higher income:  $\chi^2_{ML}(16)=81.58$ ,  $p<.001$ ).

- M3: The four factor model of specific areas also has a poor fit in the lower income group ( $\chi^2_{ML}(14)=59.79$ ,  $p<.001$ ), and the higher income group ( $\chi^2_{ML}(14)=68.16$ ,  $p<.001$ ). Further, both solutions are improper as some factor correlations in each exceed unity, indicating a structural misspecification.
- M4: The two factor model of spouse related satisfaction, without correlated errors, also has an unacceptable fit in both income groups (lower income:  $\chi^2_{ML}(22)=80.18$ ,  $p<.001$ ; and higher income:  $\chi^2_{ML}(22)=73.87$ ,  $p<.001$ ).
- M5: The addition of correlated errors did yield acceptable fitting models in both groups (lower income:  $\chi^2_{ML}(19)=17.14$ ,  $p=.580$ ; and higher income:  $\chi^2_{ML}(19)=30.26$ ,  $p=.049$ ). In the lower income group, the measurement residual covariance between long-term savings for husband and for wife is not significant. The measurement residual covariance for short-term saving is not significant in the higher income group. Thus, M5 is the best representation of financial satisfaction.

A structural model is used to test the direct effect of consumership on the two spouse related satisfaction factors. It is assumed that consumership is a positive causal antecedent to satisfaction. Tests of husband and wife invariance (Joreskog 1971) conducted within each income group support the following in each income group:

- The scaling of the financial satisfaction factors are equal across husband and wife.
- The amount of variation in measurement residuals is equal across husband and wife.
- The regression relationship between financial satisfaction and consumership is the same for husband and wife.

The comparisons between the two income groups begins with a global test of the equality of the covariance matrices of the measured variables. A nonsignificant result will indicate that a single group analysis is appropriate. However, the result is significant ( $\chi^2_{ML}(45)=65.35$ ,  $p=.025$ ), thus indicating some non-equivalency across the income groups.

The baseline model of the between group covariance analysis is concerned with the issue of congeneric equivalency. That is, retaining the restrictions established in the within group analysis, the two factor financial satisfaction model of Figure 2 is evaluated for appropriateness across the income groups. The baseline model is found tenable ( $\chi^2_{ML}(60)=65.26$ ,  $p=.299$ ). The value of the test statistic for this evaluation of equal form is the sum of the income group chi-squares for the most restrictive model tenable under within group invariance (lower income:  $\chi^2_{ML}(30)=24.84$ ,  $p=.663$ ; and higher income:  $\chi^2_{ML}(30)=40.42$ ,  $p=.097$ ).

The within group analysis established the husband and wife scales could be considered the same ( $\Lambda_H=\Lambda_W$ ). This leads to the question whether or not the financial satisfaction factor scales may be considered the same in both income groups ( $\Lambda^{(Low)}=\Lambda^{(High)}$ ). Since, it is desired that the mean structure be compared over the income groups this test is very important. If the measurement regressions are not equal over the groups, the measures cannot be tau-equivalent. Thus, the metrics would be inconsistent across groups and mean comparisons would not be interpretable. However, both the model fit ( $\chi^2_{ML}(63)=67.11$ ,  $p=.338$ ) and the incremental fit ( $\Delta\chi^2_{ML}(3)=1.85$ ,  $p=.604$ ) are acceptable, allowing further comparisons to be meaningful.

An assessment of structural regressions invariance is made across the income groups. The model goodness of fit is acceptable ( $\chi^2_{ML}(64)=71.81$ ,  $p=.254$ ). But the equality of structural regressions is rejected by the incremental test ( $\Delta\chi^2_{ML}(1)=3.98$ ,  $p=.046$ ).

The structured mean model (Sorbom 1974) incorporates regression intercepts into the measurement equations and structural equations. The correlated errors are represented by specific area factors in this part of the analysis. This allows assessment of the contribution by each specific area factor to observed variable variation, and the evaluation of the differences between bill paying factors and financial security factors across groups. Tests of equivalency are conducted by comparing these intercepts across the income groups. The baseline model included all the invariant restrictions established in the within and between covariance analyses, plus the condition that the measurement equation intercepts be equal for husband and wife, and over both income groups. Also, the equality

of structural intercepts for husband and wife is imposed on the baseline model. This allows the assumption that no differential income effect exists between husband and wife. If this baseline model is not acceptable, then the factor means are nonestimable using structural modeling (Cole and Maxwell, 1985).

The baseline structured mean model is supported by the data ( $\chi^2_{ML}(72) = 72.79$ ,  $p = .452$ ). The test of the equality of consumership means across groups is rejected by the incremental test ( $\Delta\chi^2_{ML}(1) = 5.23$ ,  $p = .022$ ). The higher income group had the greater average consumership score, and estimated difference between the income groups is .292 (2.827 versus 2.535). Sorbom (1974) developed a procedure to compare differences in factor means between groups by fixing the structural intercepts to zero in one of the groups. This approach is taken in fitting the models structured means with the lower income group having the fixed zeros. The equality of husband and wife financial satisfaction, HFS and WFS, intercepts across income is rejected by the incremental test ( $\Delta\chi^2_{ML}(1) = 43.58$ ,  $p < .001$ ). The expected values of HFS and WFS are equal within income groups due to equality of intercepts and structural regression weights, so the expected differences between groups will be the same for husband and wife.

The equality of intercepts for the Bill Paying factors is rejected by the incremental test ( $\Delta\chi^2_{ML}(1) = 9.97$ ,  $p = .002$ ). As might be expected, the lower income group has a significantly lower level of satisfaction on the bill paying factor, with an expected difference of .279. The equality of intercepts for the Financial Security factors is retained by the incremental test ( $\Delta\chi^2_{ML}(1) = 1.90$ ,  $p = .160$ ), so the factor mean differences are not significant.

## CONCLUSIONS

Consumership accounts for approximately 24 percent and 19 percent of the financial satisfaction variation for husbands and wives, respectively, in the lower income group. However, in the higher income group the percents are much smaller, approximately 6 and 5. So the impact of consumership is significant in both groups, but much stronger in the lower income group. This can be further verified by investigating the unstandardized effects. The unstandardized effects of consumership are approximately in a 2:1 ratio for the lower income

over the higher income group for all eight observed measures. Although the higher income group has significantly larger scores on consumership, husband's financial satisfaction, and wife's financial satisfaction, the impact of an increased effort in consumership on financial satisfaction is double in the lower income group. The model means can be estimated for both income groups by applying the estimated intercepts and regression weights of the mean structure equations. The differences between model estimated means and sample means are very small, with average absolute error percents of 1.7 for the lower income group and .6 for the higher income group. This indicates that the final model not only has an acceptable statistical fit, but can empirically reproduce the data at the mean level.

Are good consumers more satisfied? When "good" is defined in terms of the consumership construct based on behaviors associated with managing savings and checking accounts, handling bills and credit cards, and managing spending, the answer is **yes**. The relationship of more satisfaction due to greater consumership holds in both the lower and the higher income groups. The average consumership score is greater in the higher income group, with no significant difference in variance across the groups. However, the magnitude of the relationship of consumership and financial satisfaction in the lower income group is approximately two times that in the higher income group. This implies that efforts in consumer education on the management of financial activities should have the largest marginal impact with those that have the greatest need, the lower income families.

## REFERENCES

- Bentler, P.M. (1989) EQS: Structural Equations Program Manual, Los Angeles: BMDP Statistical Software, Inc.
- Cadotte, E.R., Woodruff, R.B. and Jenkins R.L. (1987), "Expectations and Norms in Models of Consumer Satisfaction," Journal of Marketing Research, 24 (August) 305-314.
- Cole, D. and Maxwell S.E. (1985), "Multitrait-Multimethod Comparisons across Populations: A Confirmatory Factor Analytic Approach," Multivariate Behavioral Research, 20 (October) 389-417.



Davis, E.P. and Schumm W.R. (1987), "Savings Behavior and Satisfaction with Savings: A Comparison of Low Income and High Income Groups," Home Economics Research Journal, 15, 247-256.

Granbois, D.H., Rosen, D.L. and Acito F. (1986), "A Developmental Study of Family Financial Management Practices," In R.J. Lutz (ed.). Advances in Consumer Research, 13, 170-174.

Hayduk, L.A. (1987), Structural Equation Modeling with LISREL, Baltimore: The John Hopkins University Press.

Joreskog, K.G. (1971), "Simultaneous Factor Analysis in Several Populations," Psychometrika, 36 (December) 409-426.

Sorbom, D. (1974), "A General Method for Studying Differences in Factor Means and Factor Structures between groups," British Journal of Mathematical and Statistical Psychology, 27 (November) 229-239.

Wilhelm, M. and Iams D. (1986), "Measures of Economic Well-Being: Husband and Wife Consensus," Proceedings: Annual Conference of the American Council on Consumer Interests, 144-150.

# EFFECTS OF PRODUCT INVOLVEMENT AND CHOICE CONTEXT ON THE USE OF ATTITUDE-BASED AND ATTRIBUTE-BASED DECISION STRATEGIES

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## ABSTRACT

This study attempts to gain further insight into when consumers use attribute-based versus attitude-based decision strategies by examining high and low involvement purchases in

both memory-based and stimulus-based choice contexts. Key to the development of hypotheses is the relative accessibility and diagnosticity of the cognitive inputs.

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## INTRODUCTION

Past research has grouped consumer decision strategies into two broad categories: attribute-based and attitude-based choice (Fazio 1990). In an *attribute-based* strategy, the choice is based on a comparison of specific features (i.e., attributes) across the set of alternatives. In *attitude-based* decision processing, the consumer simply chooses the alternative toward which s/he has the highest overall evaluation (Wright 1975; Alba, Hutchinson and Lynch 1991; Hastie and Park 1986). This study builds on the work of Feldman and Lynch (1988) and Lynch, Marmorstein and Weigold (1988), which established that both the accessibility and the diagnosticity of the cognitive inputs (e.g., attributes and attitudes) were key in determining whether a consumer used an attribute-based or an attitude-based decision strategy. However, these past researchers only considered this issue in a mixed-choice situation with respect to a product that was associated with a single level of consumer involvement. The purpose of this study is to gain further insight into when consumers use attribute-based versus attitude-based decision strategies by examining high and low involvement purchases in two different choice contexts: memory-based and stimulus-based choice situations.

We propose that a consumer's decision strategy is influenced by the extent to which they are *involved* with the product. Zaichowsky (1985) defined involvement as "a person's perceived relevance of the object based on inherent needs, values and interests." High involvement consumers tend to pay more attention to all the attributes when choosing from

the decision alternatives than do low involvement consumers. Consider the purchase of a bottle of wine for two consumers: one with a high level of involvement toward the product and the other with a low level of involvement toward the product. The low involvement consumer (LIC) may simply choose a wine that is a well-known brand and that is not too expensive. However, the high involvement consumer (HIC) is likely to consider brand name and price along with many other attributes (e.g., the year and the country in which the wine was made, the appropriateness of the wine for specific meal and occasion). Hence the variance in consumers' attribute-importance weights should be higher for LICs than for HICs.

Other research (Feldman and Lynch 1988) has proposed that *accessibility* and *diagnosticity* are two additional factors that play a key role in a person's decision strategy. Accessibility is the extent to which a cognitive input (i.e., attributes or attitudes) can be easily retrieved from memory. An input is diagnostic to the extent that the individual perceives that making the decision based on the input alone would allow one to achieve one's task objective (e.g., Alba, Hutchinson and Lynch 1991). Suppose a consumer, who is presented with a set of alternatives, can readily access a global attitude for each one of the alternatives. If these attitudes are all approximately equal to each other, a choice based *only* on these retrieved evaluations would be difficult (i.e., the global attitudes are nondiagnostic). So, the consumer would be likely to conduct a memory search for specific features of these alternatives, and thus use an attribute-based decision strategy to further discriminate among the alternatives. Thus, the

Feldman and Lynch framework suggests that consumers resort to an attribute-based (attitude-based) strategy in spite of the fact that attitudes (attributes) are more accessible *if* those attitudes (attributes) are nondiagnostic.

## HYPOTHESES

In general, global attitudes are easier to retrieve from memory than attribute information, which requires more deliberate and effortful cognitive processing. By considering only accessibility of cognitive inputs, attitude-based strategies should predominate in memory-based choice. However, this may not be true for HICs. First, the attribute information should be relatively accessible for the HICs, who would have been likely to pay more attention to more attributes at the time of encoding. The HICs are thus more *capable* of using an attribute-based strategy than the LICs, who may not even remember the attributes through which they initially formed their global attitudes. Second, because HICs perceive the product as being more important with respect to their fundamental needs, they are more motivated to be careful in choosing the alternative that is the absolute best for them. So, when HICs retrieve from memory a set of global attitudes, they are more likely to resort to attribute-based processing to further discriminate among those alternatives with the highest overall evaluations.

On the other hand, an attitude-based strategy is probably sufficient to determine an alternative that is "good enough;" so LICs in memory-based choice have no motivation to resort to a more cognitively demanding attribute-based strategy. But even if LICs wanted to make an attribute by attribute comparison, they would have difficulty recalling attribute information, which is relatively inaccessible. This leads to the following hypotheses:

- H1a:** In pure memory-based choice, high involvement consumers (HICs) are more likely to engage in attribute-based processing than are low involvement consumers (LICs).
- H1b:** In pure memory-based choice, low involvement consumers (LICs) are more likely to engage in attitude-based processing than are high involvement consumers (HICs).

In stimulus-based choice, all relevant attribute information is readily available for examination. Memory plays no role in pure stimulus-based choice because the alternatives, by definition, have never before been encountered. With no previously formed overall evaluation available for retrieval, attribute information has a significant advantage over global attitudes with respect to accessibility. This is the opposite of memory-based choice, in which global attitudes hold an accessibility advantage over attribute information. So, considering only the effects of accessibility, stimulus-based decision makers should tend to engage in attribute-based strategies. However, as was also the case for memory-based choice, this accessibility argument does not hold for HICs making stimulus-based choice. Biehal and Chakravarti (1982) found that the degree of attribute-based processing is positively related to the variance in consumers' attribute-importance weights. HICs tend to value more attributes and thus have lower variance in attribute-importance weights than do LICs. This suggests that relative to LICs, HICs should be more likely to engage in attitude-based strategies in stimulus-based choice.

This reasoning is intuitive. Consumers in a stimulus-based choice are likely to first attempt an attribute-based strategy because of the ready accessibility of the attribute information. However, because the attribute-importance weights tend to be more equal for HICs, their attribute evaluations will tend to be less diagnostic than those of LICs. So because the product is fundamentally important to their inherent needs, values and interests, HICs will further elaborate on the attribute information in order to ensure choosing the absolute best alternative. This elaboration will result in the formation of global attitudes toward all the considered alternatives, and thus a greater tendency to use attitude-based evaluations to guide their choice.

The stimulus-based LICs will be more likely to use attribute-based processing for two reasons. First, LICs' variance of attribute-weights is greater, so their evaluations of key attributes tend to be more diagnostic than HICs' attribute evaluations. Second, the choice task is not as important to them, so LICs simply base their choice on what is readily available (attribute information). Even if this attribute information does not allow them to choose the absolute

best alternative, LICs are content to select an alternative that is "good enough." This leads to the final two hypotheses:

**H2a:** In pure stimulus-based choice, high involvement consumers (HICs) are more likely to engage in attitude-based processing than are low involvement consumers (LICs).

**H2b:** In pure stimulus-based choice, low involvement consumers (LICs) are more likely to engage in attribute-based processing than are high involvement consumers (HICs).

## METHOD

An experiment was conducted to examine attribute-based versus attitude-based decision strategies in four conditions: Memory-based choice for HICs and LICs, and stimulus-based choice for HICs and LICs. The subjects were 118 students enrolled in an undergraduate marketing course at Indiana University, Bloomington. For their participation in the experiment, the subjects received bonus points that counted toward their course grade. All subjects filled out one of two versions of a questionnaire (i.e., memory-based condition and stimulus-based condition) that was administered by the author. Six questionnaires were judged to be unacceptable, which resulted in a usable sample size of 112 subjects.

The experimental stimuli were eight fictional movie titles which were each accompanied by four pieces of attribute information: female star (e.g., Julia Roberts), male star (e.g., Mel Gibson), story type (e.g., comedy or drama), and critics' opinion (e.g., good or bad). Using fictional movies as stimuli works well because it is a product category familiar to students, yet by using fictional movies one can ensure that no student has any expertise or prior knowledge regarding the specific stimuli. This potential confound has not been considered in past research that used choice stimuli such as televisions (Lynch, Marmorstein and Weigold 1988) and calculators (Biehal and Chakravarti 1986).

The procedure consisted of four steps. In step 1, all subjects were exposed to a choice set of eight movie titles, each with four pieces of attribute information. They were asked to review all eight movies as if they were examining

them at a video tape movie rental store, and then to indicate the extent to which they liked or disliked each movie by marking a 20-point attitude scale. In step 2, all subjects completed a 5-item semantic differential scale that measured subjects' levels of involvement toward the product (i.e., movies). In step 3, subjects were again exposed to the eight stimuli, but this time they were asked to indicate (1) which movies they would *consider* watching, and (2) which one movie they would choose to watch tonight. Half the subjects were in a memory-based choice situation and the other half were in a stimulus-based choice situation. The differences between these conditions are described below. The final step began with a filler task, and then subjects were asked to recall their initial attitude toward and attribute information about each of the eight movies. For attitude recall, the subjects were asked to try and mark an X at the same spot on the 20-point attitude (like/dislike) scale as they did in step 1. For attribute recall, subjects completed a series of exercises in which they matched the movie titles to the appropriate female star, male star, story type and review.

For *choice context*, which was one of the two independent variables, subjects were randomly assigned to either memory-based or stimulus-based choice. Memory-based subjects made their choice from a set of the movie titles only -- attribute information had to be recalled from memory. In the stimulus-based choice context, subjects were provided with both the movie titles and all attribute information. The other independent variable was *involvement toward the product*, which was measured via a 5-item semantic differential scale based on a measure developed by Zaichkowsky (1985) (the item pairs were: fundamental-trivial, vital-superfluous, essential-nonessential, needed-not needed, beneficial-not beneficial). The reliability coefficient for this scale ( $\alpha=0.85$ ) suggested a satisfactory level of internal consistency (Nunnally 1978). The groupings of HICs and LICs were based on subjects' scores on these five items (the higher the score, the more highly involved is the subject). The mean score was 23.5 and the median was 23. The thirteen subjects that scored at the median were thrown out in order to better distinguish between HICs and LICs. This left 52 HICs and 47 LICs.

The two dependent variables were *attitude memory* and *attribute memory*. The measure-

ment scheme was based directly on the technique used by Lynch, Marmorstein and Weigold (1988). These measures of attitude and attribute memory are used to infer the extent to which subjects used attitude-based and attribute-based decision strategies, respectively. This study reasons (as did Lynch et al.) that those subjects who base their choice in step 3 on global attitudes will tend to be able to better recall those attitudes in step 4, than those subjects who used an attribute-based strategy. Similarly, those subjects who base their choice in step 3 on attribute information should be able to better recall that attribute information in step 4, relative to those subjects who used an attitude-based strategy. Note that accuracy of attribute recall should not be compared across choice task situations as the stimulus-based subjects, unlike the memory-based subjects, were additionally exposed to the attributes during their step 3 choice task. However, accuracy of attribute recall can be compared across HICs and LICs *within each choice situation*.

Attitude memory was measured by summing a zero to 8 measure of each subject's accuracy in recalling (in step 4) the global attitude toward each of the eight movies (this attitude was indicated in step 1). As done by Lynch et al. (1988), subjects were given one point for each attitude that was accurately recalled within one scale point on the 20-point like/dislike attitude scale; subjects received zero otherwise. Attribute memory was measured by summing a zero to 15 measure of each subject's accuracy in recalling attribute information in an exercise that involved matching the movie titles to the appropriate (1) female star, (2) male star, (3) story type and (4) critics' review. Subjects received one point for each attribute correctly matched to the title.

## RESULTS

As predicted, the LICs scored higher in attitude memory than the HICs (mean = 4.52 vs. 4.26) in memory-based choice (H1b), and scored lower in attitude memory than the LICs in stimulus-based choice (H2a) (mean = 4.42 vs. 4.52). However, oneway anovas indicated that mean differences within each choice context were not statistically significant. Thus, H1b ( $F = .314$ ,  $p = .59$ ) and H2a ( $F = .052$ ,  $p = .82$ ) were not supported. As predicted, the HICs scored higher in attribute memory than the LICs in memory-based choice (H1a) (mean =

11.44 vs. 10.30). But contrary to predictions, the HICs also scored higher in attribute memory than the LICs in stimulus-based choice (H2b) (mean = 12.84 vs. 11.92). Oneway anovas indicated that the mean differences within each choice context were not statistically significant. Thus, H1a ( $F = 1.979$ ,  $p = .17$ ) and H2b ( $F = 1.138$ ,  $p = .29$ ) were not supported.

## CONCLUSIONS

The two sets of hypotheses for this study make opposite predictions regarding the decision strategies of HICs and LICs. The reasoning is consistent with the social psychology literature suggesting that individuals are cognitive misers who only access and use information that is necessary for the task at hand. This is especially true for LICs who use attitude-based strategies in memory-based choice and attribute based strategies in stimulus-based choice because of the accessibility of the respective cognitive inputs in those situations. HICs, who are predicted to use the decision strategy that is opposite of LICs in the two "extreme" choice situations, go beyond what is immediately accessible for two reasons. First, HICs are more motivated to choose the absolute best choice because the product is fundamental to their needs, interests and values. Thus, HICs are more willing to engage in elaborate cognitive processing to search their memory for less accessible cognitive inputs. Second, relative to LICs, HICs perceive the immediately available cognitive inputs (i.e., global attitudes in memory-based choice, attribute information in stimulus-based choice) to be less diagnostic.

The fact that none of the hypotheses were supported is disappointing. However, the mean differences between the attribute memory scores and the attitude memory scores were in the expected direction for three of the four hypotheses. The lack of statistical significance may have been due to deficiencies of the experimental design. First, the involvement level toward the product was measured, not manipulated. The result was a set of scores skewed toward high involvement levels (which is not surprising as undergraduates are at a prime age for seeing movies). To better distinguish HICs from LICs, involvement levels could have been manipulated using, for example, Kruglanski and Freund's (1983) "fear of invalidity" method. A second problematic issue deals with the study's movie stimuli, which especially lent themselves

to attribute-based processing. That is, the "star" of the movie is possibly so diagnostic that all other cognitive inputs (i.e., the other attributes and the global attitude toward the movie) were entirely insignificant. This would lead to weak results stemming from the global attitude toward the movie being indistinguishable from the attitude toward the movie's "biggest name" star. A third possible problem with the study's methodology is the issue of whether Lynch, Marmorstein and Weigold's (1988) means of measuring decision strategy type is accurate.

Because these methodological shortcomings should tend to diminish the experimental effects, the fact that the results were generally in the expected direction is encouraging. Future research should address these problems and further test the conceptual framework put forth by this study. The result will be a better understanding of the decision strategies used by consumers in all choice contexts.

## REFERENCES

- Alba, Joseph W., J. Wesley Hutchinson and John G. Lynch, Jr. (1991), "Memory and decision making," in Handbook of Consumer Behavior, T. S. Robertson and H. H. Kassarian, eds. Englewood Cliffs, NJ: Prentice-Hall.
- Biehal, Gabriel and Dipankar Chakravarti (1982), "Information-Presentation Format and Learning Goals as Determinants of Consumers' Memory Retrieval and Choice Processes," Journal of Consumer Research, 8 (March), 431-441.
- \_\_\_\_\_ and \_\_\_\_\_ (1986), "Consumers' Use of Memory and External Information in Choice: Macro and Micro Perspectives," Journal of Consumer Research, 12 (March), 382-405.
- Fazio, Russell H. (1990), "Multiple Processes by which Attitudes Guide Behavior: The MODE Model as an Integrative Framework," in Advances in Experimental Social Psychology, ed. M. P. Zanna, vol. 23, 75-109, San Diego, CA: Academic Press.
- Feldman, Jack M. and John G. Lynch, Jr. (1988), "Self-Generated Validity and Other Effects of Measurement on Belief, Attitude, Intention, and Behavior," Journal of Applied Psychology, 73 (August), 421-435.
- Hastie, Reid and Bernadette Park (1986), "The Relationship Between Memory and Judgment Depends on Whether the Judgment Task is Memory-Based or One-Line," Psychological Review, 93 (June), 258-268.
- Kruglanski, A. W. and T. Freund (1983), "The Freezing and Unfreezing of Lay-Inferences: Effects on Impressional Primacy, Ethnic Stereotyping, and Numerical Anchoring," Journal of Experimental Social Psychology, 19, 448-468.
- Lynch, John G., Jr., Howard Marmorstein and Michael F. Weigold, (1988), "Choices from Sets Including Remembered Brands: Use of Recalled Attributes and Prior Overall Evaluations," Journal of Consumer Behavior, 15 (September), 169-184.
- Nunnally, J.C. (1978), Psychometric Theory, New York: McGraw-Hill Book Company.
- Wright, Peter (1975), "Consumer Choice Strategies: Simplifying vs. Optimizing," Journal of Marketing, 12 (February), 60-67.
- Zaichowsky, Judith Lynne (1985), "Measuring the Involvement Construct," Journal of Consumer Research, 12 (December), 341-352.

# TOWARD A TAXONOMY OF VARIED PURCHASING BEHAVIOR

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## ABSTRACT

A taxonomy of consumer varied purchasing behavior is needed to deal with confusing terminology and relate consumer varied purchasing

behavior (CVPB) to other forms of consumer purchasing behavior.

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## INTRODUCTION

Many conflicting and competing definitions of brand switching, especially as it relates to consumer varied purchasing behavior (CVPB), exist. This makes it difficult to use the information in making decisions and developing mid-range theories (Hunt 1991; Raju 1980). The objectives of the exploratory study, therefore, were to 1) define CVPB, 2) identify the domain of CVPB by uncovering its underlying dimensions, 3) propose a more comprehensive taxonomy which carefully defines and contrasts existing terms, and 4) include in an extended taxonomy the recently uncovered facets of CVPB.

## LITERATURE REVIEW

The theoretical roots of CVPB are traced to Berlyne (1960), Hebb (1955), and Leuba (1955). Optimum Stimulus Level Theory was introduced into marketing by Raju (1980). The literature reveals a host of dimensions of CVPB, such as variety seeking (Hoyer and Ridgway 1984), varied behavior (McAlister and Pessemier 1982), exploratory purchasing (Raju 1980), brand switching (Jacoby and Chestnut 1978), absolute novelty (Berlyne 1960), counterbalancing (Pessemier and Handelsman 1984), alternation (McAlister and Pessemier 1982), change of pace (Faison 1977), etc. One taxonomy related to CVPB was found (McAlister and Pessemier 1982). The weaknesses were that: 1) CVPB was not related to other forms of consumer purchasing; 2) existing literature definitions, when viewed collectively, were confusing; and 3) recently uncovered facets of CVPB were yet to be added to the classification scheme.

## METHOD

During 1993 over 175 articles were reviewed to define explicable determinants of CVPB. Four focus groups were conducted subsequently to gauge the preciseness in which the literature fit the determinants of CVPB advanced by participants. The panels consisted of conveniently selected adult males and females. Administration conformed to accepted guidelines.

## FINDINGS

The extended taxonomy of CVPB (see [Figure 1](#)) borrows from McAlister and Pessemier's (1982) taxonomy. Due to space limitations, discussion focuses only on extensions and adjustments made therein. To relate CVPB to other forms of consumer purchasing, we viewed the latter as a fundamental act of exchange (Bagozzi 1974) and the construct under which all other dimensions are subsumed. Purchasing was posited as consisting of inexplicable purchasing (McAlister and Pessemier 1982), explicable brand loyalty (Jacoby and Chestnut 1978), and explicable brand switching (Simonson and Winer 1992).

Brand loyalty is purchasing behavior that results in the repeated selection of the same brand over time (Jacoby and Chestnut 1978). Explicable switching is defined for the purpose of the research as being "any explainable purchase choice that differs from its predecessor." The literature suggests that explicable switching is due to 1) past purchase dissatisfaction (Oliver 1981); 2) a promotion effect (Tellis 1988); 3) hybrid switching behavior (McAlister and Pessemier 1982); and 4) CVPB. In suggesting that dissatisfaction with a brand may trigger

switching, Hoyer and Ridgway (1984, p. 115) state that, "the choice of a different brand/product is not the result of the need for variety; rather, it is the result of an evaluation that the existing brand is not fulfilling one's needs." Thus, dissatisfaction was added to the top of the taxonomy to show that it is not included in the domain of CVPB. For that same reason, "promotion effect," was also added (Tellis 1988). We viewed it as a type of brand switching that is motivated by a particular promotional tactic not by the need for novelty or variety.

### **CVPB: A Definition**

After drawing heavily on the literature (McAlister and Pessemier 1982; Pessemier and Handelsman 1984; Raju 1980; Simonson and Winer 1992, etc.) and focus group information, we viewed CVPB, for the purpose of the study, as the following:

**Any given choice that differs from its predecessor for reasons other than dissatisfaction with the past brand and/or pure promotion effect but rather due to exploratory behavior (i.e., absolute novelty seeking) or variety seeking behavior (i.e., relative novelty seeking behavior, alternation among known products, switching to enjoy a change of pace, etc.).**

The definition fits well with the directive to select as broad a definition as possible, thus including as many underlying factors relevant to CVPB as permissible (Hoyer and Ridgway 1984). It excludes constructs that appear outside the domain of CVPB, such as dissatisfaction and the promotion effect. Exploratory behavior is defined as the desire for absolute novelty (Wahlers, Dunn and Etzel 1986). It implies that the buyer has neither brand knowledge nor experience. Absolute novelty seeking motivates consumers to seek contact with new stimulus objects out of curiosity or an investigative tendency. In marketing, the object sought by the absolute novelty drive has qualities that are completely unknown to the buyer. A considerable stream of research in marketing focused on variety seeking behavior (McAlister and Pessemier 1982). One definition characterizes variety seeking behavior (or avoidance) "to be the phenomenon of an individual consumer switching brands (or repeat buying) induced by the utility (or disutility) she derives from the change itself, irrespective of the brands she

switches to or from" (Givon 1984, p. 2-3). Kahn, Kalwani and Morrison (1986, p. 90) viewed variety-seeking as "the deliberate tendency to switch away from the brand purchased on the last one or more occasions." We view variety seeking behavior as including relative novelty seeking behavior, alternation among known products, switching to enjoy a change of pace, etc. Relative novelty implies that buyers have some brand knowledge, information and/or experience and have a past choice in the category or within the same class of potential substitutes. A consumer displaying desire for relative novelty alternates purchases among a known set of brands or substitutes.

The taxonomy includes determinants of CVPB recently uncovered, namely decision uncertainty (Simonson and Winer 1992); the changing physiological conditions of an individual (Hoyer and Ridgway 1984); and changes in previously neglected environmental factors known to impact CVPB, such as, legal and regulatory changes, consumer movements, and ecological shifts (Lazer, LaBarbera, MacLachlan and Smith 1990). Arguing a plausible case for adding decision uncertainty to the host of variety seeking drives, Simonson and Winer (1992) found that when consumers purchase for future consumption there can be a degree of uncertainty involved. The uncertainty apparently arises within consumers who are unsure of their future needs and preferences and exactly which brands will provide greatest satisfaction. So as a hedge, consumers, in making choices now for future consumption, may purchase a variety of brands to acquire a wider range of benefits. The addition of decision uncertainty calls attention to a determinant of CVPB attributed to consumers' uncertainty about their future needs, tastes, and preferences. It is defined as risk/conflict reduction in future consumption so that a variety of brands are purchased as a hedge against the possibility of changing future needs.

McAlister and Pessemier's (1982) taxonomy calls attention indirectly to the influence on varied behavior of only a few environmental aspects, such as technology (i.e., changes in the feasible set, especially product introduction/harvesting), demographics (i.e., change in taste due to maturation), lifestyles (i.e., interpersonal motive), and economic climates (i.e., change in constraints, such as an increase in wealth). Other significant environmental developments



(Lazer, LaBarbera, MacLachlan, and Smith 1990) thought to impact CVPB go unnoticed. Ignored, for example, were the likely impacts on CVPB due to changing ecological perspectives--the "greening of the marketplace" and boycotts, such that which beset Exxon after the Alaskan Oil Spill. Overlooked, moreover, were legal and political change and consumer movements sure to alter consumer purchasing. To recognize the important implications for CVPB of all significant environmental trends and developments, the category "changes in other environmental factors" was added to the framework. The addition of the category appears warranted, given clear comments regarding these aspects advanced by focus group participants.

Finally, the literature suggests that physiological needs can alter intrapersonal motives, causing varied purchasing behavior. Hoyer and Ridgway (1984, p. 117) espouse that, "product choices which are highly dependent on neural sensations display a greater than average tendency to facilitate a variety drive." People, tired of the same sensation, switch to enjoy an optimal level of stimulation. For example, bored taste buds may lead to alternation within a set of known products (McAlister 1982). We viewed that and other similar aspects of satiation as belonging to the category "relative novelty seeking." However, focus group participants revealed that people engaged in different levels of physical exercise may engage in CVPB, such as buying Gatorade for the tennis court and for relaxation a soft drink. People, at the recommendation of their doctors, may change eating habits and their choices of food. Thus, the category, "physiological influences," was added. We viewed it not being caused by dissatisfaction or promotion effect but rather derived from changing physiological/bodily needs causing an individual consumer to purchase a brand that differs from its predecessor.

#### **LIMITATIONS AND FUTURE RESEARCH**

The paper is limited in that it presents only the first phase results of a larger study to define the domain of CVPB. The taxonomy should therefore be viewed cautiously. Moreover, necessary liberties were taken to revamp some existing definitions so that terms would be mutually exclusive. Since new facets of CVPB were added to the taxonomy, the validity of so doing has yet to be tested and is not reported

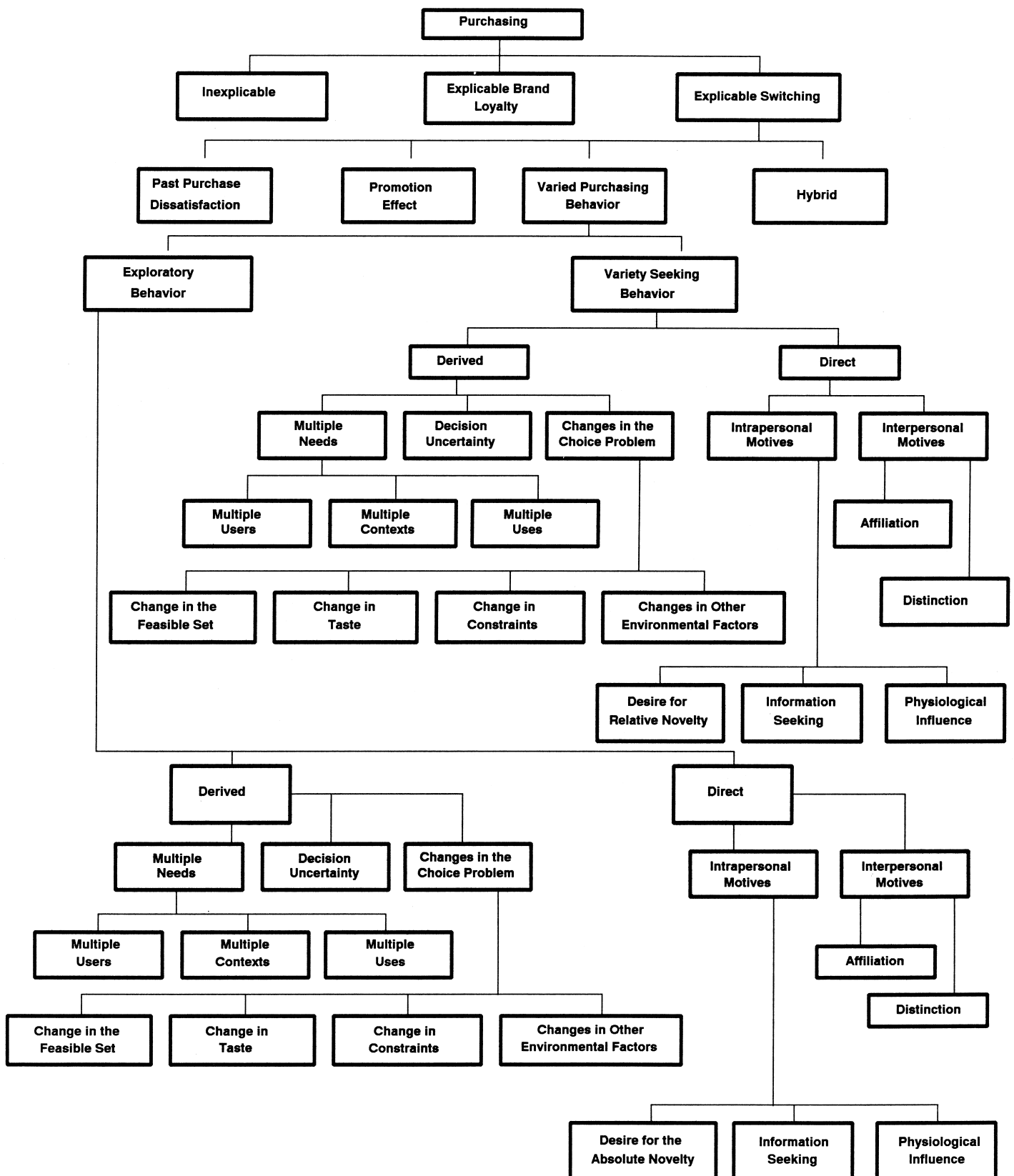
here. The literature suggests that the opportunity to subject CVPB to more rigorous measurement remains largely unexplored (Hoyer and Ridgway 1984; Givon 1984).

#### **REFERENCES**

- Bagozzi, R. P. (1974), "Marketing as an Organized Behavior System of Exchange," Journal of Marketing, 38 (October), 77-81.
- Berlyne, D. E. (1960), Conflict, Arousal, and Curiosity, New York: McGraw-Hill Book Co.
- Faison, Edmund W. J. (1977), "The Neglected Variety Drive: A Useful Concept for Consumer Behavior," Journal of Consumer Research, 4 (December), 172-75.
- Givon, Moshe (1984), "Variety Seeking Through Brand Switching," Marketing Science, 3 (Winter), 1-22.
- Hebb, D. O. (1955), "Drives and the C. N. S. (Central Nervous System)," Psychological Review, 62, 243-54.
- Hoyer, Wayne D. and Nancy M. Ridgway (1984), "Variety Seeking as an Explanation for Exploratory Purchase Behavior: A Theoretical Model," Advances in Consumer Research, V 11, 114-19.
- Hunt, Shelby D. (1991), Marketing Theory, Cincinnati, OH: South-Western Publishing Co.
- Jacoby, Jacob and Robert W. Chestnut (1978), Brand Loyalty Measurement and Management, New York: John Wiley and Sons, Inc.
- Kahn, Barbara E., Manohar U. Kalwani, and Donald G. Morrison (1986), "Measuring Variety-Seeking and Reinforcement Behaviors Using Panel Data," Journal of Marketing Research, 23 (May), 89-100.
- Lazer, William, Priscilla LaBarbera, James M. MacLachlan, and Allen E. Smith (1990), Marketing 2000 and Beyond, Chicago: American Marketing Association/Dow Jones Irwin.
- Leuba, Clarence (1955), "Toward Some Integration of Learning Theories: The Concept of Optimal Stimulation," Psychological Reports, 1, 27-33.

- McAlister, Leigh (1982), "A Dynamic Attribute Satiation Model of Variety-Seeking Behavior," Journal of Consumer Research, 9 (December), 141-50.
- \_\_\_\_\_ and Edgar Pessemier (1982), "Variety Seeking Behavior: An Interdisciplinary Review," Journal of Consumer Research, 9 (December), 311-22.
- Oliver, Richard L. (1981), "Measurement and Evaluation of Satisfaction Processes in Retail Settings," Journal of Retailing, 57 (Fall), 25-48.
- Pessemier, Edgar and Moshe Handelsman (1984), "Temporal Variety in Consumer Behavior," Journal of Marketing Research, 21 (November), 435-44.
- Raju, P. S. (1980), "Optimum Stimulation Level: Its Relationship to Personality, Demographics, and Exploratory Behavior," Journal of Consumer Research, 7 (December), 272-82.
- Simonson, Itamar and Russell S. Winer (1992), "The Influence of Purchase Quantity and Display Format on Consumer Preference for Variety," Journal of Consumer Research, 19 (June), 133-8.
- Tellis, Gerald J. (1988), "The Price Elasticity of Selective Demand: A Meta-Analysis of Econometric Models of Sales," Journal of Marketing Research, 25 (November), 331-41.
- Wahlers, Russell G., Mark G. Dunn and Michael J. Etzel (1986), "The Congruence of Alternative OSL Measures with Consumer Exploratory Tendencies," in Advances in Consumer Research, 13, ed. Richard J. Lutz, Provo, UT: Association for Consumer Research, 398-402.

**Figure 1: Extended Taxonomy of Consumer Varied Purchasing Behavior**



# SALES CONTROL SYSTEMS: AN EXPLORATORY STUDY

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## ABSTRACT

This paper studies salesforce control techniques utilizing information obtained from a series of focus group sessions with salespeople and sales managers. Recommendations are then

developed from a synthesis of this information which reflects an extension of current theoretical approaches.

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## INTRODUCTION

The purpose of this paper is to provide managers with insights for creating or improving their salesforce control systems. These insights are developed by drawing practical implications from the salesforce control literature and from a series of focus group interviews with managers and salespeople. Implications for improving salesforce control systems are proposed.

## BACKGROUND

The literature suggests that selling organizations can utilize a behavior-based control system (high levels of management direction) or an output-based control system (minimal direction with little monitoring of the salesperson's effort). Thus, a supervisor may exercise output control by monitoring salespeople's sales, gross profits, and so on and providing them feedback on those outputs. Alternatively, a supervisor may exercise process (or behavioral) control by monitoring salespeople's selling strategies, work procedures, and so on, and providing them feedback on these behaviors (Jaworski and Kohli, (1991). Cravens (1993) suggests that viewing salesforce control systems from the two extremes of this continuum is probably unrealistic and inappropriate. Evidence suggests that many salesforce control systems are a mix of approaches, containing elements of both behavior and outcome-based strategies (Anderson and Oliver, 1987).

## METHODOLOGY

To provide insights into how an organization's sales control system may be improved, a series of focus group interviews were con-

ducted. While the research and anecdotal literature suggests which types of control systems are effective and the conditions which may influence their effectiveness, the question remains how to improve the efficiency of an existing control system. This is a particularly important question in that most organizations find it difficult, if not impossible to alter the fundamental style of their salesforce control system.

Over a two week period, three focus group sessions were conducted. The first group contained twelve salespeople. The participants all had sales territories in the New England region.

The second group included twelve sales managers. Their range of management experience was from two to twenty-eight years. The forms of compensation used by these managers varied from salary with bonus to straight commission.

The third group was a combination of six salespeople and six sales managers, none of whom had participated in either of the two previous sessions.

Participants in the salesperson focus group were asked to write what they perceived as the two most important techniques that their organizations used to influence or control their activities. Participants in the sales manager focus group were asked to write down the two most important tools or techniques they used to influence or control the activities of salespeople who reported directly to them. The same questions were asked of salespeople and of sales managers in the combined focus group. All responses were unsigned and then passed to the moderator. The moderator began by reading

one of the identified techniques and then asking participants to respond to their view of its efficacy. The moderator then probed for additional techniques and the respondent's view concerning their effect. The same format was used in all three focus groups.

## **FINDINGS**

### **Salesperson Perspective**

All salespeople agreed that their organizations focused upon bottom-line results and that their managers assumed the role of mediators to insure that bottom-line revenue or sales objectives were obtained. All salespeople identified regional or national offices as being the source of revenue objectives and did not directly associate these objectives with their immediate supervisors. Salespeople also stated that they were given a great deal of freedom concerning how they obtained these objectives. Interaction with their supervisor was a function of their ability to obtain sales objectives. If sales objectives were not met, managers became more involved with their daily activities. Salespeople said they did not resent or resist this increased involvement. Several salespeople suggested that they would prefer more involvement from their supervisor.

Although salespeople identified sales objectives as being the primary goal and that they were given much freedom in how they met their objectives, there was considerable difference in their reporting requirements. Several salespeople reported that they were required to prepare and submit daily call reports. These salespeople also noted that they did not believe that these reports were read by their supervisors. They considered it an exercise that they had to do and many reported that they inflated their numbers. Others reported that weekly call reports were required. Expense reports were also required at least weekly from all salespeople. In some cases, receipts of expenditures were required to be submitted. Although one salesperson reported that she was evaluated on her ability to control expenses, all others reported that expense reports were not used to control their expenditures and that they were open to abuse.

Salespeople also reported differences in their relationships with their supervisors. Although they reported that a "hands off" approach was

used in daily activities, most salespeople reported that they would prefer more frequent communication. Lack of meaningful communication and a desire to have a closer relationship with their supervisor were mentioned by several. Several reported that their supervisor treated all salespeople uniformly and did not tailor their actions to individual salespeople. These salespeople voiced concern about this practice. A few salespeople stated that they met frequently with their salesmanagers and that they were personally involved with their activities.

### **Salesmanager Perspective**

The managers said that they had effective control systems and that they were in control of the activities of their salespeople. Most managers further stated that they had almost total control of the daily activities of their salespeople. They identified a number of reporting tools that they required their salespeople to provide, including call reports, expense reports, proposal activity, forecasts and itineraries. They require these reports periodically, weekly being the most frequently mentioned time period. Most managers did however, report that they had difficulty in getting their salespeople to submit these reports on a timely basis.

All managers accentuated the importance of close ratios and itineraries. They also reported that communication is an important element in their ability to control, all agreeing that their salespeople's knowledge of what was expected was an important requirement. They reported that they meet frequently, both on a one-on-one basis and in group meetings with their salespeople.

They all agreed that salespeople must be held accountable for what is demanded of them. They felt that it is necessary for the salesperson to "buy in" to their sales plan. They all pointed out that sales plans were useful tools and that the plan was "negotiated" between themselves and their salespeople.

Several managers noted that they used both call reports and itineraries to assure that salespeople were allocating their time effectively. Close ratios were evaluated closely to assure adherence to revenue expectations. A few managers noted that they would accompany their salespeople on sales calls as a means of control

while the others noted that their organizations had stopped or would not use this technique as a means of control.

Socialization of the salesperson into the organizational climate was mentioned by several managers as being an important way to establish control. They also agreed that relationship building and maintenance was an important element of control. Frequent and personal communication was noted as a way to establish and maintain this relationship. They also stated that they tailored their control techniques to the individual needs of their salespeople. Several managers noted that they began the control process during the hiring phase, using their perceived ability to control a potential employee as an employment criteria.

### **Salesperson and Salesmanager Perspectives**

The last focus group combined both salespeople and managers in a discussion of control techniques and methods. As expected, little agreement was reached concerning "effective" control techniques. Salespeople tended to emphasize the techniques which were identified in the previous salesperson focus group session, and managers tended to emphasize those techniques identified in the managers focus group session. This confirmed the prior focus group discussions. An indepth exploration of what techniques were appropriate and the rationale for their beliefs was probed for. Both groups were cautious and reluctant to expand upon their actions and beliefs, as had occurred in the previous sessions. Even when it was obvious that differences in perspectives existed, there was no effort on the part of either managers or salespeople to explore the reasons why.

### **MANAGEMENT IMPLICATIONS**

Salespeople and their managers indicate that they perceive that either a behavior-based or an output-based system is being used. This contradicts much of the text and anecdotal literature which suggests that organizations tend to use a combination of both systems. Few sales organizations are likely to operate a salesforce control system that is completely behavior or outcome based (Cravens, et al., 1993). Further, they have different perceptions of what systems are being used.

Salespeople perceive the use of output-based means to control their activities. Al-

though they agree and appreciate the advantages of this type of a system in terms of the freedom and self control it offers, they do stress their desire for greater communication and interaction with their supervisors. This indicates that they would prefer a more behavior-based approach to management control.

Managers, while accentuating the use of behavior-based measures to control their sales force, voice their desire to provide greater freedom and minimize the need for extensive reporting. This implies their desire to use a more output-based approach to influence the actions of their salespeople.

### **RECOMMENDATIONS**

- 1) Use only those reports that are needed.
- 2) Make sure that salespeople and managers understand:
  - a) What is being used.
  - b) Why it is being used.
  - c) How it is being used.
  - d) That it is being used.
- 3) The use of autocratic techniques to control most salespeople should be avoided.
- 4) Provide more contact (behavior-based techniques) when and where needed.
- 5) Insure common perceptions between managers and salespeople concerning the nature and details of their control system.

### **CONCLUSION**

Apparent from our discussions with salespeople and with their managers is that sales organizations are a composite of heterogenous individuals. The imposition of a rigid control system, either an output-based, a behavior-based, or a combination of the two, should be avoided. To improve their control of salespeople, managers should try to be flexible and attempt to customize their tactics to the specific individual for the specific time in a salesperson's career. Managers can tailor output-based methods and behavior-based methods to create a flexible control system that may improve the effectiveness of all components. To create an effective system, open communications must exist and a common perception of the system must be shared by the manager and the salesperson.

## REFERENCES

- Anderson, Erin and Richard L. Oliver, "Perspectives on Behavior-Based Versus Outcome-Based Salesforce Control Systems, Journal of Marketing, 51, October, 1987, 76-88.
- Cravens, David W., Thomas N. Ingram, Raymond W. LaForge, & Clifford E. Young, "Behavior-Based and Outcome-Based Salesforce Control Systems," Journal of Marketing, October, 1993, 47-59.
- Jaworski, Bernard J. and Ajay K. Kohli, "Supervisory Feedback: Alternative Types and Their Impact on Salespeoples' Performance and Satisfaction", Journal of Marketing Research, May, 1991, 190-201.

# THE INFLUENCE OF SALESPERSON MOTIVATION AND ROLE PERCEPTION: AN EMPIRICAL ANALYSIS

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## ABSTRACT

This paper empirically examines the effects of salesperson type on motivation components (intrinsic and extrinsic) and role perception (role ambiguity and role conflict). Industrial salespeople are divided into: (1) institutionalized stars, (2) lone wolves, (3) corporate citizens,

and (4) apathetic salespersons. The results of this study indicate that, except role conflict, motivation components and role ambiguity are significantly related to the salesperson types. Implications for managers and future research are also presented.

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## INTRODUCTION

Organizational attributes (e.g., organizational commitment) and job attributes (e.g., job involvement) simultaneously affect salesperson job psychology and behavior (Wiener and Vardi 1980). Using an employee typology devised by Blau and Boal (1987) using organizational commitment (OC) and job involvement (JI), Ingram et al. (1991) predicted salespersons' work outcome behavior. The typology categorizes salespeople into four types: (1) institutionalized stars (high OC-high JI); (2) lone wolves (low OC-high JI), (3) corporate citizens (high OC-low JI), and (4) apathetic salespersons (low OC-low JI). Although there exist taxonomies of sales jobs in the context of industrial selling (Moncrief 1989), very little research has been conducted to develop a salesperson classification schema involving attitudinal constructs. A typical classification of industrial sales jobs exemplified by "order takers" and "order getters" provides little information regarding psychological and behavioral dimensions of industrial salespeople.

## BACKGROUND

Organizational commitment is viewed as a positive psychological attitude toward an organization (Porter et al. 1974), job satisfaction (Dubinsky and Skinner 1984), and work alienation (Michaels et al. 1988). Job involvement has also been found to be related to salesperson effort (Wiener and Vardi 1980) and career stage (Cron et al. 1988). Organizational commitment and job involvement also jointly affect employee behavior (Morrow 1983; Wiener and Vardi 1980).

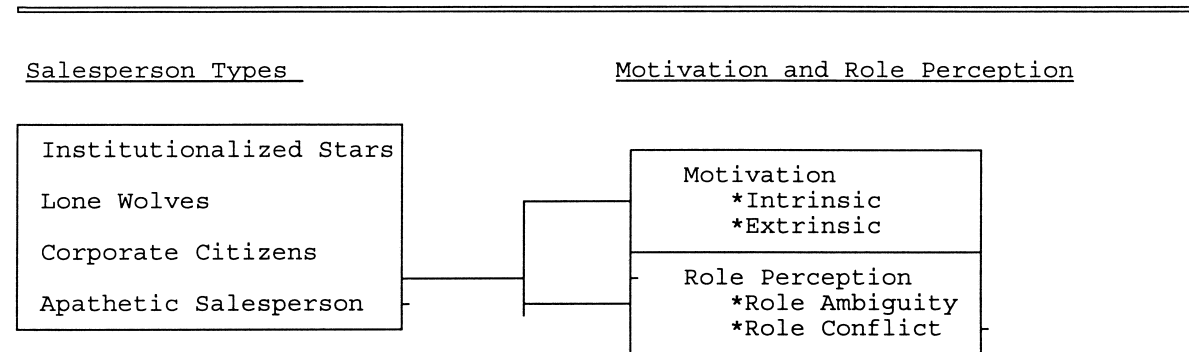
Blau and Boal (1987) have suggested that organizational commitment (OC) and job involvement (JI), when using a median value as a cut-off point, can generate four types of employees with varying levels of attitudes toward the company and the selling job. Institutionalized stars (high OC-high JI) are the most preferred by managers since they are satisfied with both the company and the sales job. Apathetic salespersons (low OC-low JI), on the other hand, are the least desirable types due to their alienation from the company and the selling job. Although work is important to lone wolves (low OC-high JI) due to their high level of identification with the selling job, corporate citizens (high OC-low JI) are actively involved in social activities within the company and have more positive attitudes toward behavioral expectations of the company (Blau and Boal 1987).

Motivation and role perception are major predictors of sales performance and satisfaction (Walker et al. 1977, 1979). [Figure 1](#) shows that salesperson motivation and role perception are affected by the salesperson types. The motivation section is further divided into intrinsic (e.g., a sense of achievement, challenge) and extrinsic (e.g., pay, promotion) dimensions (Tyagi 1985). Role ambiguity and role conflict are two most widely adopted components of role perception. More specifically, the framework shows that salespeople differ across the four types (e.g., lone wolves) in terms of: (1) intrinsic motivation, (2) extrinsic motivation, (3) role ambiguity, and (4) role conflict. The next section will provide a review of literature on these variables.



Figure 1

# A Framework of Salesperson Typology and Its Effects on Motivation and Role Perception



<sup>a</sup>Median values of organizational commitment and job involvement can be used to develop this typology.

## Motivation and the Salesperson Types

Motivation is defined as "the amount of effort the salesperson desires to expend on a particular task with his or her job" (Walker et al. 1977). The expectancy model of motivation has been widely utilized to operationalize the salesperson motivation (Cron et al. 1988; Ingram and Bellenger 1983; Morrow 1983; Walker, Churchill, and Ford 1977, 1979). A salesperson's motivation can be divided on the basis of an intrinsic/extrinsic reward dichotomy (Cron et al. 1988; Kohli 1985; Tyagi 1982). Intrinsic rewards refer to the perceived value associated with the activity itself (e.g., challenge, achievement), while extrinsic rewards refer to the value an individual places on the "ends" of an action (e.g., pay, promotion).

Institutionalized stars and apathetic salespersons will show a totally opposite orientation in terms of motivation. The former will demonstrate the highest level of all dimensions of motivation since the individuals are extremely satisfied with both the company and the selling job itself. Conversely, the latter group will manifest the lowest level of motivation since these salespeople identify themselves with neither the company nor the selling profession. Lone wolves and corporate citizens may show medium levels of motivation. Lone wolves, with their weak identification with the company and the strong affiliation with the job, will depend more upon rewards obtainable from work itself (intrinsic rewards) than from the company (extrinsic rewards). Corporate citizens will be motivated more by the rewards administered by

the company than by the work itself. In the same vein, corporate citizens will show stronger need for affiliation (extrinsic motivation) than will lone wolves. Social involvement, a surrogate of the need for affiliation, has also been empirically linked to organizational commitment (Sheldon 1971).

## Role Perception and the Salesperson Types

Role ambiguity and role conflict are two major dimensions of role perception; and their impact on various aspects of salespersons' behavior are richly documented in sales management literature (Behrman and Perreault 1984; Dubinsky et al. 1986). Role ambiguity can be found in a situation where a salesperson is uncertain about the expectations of others and about selling assignments. Role conflict can be experienced when a salesperson is involved with different role partners (e.g., managers, computer) who place incompatible demands on the salesperson.

Pressure from role playing at work can be effectively managed for institutionalized stars since they maintain a good rapport with the company and have role skills necessary to perform work assignment (Blau and Boal 1987). Conversely, apathetic salespersons will be more vulnerable to role stress due to their alienation from the company and their lack of role skills to solve conflicts. Lone wolves and corporate citizens must also deal with role ambiguity and conflict at varying degrees. Lone wolves are more sensitive to role-related pressures than are corporate citizens. When lone wolves perceive

that their personal work-related goals are not compatible with the corporate goals, they are tempted to find another employer instead of compromising with the company. In contrast, corporate citizens' loyalty to the company helps them simplify their conflict coping strategies by pursuing the interests of the company. The previous research findings suggest that role conflict can positively affect salesperson performance (Behrman and Perreault 1984). These findings offer a good theoretical support that lone wolves experiencing high levels of role conflict exert more job-related effort and per-

formance. Their lack of involvement in social activities within the company limits their contacts with other parties, especially with managers, and this alienation further hampers their acquisition of knowledge regarding how to carry out their selling assignments effectively (role ambiguity).

**Table 1** summarizes the effects of salesperson types on components of motivation (intrinsic and extrinsic) and role perception (role ambiguity and role conflict), and serves as a basis for hypotheses for this study.

**TABLE 1**  
**Hypothesized Effects of Salesperson Types**  
**on Motivation and Role Perception**

| Types                   | <u>Motivation</u> |        |           |        | <u>Role Perception</u> |        |          |        |
|-------------------------|-------------------|--------|-----------|--------|------------------------|--------|----------|--------|
|                         | Intrinsic         |        | Extrinsic |        | Ambiguity              |        | Conflict |        |
| Institutionalized Stars | high              |        | high      |        | low                    |        | low      |        |
| Lone Wolves             | high              | medium | low       | medium | high                   | medium | high     | medium |
| Corporate Citizens      | low               | medium | high      | medium | high                   | medium | high     | medium |
| Apathetic Salespersons  | low               |        | low       |        | high                   |        | high     |        |

## METHODOLOGY

The sample was obtained from 235 individual salespeople (58.5% response rate) representing 37 firms. Questionnaires were distributed to 402 sales representatives through their sales managers. The names and addresses of the sales managers were obtained from a commercial mailing list.

While organizational commitment was measured via a 15-item instrument ( $\alpha = .91$ ) which was originally developed by Porter et al. (1974), job involvement was measured by a 4-item Likert scale ( $\alpha = .84$ ) developed by Hall et al. (1978). A median value of organizational commitment (OC) and job involvement (JI) was used to obtain the measure of salesperson types. Using these median values ( $OC = 51$  and  $JI = 12$ ), respondents were grouped into: (1) institutionalized stars ( $n = 105$ ) ( $OC > 51$  and  $JI > 12$ ), (2) lone wolves ( $n = 17$ ) ( $OC < 51$  and  $JI > 12$ ), (3) corporate citizens ( $n = 55$ ) ( $OC > 51$  and  $JI < 12$ ), and (4) apathetic salespersons ( $n = 58$ )

( $OC < 51$  and  $JI < 12$ ). This method is consistent with the recommendation of Blau and Boal (1987).

The motivation level for each salesperson was measured by a 12-item instrument developed by Tyagi (1985). Two scales developed by Rizzo et al. (1970) were used to measure two components of role perception: role ambiguity and role conflict. The scales were constructed in a seven-point Likert format ranging from 1 (minimum) to 7 (maximum) for both role ambiguity (6-item) ( $\alpha = .75$ ) and role conflict ( $\alpha = .76$ ) (8-item).

A three-step test procedure was used to analyze the data for this study. First, Multivariate Analysis of Variance (MANOVA) was applied to investigate the effects of salesperson types on components of motivation and role perception. Second, Analysis of Variance (ANOVA) was employed to assess the influence of salesperson types of specific dimensions of these variables. Finally, the Scheffe contrasts

test was utilized to examine the relative impact of four types of salesperson on motivation and role perception.

## RESULTS AND DISCUSSION

Salesperson type mean scores for each motivation component and each role perception component, associated with univariate F-values, and Scheffe contrasts results, are reported in both Table 2 and Table 3, respectively.

### Salesperson Types and Motivation

MANOVA results show that the salesperson type is a significant predictor of salesperson motivation (multivariate  $F = 10.57$ ,  $p < .001$ ). Table 2 also demonstrates that the salesperson types affect both intrinsic motivation (Univariate  $F = 20.28$ ,  $p < .001$ ) and extrinsic motivation (Univariate  $F = 12.85$ ,  $p < .001$ ). The results in Table 2 indicate that institutionalized stars report highest levels of intrinsic motivation

( $x = 2804.86$ ) and extrinsic motivation ( $x = 2507.38$ ). Apathetic salespersons show the lowest levels of intrinsic ( $x = 1775.39$ ) and extrinsic ( $x = 1677.06$ ) motivation; but when Scheffe contrasts are utilized, motivation mean scores (both intrinsic and extrinsic) for apathetic salespersons do not significantly differ from those for lone wolves.

From the finding, it can be interpreted that institutionalized stars are by far the most motivated among the four types, while apathetic salespersons are less motivated, intrinsically and extrinsically, than both institutionalized stars and corporate citizens. Even though raw scores of both intrinsic and extrinsic motivation are higher for corporate citizens ( $x = 2210.36$ ;  $x = 2192.65$ ) than for lone wolves ( $x = 2141.06$ ;  $x = 1939.29$ ), the results from the Scheffe contrasts reported in Table 2 do not indicate that there exists a significant difference in motivation levels between these two types.

**TABLE 2**  
**Relationships Between Salesperson Types and Motivation and Role Perception**

| Dimension                                    | Institutional-<br>ized Stars<br>(n = 105) | Lone<br>Wolves<br>(n = 17) | Corporate<br>Citizens<br>(n = 55) | Apathetic<br>Salesperson<br>(n = 58) | Univariate<br>F    | Test<br>Scheffe                      |
|----------------------------------------------|-------------------------------------------|----------------------------|-----------------------------------|--------------------------------------|--------------------|--------------------------------------|
| Intrinsic<br>Motivation                      | 2804.86                                   | 2141.06                    | 2210.39                           | 1775.39                              | 21.11 <sup>a</sup> | I > L, C, A <sup>b</sup><br>A < I, C |
| Extrinsic<br>Motivation                      | 2507.38                                   | 1939.20                    | 2192.65                           | 1677.65                              | 12.74 <sup>a</sup> | I > L, C, A<br>A < I, C              |
| (multivariate $F = F = 10.57$ , $p < .001$ ) |                                           |                            |                                   |                                      |                    |                                      |
| Role Ambiguity                               | 55.35                                     | 65.68                      | 58.51                             | 66.04                                | 5.09 <sup>a</sup>  | I, L, C, A <sup>a</sup>              |
| Role Conflict                                | 81.54                                     | 95.85                      | 81.98                             | 87.14                                | 1.01 <sup>c</sup>  |                                      |
| (multivariate $F = 3.27$ , $p < .01$ )       |                                           |                            |                                   |                                      |                    |                                      |

<sup>a</sup> Significant at  $p < .001$

<sup>b</sup> Using Scheffe, one can interpret this as Institutionalized Stars' intrinsic motivation is greater than that of lone wolves, corporate citizens, and apathetic salespersons. Only hypothesized and statistically significant contrasts are reported.

<sup>c</sup> Non-significant

## Salesperson Types and Role Perception

The salesperson types are significantly related to overall role perception components (multivariate  $F=3.27$ ,  $p<.01$ ). Univariate statistics show that only role ambiguity is statistically predicted by salesperson types ( $F=5.09$ ,  $p<.01$ ); role conflict is not ( $F=1.01$ ,  $p>.05$ ).

Table 2 reports that institutionalized stars experience the smallest level of role ambiguity ( $x=55.35$ ) when compared to those of three other salespeople types ( $x=65.68$  for LWs;  $x=58.51$  for CCs;  $x=66.04$  for ASs). Three other types except institutionalized stars (IS) are not significantly different in terms of their levels of role ambiguity. The results further indicate that role conflict is not significantly affected by the salesperson types. Regarding relative effects of lone wolves and corporate citizens, mean scores for corporate citizens' role ambiguity ( $x=58.51$ ) and role conflict ( $x=81.98$ ) are lower than those for lone wolves' ( $x=65.68$  and  $x=95.85$ , respectively).

## IMPLICATIONS AND FUTURE RESEARCH

The salesperson typology provides managers with an effective strategic tool for human resource management. For example, managers no longer have to depend upon across-the-board motivational policy since they can develop unique motivational strategies specifically geared to each salesperson type. For example, lone wolves can be transformed to institutionalized stars if they are offered timely recognition from managers for their achievements. Club membership, participative management and joint-goal setting may promote their positive identification with the company. Managers should also examine lone wolves' goals and values to be certain that they are compatible with those of the corporation. When goals are incompatible, salespersons are more likely to be alienated from the work itself (Michaels et al. 1988).

Managers can carefully examine that the needs and skills of corporate citizens are compatible with the job involvement (e.g., type of selling). The desirable person/job fit should enhance job involvement and performance (Dubinsky et al. 1986). Overall, while person/organization congruence is important for lone wolves, person/job congruence should be carefully examined for corporate citizens.

A longitudinal study may offer an interesting insight into the dynamic nature of salesperson typology. We may, with the inclusion of various antecedent variables (e.g., supervision, goal-setting, etc.), identify how and why salespeople change from one type to another. Besides, data can be collected from other types of salespeople (e.g., retail) and marketing professionals (e.g., market research). While the male-female comparison may present another research direction, the salesperson type also has crosscultural implication. For example, female and/or minority salespeople may be more likely to be alienated from the firm (e.g., lone wolves).

## REFERENCES

- Blau, G. and K. Boal (1987), "Conceptualizing How Job Involvement and Organizational Commitment Affect Turnover and Absenteeism," Academy of Management Review, 12 (no. 1), 288-300.
- Cron, W.L., A.J. Dubinsky, and R.E. Michaels (1988), "The Influence of Career Stages on Components of Salesperson Motivation," Journal of Marketing, 52 (January), 78-92.
- Ingram, T.N. and D.N. Bellenger (1983), "Personal and Organizational Variables: Their Relative Effect on Reward Valences of Industrial Salespeople," Journal of Marketing Research, 20 (May), 112-126.
- Michaels, R.E., W.L. Cron, A.J. Dubinsky, and E.A. Joachimsthaler (1988), "The Influence of Formalization of the Organizational Commitment and Work Alienation of Salespeople and Industrial Buyers," Journal of Marketing Research, 25 (November), 376-383.
- Morrow, P.C. (1983), "Concept Redundancy in Organizational Research: The Case of Work Commitment," Academy of Management Review, 8 (No. 3), 486-500.
- Porter, L.W., R.M. Steers, R.T. Mowday, and P.B. Boulian (1974), "Organizational Commitment, Job Satisfaction, and Turnover Among Psychiatric Technicians," Journal of Applied Psychology, 59 (October), 603-9.
- Sheldon, M.E. (1971), "Investments and Involvements and Mechanisms Producing Commitment to the Organization," Administrative Science Quarterly, 16, 143-150.

Tyagi, P.K. (1985), "Relative Importance of Key Job Dimensions and Leadership Behaviors in Motivating Salesperson Work Performance," Journal of Marketing, Summer, 49 (n.3), 76-86.

Walker, O.C., G.A. Churchill, and N.M. Ford (1977), "Motivation and Performance in Industrial Selling: Present Knowledge and Needed Research," Journal of Marketing Research, 14 (May), 156-168.

\_\_\_\_\_, \_\_\_\_\_, and \_\_\_\_\_ (1979), "Where Do We Go From Here? Selected Conceptual and Empirical Issues Concerning the Motivation and Performance of the Industrial Sales-force," Critical Issues in Sales Management: State-of-the-Art and Future Research Needs.

Wiener, Y. and Y. Vardi (1980), "Relationship Between Job Organization, and Career Commitments and Work Outcomes: An Interactive Approach," Organizational Behavior and Human Performance, 26, 81-96.

# REPLICATION OF SUJAN'S ATTRIBUTIONAL ANALYSIS OF SALESPeOPLE'S MOTIVATION TO WORK SMARTER VERSUS HARDER

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## ABSTRACT

Several theoretical models are available to explain salesperson performance. Of the alternatives, the model developed by Sujan (1986) on failed sales effort and the impact that motivation has on selling effort and strategy is examined in this paper. The research reported here attempted to replicate the Sujan conclusions by examining the failed sales effort construct from the sales manager's perspective. In other words, if a salesperson is unsuccessful in obtaining an order, to what does the sales manager attribute the failure? The sales manager may believe the subordinate failed because of poor or ineffective selling strategies, or possibly because the salesperson did not put forth enough effort. This is the first known research to examine the failed salesperson effort from

the sales manager's perspective. A mail questionnaire was used for the survey research with a sample frame that consisted of 2000 sales managers employed by manufacturing organizations. Each sales manager was asked to consider the "average" salesperson and indicate the degree to which he/she thought the behavior described in the statements contributed to the salesperson's failed sales effort. A factor analysis with SPSS was performed to confirm the factor loadings. The next step in the replication was to assess the scale reliability. The results of the present study indicate, in some cases, that sales managers perceive a different attributional style and motivation relationship to explain a failed sales effort than do salespeople.

## Index of Authors

|                                      |          |                                 |               |
|--------------------------------------|----------|---------------------------------|---------------|
| Acheson, Kerri . . . . .             | 13, 207  | Duke, Charles R . . . . .       | 118           |
| Ahmed, Sadrudin A . . . . .          | 299      | DuPreez, Johann P . . . . .     | 92            |
| Anderson, Ronald D . . . . .         | 212, 427 | Elliott, Kevin M . . . . .      | 413           |
| Arbaugh, J.B. . . . .                | 216      | Ennew, Christine T . . . . .    | 188           |
| Babakus, Emin . . . . .              | 164, 220 | Fonfara, Krsysztof . . . . .    | 320           |
| Babin, Barry J . . . . .             | 338      | Ford, John B . . . . .          | 93            |
| Bahn, Kenneth D . . . . .            | 255, 418 | Foxman, Ellen R . . . . .       | 250           |
| Barker, A. Tansu . . . . .           | 349      | Frontczak, Nancy T . . . . .    | 7             |
| Barnes, James H . . . . .            | 280      | Fuller, Donald A . . . . .      | 331           |
| Bebko, Charlene Pleger . . . . .     | 123      | Gale, Ann . . . . .             | 56            |
| Beckett, Sandra . . . . .            | 418      | Gandhi, Nimish . . . . .        | 62            |
| Beckman, James . . . . .             | 47       | Giacobbe, Ralph W . . . . .     | 1             |
| Bejou, David . . . . .               | 165      | Gilbert, Faye W . . . . .       | 280           |
| Belonax, Joseph J . . . . .          | 382      | Golden, James E . . . . .       | 208           |
| Beracs, Jozsef . . . . .             | 320      | Goolsby, Jerry R . . . . .      | 182           |
| Bickel, Jeff . . . . .               | 174      | Grabner, John R . . . . .       | 305           |
| Bienstock, Carol C . . . . .         | 371      | Granbois, Donald H . . . . .    | 427           |
| Bingham, Frank G., Jr . . . . .      | 442      | Granzin, Kent L . . . . .       | 139, 310, 343 |
| Binks, Martin R . . . . .            | 188      | Green, Paul E . . . . .         | 273           |
| Bodkin, Charles D . . . . .          | 20       | Grey-Lee, Jason . . . . .       | 139           |
| Boughton, Paul D . . . . .           | 362      | Hammond, Kevin L . . . . .      | 452           |
| Bowers, William R . . . . .          | 164      | Harmon, Harry A . . . . .       | 452           |
| Bristow, Dennis N . . . . .          | 397      | Hart, H. Stanley . . . . .      | 88            |
| Bromfield, Derek . . . . .           | 312      | Hebein, Fred . . . . .          | 244           |
| Brown, Gene . . . . .                | 376, 452 | Henley, John R . . . . .        | 31            |
| Brunel, Frederic F . . . . .         | 32       | Herbig, Paul A . . . . .        | 208           |
| Butler, Daniel D . . . . .           | 331      | Herrington, J. Duncan . . . . . | 73, 133       |
| Calantone, Roger J . . . . .         | 175      | Higby, Mary A . . . . .         | 56            |
| Capella, Louis M . . . . .           | 73, 133  | Hill, Donna J . . . . .         | 62            |
| Caruana, Albert . . . . .            | 317      | Hodges, DeWayne . . . . .       | 225           |
| Celuch, Kevin . . . . .              | 377      | Hoffman, K. Douglas . . . . .   | 193           |
| Chakrabarti, Alok . . . . .          | 243      | Hollander, Stanley C . . . . .  | 175           |
| Chiplin, Brian . . . . .             | 188      | Honeycutt, Earl D . . . . .     | 93            |
| Chiu, Hui-Lin . . . . .              | 357      | Hooley, Graham . . . . .        | 320           |
| Clow, Kenneth E . . . . .            | 391      | Hopper, JoAnne S . . . . .      | 417           |
| Coltrin, Sally A . . . . .           | 6        | Hosseini, Jamshid C . . . . .   | 286           |
| Comer, Lucette B . . . . .           | 14, 272  | Hubbard, Raymond . . . . .      | 206           |
| Coupey, Eloise . . . . .             | 25       | Hult, G. Tomas M . . . . .      | 51, 220       |
| Cox, Tony . . . . .                  | 320      | Hurley, Steve . . . . .         | 356           |
| Crowson, Lawrence B . . . . .        | 31       | Janda, Swinder . . . . .        | 293           |
| Cudd, Michael . . . . .              | 417      | Jeong, Insik . . . . .          | 230           |
| Czinkota, Michael R . . . . .        | 154      | Johansson, Johny K . . . . .    | 154           |
| d'Almeida, Cyrille . . . . .         | 299      | Johar, J.S. . . . .             | 267           |
| d'Astous, Alain . . . . .            | 299      | Joyce, Mary L . . . . .         | 245           |
| Darden, William R . . . . .          | 338      | Kara, Ali . . . . .             | 97            |
| Day, Kenneth W. H. . . . .           | 208, 238 | Kaufman, Carol Felker . . . . . | 129           |
| DeConinck, James B . . . . .         | 201      | Kaynak, Erdener . . . . .       | 97            |
| DeMoranville, Carol W . . . . .      | 390      | Keep, William W . . . . .       | 175           |
| Diamantopoulos, Adamantios . . . . . | 92       | Keillor, Bruce . . . . .        | 220           |
| Dobscha, Susan . . . . .             | 333      | Kelley, Scott W . . . . .       | 193           |
| Donthu, Naveen . . . . .             | 183      | Khairullah, Durriya Z . . . . . | 166           |
| Dubas, Khalid M . . . . .            | 243      | Khawaja, M. Sami . . . . .      | 286           |

|                                    |               |
|------------------------------------|---------------|
| Koljatic, Mladen . . . . .         | 148           |
| Kolos, Krisztina . . . . .         | 320           |
| Kraft, Kenneth L . . . . .         | 328           |
| Krentler, Kathleen A . . . . .     | 245           |
| Krieger, Abba M . . . . .          | 273           |
| Krieger, Ruth H . . . . .          | 397           |
| Kucukemiroglu, Orsay . . . . .     | 97            |
| LaForge, Raymond W . . . . .       | 182           |
| Lambert, David R . . . . .         | 245           |
| Lane, Paul M . . . . .             | 129           |
| Lederhaus, Mary Ann . . . . .      | 6             |
| Lee, Dong-Jin . . . . .            | 294           |
| Lee, Keun S . . . . .              | 446           |
| Lindquist, Jay D . . . . .         | 382           |
| Lipscomb, Thomas J . . . . .       | 417           |
| Little, Eldon . . . . .            | 206           |
| Littlefield, James E . . . . .     | 333           |
| Lozada, Héctor R . . . . .         | 332           |
| Luke, Robert H . . . . .           | 68            |
| Marshall, Greg W . . . . .         | 182           |
| Marshall, Kimball P . . . . .      | 149           |
| McDonald, William J . . . . .      | 40            |
| McNutt, Toni . . . . .             | 418           |
| McQuiston, Daniel H . . . . .      | 212           |
| Mehta, Gurinderjit B . . . . .     | 205           |
| Mehta, Sanjay S . . . . .          | 176, 205      |
| Meidan, Arthur . . . . .           | 357           |
| Mentzer, John T . . . . .          | 333           |
| Merenski, Paul . . . . .           | 109           |
| Milewicz, John . . . . .           | 208           |
| Miller, Stephen J . . . . .        | 182           |
| Miller, Stephen W . . . . .        | 362           |
| Milliman, Ronald E . . . . .       | 79            |
| Minor, Michael S . . . . .         | 225           |
| Mintu-Wimsatt, Alma . . . . .      | 332           |
| Mitchell, V.-W. . . . .            | 350           |
| Mobin, Md. Abdul . . . . .         | 305           |
| Morgan, Neil A . . . . .           | 319           |
| Morris, Michael H . . . . .        | 216, 312      |
| Moutinho, Luiz . . . . .           | 356           |
| Mowen, John C . . . . .            | 397           |
| Nicholls, J.A.F. . . . .           | 272           |
| Olsen, Janeen E . . . . .          | 139, 310, 343 |
| Oswald, A.J. . . . .               | 56            |
| Oumlil, A. Ben . . . . .           | 102, 348      |
| Owen, Robert S . . . . .           | 305           |
| Page, Albert L . . . . .           | 194           |
| Page, Christine . . . . .          | 402           |
| Palmer, Adrian . . . . .           | 165           |
| Panigyrikis, George G . . . . .    | 167           |
| Paswan, Audesh K . . . . .         | 280           |
| Pedrick, Dennis L . . . . .        | 164           |
| Pelton, Lou E . . . . .            | 128, 261      |
| Perez-Rivera, Myra Mabel . . . . . | 386           |
| Piercy, Nigel F . . . . .          | 319           |
| Pitt, Leyland F . . . . .          | 317           |

|                                   |                   |
|-----------------------------------|-------------------|
| Postma, Ted . . . . .             | 292               |
| Quigley, Charles J., Jr . . . . . | 442               |
| Rallapalli, Kumar C . . . . .     | 328               |
| Ramaseshan, B . . . . .           | 181               |
| Rao, C.P. . . . .                 | 93, 102, 293, 329 |
| Rawwas, Mohammed Y.A. . . . .     | 261               |
| Reardon, James . . . . .          | 176               |
| Reed, Elizabeth V . . . . .       | 343               |
| Reese, Richard M . . . . .        | 118               |
| Rich, Gregory A . . . . .         | 432               |
| Rink, David R . . . . .           | 15                |
| Roberts, Scott D . . . . .        | 88                |
| Robinson, Scott R . . . . .       | 286               |
| Rosen, Dennis L . . . . .         | 427               |
| Rosene, Francisca . . . . .       | 148               |
| Rotalsky, Holly M . . . . .       | 193               |
| Samiee, Saeed . . . . .           | 230               |
| Sashittal, Hemand C . . . . .     | 103               |
| Schlegelmilch, Bodo B . . . . .   | 92                |
| Segal, Madhav N . . . . .         | 1                 |
| Seshadri, Srivatsa . . . . .      | 391               |
| Sexton, Donald L . . . . .        | 216               |
| Shannon, Wayne C . . . . .        | 164               |
| Shipley, David . . . . .          | 320               |
| Showers, Vince E . . . . .        | 32                |
| Showers, Linda S . . . . .        | 32                |
| Sibley, R. Edward . . . . .       | 183               |
| Siguaw, Judy A . . . . .          | 72                |
| Simpson, Penny M . . . . .        | 376               |
| Singhapakdi, Anusorn . . . . .    | 328               |
| Singley, Rodger . . . . .         | 377               |
| Sirgy, M. Joseph . . . . .        | 267, 294          |
| Slama, Mark . . . . .             | 377               |
| Smith, Allen E . . . . .          | 437               |
| Steinfeldt, Kimberly A . . . . .  | 382               |
| Stephens, Nelson . . . . .        | 356               |
| Stevenson, Thomas H . . . . .     | 20                |
| Stilwell, C. Dean . . . . .       | 201               |
| Stone, George W . . . . .         | 61                |
| Strutton, David . . . . .         | 128, 261          |
| Tankersley, Clint B . . . . .     | 103, 166          |
| Taylor, Ronald K . . . . .        | 174               |
| Thorpe, Dayle . . . . .           | 159               |
| True, Sheb L . . . . .            | 128               |
| Tucker, Frances Gaither . . . . . | 166               |
| Tudor, R. Keith . . . . .         | 128               |
| Turley, L.W. . . . .              | 79                |
| Underwood, Robert . . . . .       | 267               |
| Valderrey, Francisco . . . . .    | 88                |
| van Minden, Jack . . . . .        | 291               |
| Vitell, Scott J . . . . .         | 328               |
| Vollmers, Clyde . . . . .         | 13                |
| Vorhies, Douglas W . . . . .      | 329               |
| Wacholtz, Larry E . . . . .       | 144               |
| Wakefield, Kirk L . . . . .       | 61                |
| Wang, Zhengyuan . . . . .         | 102               |



|                                |     |
|--------------------------------|-----|
| Webb, Kevin L . . . . .        | 408 |
| Wesley, Helen . . . . .        | 250 |
| White, Darin W . . . . .       | 367 |
| Widing, Robert E. II . . . . . | 376 |
| Williams, Michael R . . . . .  | 182 |

|                               |     |
|-------------------------------|-----|
| Wilson, Elizabeth J . . . . . | 330 |
| Wilson, Timothy L . . . . .   | 194 |
| Wrenn, Bruce . . . . .        | 232 |
| Yang, Young I . . . . .       | 437 |
| Yu, Ping . . . . .            | 362 |