



# NEW BOOKS IN REVIEW

EDITOR: *Naveen Donthu*

ASSOCIATE EDITORS: *Meryl P. Gardner*  
*Sandeep Krishnamurthy*  
*Stephanie Noble*

MANAGERIAL APPLICATIONS OF MULTIVARIATE ANALYSIS IN MARKETING, James H. Myers and Gary M. Mullet, Chicago: American Marketing Association, 2003, 395 pages, \$54.95.

The principal goal of *Managerial Application of Multivariate Analysis in Marketing* is to provide a nonmathematical overview of several multivariate statistical techniques that are frequently used in marketing research. The book is intended as a reference source to be used by marketing practitioners, including marketing researchers, product managers, and marketing managers. Although the book is written for practitioners who do not have formal training in statistical analysis, the authors suggest that doctoral students and other graduate students in marketing will find the book useful. The overall thrust is to provide descriptions of the techniques' purposes, the kinds of data needed to use the techniques, the assumptions required, and the interpretation of the results.

The authors do a good job of accomplishing their goal by explaining the purposes of the multivariate techniques and by demonstrating the methods with real-world examples. In some respects, the actual marketing research examples that are used liberally throughout the book are one of its greatest strengths.

Because the stated purpose of the book is to cover the topics in a nontechnical approach, there is some fairly superficial coverage of concepts. Readers who want a rigorous review of the topics will likely be somewhat disappointed. However, each chapter concludes with references that provide an opportunity to explore the subject matter in more depth. Despite the chapter references, the shallow treatment of statistics will probably limit the book's usefulness to graduate students.

The book is divided into four parts. Part 1 (Chapters 1 and 2) contains an overview of the book and a discussion that is intended to help readers understand why multivariate techniques are important. Chapter 1 describes dependence and interdependence techniques, discusses typical marketing applications of multivariate methods, and presents a review of the primary computer-software packages that are used in multivariate analysis. Chapter 2 explains deterministic and probabilistic models, types of measurement scales, reliability, and validity.

Part 2 (Chapters 3–10) discusses dependence methods. Chapter 3 explains basic linear-regression analysis and contains a straightforward review of linear regression and cor-

relation, the types of measurement scales required, the interpretation of coefficients, and tests of statistical significance. As do most chapters in the book, Chapter 3 contains several detailed examples of actual marketing research projects. The real-world examples of regression and correlation analysis help readers understand how the techniques can be applied to actual marketing problems.

Chapter 4 discusses the topic of nonlinear regression with three methods: (1) the nonlinear correlation coefficient  $\eta$ , (2) mathematical transformations to one or both variables, and (3) recoding of one or both variables. This is a weaker chapter in the book because the methods of the  $\eta$  coefficient and recoding of the variables are problematic. Regression analysis normally assumes that data for all variables are at least on an interval scale. However, the  $\eta$  coefficient requires a categorical independent variable (or an independent variable that is grouped into categories if the data are interval). Grouping interval data into arbitrary categories discards information and thus yields a less useful analysis. In some cases, an interval-scaled independent variable has multiple measurements at fixed values of the independent variable, in which case the  $\eta$  coefficient is more informative and is equivalent to a measure based on within-group sums of squares computed in analyses of variance (Green 1978). The third method, recoding of the variables, uses what is called a "low-tech" approach. In addition to the assumption that the independent variable is categorical, recoding uses an arbitrary process. As the authors explain (p. 72, emphasis in original), "In this approach, all cases or respondents in each response category of a variable are given a new value that will ensure that the entire variable will exhibit a linear relationship with the other variable. One way to do this is to assign for each category the *mean value of all cases in that category on the other (continuous) variable.*" Chapter 4 contains a good discussion of the second method (mathematical transformations); however, much of the chapter does more to confuse the issue than to illuminate it. In addition, the chapter on multiple regression could have been used to discuss various ways for readers to deal with nonlinear relationships by means of polynomial or other models. On balance, Chapter 4 unnecessarily detracts attention from the overall quality of the book.

Chapter 5 discusses multiple regression and correlation analysis. This chapter contains a good discussion of the multiple regression model, multicollinearity, dummy variables, interpretation of the regression coefficients, and interpretation of the coefficient of determination. In addition, the

authors explain the use of dummy variables as a way to model nonlinear relationships. The final section of the chapter presents a discussion of stepwise regression. However, Chapter 5 does not mention any of the problems with stepwise methods, such as the technique's tendency to capitalize on chance when entering independent variables.

Chapter 6 addresses logistic regression as an appropriate technique for categorical-dependent variables. An example in the chapter divides respondents into two groups: (1) respondents who used the sponsoring company's products and (2) respondents who used another company's products. The independent variables in logistic regression, just as in linear regression, should be at least interval-scaled data (Menard 2002). Chapter 7 covers discriminant analysis as an alternative to logistic regression and canonical analysis. The authors use several real-world examples to demonstrate how the techniques can be used to predict group membership and to create perceptual maps.

Chapters 8 and 9 contain a fairly complete discussion of conjoint analysis. Again, the authors use real-world examples to illustrate applications of the technique. Chapter 10 presents three interaction-detection methods: automatic interaction detector, chi-square automatic interaction detector, and classification and regression trees. According to the authors, these techniques search out "interactions among independent variables, which are nonlinear combinations of two or more independent variables that will predict or explain a dependent variable" (p. 178). The authors point out that these techniques require large sample sizes. In addition, because the techniques capitalize on chance variations in the data, they recommend that the analyses be cross-validated.

Part 3 (Chapters 11–16) presents interdependence methods. Chapter 11 covers factor analysis (using the principal components approach). The topics presented include data reduction, factor rotation (orthogonal and oblique), and factor interpretation. A common use of principal components analysis is to take many variables and reduce them to fewer underlying dimensions (Basilevsky 1994). The chapter provides a lucid discussion of factor analysis that clearly describes practical applications of the technique.

Chapters 12 and 13 present two approaches to cluster analysis: Chapter 12 covers hierarchical clustering, and Chapter 13 discusses partition clustering. These techniques can be used to arrange data into similar groups or clusters. Hierarchical methods have the advantage of not requiring that the number of clusters be defined in advance, but the interpretation of the dendrograms can be difficult. In contrast, partition clustering requires that the number of clusters be specified in advance, and the technique sorts the data into that number of clusters. The results of cluster analysis can be misleading. Therefore, it is important to pay careful attention to the interpretation and validation of the results (Everitt 1991).

Chapter 14 contains a discussion of correspondence analysis, which is used to analyze contingency tables and yields information somewhat similar to that produced by factor analysis. Correspondence analysis is described as a *post hoc* analysis tool that can be used after a researcher has rejected the null hypothesis of independence through a chi-square test.

Chapter 15 presents structural equation models. Topics covered include causal models, comparison with factor analysis, comparison with regression analysis, and path analysis. The authors describe (p. 337, emphasis in original) drawbacks to the use of structural equation models: "It is easy to denigrate structural equations models that are not based on a solid foundation of *theory*, *objective measures* (versus subjective ones), and carefully controlled *experiments*.... Critics might argue that without a theoretical foundation and carefully controlled experiments, structural equation modeling should not be attempted." Nevertheless, structural equation models offer great promise if they are used properly. Among other uses, structural equation modeling can be used to confirm the findings from factor analysis (Kelloway 1998).

Chapter 16 discusses multidimensional scaling of similarities data. The chapter contains a useful explanation of the important topics of how to gather data for use in multidimensional scaling computer packages and the related question of how to develop a similarities matrix.

The book concludes with Part 4, which includes Chapter 17, titled, "Squeezing More Useful Information out of Expensive Consumer Surveys." This chapter contains a useful framework "that would help readers understand which techniques are most appropriate for which tasks or objectives" (p. 365). A conclusion is that most real-world marketing research produces data that can benefit from multivariate analysis and that this type of analysis has the strong potential for improving the quality of the findings.

In summary, the book is a clearly written guide to applied multivariate analysis in marketing. It is filled with many actual commercial research examples that help readers understand the types of problems that the techniques can address. The book meets its goal of presenting complex topics in a nontechnical manner. The book's target market of marketing practitioners should be able to understand the content and recognize the benefits offered by multivariate analysis.

SAM COUSLEY

*University of Mississippi*

#### REFERENCES

- Basilevsky, Alexander (1994), *Statistical Factor Analysis and Related Methods: Theory and Applications*. New York: John Wiley & Sons.
- Everitt, Brian S. (1991), *Applied Multivariate Data Analysis*. New York: Halsted Press.
- Green, Paul E. (1978), *Analyzing Multivariate Data*. Hinsdale, IL: The Dryden Press.
- Kelloway, E. Kevin (1998), *Using LISREL for Structural Equations Modeling: A Researcher's Guide*. Thousand Oaks, CA: Sage Publications.
- Menard, Scott (2002), *Applied Logistic Regression Analysis*, 2d ed. Thousand Oaks, CA: Sage Publications.

USING QUALITATIVE RESEARCH IN ADVERTISING, Margaret A. Morrison, Eric Haley, Kim Bartel Sheehan, and Ronald E. Taylor, Thousand Oaks, CA: Sage Publications, 2002, 139 pages, \$46.95.

Because the role of the account planner is to be expert in interpreting qualitative research data, it seems fitting to

have a book geared toward account planners that focuses on qualitative research in advertising (Hackley 2003). The authors begin with a brief discussion of the history of account planning and the account-planning process, which is followed by a general discussion of the basic assumptions of qualitative research. Practical advice on using the most popular qualitative methods in advertising is included and illustrated with specific examples from the industry. The book adopts a personal and direct style, and each chapter includes a summary, a set of vocabulary terms, and exercises, which make the material easy to follow.

The book is divided into nine sections. In Chapter 1, "Introduction and Overview," the authors discuss the role of account planners and the development of the account-planning process. The authors emphasize both the importance of adopting multiple methods, because "no single research technique can do everything" (p. 6), and the benefits of using qualitative approaches to develop a "consumer perspective" (p. 1), which is critical in advertising research. In Chapter 2, "A Qualitative View of the World: Theory and Practice," the authors explain the assumptions behind qualitative research and emphasize the importance of focusing on consumer needs and wants at every step of a research process to provide truly consumer-driven advertising research.

The subsequent four chapters describe specific qualitative methodologies that are most relevant to advertising account planners. In Chapter 3, "Ethnographic Methods for Advertising Research," the authors differentiate etic and emic ethnographic studies and discuss the basics of conducting emic ethnographic research. They define etic analysis as "views from a culture from outside the culture" (p. 29) and emic analysis as the "analysis of a culture from within the culture" (p. 30). The key to good qualitative research is to determine how people really live and buy (Langer 2001). Chapter 3 provides examples of emic methods and discusses issues, benefits, and pitfalls of each method. Chapter 4, "Listening to Consumers: The Qualitative Interview," elaborates on how qualitative interviews are different from other types of interviews and demonstrates how to conduct effective qualitative interviews. The authors emphasize listening to and focusing on subjects in an emic approach.

Chapter 5, "Projective Techniques," continues the discussion of qualitative methods. Projective techniques "allow participants to project their subjective or deep-seated beliefs onto other people or objects" (p. 63). Chapter 5 provides a history of these techniques and discusses types of techniques and the related advantages and disadvantages of each one. Chapter 6, "Qualitative Research Online: Focus Groups and Interviews," concludes the discussion of qualitative methods by exploring how to apply qualitative research techniques in an online setting. This discussion is timely and acknowledges that the Internet is a popular, more viable way for advertisers and market researchers to conduct research.

Chapter 7, "Briefing the Team: Writing and Presenting the Creative Brief," brings the process together by discussing the importance of the creative brief as a communi-

cation and strategic tool. Although most advertising texts cover creative briefs separately from the research process, they are presented here as the logical result of effective qualitative research. Chapter 8, "Balancing Ideals and Real-World Constraints," discusses the limitations account planners might face in using qualitative methods in their research process. Chapter 9, "Parting Thoughts," encourages the reader to be innovative, to learn how to work effectively in teams, to keep his or her toolbox current, and to look beyond advertising strategy. These skills are needed to understand the consumer effectively, because "no advertising can be effective unless consumers are understood" (p. 128).

Discussions of qualitative methods in the advertising literature often make a case for the use of qualitative methods over quantitative ones (Durgee 1986; Tauber 1987). *Using Qualitative Research* does not delve deeply into this debate but instead provides a window into how qualitative researchers view the world. The theoretical background of the qualitative research approach is presented in a straightforward and clearly written manner. This book is a useful toolbox for anyone but especially for account planners who want to use qualitative research techniques. There is a need both to better train account planners and for account planners to be methodologically grounded (Hackley 2001). This book would also be useful for academics who want to use qualitative methods in their research and teach these methods in their courses.

The book could benefit from a more extensive discussion of "good" interviewer characteristics (in addition to listening skills), because the authors argue that the skills of the interviewer significantly influence the quality and the results of qualitative research. A discussion of ways to manage a "difficult" subject should also be of special interest to practitioners who are interested in conducting focus groups. The chapter on creative briefs could benefit from a more lengthy discussion of how to transform the results of qualitative research into effective components of the creative brief. Overall, though, the book is informative, offers sound practical advice, and provides useful insights into how to develop and use qualitative research techniques to understand the consumer and ultimately develop effective advertising.

AMY L. PARSONS  
*King's College*

ELZBIETA LEPKOWSKA-WHITE  
*Skidmore College*

#### REFERENCES

- Durgee, Jeffrey F. (1986), "Richer Findings from Qualitative Research," *Journal of Advertising Research*, 26 (4), 36-44.
- Hackley, Christopher E. (2003), "Account Planning: Current Advertising Agency Perspectives on an Advertising Enigma," *Journal of Advertising Research*, 43 (2), 235-46.
- Langer, Judith (2001), "Forecasting Traps Can Trip Up Trend-Spotters," *Advertising Age*, 72 (14), 18.
- Tauber, Edward M. (1987), "Qualitative vs. Quantitative," *Journal of Advertising Research*, 27 (3), 7.