pecially for the non-mathematical reader, for whom this book is entirely suitable and intelligible. It is one of the best books on probability and its application to practical problems that has come along in a while. The author obviously does not write in a vacuum. The book is well organized but has skimpy tables.

By contrast (not in quality, but in scope) Martin's book, Number 13 in the Operations Research Society of America Series, is a highly technical tome, whose mathematical notation the author himself describes as "tortuous" and which surely taxed the printer's type font resources. Its perusal requires knowledge of calculus and matrix algebra. This is not a book that provides anyone in marketing management with guidance on how to solve a problem. It represents an important step in the development of theory that may some day be translated into useful practical models.

The bargain book of the group under review includes a minimum of mathematics. Morgan's paperback is a worthwhile attempt to provide an overview of Bayesian analysis in a small volume. He begins with a trite marbles illustration, but the book improves as it goes along. Unlike some authors, Morgan has courage to question his own unrealistic assumptions (e.g., that decisions of commuters regarding a new bus service are independent of each other), and provides other evidence of realistic thinking. He did not succeed in solving an organizational dilemma in placement of the chapter on probability functions; it is probably insoluble as long as probability functions are made the subject of a separate chapter, but this need not be the case. Even here, multi-action decision problems and the conditional value of perfect information are tacked on at the end of the probability functions chapter, where they appear out of place.

For a marketing researcher who needs to improve his knowledge of decision mathematics, how do these books compare to earlier ones? Schlaifer's semi-classic, a very thorough book, seems just as good today as it did in 1959. It has a few good marketing illustrations and, unlike most others, actually discusses the problem of biased information in some detail. A very good treatment of marketing decision problems is provided by the middle section (written by Paul Green) of Alderson and Green's book [1]. And a thorough exposition of information-value decision approaches is given in a recent MSI book [2]. Still, at least two of the books reviewed here—King, and Peters and Summers—are welcome additions to the marketing practitioner's bookshelf, and Morgan's shorter and less technical book may be useful to many.

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A GEOGRAPHY OF MARKETING: INTEGRATIVE STATEMENT and A GEOGRAPHY OF MARKETING: RESOURCE BIBLIOGRAPHY, David A. Revzan. Institute of Business and Economic Research, University of California, Berkeley, 1968, 192 and 259 pages, $2.50 and $3.50, respectively.

In this two-volume package, the first volume "develops an integrative statement of what a geography of marketing actually consists" and the second is "a comprehensive resource bibliography of nearly 3700 entries."

This effort by David A. Revzan, despite defects, is a significant contribution. It will benefit those interested in spatial distribution of marketing phenomena. Perhaps more important, it should broaden understanding of marketing students not yet alerted to the importance of geography of human activities, including marketing. Economic geographers can gain fresh ideas and fruitful suggestions from Revzan. Some marketing students will want to examine the "integrative statement" in depth, and critically. Revzan himself hopes "that these two volumes will whet the appetites of those who had underestimated, previously, spatial materials in marketing, and that new frameworks will emerge."

The integrative statement consists of eight chapters:

1. The Framework
2. Conceptual Bases: Multi-Discipline Literature; and Research Methodology
3. Locational Determinants and Patterns: Geographical and Business Units
4. Locational Patterns and Shifts
5. Population Disparities, Urban Economic Base, and Marketing Sectors
6. Spatial Interactions: Market (Trading) Areas
7. Spatial Interactions: Competition; Commodity Flows; and Barriers
8. Some Concluding Observations

The titles convey some idea of what Revzan attempts to integrate. The words "locational" and "spatial" occur in four of the chapter headings, and space on earth and differences of spatial characteristics are asserted to exist, but the importance of maps in studying spatial phenomena is barely mentioned. There is not a single map in the book to illustrate a geographic relationship to marketing phenomena. This then is a geography of marketing without the geography, a serious defect in the construction of the integrative statement.

Revzan states: "A geography of marketing emerges . . . from the inequalities of physical distribution of basic raw materials over space, with resultant waves of spatial inequalities extending, in turn, to the extractive industries, to the manufacturing industries, and to where people live relative to where they work and shop. . . . The existence of these universal, unvarying geographical inequalities results, in turn, in varying responses of management as to where to locate their business establishments. From these managerial responses there arise patterns of locational data whose normalities and diversities can be analyzed from theoretical and empirical bases" (p. 10).

For the geographer this statement is not entirely satisfactory. It says nothing about agriculture, still the single most important human activity on earth in terms of the space it covers, the number of people involved, and the total value of food and fibers produced. Exclusion of agriculture from the integrative statement leaves a big void.

Geographers are concerned with spatial distribution of all human activities and have contributed significant concepts concerning it.[1] Revzan's choice of geographic works and his summaries of them in Chapter 2 fall short of presenting the contributions of geography, as a discipline, towards an understanding of spatial phenomena of marketing.

Revzan states: "A geography of marketing connotes significant variations in where people choose to live and in their behavior as ultimate consumers within an environment of mass marketing. . . . These variations may be evident not only in the kinds of goods consumed or used, but, also, in the rates of consumption, in patronage or shopping habits, and in related variables. . . . In addition, all of these definitional aspects of a geography of marketing tend to change over time" (p. 11).

The reviewer should point out that geographic literature contains evidence that geographers have not been unmindful of the *geography of consumption*. To be sure, this is a topic which awaits more study.

Revzan practically dismisses a matter that should have received due consideration in the integrative statement. He merely alludes to it: ". . . the related difference in meaning between a *geography of marketing* and *marketing geography*, requires no elaboration here" (p. 22). This is the only sentence in the book that mentions marketing geography, and yet tells nothing about it.[2]

In this brief review it is impossible to comment on all chapters of the *Integrative Statement*. The reviewer believes that Chapter 6, "Spatial Interactions: Marketing (Trading) Areas," is the most significant. To quote Revzan, "Market, or trading, area analysis is one of the keystones on which any systematic study of a geography of marketing may rest. . . . It is small wonder, then, that a large volume of theoretical and applied knowledge exists, and that many disciplines furnish methodologies for measuring the trading area phenomena" (pp. 128–9).

Revzan then proceeds to his major idea in the book. "Based on the holistic-institutional approach, and its application to a geography of marketing, the division of market area analysis between the wholesaling sector and the retailing sector is fundamental. Accordingly, it is no accident of convenience that the remaining sections of this chapter are so subdivided" (pp. 129–30). These sections contain a wide range of information and ideas, most of which Revzan and Duddy have published previously, but which are here brought together in a more integrative manner. This chapter's 29 pages deserve careful study.

The reviewer would have wished to see more attention given to services, particularly to the financial services of the market center. Barely 14 lines are devoted to the latter (p. 139), yet N.S.B. Grass considered financial services one of the three basic functions of a metropolis.[3] Similarly, one regrets that Revzan says nothing about the role of great port cities which, because of strategic locations, are so important for international trade (export-import). Finally, the reviewer is puzzled about why the integrative statement does not deal with the dynamics of store trading areas and market equilibrium even though this subject is included in the bibliography (entry 3065).

Revzan's W/R (wholesale/retail) concepts in evaluating metropolitan trade areas—whether the present SMSA's or some other area definitions, such as Revzan proposes—merit close scrutiny. This might lead to better fit of statistical areas to realities of the market place, but this is not enough. We should also ask, "What is the geographic rationale in the regionalization and divisional organization of corporations with far-flung networks and centers of marketing decisions?" Answers to this question would contribute to an integrative statement on a geography of marketing.

The short concluding chapter focuses on "a philosophical note, on some implications, and on some dilemmas" (p. 188). To the reviewer, this chapter is the author's plea for more attention to and study of geography of marketing. Revzan "advances the hope that future analyses by all concerned will show at least an awareness of a geography of marketing as contained in this integrative statement, even if agreement—wholehearted or lukewarm—is lacking. At least, comparison based on the geographical framework ought to be related to analyses based on other conceptual bases; and, meaningful explanation advanced wherever significant deviations emerge. Hopefully, recognition

[1] A careful reading of [2], listed as entry 526 in the bibliography volume, would have been very useful to Revzan.

[2] For an explanation of marketing geography, see [2, pp. 245–7].

[3] ". . . that city is a full-fledged metropolis when most kinds of products of the district concentrate in it for trade as well as transit; when these products are paid for by wares that radiate from it; and when the necessary financial transactions involved in the exchange are provided by it" [1, p. 294].

will be given to channels, trading areas, etc., in increasing degree" (p. 191). Amen!

The *Resource Bibliography* has a topical arrangement that approximates the *Integrative Statement*. The listings are based on the author's *A Comprehensive Marketing Bibliography* plus a search of journals and other reference sources. It "represents a *comprehensive*, but not *complete coverage*." All entries are restricted to writings or translations in English. There is a very wide range of entries by sections; one section has 4 entries and two sections, none.

This bibliography should be useful to students and researchers, but the reviewer would have preferred one much shorter, carefully sifted, and briefly annotated.

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CONSUMER IMAGE AND ATTITUDE, John G. Myers. IBER Special Publications, Institute of Business and Economic Research, University of California, Berkeley, 1968. 167 pp. (No price given).

This monograph is one of an increasing number of publications that attempt to provide an interdisciplinary approach to consumer behavior. It is, however, unique in that it exclusively focusses on brand imagery and consumer attitudes and because it contains a comprehensive review of empirical research in marketing on those topics.

The monograph consists of seven chapters and an extensive bibliography of nearly 400 references. The introductory chapter presents the significance and relevance of consumer imagery and attitudes towards brands and relates them to the traditional marketing concepts of product differentiation and market segmentation. Chapters 2, 3, and 4 review research on private-brand markets (as examples of product differentiation), on brand imagery and the underlying concepts from behavioral science, and on market segmentation. Chapter 5 describes a conceptual (the author calls it operational) framework for understanding consumer behavior. This framework is the foundation for Chapter 6 which "quantifies" the concepts using set theory. Finally, Chapter 7 gives general outlines on measurement which include discussion of scaling and multivariate classification techniques.

Perhaps the single most important contribution to basic research is the author's insight in equating product differentiation and market segmentation with the concepts of consumer imagery and attitudes, respectively. To me this is analogous to Louis Bucklin's redefinition of classification of goods for retail strategy. However, the author leaves some questions unanswered. For example, product differentiation and market segmentation are negatively correlated (reciprocal according to the author), but image and attitudes are generally considered to be positively correlated. Furthermore, brand imagery presumes imputed or perceived quality differences among equivalent brands, but product differentiation may possess real quality differences as well.

In Chapter 2, the author reviews several studies on private-brand grocery markets based on the assumption that artificial product differentiation between national and private label brands serves as a good example of brand imagery. Although this review is exhaustive, I find the assumption untenable. Grocery items, in fact, seem the least suitable candidates for brand imagery since the latter is generally manifested in product categories that have heavy social influences, are perceived as high-risk purchases, and tend to be conspicuously consumed. Indeed, in the next chapter the studies reviewed are mostly on nongrocery products.

The thorough review of empirical studies on imagery continues in Chapter 3. There is an excellent integration of diverse viewpoints and a reasonable reconciliation of ambivalence toward the concept among marketing researchers. Unfortunately, the same cannot be said of the behavioral science concepts related to imagery. The author chooses classic work on perceptual development among children by Piaget, the fractional representational mediation process by Osgood, and development of symbolism by George Mead. First, additional and probably more relevant writings on stereotypes and their relationship to role theory are not included. Second, both Piaget and especially Osgood give the same principles as underlying formation and change in attitudes (the latter concept is considered and treated as independent and distinct from image by the author).

The author himself trips by constantly interchanging the words "image" and "meaning" in his illustration on pages 45–47 when, in fact, meaning is a system that has two components of image and attitude as discussed in Chapter 5. Finally, there is no integration among these three theories, themselves, which seems mandatory to make the concept of imagery meaningful. However, there is an imaginative example in Figure 4 that shows what insights can be achieved by using the concept of imagery.

Attitude and market segmentation are reviewed in Chapter 4. The review of segmentation as a function of income, personality need, and reference group is good. However, it seems incomplete because it omits, without any rationale, other qualifiers such as sex, geographical location, and buyer behavior characteristics like more specific needs and buying and consumption patterns. There is, however, a good summary and interpretation of comprehensive consumer choice models such as those by Lazarsfeld, Katona, Howard and Nicosia.