## **Book** Selection

## Multivariate Analysis in Marketing: Theory and Application.

DAVID A. AAKER.

## Wadsworth, Belmont, California. 358 pp. No price indicated.

Most of us like to know what we are doing when we apply models. We often do not have this confidence in the case of multiple regression and other multivariate techniques and need to know more than is offered by the average statistical textbook. This book by Aaker should help a great deal.

The book specifically does not tell the reader how to solve the models but concentrates on providing "some real understanding of the nature, the power, and the limitations of multivariate analysis". It treats only the main models—regression, simultaneous-equations regression, discriminant analysis, canonical analysis, experimental design, factor analysis, multidimensional scaling and cluster analysis, in that order. The context of the models is a marketing one and this is natural, because nearly all marketing problems are multidimensional.

The first few pages are devoted to the fundamental subject of scaling and the four basic scales are explained. After this, models are classified by Kendall's dichotomy—i.e. those that analyse dependence and those that analyse interdependence. One notes, as an example of the interdisciplinary nature of OR, that many of these models were developed by psychologists longer ago than one would think.

The book is planned as a series of articles mostly gathered from past issues of marketing magazines. The treatment for each model follows the same pattern. There is a brief scene-setting article by the editor; then two or three articles by experts, which say what these models are, what they assume, how they should be interpreted, etc. and lastly two or three actual case studies for illustration.

The text brings over very well the interconnected and even interactive nature of the different multivariate models. Thus cluster analysis can be followed by discriminant analysis, factor analysis can be used for clustering and so on. The whole book indeed is much closer to being a work of reference than it is to a mere collection of papers and in this respect I regret that the index, which runs to six pages, is not more thorough.

I was particularly struck by the helpfulness and honesty of this book. These authors want to be understood and they want to describe these models as they know them. It ought to be of value to the average OR man, or maths-oriented market researcher and should encourage them to try these models—not just in the marketing scene. If anyone thinks these models have nothing to say, let them look at the map on p.266 where multidimensional scaling shows, in four square inches, what kind of beer one ought to brew to position it best in the Chicago market.

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