Management Science

Book Reviews

To cite this article:
(1970) Book Reviews. Management Science 16(9):645-647. https://doi.org/10.1287/mnsc.16.9.645

MANAGEMENT SCIENCE
Vol. 16, No. 9, May, 1970
Printed in U.S.A.

Book Reviews

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In response to the interest expressed by many members of TIMS we shall list working papers by title and author at the end of the Book Reviews Section. Any interested author of a working paper should send a copy of it to the Book Reviews editor. Any working paper which is received by the editor will be listed without comment. It is hoped that this will provide better communication of the kind of work which is in progress and will permit direct contact among various persons who may be pursuing similar directions in their research.

Harvey, John L. and Newgarden, Albert (Editors). *Management Guides to Mergers and Acquisitions.* New York: Wiley-Interscience, 1969, 331 pp., $14.95

The editors' objective is to assemble, in a single volume, examples of the many kinds of information management must have to make logical decisions relating to business combinations, to describe some of the techniques that have been found useful for developing such information, and finally to explore the rationale of the key decision to merge or not to merge. The twenty-seven papers presented go a long way toward achieving this high-reaching objective. Unfortunately, the wide breadth of subject coverage is attained at the expense of depth of coverage.

Approximately half of the papers are reprinted from publications which have a wide circulation and, therefore, will already be known to anyone who is already familiar with merger and acquisition literature. Having these papers in one place, however, is convenient. The editors have arranged the papers in seven sections: (1) planning and fact finding, (2) legal and accounting considerations, (3) financial considerations, (4) tax considerations, (5) personnel considerations, (6) postmerger integration, (7) acquisitions abroad, and (8) how not to merge or acquire.

The chief value of this collection of papers is that they do provide a helpful outline of the wide range of factors that must be considered in evaluating a merger or acquisition situation. The value of this book as a merger and acquisition primer would have been greatly enhanced if the editors had prepared a guide to literature of this field. In this way the reader could be directed to other, more detailed presentations of the material covered in the various papers. At four and one-half cents a page, *Management Guides to Mergers and Acquisitions* is priced for a senior management audience. This audience should find the book worthwhile.

Mao, James C. T., *Quantitative Analysis of Financial Decisions.* New York: The Macmillan Company, 1969, 639 pp., $10.95

This important new textbook has been designed for graduate and undergraduate courses in financial management and corporate finance. It will also be of value to any management scientist concerned with the application of management science techniques to problems of finance.

Professor Mao begins with an introductory chapter surveying the nature and scope of financial management. This is followed by four chapters on methodology. The first is a standard introduction to the basic concepts of probability and utility under uncertainty theory. The next three chapters deal with an introduction to linear programming and the application of linear programming techniques to problems of profit-planning and financial budgeting. Concepts of goal programming are also introduced in these chapters. From a pedagogical point of view, the author's illustrative examples are excellent. His introduction to goal programming, multi-period linear programming, and sensitivity analysis are particularly good. These chapters are followed by two chapters on investment decisions under conditions of certainty and one chapter on investment decisions under conditions of uncertainty. The investment decision tools developed in these chapters are then applied to a series of problems involving leasing versus borrowing decisions, optimal equipment replacement policies, cash dividend policy, and the economics of bond refunding.

The next three chapters are concerned with the cost of capital, planning an optimal capital structure, and theories of valuation and financial policy. The illustrative examples developed in these chapters are very good. Professor Mao concludes with two chapters on working capital management. The first discusses various theoretical bases for working capital decisions and the second, a simulation approach to working capital decisions. The latter chapter is a lucid, simplified discussion of the construction of simulation models.

The book assumes an elementary knowledge of calculus which will exclude from its readers many financial analysts who would benefit most from its contents. The treatment is theoretical, but nevertheless quite useful. *Quantitative Analysis of Financial Decisions* is an unusually good survey of modern theory of financial management.

GREENWOOD, WILLIAM T. (Editor), *Decision Theory and Information Systems—An Introduction to Management Decision Making*. Cincinnati, Ohio: South-Western Publishing Co., 1969, 831 pp., $10.00

Professor Greenwood has assembled an unusually good collection of forty-seven introductory level papers dealing with various aspects of management decision making. Unlike many collections of reprints, the value of the present volume has been enhanced by an excellent introductory chapter prefacing each of the seven subject sections. Each section has also been supplemented with a brief bibliography. The editor has added a set of review questions at the end of each paper.

The seven sections cover the following subject areas: (1) decision theory, practice and structure, (2) business-management problem solving, (3) decision information systems, (4) information decision models, (5) decision environment systems, (6) organizational decision behavior, and (7) computer information control systems.

Decision Theory and Information Systems is more than a "scissors and paste pot" collection of reprints. It is a worthwhile introductory textbook.

WILLS, GORDON; ASHTON, DAVID; and TAYLOR, BERNARD (Editors), *Technological Forecasting and Corporate Strategy*. New York: American Elsevier Publishing Company, Inc. (published in the United Kingdom by Bradford University Press and Crosby Lockwood & Sons Ltd.), 1969, 291 pp., $13.50

This collection of seventeen papers examines the managerial implications of changing technology and attempts to answer the question of what changes in technology are likely to occur, and to solve the problem of how company planning and organization can effectively cope with them. These papers are addressed to management rather than a technical audience and are, for the most part, highly readable. The first six papers are of a more general nature and are concerned with the broad questions that must be answered as we attempt to manage the future. The remaining eleven papers discuss approaches to be followed in developing long term forecasts for specific products, services and industries.

The six general papers discuss the art and management of technological forecasting, technological forcasting in corporate planning, the impact of technological forecasting on long range planning, the development of technological strategies for industrial companies, the impact of technological forecasting on marketing, and national strategies to foster technological innovation. The first seven case study papers discuss the factors which will determine the long term demand for polymers, metals, energy (i.e., fuels), transportation services, communications services, computer systems, and food. The remaining four papers present very short discussions of specific technological forecasting techniques currently in use in Britain. These include management information systems within research and development activities, an analysis of the interrelation between the properties and the costs of materials, examples of technological forecasting for research and development evaluations, and a study of future nuclear reactors.

The papers are of uneven quality, but there is enough attractive material included to justify recommending this book to anyone looking for a comprehensive introduction to technological forecasting, its usefulness and limitations.

All unsigned reviews are written by the Book Reviews editor.