Resource Management

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AN ALTERNATIVE VIEW OF THE MANAGEMENT PROCESS

Paul S. Bender

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Resource Management: An Alternative View of the Management Process

Dedicated to Niccolo Machiavelli,
the earliest philosopher of management,
who five hundred years ago realized that

> *There is nothing more difficult to attempt,*
> *more perilous to conduct,*
> *or more uncertain in its success,*
> *than to take the lead in the introduction*
> *of a new order of things.*
> *Because the innovator has for enemies*
> *all those who have done well*
> *under old conditions,*
> *and only lukewarm defenders*
> *in those who might do well*
> *under the new.*

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Foreword

Hardly anyone would disagree that business has entered a period characterized by radical changes and great uncertainties. Inflation, scarce resources, rapidly fluctuating markets, and worldwide competition are just a few of the symptoms, or causes, of the unstable business environment. At the same time, there is an air of bewilderment in many companies, large and small, about new informational and communications technologies—what they are, how they can be used to reduce planning uncertainties (and increase profits), and where they are headed.

In this book, Paul Bender has developed a new management philosophy that brings order to the confusion currently faced by many managers. The philosophy is a distillation and integration of an impressively wide variety of management and scientific facts and concepts, and of Mr. Bender's own experiences as a consultant and company executive. The viewpoint presented is consistent and compelling. It challenges the reader to ask the question, Would my current planning problems be resolved if I were to structure my thinking and organize my data-gathering and decision-making activities using resource management concepts? The answer should be affirmative in a surprising number of instances.

The reader will also profit from Mr. Bender's treatment of informational systems. Every company of any size now has these systems, but too many make inadequate use of them, particularly to assist decision making. The book provides concepts about data, information, and knowledge that help us to think correctly about them. It presents guidelines for designing management information systems and suggests organizational strategies for best utilizing them.

The role of quantitative methods and models in resource management is particularly emphasized in the book, and correctly so. It seems obvious that the most important use for informational systems is to assist managers in making decisions. Too often, though, data are collected only for accounting purposes. Important as they are, accounting analyses describe past history and are not related or sufficiently relevant to choosing future courses of action.

Quantitative models, realized as powerful "number crunchers" on computers, are the mechanisms for analyzing quantities of data to evaluate decision alternatives. Great progress in model generation, optimization, and application has been made in recent years. Their influence will undoubtedly continue to grow in the 1980s. Mr. Bender has done an excellent job in providing the reader with an intuitive feeling about the nature of quantitative models and their relevance to resource management problems.

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October 1982

Preface

The economic and political developments of the past decade have brought about a substantial change in the perspective of business management. The emergence of scarcities in traditional raw materials and energy sources has been dramatized by the formation of suppliers' cartels and accompanied by substantial price increases and uncertainties of supply.

At a macroeconomic level, those developments are reflected in the current revisions of Keynes' economic theories to attempt to explain the phenomenon known as stagflation, which is characterized by high inflation rates, high unemployment rates, low rates of economic growth, and low productivity. Those efforts are characterized by a school of economic thinkers known as "supply-side" economists. Unlike Keynesian economists, who attempt to affect demand and consumption, the new school concentrates on promoting supply and production, through tax cuts and other incentives that induce savings and business investment, to cope with stagflation.

That macroeconomic-level change is translated at the microeconomic level as a change away from the traditional "marketing principle," prompting business people to change their outlook from an almost exclusive concern with demand satisfaction to a more rigorous allocation and administration of resources available in order to satisfy the demands of those market segments that can yield maximum benefits in the long term. The increased concern with resource availability and utilization is bringing about a reaction characterized by important changes in the manner in which companies are organized, and in their approaches to strategic and tactical planning and control.

The years ahead will witness exponential changes in all areas of human endeavor. As a consequence, experience will become increasingly irrelevant in dealing with the future. We will see with increasing frequency how the successful approaches of the past become the sources of the problems of the future. Thus, we are confronted with a future characterized by increasing uncertainty and complexity.

The search for business profitability under conditions of increasing uncertainty and complexity has brought about the need to rethink many of the classical approaches to business structure and operation and to change business perspective. Among the major changes in business perspective there are three that hold especial importance because of their potential long-range implications:

1. The replacement of the marketing principle by the resource management principle, to account for the increasing importance of supply constraints. This development, together with the expansion of the physical distribution concept into business logistics, and of the latter into physical resource management, bringing together all logistic and production functions, will result in a reduction of the *relative* importance of the marketing function, and a concomitant increase in the relative importance of logistic–production operations.
2. The intense use of informational resources to trade off against other resources in order to reduce the impact of the increasing costs of other resources will result in drastically different forms of business structure and operation.
3. The need to plan and manage business operations on a worldwide basis to gain economies of scale and scope will be an indispensable requisite for enterprises to remain competitive even in their traditional markets.

Our viewpoint here is that the combined effect of those changes makes it desirable to adopt a new approach to the analysis of business structure and operation. The approach proposed here focuses on the *resources* that an enterprise must manage to accomplish its mission, rather than on the classical *functions* that have been until now characteristic of business activity. Thus, business functions will be structured around the requirements for resource management. An important advantage of this approach is that a business can be described in terms that are easy to relate to larger aggregates: industries, the national economy, or the world economy.

The purpose of this book is to present an approach to business management based on the optimal trade-off between requirements that should be satisfied and the resources available to satisfy them. This approach then does not concentrate on any particular aspect of business operations but instead considers the entire system, characterized by the demands on it, the constraints and conditions that it must respect, and the costs and revenues associated with its operating processes.

Our aim is to describe the basic concepts behind this approach, as well as the techniques available to implement it in practical situations. The emphasis in the presentation varies in inverse proportion with the literature available on different subjects. Thus, we discuss at greater length those aspects and techniques not covered in enough detail in other sources, and we outline and provide bibliographical guidance on those topics that have been discussed at length in other publications.

This book is addressed to practitioners concerned with corporate strategy, marketing, finance, production, information systems, and logistics. Other readers who are concerned with general management, administration, research and development, and human resources management may find the ideas proposed here useful in developing their future strategies.

By providing specific, practical information on the techniques available to analyze and solve the problems related to resource management, I expect the reader to learn when to use them effectively in real-life situations. I also expect that the guidance provided to the literature available on different aspects of the subject will facilitate further study and research on those topics.

I hope this book will provide a fresh new approach to some of the classical problems of management, thus stimulating the search for innovative ways to face today's situation and to deal with the challenges and opportunities of the future.

PAUL S. BENDER

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