

Book Reviews

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(Eds.)

Handbook of Organizational Design

Volume 1: *Adapting Organizations to their Environments*, Oxford University Press, Oxford, 1981, xxii + 560 pages, £24.00.

Volume 2: *Remodeling Organizations and their Environments*, Oxford University Press, Oxford, 1981, vi + 552 pages, £24.00

The Handbook of Organizational Design aims, according to its editors, at three different audiences: researchers and teachers, graduate students and practitioners. The latter group is supposedly mainly interested in design issues, they do not want lengthy methodological discussions but rather a treatment on the pros and cons of certain design configurations. This corresponds to one of the points of departure of this book, i.e. a design orientation; it is oriented toward research results rather than research methods. The graduate students may be interested in this book because it allows a quick entry into the main topics of organizational theory and the appropriate references. The researchers and teachers, finally, will find that various topics are treated from many different points of view which allows a balanced viewpoint on the subject matter.

The Handbook consists of two volumes. The first one, called *Adapting Organizations to their Environments*, contains 23 chapters that are organized into three parts: part A, Organizations' adaptive capabilities; part B, The implications of societal environments; and part C, Interactions in interorganizational networks. This volume, as the title indicates, is mainly concerned with adaptive responses of organizations to changes in the environment.

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The second volume is called *Remodeling Organizations and their Environments*. Its 22 chapters are subdivided into two parts: part A, Organizations' operating characteristics, and part B, The consequences of organizations' activities. The first part is mainly concerned with the crucial factors that should be taken into account when designing new organizational forms, the second part analyzes how organizations do and should change their environments.

Most of the 45 chapters are easily readable because of the emphasis on the essence of theory and practice rather than the tedious ways and means of obtaining these results. Many of the chapters contain a brief summary and all are supplied with ample references.

Almost any topic on organizational theory or design is discussed in a number of chapters, written by authors with a different background, so that one can speak of a truly multi-disciplinary approach. This point is both a strength and a weakness. It is a strength because any single-sidedness, which is sometimes a nuisance in present handbooks, is avoided but the other side of the coin is that there is a considerable overlap and a lack of rigor in the organization of this Handbook. It is quite often not clear on what grounds the chapters are allocated to the volumes and parts. The extensive index of subjects at the end of each volume shows that for any given subject references spread considerably over the various chapters. This lack of uniformity is also caused by the 36 authors, some of them of great repute, who have contributed to this Handbook. It is thus unavoidable that there is a diversity of opinion, method and outlook, notwithstanding the efforts of the editors and their assistants, who have spent 21.000 working hours to edit and revise the various chapters. Given the present state of the art this may be seen by many as an advantage rather than a drawback. In view of the practical and design outlook of the editors it is, however, somewhat surprising that almost all of the contributors are university professors. It would be refreshing to have the opinion of a few managers who are in actual practice struggling with organizational principles and heuristics.

Anybody who is interested in organizational

design will find in this Handbook a very rich source of information which can be of great help in understanding the various ramifications of an organization. The book allows almost any reader, whatever his background, who is willing to spend some time using the index and references, to get an in-depth knowledge of organizational theory and design. It is a must for any library specialized in the administrative management and social sciences.

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J.M. NORMAN and E. RITCHIE (Eds.)

Problem Solving Exercises in Operational Research

Lancord, Lancaster, 1981, 174 pages, £3.75

The book contains ten OR exercises that are designed to discover if students have learned how to put their classroom studies into practice. These exercises are based upon the personal experiences of OR staff members at Lancaster University and a companion volume dealing with expected solutions is now available. Each exercise has no single 'right answer' and the descriptions of the problems are deliberately vague in order to encourage students to consider the whole range of suitable OR techniques before deciding for themselves how to develop the best solutions. This basic principle is admirable, but interpretation of the information often requires more expertise than could be expected of students.

Exercise 1 – Lancaster Steel Company. Students are asked to report on the firm's current position, using the data accumulated from two years' operations. The steelmaking process is described and monthly costs, sales incomes and throughput tonnages are tabulated. The General Manager, who wants the report, will be most interested in maximising profits; but the data given can only indicate trends or show the best operating months and I feel that it is inadequate to prepare a meaningful report. Both the OR man and the G.M. could be frustrated!

Exercise 2 – Sharp Practice. Students are asked to suggest an appointments system for a dentist's

surgery in which the teeth of all patients should be inspected every six months. In addition, visits for treatment and emergencies have to be accommodated. Plenty of useful information is presented although it is insufficient for reliable statistical analysis and it is in a form of 'shorthand'. Of course, this will give students scope for using their initiative and introduce them to a fairly typical situation.

Exercise 3 – Skein Water Authority. This is the sort of conflict that occurs in real life and it offers an attractive challenge to 'would-be' problem solvers. They have to write a report in order to optimise water quality and operating costs so that the conflicting aims of three different divisions of the Water Authority are satisfied. This is a good exercise for analysing excessive information and arriving at a simple answer.

Exercise 4 – Soya Seed Saga. You have to write a report of a feasibility study in order to suggest the best way to meet farmers' needs for a variety of different soya seeds. The problem is well explained and the objective clearly stated so that it should not be too difficult to select the most appropriate information.

Exercise 5 – Islands of Gander. A fascinating exercise, well-presented, plausible and challenging. The data needed to design a model for the island's economy is not readily apparent and you will have to calculate or extrapolate it. An interesting test of OR ability!

Exercise 6 – O.R. Veterans' Hospital. A report is required for showing how the efficiency of this hospital can be improved and how a gift of money can be best used to reduce the time before admittance. All the information has been collected by somebody with a sense of humour; unfortunately this makes it difficult to unravel and to discover an optimal solution.

Exercise 7 – ABC Cake. An interesting exercise with a wide general appeal. Some terms of reference for the objectives when merging two competing bakery companies add to the conflict, but they give you a chance to show your knowledge of OR techniques. Basically, this is a distribution problem involving sales, deliveries, materials handling and planning depot locations.

Exercise 8 – Nossex Coalyards. Another interesting distribution problem related to transport and depot operating costs for a fairly large delivery area. Some knowledge of Work Study will