

Industrial Organization and Management

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Second Edition

New York

Toronto

London

McGRAW-HILL BOOK COMPANY, INC.

1950

INDUSTRIAL ORGANIZATION AND MANAGEMENT

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PREFACE TO THE SECOND EDITION

The aim of the first edition was to achieve balance in presenting the principles of industrial management which within itself is a field composed of many highly specialized functions. Primary emphasis was given to the interrelationship of functions and the principles governing them rather than to the technical details of each function. Many of the latter are included, but only for the purpose of illustrating the application of basic principles. Industrial experience during the war and now during a period of competition has revealed the importance of unity within the organization. The engineer, the accountant, the research technician, the salesman, the production supervisor, and the shopworker are all members of the same enterprise. Each must have understanding and appreciation of the work of the other, of the interdependence of their functions, and of the fundamental principles by which they may carry on their joint endeavors with greatest effectiveness.

Toward this end the four authors, each with a background of specialization different from the others, worked together for a period of several years in the preparation and use of the material. Each part of the material had to receive the full consideration and endorsement of all four authors.

These same emphases have been continued in the second edition. But in addition to the benefits to be derived from the joint efforts of the authors, the second edition has the advantage of improvements suggested by the many instructors who have used the book in their college groups. To these people the authors extend grateful acknowledgment. Their suggestions have focused attention on the strengths of organization and content of the first edition that should be preserved and amplified.

The second edition has grown also from an acknowledgment of a significant turn in our economy. Immediately following the Second World War we were in an upward spiral where emphasis was on higher production. By the beginning of the 1950's, however, much of the backlog of business had been absorbed and a competitive period was again upon us, with the emphases on increased quality and service with lower costs and prices. The second edition has acknowledged these emphases with the addition of sections on production processes, waste control, plant and

equipment maintenance, equipment replacement, and several other sections dealing with principles of cost reduction and the complete reworking of material in sales, quality control, and physical facilities.

This edition also observes significant developments in labor and governmental influence in the management of an industrial enterprise. These are reflected particularly in a new chapter, Industrial America—Control at the Mid-Century, and in the complete revision of the section on Administration of Industrial Relations.

The methods of presentation in this edition remain the same as before. However, all illustrations and cases have been reconsidered and rewritten or substituted where necessary to make them truly illustrative of the current application of basic principles.

New bibliographies and specific references have been prepared for each chapter in order that the reader may have a guide to further reading of material appropriate to the problems of this period of industrial development.

THE AUTHORS

NEW HAVEN, CONN.

March, 1950

PREFACE TO THE FIRST EDITION

The art of managing an industrial enterprise today is a highly complex one. Technological developments with respect to both products and production equipment, increasingly close relationships between enterprises and between entire industries, expanding governmental controls, enlarged bodies of regulations for dealing with organized groups of employees—these are only some of the ever-changing circumstances that continually complicate the task of today's industrial managers. Confronted with such mobile conditions, the field of industrial management has been both broadened in scope and subdivided as to activity. The net result has been the establishment of such specialized functions as industrial relations, methods analysis, production planning, each with its own sphere of influence and effort, yet all coordinated and integrated into a working entity known under that rather nebulous title of "the management."

Each function of industrial management is based on established principles by which the competent manager is guided, consciously or otherwise, in his particular sphere, regardless of whether his company is making paper clips or passenger airplanes or whether it has 100 or 100,000 employees. Many a successful cost accountant, for example, has moved from one type of industrial enterprise to another in an entirely different field and has applied his cost-accounting principles with equal success. In fact, any list of a half dozen or so competent industrial managers is almost certain to include one or more whose firm grasp of fundamentals has enabled him to operate successfully in different kinds of enterprises.

It is these universal principles of management with which the authors of this volume have been primarily concerned. Thus the material presented here should be of interest, first of all, to the student of industrial management in college, extension, or work-study training. For such a student, this volume should serve as an introductory text, after which he may pursue further his specialized studies of the various management functions. Second, it should assist professional engineers, lawyers, accountants, and others who in their dealing with industry must possess a working knowledge of fundamental management principles. Third, this volume may be useful to practitioners in industrial management. For this group, a review of basic management principles may be the means

of gaining a better perspective—of enabling them to see the woods as well as the trees.

To serve these purposes this book depends in each chapter upon a method of presentation composed of four parts: (1) brief fundamental statements of the background and operating principles pertaining to the function in question, (2) case examples illustrating the application of principles, (3) consideration of controversial issues of the present and tentative outlook of the future, and (4) case problems and questions adapted from actual plant situations through which the reader may experience specific adaptations.

The material for this book has been developed and used by the authors in connection with their classes over a period of three years. It has grown out of the recognition of a need for text material that will make a balanced presentation—the kind of presentation that might result from personal observations and studies by men who as a group would represent divergent fields of specialization, such as finance, economics, industrial relations, production engineering, and marketing—yet who, through working together over a period of years, might be able to agree upon basic fundamentals and define basic controversies.

The authors make no claim to have originated principles new to industrial management. Those here treated are in wide use by industry. They are thoroughly tried and tested and have been found to be sound. However, the authors have presented these principles with new emphases in light of the changed circumstances accelerated particularly by the intense industrial activity of World War II. Finally, the authors believe that here considered are certain new trends, technological developments, and adaptations of principles, all of which show promise of more general adoption by industry.

On points where controversy exists they have attempted to state opposing points of view as expressed by other authors of management materials in order to stimulate thinking that may assist in the solution of these problems by the managers of industry today and tomorrow.

The authors wish to make grateful acknowledgment to the many industrial executives who have contributed illustrative and case material as well as thoughtful criticisms and suggestions for the improvement of the manuscript. Appreciation is extended also to Annette L. Atwater and Katharine Blenis for their diligent and efficient service in the assembly and arrangement of the manuscript.

NEW HAVEN, CONN.
March, 1945

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