

Reviews

Glenn E. HAYES

Quality and Productivity: The New Challenge
Hitchcock Publishing Co., Wheaton, IL, 1985, 293 pages.

Quality and Productivity: The New Challenge is concerned with productivity issues which regulate patterns of progress in American Business and industry. The author states four purposes for the book: (1) to present a "tell it like it is" account of major issues which confront industrial managers, (2) to examine the importance of organization, institutional, and teamwork factors as they relate to productivity improvement, (3) to reveal some latent paradoxes and deterrents to productivity improvement which generally need to be addressed by institutional and industrial leaders alike, and (4) to suggest methods and areas where improvements can be made.'

Part I of the book is devoted to status, trends, and issues of productivity management. The book starts by defining productivity, and discussing current problems in this area along with an analysis of productivity in Japan. Chapter 2 looks at quality issues which include: what constitutes quality, organizational policies and implications of quality, and the recent shift back towards quality emphasis. The author describes a five-step quality ladder that companies pass through – from treating quality as an obstruction to the recognition of quality as a driver of profit. The next chapter present challenges that are being experienced by plant managers in their efforts to increase production rates: dealing with the company culture, the quality/productivity connection, changes in upper management, converting commitment into improvement.

A discourse on Frederick Taylor's scientific management and current efforts to expand humanistic approaches are presented in Chapter 4. Completing Part I is a macro treatment of education and training, and how these factors influence productivity.

In Part II, methods and principles which have been and continue to be used to generate improvement in productivity are explored. The first chapter describes the cultural foundation and provides steps to help build a quality culture. Closely related to culture is chapter seven's discussion of teamwork which includes a section on quality circles. Chapter 8 is devoted to techniques that are used to creatively accomplish productivity gains: creative problem solving, value analysis, ergonomics, costs of methods improvement. Productivity analysis and measurement techniques are illustrated in the following chapter. The book concludes by presenting factors involved in activating the productivity message. These include: leadership, motivation, planning and control, job enrichment.

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William J. LATZKO

Quality and Productivity for Bankers and Financial Managers

Marcel Dekker, New York, 1986.

Finally, a quality control book written by William J. Latzko is available for the astute financial production operations manager to read and benefit.

The book, *Quality and Productivity for Bankers and Financial Managers*, is an ideal book for the busy responsible manager to read and use as a guideline for improving production in service industry organizations, such as banking, insurance, department stores and credit card organizations. Each of the ten chapters are short, but yet, definitive so that the reader can grasp the technical and managerial concepts of developing an optimal production program.

Latzko encourages the manager to practice effective leadership to top technical quality. The author begins by sufficiently introducing the de-

velopment and nature of quality control. More importantly, the following three chapters discuss the operational aspects of a banking system, both clerical and technical. These chapters are written explicitly so that the reader can relate operational technicalities to his or her own working system.

Unlikely many other quality control books that emphasize employee involvement as a key ingredient to organizational success, this book focuses on management responsibility and training as the vital factor to improving system development. At each level, managers must have full knowledge of how to make a system work and how to fix it – not how to change the worker to fit a deficient program.

The primary beneficiaries of this book are managers who are willing to accept innovation by implementing a Quality Improvement Program (QUIP). Chapter eight, the nucleus of the book, systematically outlines the steps an executive management committee should consider in conducting meetings for quality control. This is just one aspect which makes this book a reliable guideline for managers to use. However, this section has its shortcomings. Application of a Quality Improvement Program is difficult to implement from ground zero in organizations with little structure or with great resistance to change. Therefore, more examples of how to implement a program or case studies of successful organizations using QUIP method would be extremely supportive to this instructive book.

Nevertheless, a systems approach to analyzing and implementing a quality program is what makes this book good. The author covers every aspect of quality control from theory to human resources management. Because of the book's wide scope in topics of quality control, it can be used by top management, middle management and even trainees in business or academics.

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MANUFACTURING STUDIES BOARD
Toward a New Era in U.S. Manufacturing
National Academy Press, **Place**, 1986, 174 pages.

Ian MACKINTOSH

Sunrise Europe

Blackwell, Oxford, 1986, 288 pages.

John K. RYANS, Jr. and William L. SHANKLIN

Guide to Marketing for Economic Development

Publishing Horizons, **Place**, 1986, 361 pages.

Norman GEMMELL

Structural Change and Economic Development

St. Martin's Press, **Place**, 1986, 216 pages.

Kirsty HUGHES

Exports and Technology

Cambridge University Press, Cambridge, 1986, 214 pages.

The first two books deal with current manufacturing challenges facing the U.S. and Europe. According to the Manufacturing Studies Board (MSB) reporting in the book *Toward a New Era in U.S. Manufacturing* manufacturer's in the U.S. must respond to three interrelated trends: the rapid emergence of manufacturing capabilities worldwide; the emergence of advanced manufacturing technologies; and growing evidence that appropriate changes in traditional management and labor practices, and organizational structures are needed to improve the competitiveness of U.S. manufacturing operations. The authors claim that 'efforts to respond to challenges posed by new competition, technology, and managerial opportunities have been slow and inadequate.' The primary reasoning is that information on new developments in manufacturing are not readily available to the manufacturing and policy making communities. Thus, drawing on current research, personal experiences, experts from industry, labor and academe, *Toward a New Era ...* provides a vision of the developments that are shaping the new manufacturing environment. The emphasis is on technological improvements that will affect the *process* rather than the *product* which has recently been the area of concentration for most manufacturers. However, MSB does emphasize that 'despite enthusiastic claims of technology developers and vendors, technology alone will not improve competitiveness. Without changes in corporate culture, organizational structures and human resource management, new technologies will not produce the result needed for competitive manufacturing'.

Considering the diversity of technological needs, competitive situations, etc., in U.S. industry, no attempt is made to present a 'how-to' book. Rather, it merely attempts to discuss the roles of advanced technology in future manufacturing along with an appendix describing specific examples of future technology, and a discussion of changes in the management of people and organization design, that future manufacturers will need to pursue to be successful.

Today, no one can deny that information technology (IT) is still one of the key sectors in the world. The literature is replete with articles describing the U.S. versus Japan struggle. But what of Europe? According to Ian Mackintosh, in *Sunrise Europe*, Europe remains fragmented, static and paralyzed by a lack of understanding, agreement and will.

Mackintosh feels that those countries which fail to build a competitive capability information technology 'will suffer an irreversible decline in economic activity to a degree which will seriously erode many of their long-established political and social foundations.

Certainly the area of IT has not gone unnoticed by Europe, and in fact, the countries have taken remedial steps. However, through this analysis, the author demonstrates that these steps have largely failed. Furthermore, through an attempt to broaden the case of understanding of the interdependent product segments of the electronics sector, the author demonstrates that no *single* European nation can afford to finance a competitive capability in all segments.

With the right degree of political commitment, Mackintosh believes that the outlined strategy he presents, which will propel Europe into commanding its fair share of the high-tech markets, is feasible in technological and economic terms.

The book begins by analyzing the electronics/information technology industries in the U.S., Japan and Europe in an attempt to discover the differences in responses to the challenge i.e., attitudes of management, resources committed, business strategies, etc. The second part of the book provides a detailed quantitative look at the size of the industry and the costs for Europe to close their IT gap. The book concludes by examining Europe's current strategies, its weaknesses (there appears to be a marked lack of demand in Europe for IT products, estimated to be \$350 billion by

the year 2005) and presents conclusions and recommendations.

Although the topics of the next three books are quite diverse, they share a common objective – an analysis of economic development and descriptive methods to improve it. In this book *Guide to Marketing for Economic Development-Competing in America's Second Civil War*, Ryans and Shanklin contend that the intense marketing battles waged by states and communities, that are designed to attract business companies, have led to a Second Civil War. The book is about marketing's integral role in economic development and attempts to fill an unmet need in the area of marketing strategy and planning as it pertains to economic development.

The authors equate economic development with industrial growth, measured by the level of business activity, job creation, and a rising standard of living. This 'development' can occur by any of three methods: first, attracting business from other states, second, retaining current business and getting them to expand, third, foster business start-ups.

To assist communities and states with marketing economic development, Ryans and Shanklin try and avoid the typical 'How to do it' approach that is so prevalent today. The authors feel that the current literature relies on small samples sizes and is not presented from the perspective of the company. Thus, the opinions in these books are what the *authors* think a company wants in a location, rather than what the companies may actually desire. *Guide to Marketing ...* provides a strong conceptual and empirical approach, by surveying and personally interviewing industrial realtors, owners and operators of industrial incubators and most important, companies. First-hand opinion is obtained on topics such as criteria for site selection, tradeoffs, etc.

The book is not overly analytical and can be read very quickly. After an analysis of the current state of marketing economic development, i.e., trends, current tactics, the authors examine the high-tech industry and then proceed with the primary data analysis discussed above. Vignettes and advertisements are interspersed throughout, serving as examples of success and failure in economic development. For example, how is the Pacific Northwest dealing with a one-industry

economy, how is Irvine California fostering biotechnology, etc. Although not a sure-fire success in the marketing of economic development the authors feel the book will help one gain an appreciation for the essential ingredients underlying effective economic development.

In his book *Structural Change and Economic Development*, Norman Gemmill emphasizes the role of service activities in the process of structural change during development. The author contends that the majority of literature on development economics, concentrates on the changes during development of the agricultural and industrial sectors. However, according to Gemmill, 'the recent growth of service sectors in developed countries has generated renewed interest and a great deal of discussion among economists, concerning the role of the service sector in the process of economic growth'. Since there has been a plethora of recent literature on the growth of services in *developed* countries, Gemmill takes this opportunity to analyze services in less *developed* countries.

Topics include, an attempt to distinguish between services marketed and non-marketed (provided by government) with the belief that the relevant issues are quite different; comparative evidence on service sectors in developing countries to determine whether or not there are uniform patterns of changes of the service sector, the author feels that past literature may have failed to uncover uniform patterns for service sectors because they excluded the possibility of de-industrialization; an examination of the growth of tax revenues and how they may be sought to provide more non-marketed services.

To fulfill his objectives, Gemmill uses a cross-section of developed and less developed countries. Because of its substantial growth in private and public service activities, Egypt is used for a detailed analysis. Evidence of substantial social service growth most of which is publicly-owned and non-marketed suggests that there may be important macroeconomic consequences for the economies concerned.

In her book *Exports and Technology*, Kirsty Hughes seeks to analyze the role of technological ability and skilled labor in determining trade performance. In the recent years, a great deal of research has been done in this area, specifically, how the interconnections of industrial structure,

skill and technology can affect trade levels and performance. The author believes that an analysis of these factors may have implications for the ability of a country to change its relative competitiveness over time.

A study of this kind cannot be done without an examination of specific countries. Hughes examines the five OECD countries: United States, Japan, United Kingdom, West Germany and France. Her analysis of the determinants of technological change for these countries may help explain differences in trade performance across countries.

The author proceeds with her analysis by discussing the development of trade theory and assessing some of the existing empirical literature with respect to these theories. She then explores the expected relationship between technology and exports which eventually leads to an estimating equation for exports. Attempting to develop an interconnecting chain, Hughes examines theories of the determinants of technological efforts, focusing on R&D expenditures, which results in models and equations of R&D expenditures based on advertising. The hypothesis is then established of a simultaneous relationship between exports and R&D. Most of the analysis provided in the book is based on the United Kingdom system.

According to Hughes, 'by analysing theoretical and empirical explanations of trade flows and trade performance, the differing roles of technology, skill and other variables can be assessed'. Thus, management can then determine whether or not emphasis on technology studies is appropriate.

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Clark KERR and Paul D. STAUDOCHAR

Industrial Relations in a New Era

Jossey-Bass, San Francisco, CA, 1986, 419 pages.

Clark KERR and Paul D. STAUDOCHAR

Economics of Labor in Industrial Society

Jossey-Bass, San Francisco, CA, 1986, 420 pages.

Richard B. McKENZIE

Competing Visions

Cato Institute, Washington, DC, 1985, 216 pages.

Michael TREBILCOCK
The Political Economy of Economic Adjustment
 University of Toronto Press, Toronto, 1986, 368
 pages.

In their book *Industrial Relations in a New Era*, Kerr and Staudohar bring together more than ninety short readings which offer insight into how technological innovation, new management practices, changing worker values, and the shifting emphasis from goods production to service and information systems are affecting the current system of industrial relations. The central theme of this book is the organization of work in industrial society, and its structure flows from individual to group actions, and from the past to the future.

The book begins by tracing the history of work, up to the present, investigating the reasons why people work (coercion, economic reward, alienation). The selections then address 'The Changing Workers' which takes a look at the new breed of workers today. These workers have new expectations and desires in relation to their jobs. Related to this topic is an analysis of job satisfaction and dissatisfaction which deals with a new concern for the human element in the industrial society. Readings on Work Life focus on applied study and action. Finally, this section of the book presents discussions on increasing workers participation in management. The authors feel that all these efforts of the industry, i.e., increased workers participation, QWL, satisfaction-dissatisfaction analysis, etc., are responses to three of the costs to workers of the industrial way of life: hierarchical management, inflexible working times, and routine tasks.

The book proceeds with an examination of superstructures, in the U.S. and elsewhere, that rise above the level of the workplace and the industrial workers. These structures vary considerably in place and time. Sections on the government's role in industrial relations systems, attempt to answer the question 'to what degree should the government participate and in what direction?'

In three related sections the topic of labor relations is closely examined: (a) collective bargaining, explores the process of negotiation; (b) industrial conflict and its resolution, illustrates non-peaceful collective bargaining; and (c) political action by unions and workers, discusses political action as an alternative to economic action.

The final sections of the book take a look at the future of the industrial societies and include readings on: advancing roles for workers, economic and social limits to growth, the future of organized institutions.

In the book *Economics of Labor in Industrial Society*, Kerr and Staudohar closely examine the topic of labor relations which was briefly discussed in their book *Industrial relations in a New Age*. Once again, they have gathered a wide assortment of carefully selected reading to integrate perspectives from the social and behavioral sciences, with those from economics and labor relations, to present a broad, nontechnical, and in-depth examination of the role of labor in industrial societies.

The first part of the book presents a historical picture of the key developments that have shaped modern industrial economies: slavery, serfdom, the industrial revolution, labor organizations, the factory system and workers commitment to industrial employment. These selections look at how people decide to work and the importance of work to individuals.

The chapter entitled 'The Roles of Management in Organizing the Labor Force for Production,' focuses on management decision making in industrial societies, and examines the relationship between management and unionism.

Three interrelated chapters cover the topic of productivity. First, readings address the problem of productivity measurement and offer various methods of calculation. Second, the decline of productivity in the U.S. along with possible solutions is discussed. Finally, with an emphasis on a macro approach to lost production (how social policies affect production per capita), topics are presented on unemployment, management techniques, and discrimination against blacks, youths and women.

Starting with excerpts from the works of Adam Smith and Karl Marx, sections on income and wages gradually lead to a discussion of the modern theory of income structure. Wage determination is viewed from the perspectives of marginal productivity theory and human capital theory and complex structure of factors involved.

Moving on to the topic of unions, readings cover the impact of unions on wage differentials. Union goals and the effectiveness of unions in

reaching these goals is closely examined. A major goal of the trade union movement has been to increase the interest of society in welfare. Conflicting analysis towards the welfare state is presented.

How has the labor market behavior, particularly trade union actions in the labor market, contributed to stagflation? In an attempt to answer this question, basic theories of stagflation are discussed and how stagflation might be ended. The problems of stagflation have given rise to the consideration of 'industrial policies' in the U.S. (for a discussion of National Industrial Policy see Richard B. McKenzie's *Competing Visions* a review which follows this one). The book concludes by exploring approaches to labor economics research and topics of interest to the field.

Kerr and Staudohar carefully screened the readings for their clarity, originality, and importance to scholars and practitioners. These two books must be read together. They are a clear exponent of Clark Kerr's scholarly approach to a very wide range of problems which affect the U.S. economy.

The next two books deal with the dilemma of national industrial policies (protectionism) and the free market system. In his book *Competing Visions*, Richard McKenzie confronts the proposals of those who support a national industrial policy (NIP) with those that contend that these proposals cannot be expected to achieve the stated objectives. More fundamentally, the book is about competing visions for America. McKenzie proceeds to dismantle the premises the NIP policies are based on. These policies call for protectionism, industrial policy, increased labor laws, and in general, more government. McKenzie holds the view that governmental intervention in economic affairs almost always produces results that are inferior to those obtainable in an open environment. In reality, added economic power in government will merely strengthen the status-quo by allowing companies sufficiently large to have the votes and funds to warp current political decisions in their favor.

The book consists of a number of papers written by McKenzie. Chapters 1-4 cover specific topics, evidence, and fallacies of the NIP view, i.e., industrial policy, reconstruction finance corporation (rebuilding the national infrastructure, revitalizing basic industries), de-industrialization,

displaced worker problems (loss of middle skilled jobs), etc. Later chapters cover proposals of protectionism, plant closing restrictions, and unitary tax systems. McKenzie indicates why these proposals would slow down the mobility of capital and lead to higher tax rates.

In *Competing Visions* McKenzie definitely plays the devil's advocate. Each chapter presents first the competing camps views, and then, through extensive empirical and conceptual arguments, McKenzie develops the conviction that America's economic future lies more in reliance on market processes than in emphasis on government involvement. In fact, he indicates that many of the policies that NIP advocates have led to most of the problems it tries to resolve.

The Political Economy of Economic Adjustment, is the last of seven volumes dealing with industrial structure which are included in the collected research studies of the Royal Commission on the Economic Union and Development Prospects for Canada. Michael Trebilcock's book *The Political Economy of Economic Adjustment*, is one of three special studies on the economics of industrial structure. The study focuses on the divergence of economic considerations which generally argue against assistance to declining sectors, and political impulses which generally favor assistance.

Trebilcock begins by examining the rationale for government assistance in declining sectors. He reaches the conclusion that there is both an ethical and an economic efficiency rationale for subsidization of retraining, geographical mobility and other adjustment costs faced by workers in declining sectors. However, in opposition to this rationale, Trebilcock maintains that political considerations favor indirect adjustments regarding assistance in the form of import restrictions or loan guarantees to firms in financial difficulty.

Following the introductory chapters, Trebilcock performs an in depth analysis of seven countries and concludes that the general and sectoral adjustment policies of the U.S., United Kingdom, Australia and Canada, tend to reflect political more than economic and ethical considerations. However, adjustment policies of West Germany, Japan and France are closer to Trebilcock's economic and ethical ideas.

In the preface, D.G. McFetridge indicates that Trebilcock reaches the conclusion that 'the coun-

tries which have attempted to facilitate, rather than retard, economic adjustment have also achieved better macroeconomic performance over the last 20 years. He suggests that the ability of a national government to adopt adjustment-facilitating policies is enhanced by the existence of: a centralized policy-making apparatus insulated, to a degree, from political pressure; broadly-based political interest groups; and a high degree of integration between banks, firms and government.' Trebilcock concludes his analysis by offering a number of improvements in Canadian adjustment policies.

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Arthur J. KUHN

Organizational Cybernetics and Business Policy
Pennsylvania State Univ. Press, University Park,
PA, 1986, 201 pages.

Arthur J. KUHN

GM Passes Ford, 1918–1938
Pennsylvania State Univ. Press, University Park,
PA, 1986, 380 pages.

Webster defines cybernetics as the science of communication and control theory that is concerned especially with the comparative study of automatic control systems. In his book *Organizational Cybernetics and Business Policy*, Arthur Kuhn argues that successful control of performance in a complex business organization depends on whether 'policy decisions taken in the ordinary course of business follow guidelines of organizational cybernetics and systems theory.' The System Design for Performance Control (SDPC) model, that the book is based on, is the result of combining cybernetic concepts and the system characters and props to guide the actions of organizational planners.

Each of the seven phases of the SDPC model are addressed in a separate chapter. Chapter 2 identifies the goal: setting the boundaries of limits. Chapter 3 discusses the formulation of the strategy: selecting the activities to be included in the goals. Chapter 3 takes a look at organizing the

structure: separating or factoring the controlled variables (defined in the first phase) into simpler components. Chapter 5 contains the fourth phase which considers training the decision makers. Coordinating the firm: linking the decomposed components from phase 3, is the fifth phase of the model. Chapter 6 explores monitoring the environment: synchronizing the controlled and uncontrolled variables. The final phase is valuing the performance: evaluating the variables and parameters. The seven phases of the SDPC model are introduced in the light of work by various pioneer theorists.

The book concludes by showing how any corporations system design is related internally to departments and divisions, and externally, to the economy and society. To develop the model empirical evidence is used from the automotive industry, with emphasis on GM and Ford (these firms are analyzed in depth in Kuhn's *GM Passes Ford, 1918–1938*). These two firms case histories are summarized in Chapter 10.

General Motors (GM) corporation's upturn under Alfred Sloan and Ford Motor (FM) company's downturn under Henry Ford between 1918–1938 are described in Arthur Kuhn's book *GM Passes Ford, 1918–1938*. Kuhn presents the thesis that 'although cybernetic principles and system concepts were not articulated until after World War II ... GM passed FM by implicitly developing a performance control system in accord with such theoretical propositions – an approach rejected at FM'. The results have certainly been impressive. In 1921 Ford controlled 59% of the market, while GM had slipped from 20% to 15%. Starting in 1924, GM climbed to over 40%, while FM fell to about 10%.

The book examines the conflicting orientations of Sloan and Ford. While Sloan and other GM leaders actively practiced the concepts of 'steermanship' and 'inquiring systems,' Ford, an anti-planner, would agree to the thinking that any attempt to lay out specific and rational plans was foolish or downright evil.

The first part of the book contrasts the GM–FM policies via the System Design for Performance Control Model described in Kuhn's book *Organizational Cybernetics and Business Policy*. The second part details the GM cases. Kuhn uses his model to discuss: goal and strategy formulation,

centralization, organizing decisions, training decision makers, coordinating, synchronizing the firm and the environment, evaluating the performance. Part three presents the Ford case. The book concludes with a comparison of the performances of the two firms, with an epilogue addressing GM's subsequent decline.

GM Passes Ford ... is an historical analysis of two important firms that have played dominant roles in American society. Kuhn draws from a rich collection of writing by GM participants and interviews from Henry Ford. Firms from many industries can draw from the early automotive experiences, and in fact, GM's recent slide can be attributed to their deviation from the successful principles of the past.

Donald Britton MILLER

Managing Professionals in Research and Development

Jossey-Bass, San Francisco, CA, 1986, 403 pages.

Donald D. DAVIS and Associates

Managing Technological Innovation

Jossey-Bass, San Francisco, CA, 1986, 302 pages.

Leonard NADLER and Garland D. WIGGS

Managing Human Resource Development

Jossey-Bass, San Francisco, CA, 1986, 293 pages.

In the book *Managing Professionals in Research and Development*, Donald Miller provides R&D managers with the special tools, concepts and techniques they need to successfully manage and get results from all R&D professionals. These professionals, i.e., scientists, engineers, programmers and other technical personnel in R&D have unique characteristics and needs – including the desire for autonomy, the fear of burnout, loyalty to profession rather than the organization, etc. Managers who attempt to use principles that work in typical organizations often achieve minimal success when these principles are attempted in the R&D department.

The book's topic is clearly important. The heart or drive of every technological organization is its R&D department which provides ideas and concepts needed for progress to occur. As Miller puts it 'we need to maximize the effectiveness of these people and create work environments where they

can maintain and enhance their vitality.' These professionals tend to seek employment in organizations that offer them a 'high psychic income', i.e., satisfactions like learning, achievement, impact, and a sense of self-worth.

What these professionals seem to want most is an absence of management. However, despite desires of autonomy, to maximize effectiveness even R&D departments must be managed. But what is the most efficient method to accomplish this objective? *Managing Professionals* ... will provide the reader with useful perspectives and some new tools for managing professionals.

The author begins by discussing the challenges, characteristics, people, climate and culture of R&D organizations. This includes an interesting chapter covering the views of outsiders towards the R&D department: that R&D is special and allowed to operate free of rules and constraints. Next, the author focuses on inspiring professionals by encouraging participation and open communication. This objective is accomplished by establishing missions and goals, objectives by results, environment building, using culture as a tool for managing.

Finally, the author describes the concepts that organizations can use to improve the performance of an R&D unit by effectively building and developing a team of professionals. This section includes: recruiting and interacting; performance management; the use of organizational design to provide stimulation; matching people with work and with needs.

'Why has American industry failed to implement revolutionary techniques such as robotics, CAD, CAM, CAE, FMS – flexible manufacturing systems, etc?' 'Why has the reality of advanced manufacturing systems fallen short of the promise?' 'What managerial, organizational, and strategic changes are needed to realize the full potential of robotics and other innovations?' In the book *Managing Technological Innovation*, Donald Davis and Associates, answer these questions to offer concrete strategies for successfully using advanced manufacturing technologies.

Advanced manufacturing techniques offer considerable improvements in quality, production and costs. However, due to behavioral, structural and managerial factors American firms have been slow to purchase and use these technologies. The prob-

lem is most disconcerting when one realizes that most of these innovations were developed by American firms, and yet, Japan leads the world in their implementation. The book takes the stance that we must examine how we can facilitate the dissemination and adoption of advanced manufacturing technologies, and once adopted, how they can be implemented and managed to achieve maximum possible productivity gains.

The first part of the book examines the challenges presented by the new technologies present and exposes the need to look at organizational systems and managers as impediments to the use of advanced manufacturing processes. The second part describes empirical studies that examine characteristics of employees, managers, organizations, and organization environments that are related to the adoption and implementation of advanced manufacturing technologies. The importance of the new technologies for business policy and strategic planning is followed with chapters developed to: the marketing of the new technologies; role of these technologies in the development of competitive strategy; the role of the federal government in fostering the use of these innovations.

The book is composed of contributions from individuals who were selected because s/he is involved in research or application of concepts that are on the cutting edge of advances in technology. The author believes that 'the book is unique in that it is the first to apply what is known about innovation, adoption and implementation in organizations to the special problems associated with advanced manufacturing technologies.'

The primary audience for *Managing Human Resource Development* includes current and aspiring human resource development (HRD) managers, human resource specialists, and line managers who may be asked to take on HRD responsibilities. The book is designed to help these individuals expand their knowledge of the HRD function while improving their ability to manage the unit within the organization. Although the authors admit that designing and delivering HRD learning

programs is still the main focus of the HRD unit, managing the HRD unit is becoming an increasingly important and frequently encountered problem.

Following an overview of the HRD field, the authors discuss the design and implementation of HRD policy, and the many ways to organize the HRD unit. From the preface, 'particular attention is given to the question of whether to provide HRD by using internal resources or by relying on external resources.'

The chapter covering the topic of finance is quite basic and intended for those without a background in business or accounting. However, the discussion of budgeting is more in-depth and quite specific in its relationship to the HRD unit. The three most common ways of organizing the HRD unit are presented: as a budget-item center, as a cost center, and as a profit center.

A number of chapters are devoted to personnel topics in the HRD unit. These include: the size of the unit, patterns for the professional growth of the HRD staff, the need to maintain ongoing relations with all departments within the organization and the various supervisory activities related to HRD.

In recent years there has been an increase in the number of organizations choosing to build their own HRD centers. Since these programs require facilities and equipment, the authors explore the pros and cons of this decision.

Finally, the authors complete the book by discussing other issues and current trends. Subjects include: HRD legislation, international ramifications, HRD and productivity, and so on.

Although all three books deal with topics that are important to many companies today, only *Managing Technological...* presents relatively new information on an area of extreme importance to the U.S.

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