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DRUCKER

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THE PRACTICE OF MANAGEMENT

PETER F. DRUCKER

FOREWORD BY MEREDITH BELBIN

ROUTLEDGE

THE PRACTICE OF MANAGEMENT

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The Practice of Management

PETER F. DRUCKER

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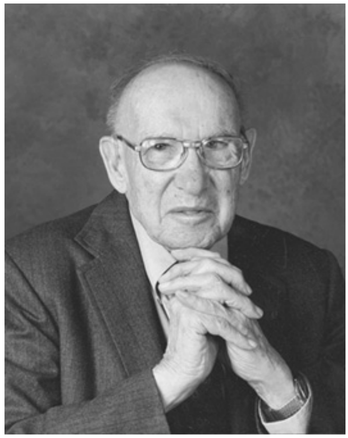

Peter F. Drucker
1909–2005

To all managers and leaders, students and teachers who have benefited from Peter's teaching.

Doris Drucker

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Foreword

by Meredith Belbin

The Practice of Management (1954) is less well known than Drucker's later books but that should not detract from the stature of a book that was years ahead of its day. In my view, it is one of his best, showing a tremendous range; remarkable for one whose background was initially limited to that of an economist and journalist.

Drucker was born in Vienna in 1909 and began working as a financial reporter in Frankfurt, Germany, during the course of studying for a doctoral degree in public and international law at Frankfurt University. In the year following the award of the degree, he published an essay that offended the Nazi government. An associated pamphlet was banned and burned. Increasingly worried by the rise of the Nazis, he moved to London, where he worked briefly for a merchant bank, before relocating to the United States, where he served as a correspondent for several British newspapers. He wrote his first book, *The End of Economic Man* (1939) with the aim of strengthening the will of the free world in the fight against fascism.

Drucker had learned to be outspoken and in *The Practice of Management* this quality of outspokenness is a delight. Equally, the depth of the content is a surprise for someone lacking any practical experience of management itself. In his later years an element of caution crept in once he became a consultant and celebrity widely courted by industrial corporations. One cannot of course insult one's hosts. Even to criticize them can be an affront to etiquette. Drucker did develop a remarkable ability to temper diplomacy with frankness like the civilized man he was. However, I still prefer his first relatively uninhibited foray into management.

As *The Practice of Management* was the first book on the subject I had ever read, it had a profound effect on me, for it coincided with the period when at last I emerged from the ivory-towers of the academic world (having studied Greek and Latin). Following a brief research and lecturing period at Cranfield, a course member offered me a six-month consulting assignment. To balance this temporary offer, he explained 'with your academic background, you should then be able to get a proper job.' I never did. Instead I learned survival by following what Drucker taught me. The lesson was that when faced with inexperience it is often better to think boldly and to widen the frame of reference when assessing demanding issues. Drucker succeeded because he was able to supply new insights and had a capacity to inspire. Above all, he made people feel that what they were doing was abundantly worthwhile so long as they did it well.

Drucker's capacity for communicating with managers through lifting their horizons is stunningly demonstrated by his opening theme:

The manager is the dynamic, life-giving element in every business. Without his leadership 'the resources of production' remain resources and never become production. . . . . . . Management expresses the belief that economic change can be made into the most powerful engine for human betterment and social justice.

Who could object to that? Moreover, Drucker is quick to ally himself with those manning the stockades in the ongoing assault on what mass production is alleged to be doing to society:

The popular belief that the new technology will replace human labour is utterly false.

From his defence of the bold American approach to production, he turns to the social benefits conferred by Business.

There is only one valid definition of business purpose: to create a customer. The customer is the foundation of a business and keeps it in existence. He alone gives employment.

Yet Drucker moves immediately to combat any temptation to self-congratulation and complacency on the part of businessmen with a bold claim.

The function of business is innovation.

Having established his credentials as someone wholeheartedly on the side of managers and businessmen, Drucker now unfolds themes bound to provoke and challenge favoured American practices of the day. Of Personnel Administration and Personnel Management he dismisses them with an acerbic description.

All those things that do not deal with the work of people and that are not management . . . Managing people is the manager's job, not that of the specialist.

On a positive front, Drucker succeeded in offering managers a new sense of mission and purpose yet one always rooted in practical realism. The theme that became the slogan of the day – Management by Objectives – can be traced back to his original advocacy. Ironically, Drucker never a manager himself, led a new wave in management thinking, through his ability to project succinctly the essence of the subject. His message comes over via six simple headings.

Manage by objectives, calculate risks, make strategic decisions, build an integrated team, communicate information fast and clearly and see business as a whole.

Why should managers behave in the desired way? Many would have us believe that it depends on whether they can see a carrot for themselves. Drucker rejects this cynical view of mankind and takes a more rounded human view.

Financial rewards are not enough. People need rewards of prestige and pride. . . . . Every management job should be rewarding and satisfying rather than just the means to the next step up in the promotion ladder.

There is an obvious link, one would suppose, between the achievement of objectives and fixed incentives. Such a simple approach is rejected by Drucker in favour of a looser, and somewhat unconventional, way of rewarding performance.

The salary system should never be so rigid as to exclude special rewards for 'performance over and above the call of duty'.

Broader issues come to the fore when Drucker considers matters of organization where his approach is to combine centralization and decentralization at both federal and functional levels. This is not as paradoxical as it might appear. Any federal organization, he declares, requires both strong parts and a strong centre. To restrict organization to the functional division of responsibilities would detract from the focus on business performance. It is through the capacity to excel in both areas that managers reveal their true calibre. That is why managers need to be tested in the capacity to manage a whole business long before reaching the top. The selection and development of managers in this way plays a fundamental part in creating a viable and successful enterprise in the long term.

I have briefly summarized the leading themes of this book, so at this point one might say a few words about what the book leaves out of account. A number of contemporary high-profile issues are largely ignored. There are no insights on offer on the role of women in management, on the handling of ethnic minorities or of the significance of culture. Management techniques receive little mention, for clearly Drucker considers them peripheral set against what he considers bigger issues. I doubt whether Drucker will endear himself to MBA students given his general approach and what he told the *Financial Times* in 2004. 'Teaching 23-year-olds in an MBA programme is a waste of time. They lack the background of experience. You can teach them skills – accounting and what have you – but you can't teach them management.' Regrettably, many MBA programmes have recoiled reciprocally, distancing themselves from Drucker's favourite issues and confining their attention to business considerations with little management content. That, I feel, is their loss in so far as it is true. I hope, however, this may not be the case, for this is a classic book. Classic books seldom become obsolete. Their making arises from their evident historic impact on an era along with their revelation of eternal truths.

Drucker is scarcely capable of writing a boring sentence. As a management philosopher and communicator he gained a reputation as the guru of gurus and was admired as a man whose life-span at 95 was fully commensurate with his productivity-span. Only on one count do I confess a reservation. He claims the supreme role of the manager is to build a management team. But, that said, his team scarcely resembles a team in its operating features. Production decisions, he believes, must be left to production managers, marketing decisions to marketing managers. Drucker is rightly against interference and overruling. The problem in the world of systems in which we live is that all functional decisions impact on each other. Manufacturing managers like long runs and marketing managers like quick responses to fluctuating market demands. Their competing objectives are often incompatible. Offering autonomy in each person's area of responsibility can magnify the problem. Drucker is adept when it comes to considerations of individual responsibility but he has little worthwhile to say on shared responsibility. Perhaps it is unfair to expect an economist and journalist to double as a psychologist.

Apart from this relatively minor quibble, I cannot see any reason why Drucker's evergreen writings and influence should not last for another 50 years. In setting out the guidelines for managers, Drucker imparts in this book a philosophic uplift both memorable and distinctive. Drucker appears far more than a thinker who was smart at business.

In a good, a moral, a lasting society, the public good must always rest on private virtue.

Drucker had a remarkable ability to discover and understand the relevance of the many new variables affecting our industrial society. A fitting epitaph may read: *in elevating management to a new level he made it a subject worth studying.*

Dr Meredith Belbin
Author and Partner of Belbin Associates

Preface

We have available today the knowledge and experience needed for the successful practice of management. But there is probably no field of human endeavour where the always tremendous gap between the knowledge and performance of the leaders and the knowledge and performance of the average is wider or more intractable. This book does not exclude from its aims the advancement of the frontier of knowledge; it hopes, indeed, to make some contribution to it. But its first aim is to narrow the gap between what can be done and what is being done, between the leaders in management and the average.

Though not concerned with techniques this is a practical book. It is written out of many years of experience in working with managements – managements of small companies as well as managements of large and very large companies. And it aims at being a guide for men in major management positions, enabling them to examine their own work and performance, to diagnose their weaknesses and to improve their own effectiveness as well as the results of the enterprise they are responsible for. For younger men in management – and for men who plan to make management their career – this book should provide both a vision of what management is and concrete guidance in the knowledge, performance and discipline that are needed to qualify for a major management position.

But this book is written fully as much for the citizen without direct management experience. He, perhaps more than anyone else, needs to know what management is, what it does and what he can rightfully expect from it. For the ignorance of the function of management, of its work, of its standards and of its responsibilities is one of the most serious weaknesses of an industrial society – and it is almost universal.

Footnotes, acknowledgments and other references have been avoided throughout this book except where necessary to identify a direct quotation, or where likely to be helpful to the reader by guiding him to books that give full treatment to important subjects only touched upon in this text. Readers familiar with the work of Joseph A. Schumpeter will recognize without special reference how much the author owes to this most fruitful of modern economists; to others a footnote acknowledging the debt would be neither helpful nor meaningful. Readers interested in organization theory need no 'X' to mark the spot where the author falls off the tightrope of organization orthodoxy. All my readers, I am sure, will assume that this book, like any other, has a long and mixed intellectual ancestry. And all, I trust, are more concerned with what is right than with who is right, and, accordingly, are neither assuaged by appeal to authority nor alarmed by its absence.

But I want to acknowledge the special debt I owe to some friends in American management: to Charles R. Hook, Jr., now Deputy-Postmaster General of the United States (formerly with the Chesapeake and Ohio Railroad); James C. Worthy, now Assistant Secretary of Commerce (formerly with Sears, Roebuck and Company); Frank C. Householder, Jr., John E. Kusik and Vernon C. Mickelson of the Chesapeake and Ohio Railway Company; Fred J. Borch, L. Byron Cherry, Russell Colley, M. L. Hurni, T. M. Linville, P. E. Mills and Moorhead Wright of General Electric; Donaldson Brown, Chester E. Evans, Walter G. Morris, L. N. Laseau, Alfred P. Sloan, Jr., and the late Henry G. Weaver of General Motors Corporation; Kendrick Porter of Lester B. Knight and Associates; Ewing W. Reilley, Bernard Muller-Thym and Robert K. Stolz of McKinsey & Company; Leo Cherne, David Emery, Aaron Levenstein, Jack Livingston and Auren Uris of The Research Institute of America; Clarence B. Caldwell of Sears, Roebuck and Company. To a greater extent than any number of footnotes could express, this book rests on their thought and on their work on management problems in which they allowed me to share. And I am in debt to Hermine Popper, Roxanne Wright Smith, John Fischer, Eldridge Haynes and Daniel Maue for generous help in the writing and editing of this book.

Above all I wish here to acknowledge the debt this book and I owe to Harold F. Smiddy of the General Electric Company. Despite misgivings and dissents he gave to this book of his counsel, advice and help, freely and far beyond the call of friendship. He is truly the book's Godfather; and I can only hope that the Godchild will prove itself worthy of the care he bestowed on it.

1 March 1954
Montclair, New Jersey — Peter F. Drucker

THE NATURE OF MANAGEMENT

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The Role of Management

The dynamic element in every business – A distinct and a leading group – The emergence of management – The free world's stake in management.

The manager is the dynamic, life-giving element in every business. Without his leadership 'the resources of production' remain resources and never become production. In a competitive economy, above all, the quality and performance of the managers determine the success of a business, indeed they determine its survival. For the quality and performance of its managers is the only effective advantage an enterprise in a competitive economy can have.

Management is also a distinct and a leading group in industrial society. We no longer talk of 'capital' and 'labour'; we talk of 'management' and 'labour'. The 'responsibilities of capital' have disappeared from our vocabulary together with the 'rights of capital'; instead, we hear of the 'responsibilities of management', and (a singularly hapless phrase) of the 'prerogatives of management'. We are building up a comprehensive and distinct system of 'education for management'. And when the Eisenhower Administration was formed in 1952, it was formed consciously as a 'Management Administration'.

The emergence of management as an essential, a distinct and a leading institution is a pivotal event in social history. Rarely, if ever, has a new basic institution, a new leading group, emerged as fast as has management since the turn of this century. Rarely in human history has a new institution proven indispensable so quickly; and even less often has a new institution arrived with so little opposition, so little disturbance, so little controversy.

Management will remain a basic and dominant institution perhaps as long as Western civilization itself survives. For management is not only grounded in the nature of the modern industrial system and in the needs of the modern business enterprise to which an industrial system must entrust its productive resources – both human and material.

Management also expresses basic beliefs of modern Western society. It expresses the belief in the possibility of controlling man's livelihood through systematic organization of economic resources. It expresses the belief that economic change can be made into the most powerful engine for human betterment and social justice – that, as Jonathan Swift first overstated it two hundred and fifty years ago, whoever makes two blades of grass grow where only one grew before deserves better of mankind than any speculative philosopher or metaphysical system builder.

This belief that the material can and should be used to advance the human spirit is not just the age-old human heresy 'materialism'. In fact, it is incompatible with materialism as the term has always been understood. It is something new, distinctly modern, distinctly Western. Prior to, and outside of, the modern West, resources have always been considered a limit to man's activities, a restriction on his control over his environment – rather than an opportunity and a tool of his control over nature. They have always been considered God-given and unchangeable. Indeed all societies, except the modern West, have looked upon economic change as a danger to society and individual alike, and have considered it the first responsibility of government to keep the economy unchangeable.

Management, which is the organ of society specifically charged with making resources productive, that is, with the responsibility for organized economic advance, therefore reflects the basic spirit of the modern age. It is in fact indispensable – and this explains why, once begotten, it grew so fast and with so little opposition.

THE IMPORTANCE OF MANAGEMENT

Management, its competence, its integrity and its performance will be decisive both to the United States and to the free world in the decades ahead. At the same time the demands on management will be rising steadily and steeply.

A 'Cold War' of indefinite duration not only puts heavy economic burdens on the economy, which only continuous economic advance can make bearable; it demands ability to satisfy the country's military needs while building up, at the same time, an expanding peace-time economy. It demands, indeed, an unprecedented ability of the entire economy to shift back and forth between peace-time and defence production, practically at an instant's notice. This demand, on the satisfaction of which our survival may well depend, is above all a demand on the competence of the managements, especially of our big enterprises.

That the United States is the leader today, economically and socially, will make management performance decisive – and adequate management performance much harder. From the peak there is only one easy way to go: downwards. It always requires twice as much effort and skill to stay up as it did to climb up. In other words, there is real danger that in retrospect the United States of 1950 will come to look like the Great Britain of 1880 – doomed to decline for lack of vision and lack of effort. There are evidences of a tendency in this country to defend what we have rather than advance farther; capital equipment is getting old in many industries; productivity is improving fast only in the very new industries, and may be stagnant if not declining in many others. Only superior management competence and continuously improved management performance can keep us progressing, can prevent our becoming smug, self-satisfied and lazy.

Outside the United States management has an even more decisive function and an even tougher job. Whether Europe regains her economic prosperity depends, above all, on the performance of her managements. And whether the formerly colonial and raw-material producing countries will succeed in developing their economies as free nations or will go Communist, depends to a large extent on their ability to produce competent and responsible managers in a hurry. Truly, the entire free world has an immense stake in the competence, skill and responsibility of management.

The Jobs of Management

Management the least known of our basic institutions – The organ of the enterprise – The first function: economic performance – The first job: managing a business – Managing as creative action – Management by objectives – Managing managers – The enterprise as a genuine whole – Managers must manage – 'It's the abilities, not the disabilities, that count' – Managing worker and work – The two time dimensions of management – The integrated nature of management.

Despite its crucial importance, its high visibility and its spectacular rise, management is the least known and the least understood of our basic institutions. Even the people in a business often do not know what their management does and what it is supposed to be doing, how it acts and why, whether it does a good job or not. Indeed, the typical picture of what goes on in the 'front office' or on 'the fourteenth floor' in the minds of otherwise sane men, well-informed and intelligent employees (including, often, people themselves in responsible managerial and specialist positions) bears striking resemblance to the medieval geographer's picture of Africa as the stamping ground of the one-eyed ogre, the two-headed pygmy, the immortal phoenix and the elusive unicorn. What then is management: What does it do?

There are two popular answers. One is that management is the people at the top – the term 'management' being little more than euphemism for 'the boss'. The other one defines a manager as someone who directs the work of others and who, as a slogan puts it, 'does his work by getting other people to do theirs'.

But these are at best merely attempts to tell us who belongs in management (as we shall see, they don't even tell us that). They do not attempt to tell us what management is and what it does. These questions can only be answered by analysing management's function. For management is an organ; and organs can be described and defined only through their function.

Management is the specific organ of the business enterprise. Whenever we talk of a business enterprise, say, the United States Steel Company or the British Coal Board, as deciding to build a new plant, laying off workers or treating its customers fairly, we actually talk of a management decision, a management action, a management behaviour. The enterprise can decide, act and behave only as its managers do – by itself the enterprise has no effective existence. And conversely any business enterprise, no matter what its legal structure, must have a management to be alive and functioning. (In this respect there is no difference between private enterprise, the nationalized industries of Great Britain, such old-established government monopolies as a Post Office, and the 'ministries' and 'trusts' of Communist Russia.)

That management is the specific organ of the business enterprise is so obvious that it tends to be taken for granted. But it sets management apart from all other governing organs of all other institutions. The Government, the Army or the Church – in fact, any major institution – has to have an organ which, in some of its function, is not unlike the management of the business enterprise. But management as such is the management of a *business* enterprise. And the reason for the existence of a business enterprise is that it supplies economic goods and services. To be sure, the business enterprise must discharge its economic responsibility so as to strengthen society, and in accordance with society's political and ethical beliefs. But these are (to use the logician's term) accidental conditions limiting, modifying, encouraging or retarding the economic activities of the business enterprise. The essence of business enterprise, the vital principle that determines its nature, is economic performance.

THE FIRST FUNCTION: ECONOMIC PERFORMANCE

Management must always, in every decision and action, put economic performance first. It can only justify its existence and its authority by the economic results it produces. There may be great non-economic results: the happiness of the members of the enterprise, the contribution to the welfare or culture of the community, etc. Yet management has failed if it fails to produce economic results. It has failed if it does not supply goods and services desired by the consumer at a price the consumer is willing to pay. It has failed if it does not improve or at least maintain the wealth-producing capacity of the economic resources entrusted to it.

In this management is unique. A General Staff will ask itself quite legitimately whether its basic military decisions are compatible with the economic structure and welfare of the country. But it would be greatly remiss in its duty were it to start its military deliberations with the needs of the economy. The economic consequences of military decisions are a secondary, a limiting factor in these decisions, not their starting point or their rationale. A General Staff, being the specific organ of a military organization, must, by necessity, put military security first. To act differently would be a betrayal of its responsibility and dangerous malpractice. Similarly, management, while always taking into consideration the impact of its decisions on society, both within and without the enterprise, must always put economic performance first.

The first definition of management is therefore that it is an economic organ, indeed the specifically economic organ of an industrial society. Every act, every decision, every deliberation of management has as its first dimension an economic dimension.

MANAGEMENT'S FIRST JOB IS MANAGING A BUSINESS

This apparently obvious statement leads to conclusions that are far from being obvious or generally accepted. It implies both severe limitations on the scope of management and manager, and a major responsibility for creative action.

It means in the first place that the skills, the competence, the experience of management cannot, as such, be transferred and applied to the organization and running of other institutions. In particular a man's success in management carries by itself no promise – let alone a guarantee – of his being successful in government. A career in management is, by itself, not a preparation for major political office – or for leadership in the Armed Forces, the Church or a university. The skills, the competence and the experience that are common and therefore transferable are analytical and administrative – extremely important, but secondary to the attainment of the primary objectives of the various non-business institutions. Whether Franklin D. Roosevelt was a great President or a national disaster has been argued hotly in this country for twenty years. But the patent fact that he was an extremely poor administrator seldom enters the discussion; even his staunchest enemies would consider it irrelevant. What is at issue are his basic political decisions. And no one would claim that these should be determined by the supply of goods and services desired by the consumer at the price the consumer is willing to pay, or by the maintenance or improvement of wealth-producing resources. What to the manager must be the main focus is to the politician, of necessity, only one factor among many.

A second negative conclusion is that management can never be an exact science. True, the work of a manager can be systematically analysed and classified; there are, in other words, distinct professional features and a scientific aspect to management. Nor is managing a business just a matter of hunch or native ability; its elements and requirements can be analysed, can be organized systematically, can be learned by anyone with normal human endowment. Altogether, this entire book is based on the proposition that the days of the 'intuitive' managers are numbered. This book assumes that the manager can improve his performance in all areas of management, including the managing of a business, through the systematic study of principles, the acquisition of organized knowledge and the systematic analysis of his own performance in all areas of his work and job and on all levels of management Indeed, nothing else can contribute so much to his skill, his effectiveness and his performance. And underlying this theme is the conviction that the impact of the manager on modern society and its citizens is so great as to require of him the self-discipline and the high standards of public service of a true professional.

And yet the ultimate test of management is business performance. Achievement rather than knowledge remains, of necessity, both proof and aim. Management, in other words, is a practice, rather than a science or a profession, though containing elements of both. No greater damage could be done to our economy or to our society than to attempt to 'professionalize' management by 'licensing' managers, for instance, or by limiting access to management to people with a special academic degree.

On the contrary, it is the test of good management that it enables the successful business performer to do his work – whether he be otherwise a good manager or a poor one. And any serious attempt to make management 'scientific' or a 'profession' is bound to lead to the attempt to eliminate those 'disturbing nuisances', the unpredictabilities of business life – its risks, its ups and downs, its 'wasteful competition', the 'irrational choices' of the consumer – and, in the process, the economy's freedom and its ability to grow. It is not entirely accident that some of the early pioneers of 'Scientific Management' ended up by demanding complete cartelization of the economy (Henry Gantt was the prime example); that the one direct outgrowth of American 'Scientific Management' abroad, the German 'Rationalization' movement of the twenties, attempted to make the world safe for professional management by cartelizing it; and that in our own country men who were steeped in 'scientific management' played a big part in 'Technocracy' and in the attempted nation-wide super-cartel of the National Recovery Act in the first year of Roosevelt's New Deal.

The scope and extent of management's authority and responsibility are severely limited. It is true that in order to discharge its business responsibility management must exercise substantial social and governing authority within the enterprise – authority over citizens in their capacity as members of the enterprise. It is also a fact that because of the importance of the business enterprise, management inevitably becomes one of the leading groups in industrial society. Since management's responsibility is always founded on economic performance, however, it has no authority except as is necessary to discharge its economic responsibility. To assert authority for management over the citizen and his affairs beyond that growing out of management's responsibility for business performance is usurpation of authority. Furthermore management can only be one leading group among several; in its own self-interest it can never and must never be *the* leading group. It has partial rather than comprehensive social responsibility – hence partial rather than comprehensive social authority. Should management claim to be *the* leading group – or even to be the most powerful of leading groups – it will either be rebuffed and, in the process, be shorn of most of the authority it can claim legitimately, or it will help into power a dictatorship that will deprive management as well as all other groups in a free society of their authority and standing.

But while the fact that management is an organ of the business enterprise limits its scope and potential, it also embodies a major responsibility for creative action. For management has to *manage*, And managing is not just passive, adaptive behaviour; it means taking action to make the desired results come to pass.

The early economist conceived of the business man and his behaviour as purely passive: success in business meant rapid and intelligent adaptation to events occurring outside, in an economy shaped by impersonal, objective forces that were neither controlled by the business man nor influenced by his reaction to them. We may call this the concept of the 'trader'. Even if he was not considered a parasite, his contributions were seen as purely mechanical: the shifting of resources to more productive use. Today's economist sees the business man as choosing rationally between alternatives of action. This is no longer a mechanical concept; obviously what choice the business man makes has a real impact on the economy. But still, the economist's 'business man' – the picture that underlies the prevailing economic 'theory of the firm' and the theorem of the 'maximization of profits' – reacts to economic developments. He is still passive, still adaptive – though with a choice between various ways to adapt. Basically this is a concept of the 'investor' or the 'financier' rather than of the manager.

Of course, it is always important to adapt to economic changes rapidly, intelligently and rationally. But managing goes way beyond passive reaction and adaptation. It implies responsibility for attempting to shape the economic environment, for planning, initiating and carrying through changes in that economic environment, for constantly pushing back the limitations of economic circumstances on the enterprise's freedom of action. What is possible – the economist's 'economic conditions' – is therefore only one pole in managing a business. What is desirable in the interest of the enterprise is the other. And while man can never really 'master' his environment, while he is always held within a tight vice of possibilities, it is management's specific job to make what is desirable first possible and then actual. Management is not just a creature of the economy; it is a creator as well. And only to the extent to which it masters the economic circumstances, and alters them by conscious, directed action, does it really manage. To manage a business means, therefore, to *manage by objectives*. Throughout this book this will be a keystone.

MANAGING MANAGERS

To obtain economic performance there must be an enterprise. Management's second function is therefore to make a productive enterprise out of human and material resources. Concretely this is the function of managing managers.

The enterprise, by definition, must be capable of producing more or better than all the resources that comprise it. It must be a genuine whole: greater than – or at least different from – the sum of its parts, with its output larger than the sum of all inputs.

The enterprise cannot therefore be a mechanical assemblage of resources. To make an enterprise out of resources it is not enough to put them together in logical order and then to throw the switch of capital as the nineteenth-century economists firmly believed (and as many of their successors among academic economists still believe). What is needed is a transmutation of the resources. And this cannot come from an inanimate resource such as capital. It requires management.

But it is also clear that the 'resources' capable of enlargement can only be human resources. All other resources stand under the laws of mechanics. They can be better utilized or worse utilized, but they can never have an output greater than the sum of the inputs. On the contrary, the problem in putting non-human resources together is always to keep to a minimum the inevitable output-shrinkage through friction, etc. Man, alone of all the resources available to man, can grow and develop. Only what a great medieval political writer (Sir John Fortescue) called the 'intencio populi', the directed, focused, united effort of free human beings, can produce a real whole. Indeed, to make the whole that is greater than the sum of its parts has since Plato's days been the definition of the 'Good Society'.

When we speak of growth and development we imply that the human being himself determines what he contributes. Yet we habitually define the rank-and-file worker – as distinguished from the manager – as a man who does as he is directed, without responsibility or share in the decisions concerning his work or that of others. This indicates that we consider the rank-and-file worker in the same light as other material resources, and as far as his contribution to the enterprise is concerned as standing under the laws of mechanics. This is a serious misunderstanding. The misunderstanding, however, is not in the definition of rank-and-file *work*, but rather in the failure to see that many rank-and-file *jobs* are in effect managerial, or would be more productive if made so. It does not, in other words, affect the argument that it is managing managers that makes an enterprise.

That this is true is shown in the terms we used to describe the various activities needed to build a functioning and productive enterprise. We speak of 'organization' – the formal structure of the enterprise. But what we mean is the organization of managers and of their functions; neither bricks nor mortar nor rank-and-file workers have any place in the organization structure. We speak of 'leadership' and of the 'spirit' of a company. But leadership is given by managers and is effective primarily within management; and the spirit is made by the spirit within the management group. We talk of 'objectives' for the company, and of its performance. But the objectives are goals for management people; the performance is management performance. And if an enterprise fails to perform, we rightly hire not different workers but a new president.

Managers are also the costliest resource of the enterprise. In the big companies one hears again and again that a good engineer or accountant with ten or twelve years of working experience represents a direct investment of $50,000 over and above the contribution he has made so far to the company's success. The figure is, of course, pure guess – though the margin of error may well be no greater than that in the accountant's meticulous and detailed calculation of the investment in, and profitability of, a piece of machinery or a plant. But even if the actual figure were only a fraction, it would be high enough to make certain that the investment in managers, though, of course, never shown on the books, outweighs the investment in every other resource in practically all businesses. To utilize this investment as fully as possible is therefore a major requirement of managing a business.

To manage managers is therefore to make resources productive by making an enterprise out of them. And management is so complex and multi-faceted a thing, even in a very small business, that managing managers is inevitably not only a vital but a complex job.

MANAGING WORKER AND WORK

The final function of management is to manage workers and work. Work has to be performed; and the resource to perform it with is workers – ranging from totally unskilled to artists, from wheelbarrow pushers to executive vice-presidents. This implies organization of the work so as to make it most suitable for human beings, and organization of people so as to make them work most productively and effectively. It implies consideration of the human being as a resource – that is, as something having peculiar physiological properties, abilities and limitations that require the same amount of engineering attention as the properties of any other resource, e.g., copper. It implies also consideration of the human resource as human beings having, unlike any other resource, personality, citizenship, control over whether they work, how much and how well, and thus requiring motivation, participation, satisfactions, incentives and rewards, leadership, status and function. And it is management, and management alone, that can satisfy these requirements. For they must be satisfied through work and job and within the enterprise; and management is the activating organ of the enterprise.

There is one more major factor in every management problem, every decision, every action – not, properly speaking, a fourth function of management, but an additional dimension: time. Management always has to consider both the present and the long-range future. A management problem is not solved if immediate profits are purchased by endangering the long-range profitability, perhaps even the survival, of the company. A management decision is irresponsible if it risks this year for the sake of a grandiose future. The all too common case of the management that produces great economic results as long as it runs the company but leaves behind nothing but a burned-out and rapidly sinking hulk is an example of irresponsible managerial action through failure to balance present and future. The immediate 'economic results' are actually fictitious and are achieved by paying out capital. In every case where present and future are not both satisfied, where their requirements are not harmonized or at least balanced, capital, that is, wealth-producing resources, is endangered, damaged or destroyed.

The time dimension is inherent in management because management is concerned with decisions for action. And action is always aimed at results in the future. Anybody whose responsibility it is to act – rather than just to know – operates into the future. But there are two reasons why the time dimension is of particular importance in management's job, and of particular difficulty. In the first place, it is the essence of economic and technological progress that the time-span for the fruition and proving out of a decision is steadily lengthening. Edison, fifty years ago, needed two years or so between the start of laboratory work on an idea and the start of pilot-plant operations. Today it may well take Edison's successors fifteen years. A half-century ago a new plant was expected to pay for itself in two or three years; today, with capital investment per worker ten times that of 1900, the pay-off period in the same industry is ten or twelve years. The human organization, such as a sales force or a management group, may take even longer to build and to pay for itself.

The second peculiar characteristic of the time dimension is that management – almost alone – has to live always in both present and future. A military leader, too, knows both times. But rarely does he have to live in both at the same time. During peace he knows no 'present'; all the present is in a preparation for the future of war. During war he knows only the most short-lived 'future'; he is concerned with winning the war at hand to the practical exclusion of everything else. But management must keep the enterprise successful and profitable in the present – or else there will be no enterprise left to enjoy in the future. It must simultaneously make the enterprise capable of growing and prospering, or at least of surviving in the future – otherwise it has fallen down on its responsibility of keeping resources productive and unimpaired, and has destroyed capital. (The only parallel to this time-squeeze is the dilemma of the politician between the responsibility for the common good and the need to be re-elected as a prerequisite to making his contribution to the common good. But the cynical politician can argue that promises to the voters and performance once in office need not resemble each other too closely. The manager's action on present results, however, directly determines future results, his action on future results – research expenditures, for instance, or plant investment – profoundly influences visible present results.)

THE INTEGRATED NATURE OF MANAGEMENT

The three jobs of management: managing a business, managing managers and managing worker and work, can be analysed separately, studied separately, appraised separately. In each a present and a future dimension can be distinguished. But in its daily work management cannot separate them. Nor can it separate decisions on present from decisions on future. Any management decision always affects all three jobs and must take all three into account. And the most vital decisions on the future are often made as decisions on the present – on present research budgets or on the handling of a grievance, on promoting this man and letting that one go, on maintenance standards or on customer service.

It cannot even be said that one job predominates or requires the greater skill or competence. True, business performance comes first – it is the aim of the enterprise and the reason for its existence. But if there is no functioning enterprise, there will be no business performance, no matter how good management may be in managing the business.

The same holds true if worker and work are mismanaged. Economic performance that is being achieved by mismanaging managers is illusory and actually destructive of capital. Economic performance that is being achieved by mismanaging work and worker is equally an illusion. It will not only raise costs to the point where the enterprise ceases to be competitive; it will, by creating class hatred and class warfare, end by making it impossible for the enterprise to operate at all.

Managing a business has primacy because the enterprise is an economic institution; but managing managers and managing workers and work have primacy precisely because society is not an economic institution and is therefore vitally interested in these two areas of management in which basic social beliefs and aims are being realized.

In this book we shall always bring together both present and future. But we shall discuss separately each of the three major jobs of management: managing a business, managing managers, managing work and worker. We must, however, never allow ourselves to forget that in actual practice managers always discharge these three jobs in every one action. We must not allow ourselves to forget that it is actually the specific situation of the manager to have not one but three jobs at the same time, discharged by and through the same people, exercised in and through the same decision. Indeed, we can only answer our question: 'What is management and what does it do?' by saying that it is a multi-purpose organ that manages a business *and* manages managers *and* manages worker and work. If one of these were omitted, we would not have management any more – and we also would not have a business enterprise or an industrial society.

CHAPTER 3

The Challenge to Management

The new industrial revolution – Automation: science fiction and reality – What is Automation? – Conceptual principles, not techniques or gadgets – Automation and the worker – Automation, planning and monopoly – The demands on the manager.

Management faces the first test of its competence and its hardest task in the imminent industrial revolution which we call 'Automation'.

A lot of rather lurid 'science fiction' is being written today about Automation. The 'push-button factory' is the least fantastic of them (though it, too, is largely nonsense). The coming of the new technology has revived all the slogans of the 'planners' of the thirties. It is producing a new crop of penny-dreadfuls purporting to give us a glimpse of that nightmare, the technocrat's paradise, in which no human decisions, no human responsibility, no human management is needed, and in which the push button run by its own 'electronic brain' produces and distributes abundant wealth.

Specifically we are being told in these mathematical romances that the new technology will require such capital investments as to make impossible all but the giant business. We are told – in Europe even more than here – that it will make almost inevitable the elimination of competition and will make both possible and necessary the nationalization of the resulting giant monopolies. We are told that the push-button factory of the future will have practically no workers (though who will buy the unlimited supply of goods it will spew out if everyone lives in enforced idleness we are not being told). And those people that are still needed will be pure technicians – electronics engineers, theoretical physicists, mathematicians – or janitors. But managers will not be needed. Indeed, however much the prophets disagree on other points, they seem to be in emphatic agreement that managers will not be needed.

It is no accident that so much of this speculation comes from the advocates of controlled economy and central planning – especially in

Europe. For every item in the present prediction of things to come is straight out of the prescription the planners urged us to swallow yesterday. Now that we in the free world no longer accept the planners' remedies as good for us, an attempt is being made to make us swallow the same nostrums under the pretext that they are inevitable.

WHAT IS AUTOMATION?

Yet every one of these assertions, conclusions and fears is the direct opposite of what the new technology really means. Indeed we have enough examples of it around – in an oil refinery, for instance, or in a synthetic rubber plant – so that we do not have to speculate. We can show what Automation is and what its effects will be.

Automation is not 'technical' in character. Like every technology it is primarily a system of concepts, and its technical aspects are results rather than causes.

The first concept is a metaphysical one: that there is a basic pattern of stability and predictability behind the seeming flux of phenomena. The second concept is one of the nature of work. The new technology does not, as did early individual production, focus on skill as the integrating principle of work. Nor does it, as did Henry Ford's concept of mass production, focus on the product as the organizing principle. It focuses on the process, which it sees as an integrated and harmonious whole. Its aim is to arrive at the best process – the process that will produce the greatest variety of goods with the greatest stability, at the lowest cost and with the least effort. Indeed the less variety and fluctuation there is in the process, the greater may be the variety of goods that can be produced.

Finally, the new technology has a concept of control to maintain the equilibrium between ends and means, output and effort. Automation requires that what is significant be pre-established, and that it be used as a pre-set and self-activating governor of the process.

The mechanics of control can be extremely simple.

In the claims office of a life-insurance company, policies that require special handling – because the documents are not all there, because data are missing, because the beneficiary is not clearly established, because the title is clouded, etc. – are simply put aside and handed over to a separate clerk for special, individual handling. This anyone can learn to do in a few days (or a machine could be designed to do it). It makes possible the rapid, smooth and continuous processing of the 98 per cent or so of all policies that are routine – even though there are literally thousands of variations in the mode of payment, the distribution among beneficiaries and so on. Simple rejection is adequate control to maintain the process.

Control may also require complicated machinery. It can be exercised as 'feed-back', in which the result of the process is fed back into an earlier stage to maintain the process and to adjust it if necessary.

The simplest example is the 'governor' on a steam engine which is lifted up by steam pressure in the boiler until it opens up a hole through which the excess steam escapes, thus lowering the pressure enough for the governor to sink back to its former place and to close the opening again. It is this principle on which glandular body functions operate. And it is feed-back that is used by the electronic control system of an anti-aircraft gun.

The mechanics of control are, however, quite secondary to the technology of Automation. What is essential is that there always be a control built into the process which maintains it either by eliminating what the process cannot handle or by adjusting the process so as to make it produce the planned result.

Only *after* these concepts have been thought through can machines and gadgets be fruitfully applied.

After this conceptual re-thinking, however, mechanization of those operations that are repetitive in character becomes both possible and economical. A machine can be used to feed material into another machine, to change the material's position in the machine and to move it from one machine to the next. All materials-handling – which contributes the bulk of unskilled repetitive work under mass production – can be mechanized. So can changes in machine setting and routine judgments (for instance, whether the machine has become too hot or the tool bit too blunt).

This mechanization is not, however, Automation itself. It is only the result of Automation and it is not essential to it. We have plenty of examples of effective mass production without a single conveyor belt; for instance, the sorting of cheques in a clearing house. We will see examples of Automation without a single 'automatic tool', let alone a single 'push button'.

Techniques, tools and gadgets are thus in Automation, as in every technology, specific to the task and determined by it. They do not constitute Automation; nor does Automation consist in their application. Automation is a concept of the organization of work. It is therefore as applicable to the organization of distribution or of clerical work as to that of industrial production.

AUTOMATION AND THE WORKER

The popular belief that the new technology will replace human labour by robots is utterly false.

'I was in charge of an analogue computer for some time,' one of my students told me. 'I am still appalled by the number of business men who believed that the machine was in charge of me.'

Actually the new technology (though there will certainly be problems of displacement) will employ more people and, above all, more people who are highly skilled and highly trained.

A scant twenty years ago, it was widely believed that the mass-production technology – yesterday's industrial revolution – threw people out of work. Today we know that wherever it has been introduced, it has rapidly increased the number of job opportunities in industry. But it is still widely believed that mass production replaces skilled labour by unskilled labour. We know this today to be a fallacy. In the United States, for instance, where mass-production methods have been applied on the broadest scale, the class of employees that has been growing most rapidly in numbers and proportion is that of skilled and trained people. And the truly unskilled labourer of yesterday, who contributed only his brawn, has become the semi-skilled machine operator of today – a man of higher skill and education, producing more wealth, earning a vastly higher standard of living.

The technological changes now occurring will carry the process a big step farther. They will not make human labour superfluous. On the contrary, they will require tremendous numbers of highly skilled and highly trained men – managers to think through and plan, highly trained technicians and workers to design the new tools, to produce them, to maintain them, to direct them. Indeed, the major obstacle to the rapid spread of these changes will almost certainly be the lack, in every country, of enough trained men.

It is similarly not true that the new technology demands the giant enterprise, let alone that it squeezes out the small and independent and establishes monopoly. In some industries it may indeed increase the size of the most economical unit. In many others (one example is the production of raw steel) it is likely to make significantly smaller units economically possible, if not necessary.

It is finally not true that the new technology brings a tremendous increase in capital requirements. Investment per *production* worker will, of course, go up. Investment per *employee* may, however, not rise at all, as more technicians and managers will be needed; and there is nothing in our experience to make it appear likely that investment per unit of output will increase significantly.

THE DEMANDS ON MANAGEMENT

Above all, the new technology will not render managers superfluous or replace them by mere technicians. On the contrary, it will demand many more managers. It will greatly extend the management area; many people now considered rank-and-file will have to become capable of doing management work. The great majority of technicians will have to be able to understand what management is and to see and think managerially. And on all levels the demands on the manager's responsibility and competence, his vision, his capacity to choose between alternate risks, his economic knowledge and skill, his ability to manage managers and to manage worker and work, his competence in making decisions, will be greatly increased.

Far from making inevitable, let alone desirable, centralized planning and monopoly – whether nationalized or private cartel – the new technology will demand the utmost in decentralization, in flexibility and in management autonomy. Any society in the era of the new technology would perish miserably, were it to attempt to get rid of free management of autonomous enterprise so as to run the economy by central planning. And so would any enterprise that attempted to centralize responsibility and decision-making at the top. It would go under as did the great reptiles of the Saurian age who attempted to control a huge body by a small, centralized nervous system that could not adapt itself to rapid change in the environment.

For all of these reasons, no description of the nature of management will be complete that fails to take Automation into account. I am inclined to believe that Automation will not inundate us in a sudden flood, but will seep in gradually though steadily. But there can be little doubt that it is coming. There can be little doubt that the industrial country that first understands Automation and first applies it systematically will lead in productivity and wealth during the second half of the twentieth century, just as the United States, through understanding and applying mass production, came to lead the world during the first half of this century. And there is even less doubt that this leadership position will fall to the country whose managers understand and practice management in its fullest sense.

PART I

MANAGING A BUSINESS

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