

Management Guide to Office Automation

Joseph St John Bate

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Preface

Office automation has been a 'buzz word' for years. Sometimes it is in favour, sometimes not, but it has always seemed to be just at the point of arriving. It was this feature that allowed managers, with a certain amount of justification, to dismiss the concept of office automation as being something that was of no concern to them – at least for the present.

The developments that have come about over the past few years point to the time, in the foreseeable future, when a manager's position will depend on his/her ability to manage office automation. Many managers are ill-equipped to face this challenge. This text has been written to help managers face up to the challenge.

The first chapter emphasises the reasons that the traditional office needs office automation; indeed, why every office that survives will be automated. The second chapter demonstrates why management, especially top management, has a central role to play in its development. Chapters three and five provide an understanding of two aspects which many managers are unaware of, but are important in the process of office automation. These are the patterns of technological development and the way in which the DP and WP staff view the process of automating your office. Chapter four gives some guidelines in measuring the payback of an office automation project.

Chapters six, seven and eight look at the office, the people and the technologies available and provide many examples of the way in which all, or aspects, of the office can be automated. The next chapter demonstrates the way in which training can be used to improve the productivity of the office.

The remaining chapters outline methods that can be followed to ensure that office automation projects are successful and demonstrate the need for managers to manage. The last two chapters look at the future of office automation and the effect that it will have on the existing workforce.

Finally, I would like to dedicate this book to all those who have used various aspects of office automation to produce this book. Lance who produced the diagrams using the Apple Mac and the laser jet printer; Cathy

whose knowledge of wordprocessing packages enabled a switch to be made from Superwriter on the Apricot F1 to WordStar on a Compaq 286 and help in the printing; Dinesh, a technical wizard, who took overall control when the files were 'lost'; my father for his proof-reading efforts – as well as providing ideas; he also noted certain spelling errors (even although the text had been through a spell check program); Glenys my wife for the wordprocessing input and general forbearance required in a household when a book is being written; Richard, the editor, whose belief in technology has enabled him to speed up the printing of books, and my two children Jonty and Leah who constantly asked 'when is that book going to be finished?'

Joseph St John Bate

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Chapter One

The Traditional Office Needs Office Automation

Office automation is an entrepreneurial activity

The introduction of office automation into an organisation is an entrepreneurial activity. This is because successful office automation improves the flow of information and information is a major company resource that should be *managed*. Only top managers with a true entrepreneurial spirit have the energy and direction to capitalise on the opportunities that office automation offers. As such, this activity should not be left to the tender mercies of technicians and lower level managers.

It is a major managerial task. It is also a very complex task since it requires knowledge of many disciplines. These include how to manage change, patterns of technological development and how to profit in a risk situation. All these need the ability to set goals and to ensure that they are achieved. Organisations that commit financial resources introducing office automation into their offices should entrust this task to their most dynamic management. To do anything less would be underestimating the size of the task and the importance of office automation to the organisation.

Considerable financial commitment is needed if office automation is to be successful and management who are not prepared to commit these resources will be committing suicide instead!

Office automation is a new discipline

Office automation as an activity barely existed ten years ago and yet, now it is of vital importance to all who earn their living in an office environment. The technology now exists to make the automated office a reality within the next few years. This will mean that everyone who works in an office – of any kind – will be affected. There are those with apparently secure jobs in government, public authorities, private enterprise and multi-national companies who think that they will be untouched by technological change.

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This attitude is as misplaced as the Fleet Street printers who thought they had jobs for life as long as they ignored the new technology. How wrong they were! The new technology swept them away – leaving their skills, job titles and privileges as a monument to times past like gravestones in a churchyard. The same could happen to the office worker.

The technology that changed the printing industry will also change the office. Nothing can stop it. The only choice managers or office workers have is to learn how to work with the new office technology or watch their jobs disappear. Time is not on their side because the change is likely to be soon, swift and sudden.

Interplay between computer specialists and management

All levels of management must come to terms with the way in which the computer specialist interplays with management in order to get the most out of any system. While many people may be affected by computers, unless they understand how they work they are rarely involved directly in their use or have any influence on the selection of goals. This is especially the case in the office. These activities are crucially dependent upon the interplay between computer specialists and the management of an organisation.

Some office workers react to the introduction of office automation by becoming mildly hysterical, while others are euphoric. But, the livelihoods of office workers *are* threatened by changes, the consequences of which are half-perceived and as yet ill-defined.

Threats and opportunities

These threats can also be opportunities but their long-term consequences, and the best ways for society to respond to them are unclear to all, even to the politicians and the pundits. What is certain however, is that the pace of technological development is unlikely to slacken, that the cost of equipment will continue to decline and therefore a growing number of organisations will make greater use of office-based computers. *Unfortunately, it is almost equally certain that most new users will make many mistakes – in some cases to the detriment of their careers.*

In the past twenty years there have been some splendid computer applications which have helped companies grow and become more profitable. Indeed, many organisations, such as banks and financial institutions could not exist in their present form, or even at all without the support of computers. It is equally true that many companies who have

failed to capitalise on the available computer power have continued to thrive. Can we be sure however, that managers in those organisations who failed to grasp the opportunities offered by computerisation will continue to survive?

What can be automated

Before a manager can begin to understand how to automate an office the nature of the office must be understood. Obvious? Not so. How many managers understand their office? They begin with a vision of an office containing a manager, and a secretary whose job descriptions can be expressed as generating documents, conversing on the telephone and attending meetings.

But they fail to realise that offices are not all of the same structure. Moreover, few take into account the industry of the office parent organisation, the position of the office within the organisation, or the role that it fulfils there. Any approach to office automation which attempts to deal with the office without reference to its business function is so weak as to be virtually useless. Those who wish to be successful when carrying out an office automation project need to have a fundamental understanding of offices in general and theirs in particular.

A description of the office

It seems best to leave to one side, for the moment at least, the problem of definition and concentrate on description. Two dangers must be avoided: excessive reliance on a particular description and the assumption that all offices are identical. Offices are structured around components, machines, procedures and people. We can say that these components are concerned with:

- the production of numbers and words
- storage and retrieval of numbers and words
- the communication of numbers and words

This is a standard description of an office. The office is staffed by people whose jobs are stereotyped, e.g. manager, professional secretary, clerk. There appears therefore, a significant degree of consistency from office to office in and between different industries, but of course, each office changes in emphasis because fundamentally an office is the information centre of an organisation.

DESIGNING A NEW OFFICE INFORMATION SYSTEM

TO BE ACCESSED BY MANY PEOPLE
AT ONCE

CHEAP TO STORE WITHOUT NEED FOR
PRESTIGIOUS ADDRESS

EASY TO INDEX

SIMPLE TO ACCESS INFORMATION
UNDER ANY HEADING

DIFFICULT TO DAMAGE

DIFFICULT TO LOSE

CHEAP TO COPY

QUICK AND EASY TO SEND

CHEAPEST MEDIUM

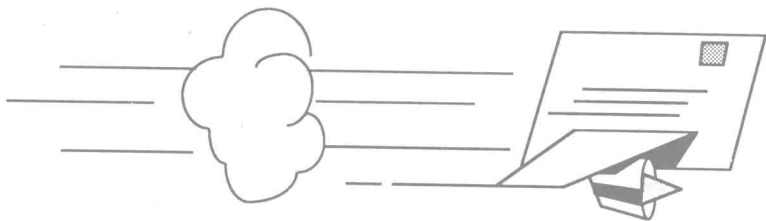


Figure 1.1

REASONS FOR THE NEED TO CHANGE

SPEED OF COMMERCIAL LIFE INCREASING

COMPETITION INCREASING
(National and International)

**IMPORTANCE OF INFORMATION
BEGINNING TO BE REALISED
BY ORGANISATIONS**

- CUSTOMERS LISTS
- REQUIREMENTS
- MARKET RESEARCH
- PRODUCT DETAILS
- NEW SCIENTIFIC FACTS

**ORGANISATION MUST BE MANAGED
MORE EFFICIENTLY BECAUSE
PAPER - BASED SYSTEM TAKES UP
60% OF THE TOTAL COSTS OF RUNNING AN
ORGANISATION**

Figure 1.2

An information centre must produce, store, retrieve and communicate words and numbers: this is the processing of information, so offices are where information is processed. That does not mean, of course, that it is only in offices that information is processed or yet that offices are only concerned with processing information.

Concerns for top management

A close examination of the office reveals a number of points which should be of concern to top management, or indeed to everyone who works in an

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office. Many studies, on both sides of the Atlantic, show that the administrative costs of business are increasing at a rate of 10–15% per annum and nearly 60% of the total is attributable to managerial and professional salaries and fringe benefits that go with them. Management increasingly asks ‘what are we getting for our money? And how can we improve our returns?’

The answers are disturbing: the current increase in productivity in offices is so meagre, if it exists at all, that it cannot match the increased demands placed on them – let alone the salary increases demanded by office workers. Already the white collar work force is approximately 50% of the total labour force, and it is continuing to grow. Even in these difficult times there are few signs of this growth slowing down. The conclusion of a number of American

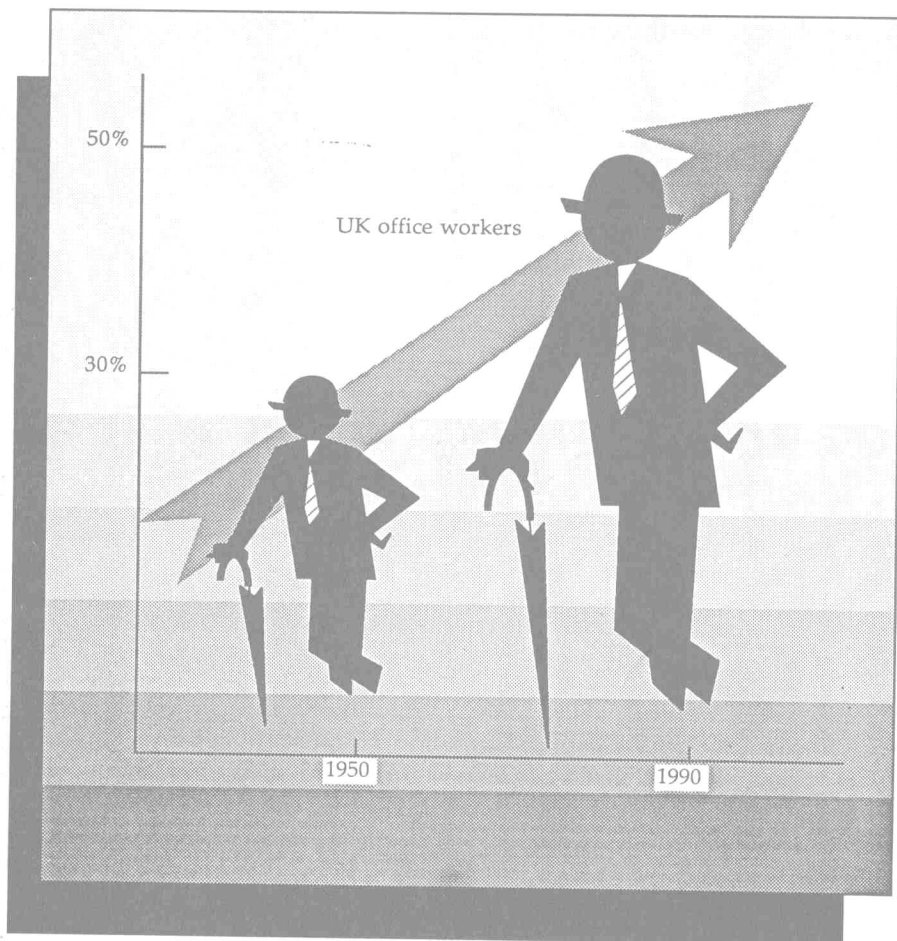


Figure 1.3 The number of people working in offices has shot up in recent years.

economists is that in real terms the amount of productive work for each monetary unit is declining.

The demand for information increases

Despite this decline in the office worker's productivity there has been a steady increase in demand for these workers; more workers to do the same amount of work causes a decline in productivity. The magnitude of this demand can be gauged by the number of telephone calls made and documents produced. More than 100 000 000 000 telephone calls a year are made and this number is increasing at a rate of over 15%. Seventy billion documents are created and more than two million new scientific facts are discovered and reported in the ever-growing reports and journals. These figures are not only staggering in themselves, but are increasing every year and show no sign of stopping. It is this flow of information that provides businesses with the opportunities to increase or protect their share of the market. Any company that fails to utilise or at least be aware of the changing nature of this information environment is in danger of losing its markets, and maybe going out of business.

The 80/20 rule

All the information being generated has to be stored in some filing cabinet, computer or human memory; often not once but many times. Everyone knows the 80/20 rule, namely, that 80% of anyone's need for information will be met from 20% of what is stored. The problem is to decide which 20%.

Uncontrolled Information Clogs up the Works

The demand for information increases as does the speed at which it has to be disseminated. All this information is not just stored: it has to be handled in all the various offices throughout the world by office workers. We use the word 'handled' advisedly, since it is in most cases a manual task. The physical work expended in making and receiving these telephone calls, creating, editing, distributing the billions of paper documents, classifying and filing the millions of facts, to mention but a few office tasks, is immense. It is the labour-intensive nature of the office which makes it particularly sensitive to escalating costs. However, an important point in history has

been reached: recent technological developments offer for the first time a number of dramatic opportunities to avoid increasing or even to reduce costs, to provide information more quickly and more accurately – to pick out, in fact, the 20% required with the least possible delay and hassle.

What do we mean by office automation?

There are many strands to the automated office: photocopier, microfilm, dictation systems, telephone facsimile transmission, as well as computer-based equipment, and all of these have a part to play. But the main thrust of office automation will be the development of easily accessed and maintained electronic information databases. The new office systems based on networks and workstations, which will result from the convergence of computer and telecommunication technology will help to provide this facility.

Computers are not new to office work

Computers are working for many organisations. Of course, these technologies of computing and communications are not totally new to the business and commercial environment. They have already had a marked effect on the way in which business is conducted and an organisation's labour requirements. Invoices are generated by computer and the number of clerical workers have declined. There are many other examples in the clearing banks, tax offices and police forces where computers have replaced clerical workers and improved the speed at which information is processed.

Over the past twenty years, computer and telecommunications technologies have been successfully introduced into all major corporations for a variety of tasks, including manufacturing, financial, planning and allocation of human resources. All large organisations have installed mainframe computers, to carry out tasks such as invoice generation, stock control and wages. This has dramatically reduced the need for clerical workers and has created a new breed of office worker in the form of computer specialists. Thirty years ago, this breed only existed within the confines of universities and defence-related laboratories. Now they seem to be everywhere. It is only within the past few years however, that industry has witnessed the introduction of these technologies directly into the office.

The previous generations of computers were kept out of sight, in air-conditioned rooms, as were their operators. But now, with the introduction of word processors and personal computers, they now sit on office desks and the operators work is in full view of everyone. Even with these advances and

with the vast amount of advertising for word processors and personal computers, much of the office remains untouched by the new technology. By the mid-1980s less than 4% of the non-secretarial office workers had computerised workstations on their desks. Consequently, office productivity has continued to stagnate as office costs continue to climb. For many organisations these costs represent half of all expenses. As if this were not bad enough, many organisations are now experiencing problems retrieving information they know exists within their systems. In many cases they have rows of filing cabinets full of paper but no one has the least idea where to find what is wanted.

Needed – people who can think

Machines, however intelligent, and software, however sophisticated, will never be able to resolve this problem without the intellectual effort of highly skilled personnel. They not only need to understand the problems and requirements of an organisation but also to be able to set up a system and indicate the training required. Although the automation equipment is essential, the drive is provided by skilled people.

The demand for office staff will shift from those who can carry out routine tasks to those who can think. The ability to think creatively and rationally is rare in normal life and rarer still in the office. In the traditional office the intelligent and practical secretary was and always will be worth more than a clutch of stereotyped managers – whatever their grades.

Making management more productive

Managers are increasingly aware that they should become more productive. Too often, however, excessive time and effort is spent on routine clerical tasks that could, with proper planning, be delegated to office support staff. If such tasks were delegated, management could spend more time on proper management functions such as planning and organising, with electronic technologies providing the basis for an integrated office (also called the automated office or the office of the future). The integration of previously discrete office functions, such as typing, keyboarding, storing, retrieving information, communicating and distributing it, on which managers presently spend so much time, can be done by the computer, if you know how.

In many cases, word processing equipment was originally used in the traditional office as a secretarial tool. However, to meet the service and