

# Successful Business Computing

M Tampoe

Butterworths

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M. Tampoe, A.C.M.A.

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# Preface

This book is a guide which focusses the reader's attention on the management issues surrounding the successful selection and use of a computer system. I hope that, by using this book, the reader looking for a computerised solution to his business problems will be able to put his needs in perspective and thus buy and implement a computer system which meets his immediate requirements and caters for future growth.

The book maps out the route and draws attention to the significant. It calls on the reader to elaborate and draw out the lessons, to fill in the detail by talking to the specialists and existing users. I trust that the student will find in this book an introduction to the application of computers and computer systems in business and commerce.

Finally, I wish to express my gratitude to all those who have contributed to my theoretical and practical knowledge over the last fifteen years—including my colleagues in ICL, the many customers of ICL and the authors of many books read over this period.

I would also like to thank the various firms who have kindly supplied photographs of their products which have been used to illustrate the text.

**F.M.K. Tampoe**

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# Introduction



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## Introduction

### Welcome to the world of computing.

There is an art to the successful use of computers in business. As much as a pretty picture is a composite of colour, form, proportions, shape, composition and perception, the successful integration of computing techniques to meet business needs is a composite of requirements, perception, equipment, logical procedures and the will to win.

This book is about all of these things; it helps to identify those factors that need to be assessed in buying computer equipment and the associated computing instructions, called computer programs or software. It is a management manual and not a technical treatise on computing theory, or advanced computing.

### The reader

This book is written for the businessman or executive looking for hints and guidelines on how best to tackle the task of acquiring a computer system. It is the author's belief that before taking those first few faltering steps to the door of the computer supplier, a period of planning and preparation is essential. It tells you what to do before you buy, rather than how to install and implement.

Because it outlines the basic principles of computer selection and usage, a senior executive or businessman in a large organisation with computer professionals to advise him on the best choice, will also benefit from this book. Irrespective of the size of installation, the fundamental issues are universal and the need for planning and evaluation remains the same. The perception and priorities may change as indeed will the overall cost and complexity.

The reader who will derive most benefits is the first time buyer with:

- (a) a limited budget to invest on computing;
- (b) a desire to minimise his overheads and annual spending by limiting the number of specialist computer staff employed (if any are required at all).
- (c) a desire that the computer system should be another tool to keep the organisation effective and competitive.



## Synopsis

The book is divided into three main parts, each part and chapter being preceded by a synopsis of its contents.

Part 1 helps the reader to recognise the symptoms and assess needs. It identifies some of the reasons which prompt the purchase of computer systems, and helps to point to those areas of the organisation which can benefit. It also explains a method of pinpointing the specific application areas. It emphasises the need for a computing policy within the organisation and specifies some significant policy issues. Finally, it identifies sources of external help.

Part 2 guides the reader through the buying cycle, identifying the major activities and providing guidelines for the evaluation of the systems proposed.

Part 3 explains the constituents of a computer system and provides a glossary of terms.

## How to use this book

The reader who is new to computing will, of necessity, have to read the whole book. Once the acquisition process begins, specific chapters can be used as checklists to act as guides through the different phases of acquisition. The reader who is familiar with computing may treat this book as a 'refresher'.

Reading through the book, a daunting prospect of months lost in detailed work emerges. The one-man business of reasonable size may find that the processes leading up to the production of the Statement of requirements is short and quick and produced informally. A larger business with many departments and conflicting priorities and information needs will have to develop a formal approach to reaching the stage at which it is able to produce a statement of computing needs. It is recommended that the evaluation phases are formalised and followed.

Time spent in preparation will be repaid in full during the period when the computer is being installed and introduced, and subsequently in everyday use. The approach recommended is one of formal and rational evaluation. It is necessary to stress that selecting a computer system to meet specific organisational needs can be difficult and that the buyer will benefit from following the guidelines in this book. If the choice is wrong the cost to the organisation can be much greater than the cost of the equipment.

## Conclusion

The 1980s herald the dawn of the affordable computer. As with pocket calculators, the price of computers will fall and their usability will increase. Computing is not a luxury anymore.

Those businesses with established computer capability and growing human communication problems will attempt to improve the productivity and effectiveness of their clerical and managerial functions by automating the office procedures. The small businessman will take solace in the many microcomputer systems currently available. In between these two extremes there will be many uses made of the power of computers.

Computers and the infrastructure supporting them will form the basis of the 'knowledge society', and contribute significantly to the wealth of the developed and developing world. The manager who learns to harness this capability in his office, his factory floor or business premises will derive many benefits, not the least of which will be a thriving and successful business.



# Part 1

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## Understanding your needs

The first requirement is to understand the reasons for wanting a computer system, and what can be done with it. The reasons are not obvious and the effects can be far reaching.

This part of the book is directed at helping the reader to understand the problems and solutions available. It starts by looking at the triggers, explores those areas within the business where computing techniques can be cost-effectively used and explains what is meant by a 'computer system'. It also argues the case for a firm computer policy in the areas of organisation, management implementation and applications planning.



# Chapter 1

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## Why do you need a computer?

### Synopsis

This chapter identifies the many reasons which prompt organisations to employ computing techniques, and suggests that if one's own is suffering from some or all of these factors, computerisation should be considered.

### Is a computer needed?

Very often a businessman or executive finds himself asking the questions 'Do I need a computer?', 'Will it solve this problem?', 'Can I afford one and is it cost effective?'. These are often the same questions he asks for most other investment decisions.

Neither size of business nor volume of data in their own right are sufficient reasons for computerising the clerical procedures surrounding the organisation. Often the decisions are more far reaching than economic fact.

Many organisations, for example airlines, the bigger travel agencies and Banks, cannot operate without the aid of computerised systems to help them deal with their customer. At the other end of the scale, one-man businesses have installed microcomputers if only because by doing so they could contain the growth of paperwork and process the clerical functions more cost effectively. Indeed, in some instances the owner has found that the system he developed had a ready market in his business area and has gone into business providing computer systems as a side-line.

Because the price of computers is so low and the price of software for microcomputers is also low, the average one-man business can use a computer system. These same financial considerations make it cheaper for large organisations to expand their use of the computer's power by introducing computers to the different operating units of the business. Given that the system earns tax allowances as well as helping one to be successful, the

answer to the question 'Do I need a computer' must be a rhetorical one and answered by a resounding 'Yes', provided certain criteria are met. What are these criteria?

### **Can you afford a computer?**

In today's market one can buy a perfectly adequate business computer with a visual display unit, a cheap but adequate printer and magnetic disc data storage capability, from upwards of £2500. Application software written for these machines is cheap to purchase and adequate for the purpose.

If computing can now cost much less than an executive car why not just go out and buy one? The answer is that cars are carefully chosen. There are choices of manufacturer, colour, performance, reliability, insurance, purpose, running costs and many more. The decision is based on assessment and preference. So too in computing, the choice matters. The fact that computers are cheap and their packaging cost-effective may be a single factor in the decision.

The first commercial use of computers began in the 1950s. Since then every decade has seen major strides in computer technology. The 1980s will be no different. The advancement in microchip technology and similar associated products such as data storage media is accelerating the rapid decline in the cost of computer systems. The use of pre-written computer programs reduces the need for developing one's own software, an expensive task at the best of times.

The microcomputer will overcome its present shortcomings for business use and play an increasing role in business information systems. Like the specialist pocket calculator of today, micro-computer systems will be available, for specific business uses. Called 'dedicated applications computers' they will be designed on the 'plug-in-and-run' principle. The one-man business requiring help in specific areas will find that these systems will solve his immediate problems.

The minicomputer is also growing in power and capability while reducing in cost and size. The small and medium sized businesses requiring equipment that can handle complex workloads and large quantities of data will begin to use the 'mini'.

In the decade of the 'Affordable Computer' the major change will be that the market for computer systems will expand greatly. The computer will invade the office in the guise of the word

processor and by the latter half of this decade the 'automated office' could be a reality. This in turn will increase the choices open to the end user. Recognising the change, the computer manufacturers are developing a new range of systems to meet the new market place. Many of these will be hybrid systems providing both word processing and data processing in one system.

Because the margins of profit on computers will drop, the supplier will be unable to provide the personalised service currently available, resulting in the growth of retail outlets, with computer systems being purchased over the counter.

The computer manufacturers and software houses are producing a greater variety of application programs, such as inventory control systems, which can be bought and implemented by this new breed of users. In this way smaller organisations benefit from computerisation and find themselves competing on an equal footing with their larger rivals. The software services industry is changing too. The large software houses are co-existing with smaller and more numerous consultancies spread more widely across the market place. Their services are offered at prices which smaller customers can afford. They too are investing heavily in the development of applications programs which are aimed at the high-volume, low-price market.

Unlike the multi-nationals and larger commercial organisations, public utilities, Government and local authorities, the new user will not want to invest heavily in people. The first-time user, whether a small business or subsidiary of a big corporation, is looking for a total solution to business problems without the overheads.

The responsibility for buying a computer system that meets a specific business need will rest with the buyer, who will have to buy himself out of trouble if he makes the wrong choice. Despite this, the cost of computerisation is falling. Is price the only determining factor?

## **Why a computer?**

### **Prestige**

An important consideration is based on the desire to show that the organisation uses, and can afford, the most up-to-date techniques.

### **Operational necessity**

There are some industries which could not survive without computers to assist them. They tend to be those dealing with large



volumes of data where customer satisfaction is based on getting items of data right first time and recording and acting on that information promptly. Examples are the airlines and the banks, especially now that cash dispensers are becoming more commonplace. Travel companies and the larger hotel chains make extensive use of computer booking systems. The increasing cost of money is resulting in a growing use of the computer in manufacturing environments to control the cost of inventory, work-in-progress and to manage cash-flow.

### **Competitiveness**

The ability to be competitive in market areas where using computerised systems is considered essential is especially valid in some industrial segments where working with major organisations requires meeting their information demands.

- (a) *Price competitiveness* can also be achieved by the successful application of computers to control the growth of overhead expenses such as staff costs, interest charges and stock handling costs.
- (b) *Better customer service*. Computerisation can greatly improve the responsiveness of an organisation to its customers. On-line order entry and enquiry systems can speed up the communications channels and provide a better service to the customer. Discount warehouses and some high street retailers use such systems to provide a better cost-effective service.
- (c) *Staff effectiveness*. Computerisation often removes the drudgery from clerical work. This in turn improves staff morale and efficiency with a resultant improvement in the accuracy and timeliness of all clerical functions. Computerisation can often be a means of attracting a higher calibre of staff.

### **Business success**

Success in business is often accompanied by growth. This growth places pressure on the procedures and controls within an organisation and is very often the most significant justification for computerisation.

Some of the symptoms are:

- (a) *Inadequacy of manual systems*  
Manual systems cannot be expanded indefinitely. An increase in the volume of paperwork results in the inability of the manual procedures to cope with the workload being generated, and results in delays in producing reports and statistics.