Quarterly

Small

Business

Management

Report

Lloyds
Bank

Information Technology

WEB VERSION: INTRODUCTION

The Lloyds Bank/TSB-sponsored series of small business management reports commenced in 1992, and concluded in 2009. In total, 53 reports were published over a period of 17 years.

Our target audience comprised the owner-managers of independent small businesses, typically employing fewer than 50, and based in mainland UK.

The series originated from a longitudinal study of small business management, undertaken by the Polytechnic of Central London (now University of Westminster), and culminating in: *The Management of Success in 'Growth Corridor' Small Firms*, (Stanworth, Purdy & Kirby, Small Business Research Trust, 1992).

THEMES

The themes were wide-ranging – including such as entrepreneurship, work & stress, employment strategies, and the environment – a full list is shown overleaf.

INSIGHT

In addition to asking questions and supplying the respondents with a range of answer options, the corresponding questionnaire was included as an appendix to each report so that readers would know exactly what questions had been put to respondents.

We also sought qualitative information – in the form of verbatim comments about the key theme – to help elaborate on whatever related challenges respondents felt they were facing at the time.

Finally, the findings are primarily intended to be indicative rather than definitive – partly due to the sample size, which is, on average, 111 for the 2003-09 reports.

PUBLISHING FORMAT

The reports were published in hard copy form, obtainable via subscription. Initially by the Small Business Research Trust, and from 2003, by the Small Enterprise Research Team (SERTeam), both research charities based at the Open University.

Regrettably, SERTeam ceased operating in 2009, and so in 2010 the authors felt that the more recent reports would find wider interest if they were made freely available in Acrobat format via the Internet – especially with the UK economy set for a protracted journey out of recession, and with the government in turn refocusing on smaller businesses to aid the recovery.

It is worth mentioning that the series commenced as the UK economy emerged from the early 1990s recession.

In 2015, the earlier reports were also converted (1993 to 2003), with the full series made available at Kingston University: http://business.kingston.ac.uk/sbrc

SUPPORTING INFORMATION (WWW)

In later years – as the world-wide-web developed and an increasing number of sources of information became more readily available – suggestions for online sources of related material were included.

N.B. For reports 2003 onwards - where successfully validated, the web links (URLs) were enabled in 2009. And in the case of many invalid web links, an alternative was offered, but not where the organisation appeared defunct and an obvious replacement was not traced.

John Stanworth, Emeritus Professor, University of Westminster
http://www.westminster.ac.uk/schools/business

David Purdy, Visiting Fellow, Kingston University
http://business.kingston.ac.uk/sbrc

WEB VERSION PUBLISHING

http://business.kingston.ac.uk/sbrc

Certain content needed to be re-set, e.g., the figures in the earlier editions, but the report body content is intended to be identical to that in the printed original. This web version - an Acrobat document - is derived from the original DTP text and will permit searching.

LIABILITY DISCLAIMER

The information and analysis in each report is offered in good faith. However, neither the publishers, the project sponsors, nor the authors, accept any liability for losses or damages which could arise for those who choose to act upon the information or analysis contained herein. Readers tracing web references are advised to ensure they are adequately protected against virus threats.

HIGHLIGHTS

This is the ninth of a series of small business management reports based on surveys of a panel of small firms, mainly in manufacturing, retail/distribution and business services. The focus of this survey was on *Information Technology* in small firms. The principal findings were as follows:

● *Telephone lines - Multiple lines are necessary not only as the business grows, but to provide for fax and data communication. Even in the 0-4 employee size band, well over 80 per cent of small firms have two or more telephone lines.*

● *Availability of I.T. equipment - Fax is now almost universal, and available for 94 per cent of respondents. Some 85 per cent have computers, 74 per cent mobile phones, 53 per cent answering machines, and 36 per cent have data communication equipment (modems or ISDN). Only 9 per cent have pagers.*

● *Retailers are the least likely to have fax (82 per cent) or a computer (71 per cent), but many have data communications for checking payment cards, and 15 per cent have pagers.*

● *Computers are used by 76 per cent of firms for word processing - the most common application - followed by invoicing and credit control (71 per cent). Although 68 per cent use computers for other accounting purposes, only 39 per cent of firms have computerised their payroll.*

● *Computer literacy is claimed by only 57 per cent of respondents, and only half of small business owners take sole responsibility for strategic information technology decisions in their business. Two-thirds of respondents find it difficult to keep up with developments in I.T. This is true for all regions and activity sectors, and for most sizes of firms.*

● *Recruitment - Only 18 per cent of respondents report difficulty in recruiting computer-literate staff: in manufacturing it is only 12 per cent.*

● *The importance of I.T. to business development is widely recognised in comments by respondents, but I.T. is not a panacea for all problems. There is some criticism both of computer training and support services.*

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ACKNOWLEDGEMENTS

MANAGEMENT ISSUES

The emphasis of our Quarterly Management Reports is on monitoring the key management problems and practices of smaller business, with an emphasis on survival and success. Accordingly, each issue of the Lloyds Bank/Small Business Research Trust Management Report will address one or more highly topical small business management issues. In this survey we focus on *information technology*.

Past surveys have covered:

First Volume (1993)

   No.1 Surviving The Recession

       2 Using Your Time

       3 Management Style

       4 Financial Management

Second Volume (1994)

       1 Purchasing

       2 Quality Standards & BS 5750

       3 Management Succession

       4 Customers & Competitors

It is planned to cover the following management issues in future:

- Holidays
- Cars/Transport
- Prices
- Health & Safety
- Personnel
- Incentives
- Premises

THE SAMPLE

This report is based on responses received from a panel of some 300 small businesses situated in the Northern, Midland and Southern regions of Britain. Respondents are predominantly small firms with fewer than 50 employees, drawn mainly from the manufacturing, business services, and retail/distribution sectors of the economy. Over half of the participating firms employ fewer than 10 people and over one-third of the firms are less than 5 years old.

RESULTS

The questionnaire completed by sample firms appears at the end of this report as an appendix. This survey was carried out during December 1994 and January 1995.

Fig 1 - NUMBER OF TELEPHONE/DATA LINES:
BY EMPLOYEE SIZE
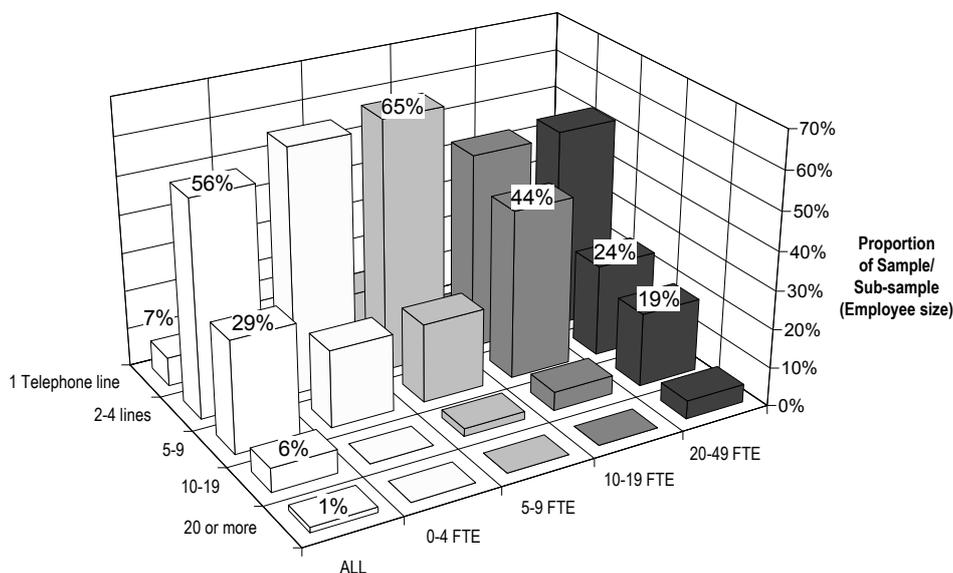
INFORMATION TECHNOLOGY

The range of information technology (I.T.) equipment available to small firms has broadened considerably over the past 25 years, and purchase costs have fallen dramatically. The vast majority of even the smallest firms covered in this survey now have faxes and computers, three-quarters have mobile phones, over half have answering machines and a third use modems for data communications. This survey explores the penetration of these technologies by type, size and location of firm, the role of I.T. in business operations and management, the recruitment of computer-literate staff, levels of understanding of and attitudes towards I.T.

TELEPHONE LINES AND I.T. EQUIPMENT

All our respondents have one or more telephone lines, and the majority (56 per cent) have 2-4 lines, with 36 per cent having 5 or more (Figure 1). Multiple lines are necessary not only as the business grows, but also to provide dedicated lines for fax and data communication. Even in the 0-4 employee size band, well over 80 per cent have two or more telephone lines.

Fig 2 - I.T. EQUIPMENT USED: BY SECTOR
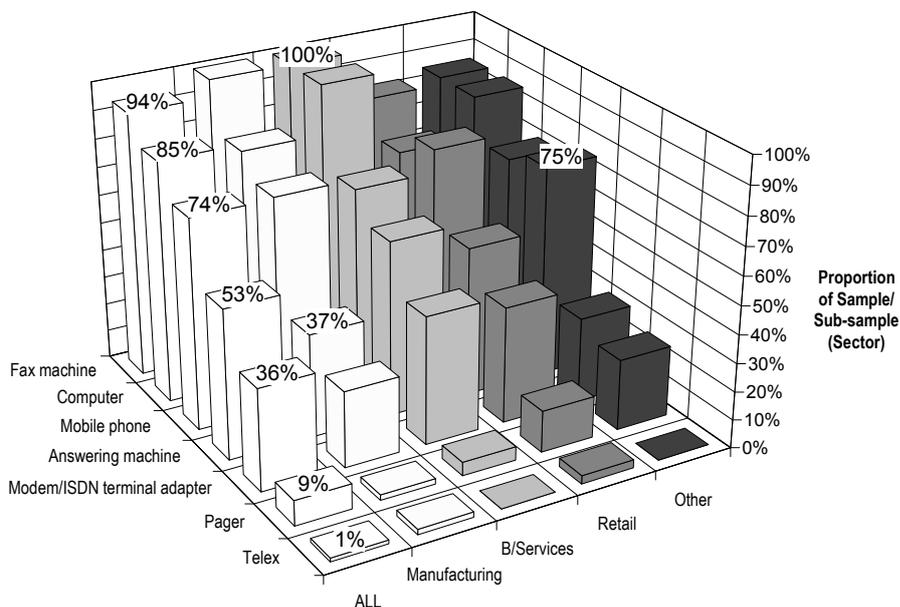
Figure 2 shows that fax machines are now almost universal (94 per cent of respondents), even among retailers (82 per cent), while 85 per cent of respondents have computers, again with a lower penetration among retailers (71 per cent).

Three-quarters of respondents have mobile phones, with little differences in penetration by activity sector. A little over half of businesses in our survey (53 per cent) have answering machines. Usage of this type of equipment is most common amongst the smallest firms who need some form of customer response when their premises are unoccupied (Figure 3). Generally, and with the exception of telex and answering machines, the availability of I.T. equipment increases with firm size, though mobile phones, like answering machines, also have a high penetration in the smallest size band.

Fig 3 - I.T. EQUIPMENT USED: BY EMPLOYEE SIZE
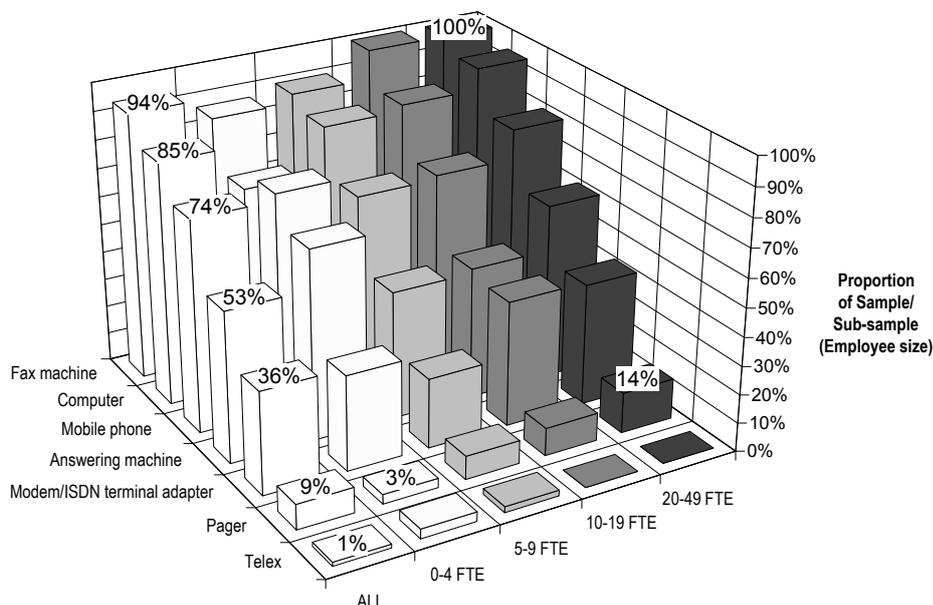
Modems or ISDN terminal adapters are in use in 36 per cent of firms. The relatively high usage of data communication devices in business services (45 per cent) is not perhaps surprising given the growing use of remote computer service provision and database accessing. The relatively high penetration of this type of equipment in retailing is explained by the use of on-line credit card and cheque validation services.

Pagers are used by only 9 per cent of respondents, and particularly by larger firms where key personnel need to keep in touch. Telex, once widely used by manufacturers and some business services, has now shrunk to only one per cent, having been supplanted by fax and, using computers and data communication lines, by electronic mail. As mentioned, the use of telex, once the province of larger firms, now seems to be restricted in our sample to the smallest, which are less likely to have data communication lines.

There seem to be few significant variations in the availability of I.T. equipment by region that cannot be explained by sample variations in firm size or activity, though penetrations tend to be lower in the North than in the South and Midlands, especially for data communication equipment.

Fig 4a - COMPUTER APPLICATIONS: BY SECTOR
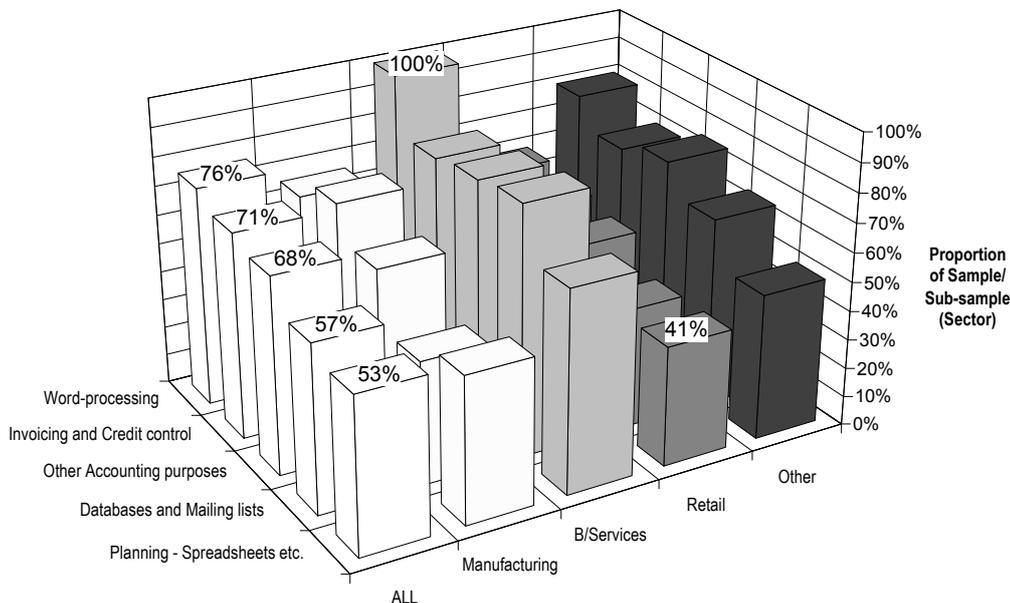
COMPUTER APPLICATIONS

Figures 4a and 4b show that overall, word processing is the most common application for computers (76 per cent), followed by invoicing and credit control (71 per cent), though in manufacturing the order of these two applications is reversed. Computers are also widely used for accounting purposes other than invoicing and credit control (68 per cent).

Although 100 per cent of respondents in business services use computers for word

Fig 4b - COMPUTER APPLICATIONS: BY SECTOR
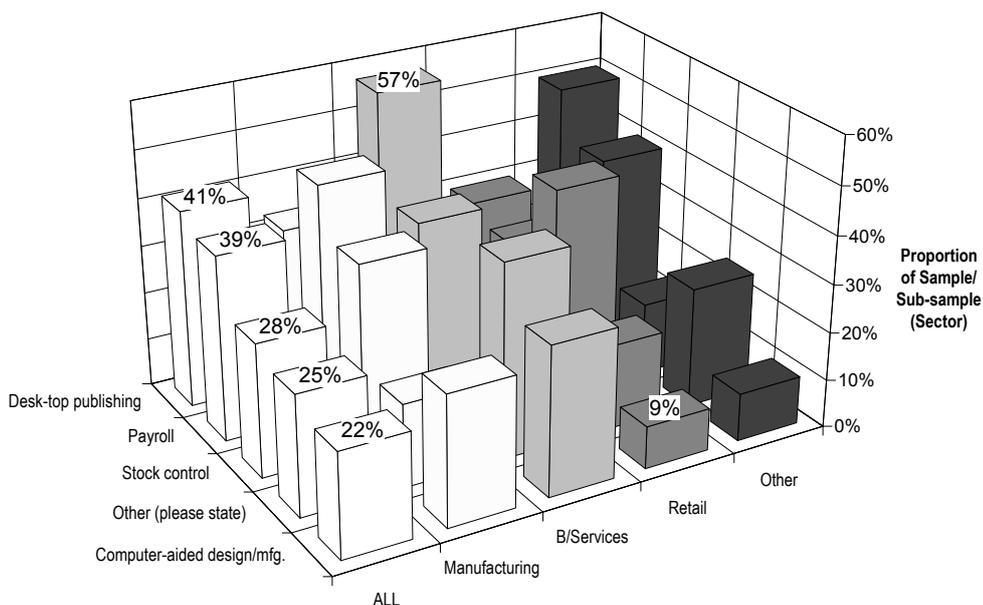
**Fig 5a - COMPUTER APPLICATIONS:
BY EMPLOYEE SIZE**
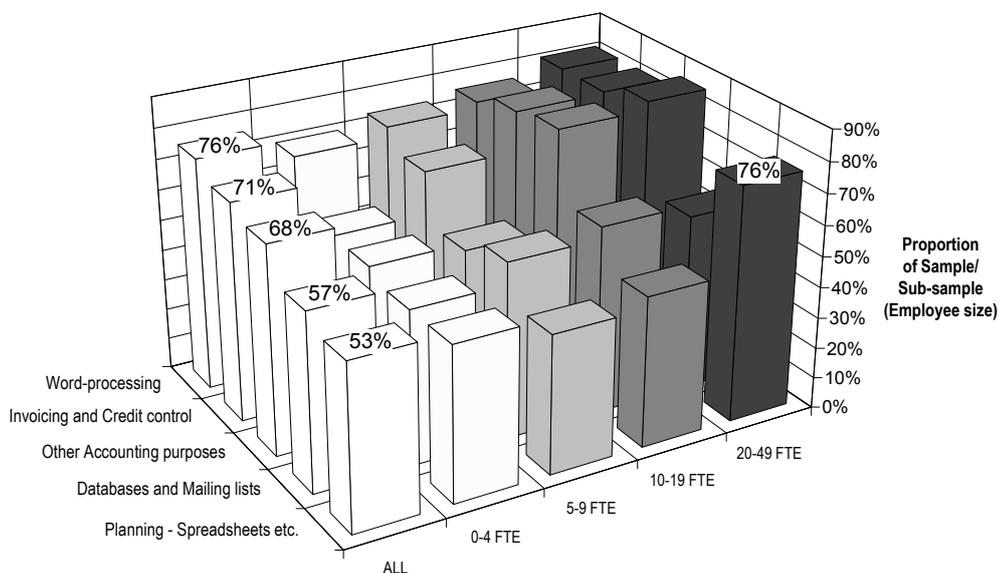
processing, in manufacturing and retailing, they are more likely to be used for other purposes, including stock control, which is not an issue in business services.

Computers are also used by over half of respondents for databases and mailing lists and for spreadsheet analysis, especially in business services.

Surprisingly, whilst the large majority of respondents do use computers for various accounting purposes, only 39 per cent have computerised their payroll, a similar proportion to those that perform desktop publishing of brochures, price lists, newsletters and the like. This again is a size-related issue. Figures 5a and 5b show that larger firms tend to use computers for a wider range of applications. Whilst only 31 per cent of respondents have computerised payroll in the 5-9 employee size band, this proportion rises to 41 per cent in the 10-19 employee size band and over 70 per cent in the upper size band.

**Fig 5b - COMPUTER APPLICATIONS:
BY EMPLOYEE SIZE**
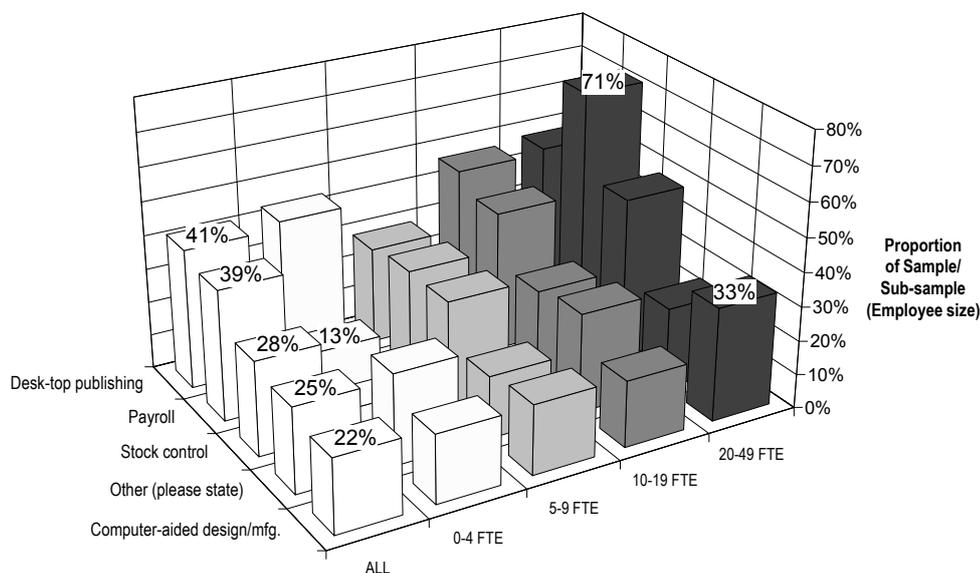
COMPUTERS - MISSED POTENTIAL ?

It seems clear that there is scope for more small firms to use computers for payroll and other accounting functions. Even for firms with 10 or more employees, almost one-fifth do not use computers for invoicing and credit control, though a somewhat higher proportion do use them for other accounting functions (payroll apart).

A surprisingly high proportion (22 per cent overall) claim to use computers for design and manufacture. Most of these respondents are in manufacturing or business services, but it is clear that this application in retailing and other services has also been interpreted to include graphic design, which might otherwise have been included under desktop publishing.

The categories of applications given in the questionnaire inevitably overlap.

Respondents were invited to identify other applications for computers not shown separately in the list of uses on the questionnaire. Most of these do in fact fall under one or more of the categories already discussed (for example the production of labels, quotations and other documents), but several respondents identified order processing, delivery notes and shipping documentation, software development and training as important applications for computers. Manufacturers had a range of production-related computer applications: for example, for dyeing procedures, quality control and electronic machine or process control. Examples of other applications in the service sector included telephone marketing, customer service and maintenance, portfolio management and document scanning. The full range of responses is shown overleaf, with the applications listed alphabetically.

BUSINESS ACTIVITY	'OTHER' COMPUTER APPLICATIONS
Chartered Accountants	*Accountancy/Tax Packages*
Accountancy, Audit, Tax & Management Consultancy	*Business Planning*
Computer Data Communications Solutions in PC/Mainframe Environment	*Communications*
Manufacturer of Laboratory Robotic Automation Systems	*Control of Electronic Devices*
Road Haulage	*Costing and Vehicle Maintenance*
Specialist Suppliers of Computer Systems to the Security Industry	*Customer Service and Maintenance*
Market Research	*Data-entry and Data-processing*
Quality of Service Measurement/Orientation Training	*Data-processing*
Public Relations & Marketing Support Consultancy	*Delivery Notes, Purchase Orders, Job Control/Progress Checking*
Supplier of Computer Systems for Business	*Development*
Graphic Designers	*Disk to Disk Conversion*
Feather Brooches, Giftware, Pens, Haberdashery Feather Products, Military Plumes	*Dyeing Procedures*
Heat Exchangers, Water Cooling Systems	*Equipment Selection*
Public Relations	*Graphic Design*
Communications Wholesaler of Telecom Installation Equipment	*Labels*
Hydraulic Cylinders and Power Units for Lift Industry	*Manufacturing Processes (CNC), Production Planning and Traceability Records (own programs), Safety Calculations*
Insurance Brokers	*Motor/House Quotations*
Broadcast & Corporate TV Production & Provision of Technical Facilities	*Multimedia and TV Production*
Retail Pharmacy	*Order Input*
Photographic Processing and Printing	*Order Processing*
Manufacture of Iron Castings	*Order Processing linked to Enquiries/Quotations*

BUSINESS ACTIVITY	'OTHER' COMPUTER APPLICATIONS
Investment & Pensions Advice	*Portfolio Management*
Transport. Sameday/ overnight Collection and Delivery of Parcels	*Printed Consigment Notes*
Computer Hardware and Software	*Product Development and Maintenance (software), E-mail*
Manufacturer of Micro Bore Precision Metal Tubes	*Production and Quality Control*
Consulting on the Development and Installation of Computer Systems and Software Development	*Programming*
Chartered Accountants	*Providing Computer Services For Clients*
Driving School	*Scanning*
Audit Accountancy and Taxation	*Service Clients (i.e. produce final product)*
International Freight Forwarding Services	*Shipping Documentation*
Selling and Support of Computer Hardware and Software	*Software Development*
Telephone Marketing and Telephone Sales Company	*Telephone Marketing*
Secretarial Recruitment	*Training*
Architect	*Training, Time Management*
Pipe Supports for Oil Refineries, Power Stations, Processing Plants etc.	*Valuing Quotations*

**Fig 6 - RESPONDENT COMPUTER LITERACY:
BY SECTOR**
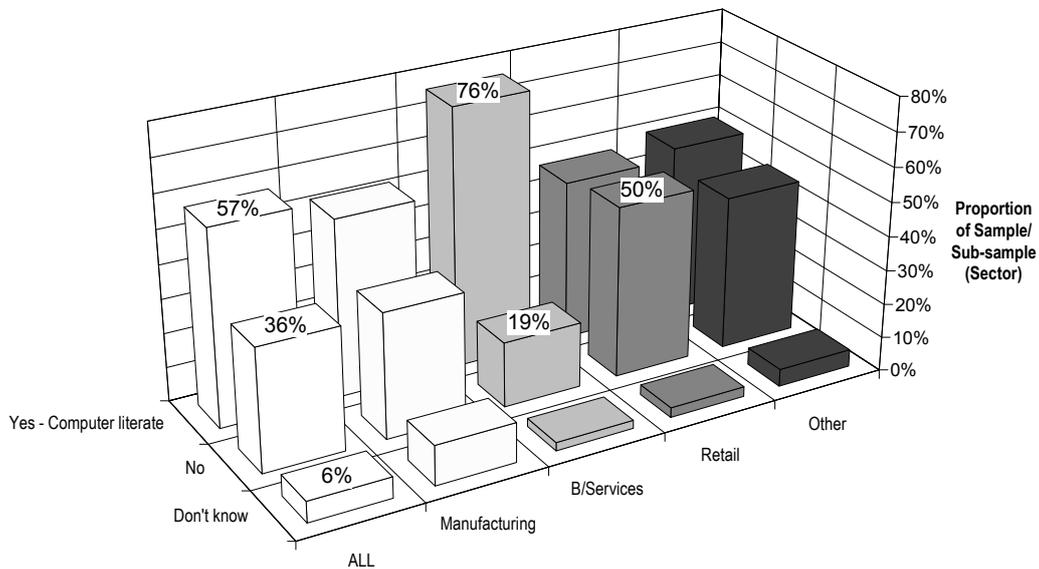
UNDERSTANDING I.T.

Respondents were asked if they would describe themselves as 'computer literate'. Computer literacy is not an unambiguous term. Some people might consider themselves computer literate, even if only capable of carrying out simple word processing, for example. They may also have some basic understanding of other computer applications, but not the immediate facility to put them into practice. Nevertheless the responses provide some measure of self-assessment of the respondents' familiarity with computers.

It is interesting that, overall, 57 per cent replied 'yes' to this question, and 36 per cent 'no'; only 7 per cent were unsure (Figure 6). Computer literacy is most widespread in business services (76 per cent) and least in the retail sector (47 per cent). This pattern of course reflects the degree of computer availability and the breadth of applications of computers (Figures 2, 4a and 4b).

**Fig 7 - RESPONDENT COMPUTER LITERACY:
BY EMPLOYEE SIZE**
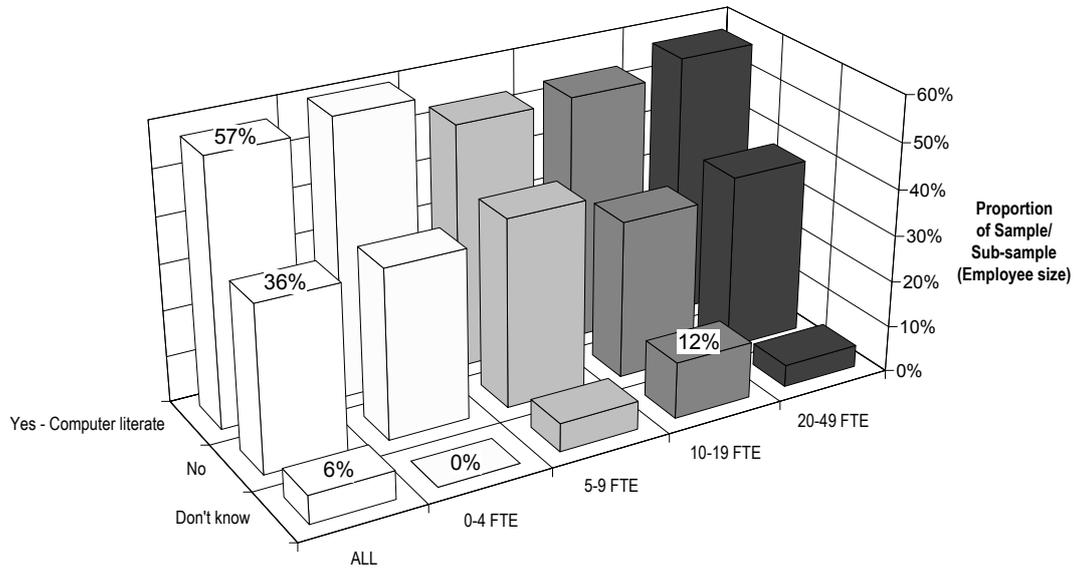
Again, computer literacy, like the availability of this equipment, appears to be somewhat more widespread in the Midlands and South than in the North, though this seems to reflect variations in the activity mix rather than any significant difference within sectors.

Computer literacy shows no strong tendency to rise with firm size. In fact in the lowest size band, where owners are less able to rely on staff for computer support, 60 per cent of respondents described themselves as computer literate, compared with 53-57 per cent in the three upper bands (excepting the 50+ employees band, where the small sample showed 100 per cent) (Figure 7, see also the note in the appendix).

**Fig 8 - RESPONSIBILITY FOR STRATEGIC DECISIONS:
BY EMPLOYEE SIZE**
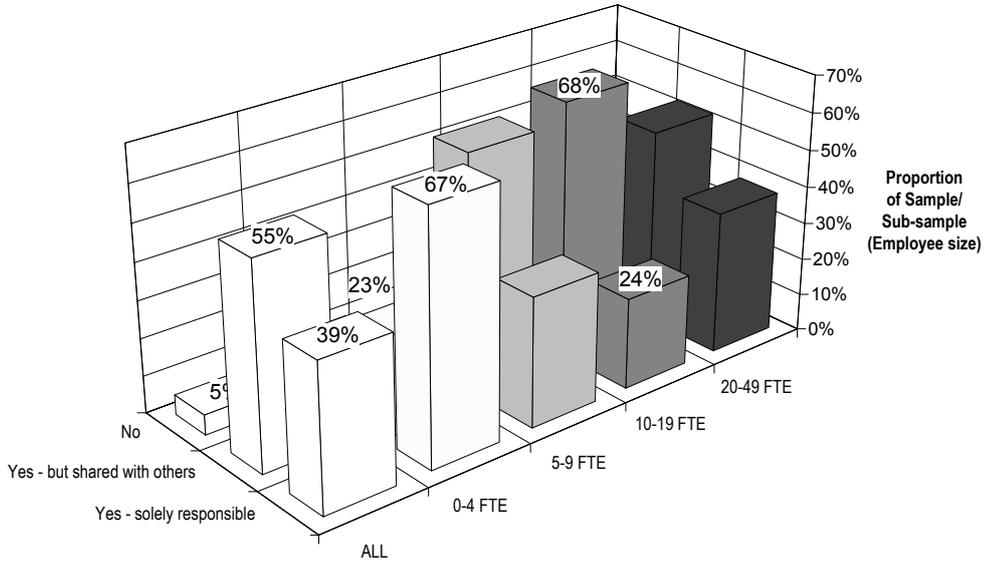
DECISION MAKING

The fact that only just over half of respondents consider themselves computer literate is reflected in the minority (30 per cent) that take sole responsibility for strategic information technology decisions in their business. Overall, 55 per cent share this responsibility with others, though obviously this proportion is lowest (23 per cent) in the very smallest firms (Figure 8). This pattern was similar in all regions. Respondents (typically the owner-

**Fig 9 - RESPONSIBILITY FOR STRATEGIC DECISIONS:
BY SECTOR**
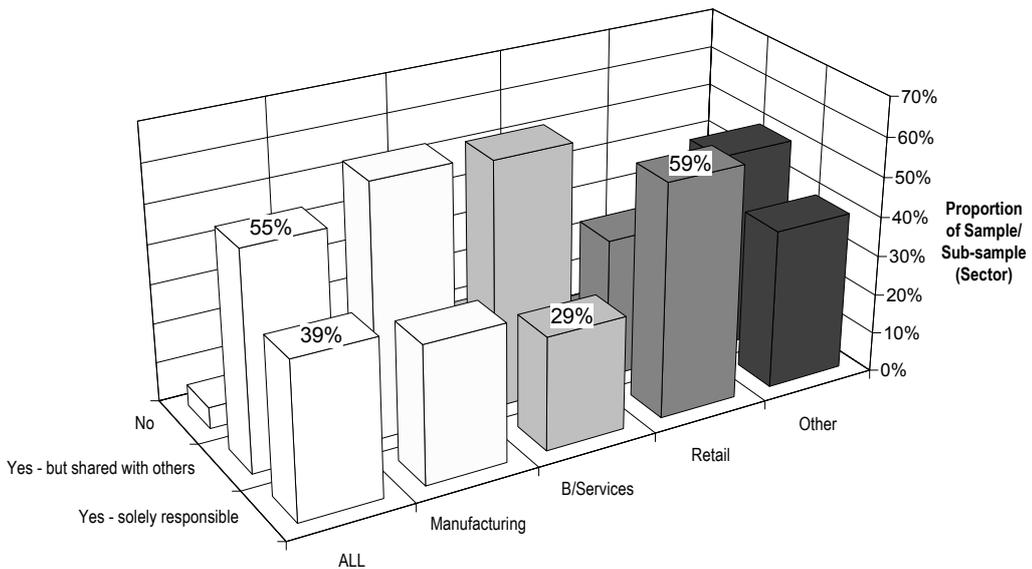
Fig 10 - DIFFICULTIES IN KEEPING ABREAST OF I.T. DEVELOPMENTS: BY SECTOR
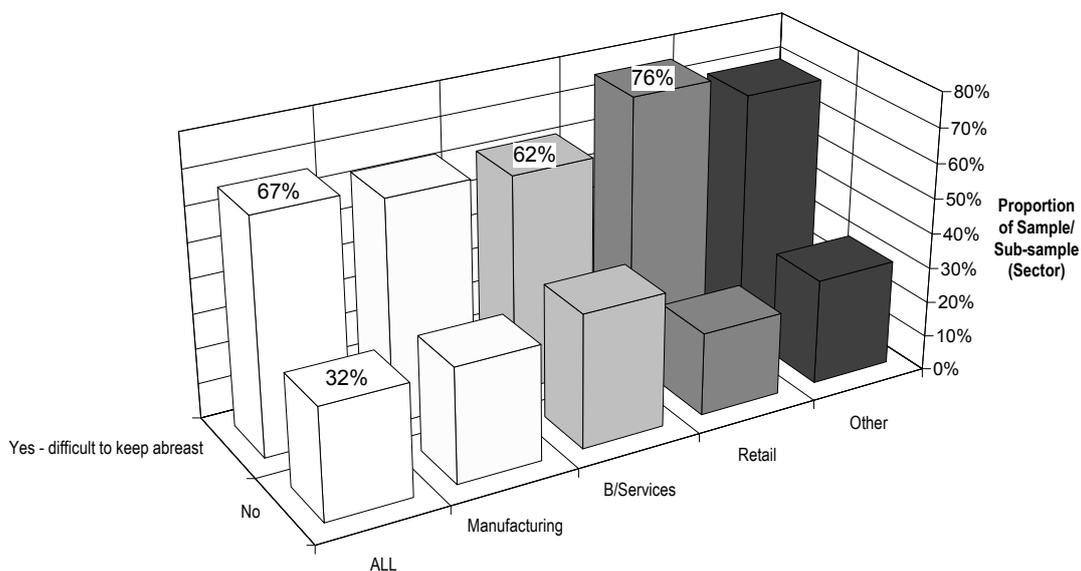
manager) were most likely to have sole responsibility for I.T. policy in the retail sector, and most likely to share this with others in manufacturing and business services, where in-house expertise, even in the smaller firms, is most likely to be available (Figure 9).

KEEPING ABREAST OF DEVELOPMENTS IN I.T.

Two-thirds of respondents admit that they find it difficult to keep up to date with the fast-moving developments in I.T. This is true for all regions and activity sectors -

Fig 11 - DIFFICULTIES IN KEEPING ABREAST OF I.T. DEVELOPMENTS: BY REGION
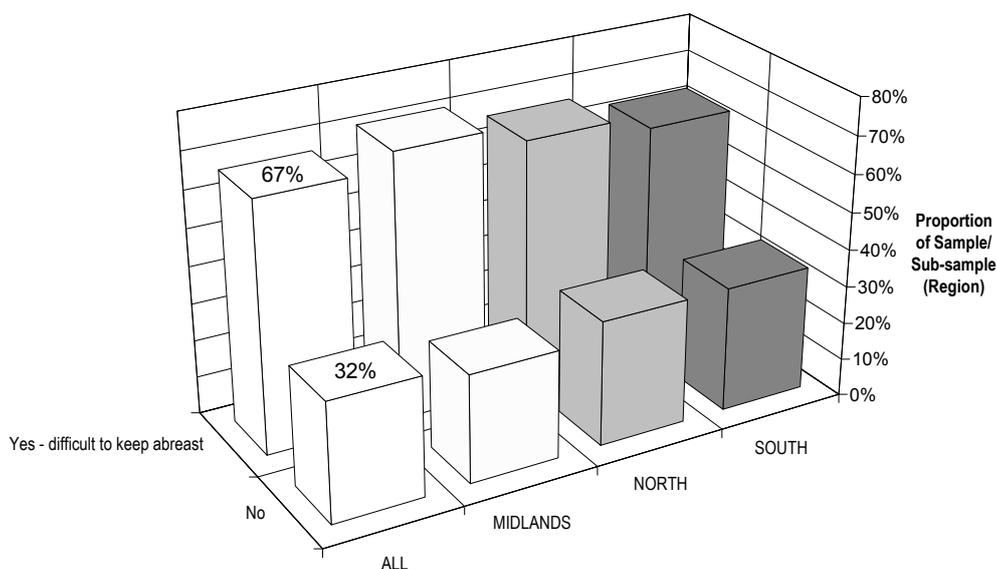
Fig 12 - DIFFICULTIES IN KEEPING ABREAST OF I.T. DEVELOPMENTS: BY EMPLOYEE SIZE
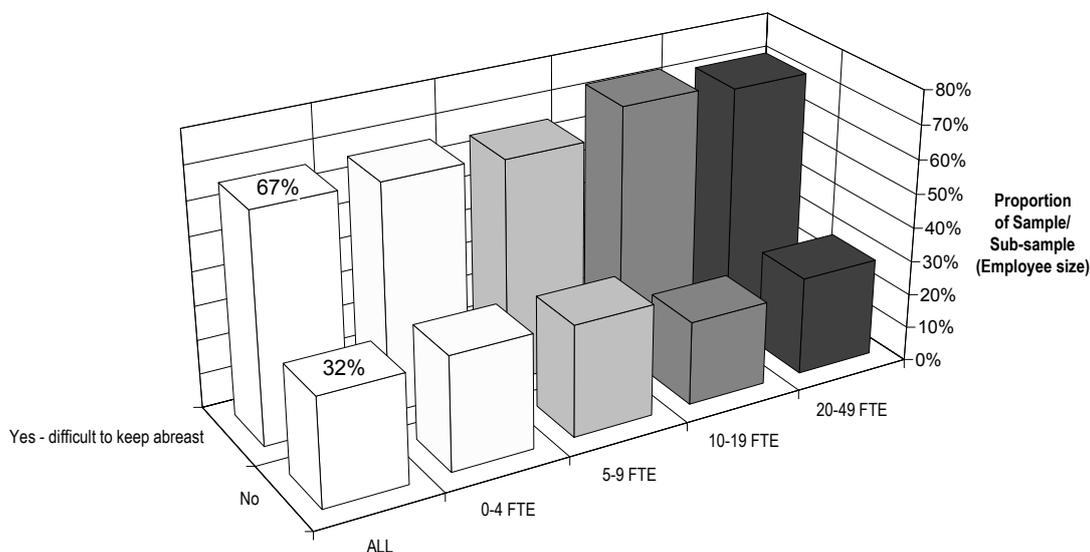
and, surprisingly, for all sizes of firm within our sample except the few with 50 or more employees (Figures 10, 11 and 12). This difficulty was a clear finding, with only 2 per cent of respondents failing to answer the question with a 'yes' or 'no'.

RECRUITMENT

Only 18 per cent of respondents report difficulty in recruiting computer-literate staff: in manufacturing it is only 12 per cent, with most experiencing problems in business services (26 per cent) (Figures

Fig 13a - DIFFICULTIES IN RECRUITING COMPUTER-LITERATE STAFF: BY SECTOR
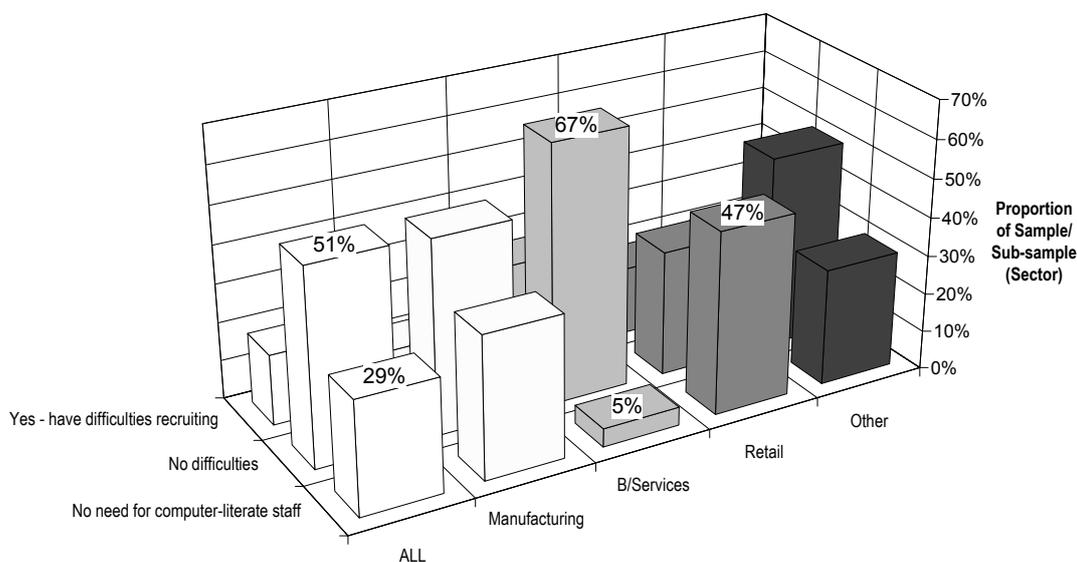
Fig 13b - DIFFICULTIES IN RECRUITING COMPUTER-LITERATE STAFF: BY SECTOR
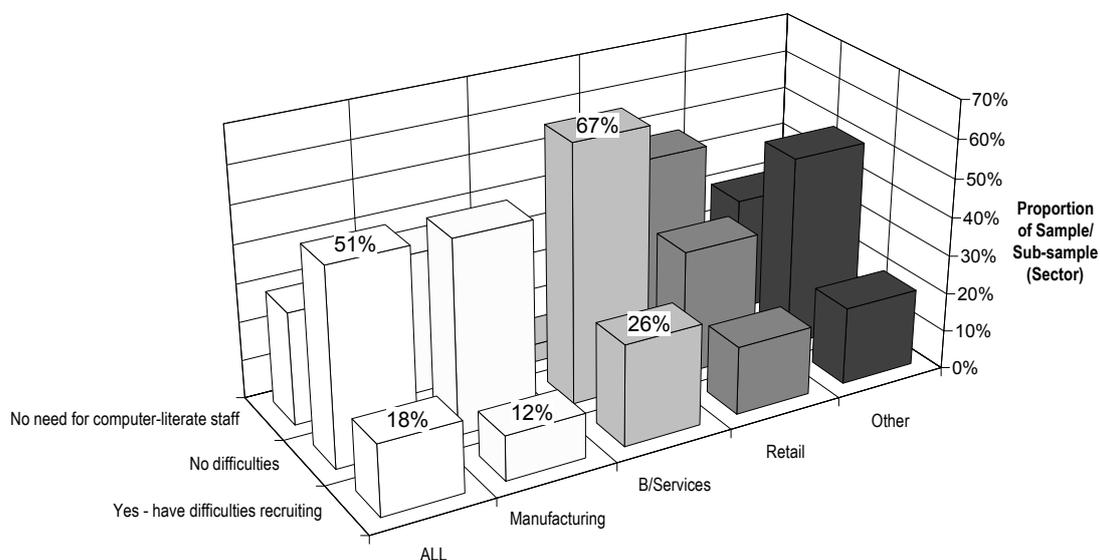
13a and 13b). However, the need for computer staff varies greatly between activity sectors, with business services having the greatest need and the largest proportion experiencing no difficulty. Only 5 per cent of respondents in business services indicate no need for computer-literate staff, compared with 47 per cent in retailing and 37 per cent in manufacturing. Overall, therefore, the availability of computer-literate staff is a significant problem but one affecting less than a fifth of respondents, with little variation between the regions (Figure 14) and only

Fig 14 - DIFFICULTIES IN RECRUITING COMPUTER-LITERATE STAFF: BY REGION
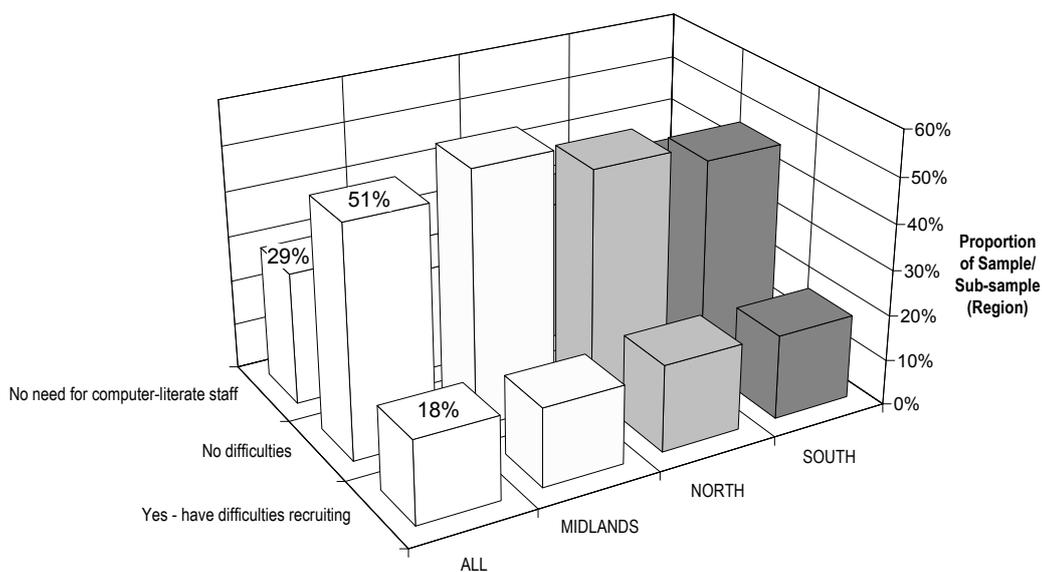
**Fig 15 - DIFFICULTIES IN RECRUITING COMPUTER-LITERATE
STAFF: BY EMPLOYEE SIZE**
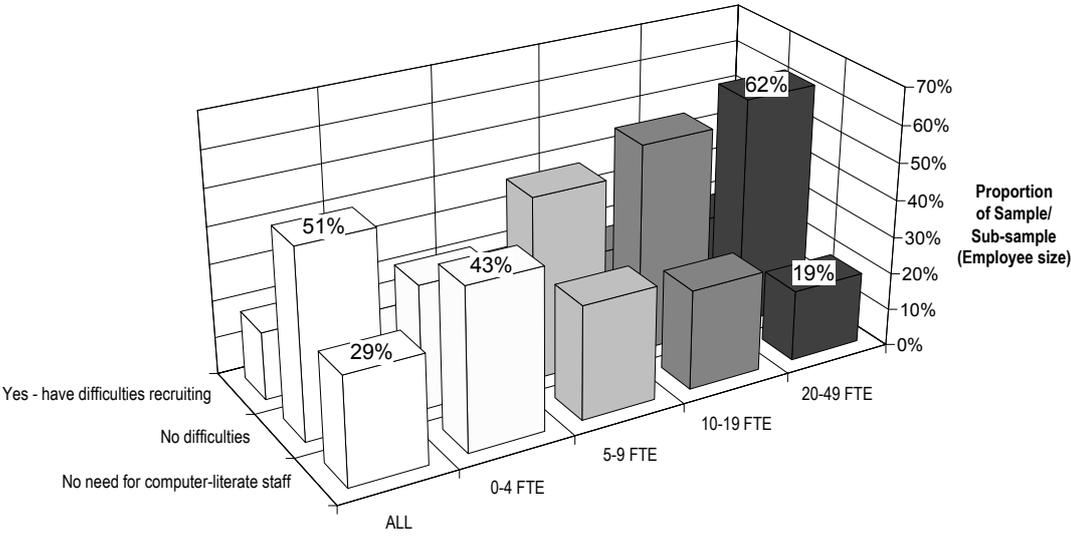
a slight tendency for the problem to rise
with firm size (Figure 15).

RESPONDENTS' COMMENTS

As usual, respondents took the trouble to add comments to their questionnaire, and these illuminate and extend our findings. The comments are reproduced verbatim below.

There were three main themes: the importance of I.T. to business development; recognition of the dangers of regarding I.T. as a panacea, and deficiencies in training and support services.

Illustrative of the positive comments were the following:

"I.T. is essential for every company, and easily affordable" (computer stationery manufacturer)

"...a business will be unable to compete in the market place without computers and some up to date information technology" (accountancy firm)

"Have no more people now than 15 years ago to handle accounts-contract management system, but get about 10x output, solely due to increased power and speed of PCs" (machine tool manufacturer).

Enthusiasm for I.T. was in many cases tempered with realism, especially in service activities:

"Extremely cynical of over-publicised benefits. They do not save money. And as for paperless offices! Over-dependence on them is a major mistake." (PR and marketing consultancy)

"Too complicated for small business. Too many statistics do not achieve more money in till" (Operating public houses)

"I.T. is only a tool - beware of high-cost, self-perpetuating empires" (marine architects and engineers)

Some respondents complained of sales-led suppliers or lack of technical support and objective advice. Another theme was lack of suitable training courses and objective advice. Other issues raised included the age-related computer literacy gap, and the effects of I.T. on employment and management structures.

MANUFACTURING

Cash Register Ribbons and Stationery	*"I.T. is essential for every company and is easily affordable."*
Clothing Manufacturer	*"No in-depth help, only sales people (not very deep)."*
Computer Hardware and Software	*"I.T. is of paramount importance to business, and all companies should be using it as much as they can. Training is a problem, and new ways of delivering it effectively need to be discovered. Just dishing it out 'sheep-dip' style is no good - continued support is needed for individuals to 'grow' into the ways of using packages."*
Equipment Maintenance. Garage Equipment Supply and Maintenance	*"More support is needed with guidance on how to develop with I.T."*
Fabrication, Welding, Machining, Special Purpose Machines	*"Aware that we could benefit more from use of computers possibly through more extensive network system. Concentrating on devising and developing software to suit our purpose before taking this step. Find much of off-the-shelf software unsuitable.* *"Have no more people now than 15 years ago to handle accounts-contract managment system, but get about 10x output solely due to increased power and speed of P.C.s"*
Manufacture of Products for Protection and Cleaning of Fabrics	*"We wonder if the effects on the level of employment on management staff are understood."*
Manufacture of Transformers and Associated Assemblies	*"I.T. at the telephone point of larger suppliers and agencies has the effect of making expertise more difficult to get at, e.g. 'If it's not on the screen, I don't know'."*
Manufacturer of Laboratory Robotic Automation Systems	*"We don't have a problem."*
Mechanical Installation and Maintenance Service	*"Info 'tech' seems to come from various sources which occasionally contradict and leads to confusion. We tend to stick to basics."*
Party/Carnival Goods	*"[It's] Changing so quickly that costs of keeping up with latest I.T. [is] very prohibitive and time-consuming for smaller companies."*
Publishing	*"I often feel that computer support/sales bodies are far too sales orientated - to the detriment of 'best and fair advice'."*
Publishing. Trade and Leisure magazines	*"It pays to stay one step behind front line computer innovation. It is only a tool and NOT a panacea."*

BUSINESS SERVICES

Accountancy, Audit, Tax & Management Consultancy	*"In my opinion, a business will be unable to compete in the marketplace without computers and some up to date information technology."*
Architect	*"There is enormous change going on in the construction industry, which most professionals fail to recognise."*
Chartered Accountants	*"Government agencies seem to lag behind with computer technology. There are still too few small businesses that don't benefit from it or don't utilise it to its full potential - especially true of older managers."*
Consultancy	*"1) Its impact on the nature of jobs and the types of jobs that remain once computers replace staff.*
	2) Drive towards more extensive use of I.T. leading to more 'isolated' individuals and reduced human interaction."
Consultant Naval Architects & Marine Engineers	*"'I.T.' also means 'Information Trap'. Management responsibility is to cut through costly and confusing volume [of information] to the useful data. 'I.T.' is only a tool - beware of high-cost self-perpetuating empires."*
Executive Search Recruitment and Provision of Temporary Managers	*"Current software for a general office is very user-friendly - all staff we recruit seem able to pick it up quickly so we are using computers for everything we can."*
Exhibition Organisers	*"No straightforward way of keeping up with technological changes and lack of courses."*
Farm Management Consultancy	*"I sometimes think that I.T. and the hardware that supports it are drowning us in jargon and acronyms."*
Market Research	*"The main problem we have is the lack of funding available to subsidise training on special software products particular to the research industry."*
Public Relations & Marketing Support Consultancy	*"[I am] Extremely cynical of over-publicised benefits. They do **not** save money. And as for paperless offices !*! Over dependence on them is a major mistake."*
Telephone Marketing and Telephone Sales Company	*"The main difficulty is the upgrading of computer systems. There is a high cost to ensure hardware and software are compatible, speedy and can carry out tasks for clients."*
Textile Marketing	*"Learning about software, procedures and new products is difficult. Not many tutors or courses available. If there are, we have not found out about them."*

RETAIL AND DISTRIBUTION

Computer Data Communications Solutions in PC/Mainframe Environment	*"Technology will not improve a disorganised workplace, [it will] only exacerbate the problem. Disciplined use of the **right** technology, however, will lead to improved efficiency and an enhanced professional image."*
Electrical Distributors	*"[It's] Changing so rapidly, what costs a lot of money today is obsolete in a year's time !"*
Operating Public Houses	*"Too complicated for small businesses. Too many statistics do not achieve more money in till."*
Selling and Support of Computer Hardware and Software	*"There remains a big gulf between what is taught and what businesses need. We seem more reliant on technology we don't understand."*

OTHER

Daily Cleaning Service to Business and Commerce	*"**Staff Recruitment**: It is generally the 'young' who possess the required info-tech skills for a particular job, however, whilst they may be well qualified in this field, they inevitably lack the maturity and perhaps management experience needed. Conversely, more mature candidates who exhibit the required management experience are often at a disadvantage through a lack (or complete absence) of information technology skills. **Business Philosophy**: Computers, and information technology generally, are now an integral part of the whole business community and whilst many have surged forward ... others have been reluctantly dragged, kicking and screaming, into the 21st century. When those businesses in the 'kicking and screaming' category eventually decide to join the technology bandwagon, they are often poorly advised, buying on a shoestring budget and invariably expect their new P.C. to transform their business for them by virtue of the fact that they may have spent a lot of money. **Training**: The training given to people in using software (before they start work) is too specific, the users being rather like someone who was taught to drive a Mini, but claims to be able to drive a V.W.! There are so many software packages on the market that it seems foolish to intensively train individuals in the use of one word processor, rather than another."*
International Freight Forwarding Services	*"I.T. is vital to the efficiency of our business. We have spent a great deal of time **planning** its use, which I think led to its successful integration within the company and its various departments."*
Management Training	*"We feel that I.T. is our future and are therefore investing heavily in this area."*
Training of Engineering Skills	*"The introduction of computers/information technology into small businesses can be rather ad hoc and prone to being lead by the supplier who could be good/bad or indifferent. This can waste time and money and leave the buyer with equipment and software they don't need or is unsuitable. There needs to be an independent advisory body to advise on hardware and software and [the] procedure of building up a system from a basic computer."*

ADDENDUM - ADDITIONAL INFORMATION

As an aid to the interpretation of the various figures (histograms), we have included some further information about the firms responding to this survey.

The analyses involve key variables, and **industry sector**, **region** and **employee size** are those most frequently used as they are reasonably reliable indicators and less prone to misinterpretation.

Industrial sectors - based on the descriptions supplied by respondents, each firm is coded according to the Standard Industrial Classification (SIC 1980). Firms are then grouped into manufacturing, business services, retail/ distribution and 'other' bands.

Regions - firms are also classified according to their physical location, namely, North, Midlands and the South.

Employee size - finally, firms are placed in bands according to the number of employees. Each part-time employee is assumed to be equivalent to 40 per cent of a full-time employee ('FTE' = full-time

equivalent). All of the surveys to date have received only a small number of responses from firms with 50 or more FTE employees. These responses have been **included** in the breakdowns for the sectoral and regional analyses, but have been **excluded** as a '50+FTE' band in the **employee-size** analyses (the 'All' band in each histogram includes all usable responses regardless). This is because a percentage breakdown band based on just two or three firms may not be representative of this size of business.

DISTRIBUTION OF FIRMS

Similar to several previous surveys, the highest concentration is in manufacturing (35 per cent of the sample) compared to business services (28 per cent) - with another 23 per cent in retail/distribution (Figure 16).

Regionally, the bias towards firms engaged in **business services** in the **South** is much less than before (only 28 per cent of the region's respondents, compared to 42 per cent in the previous survey). **Manufacturing** is the still most predominant sector in the **North**.

Fig 16 - INDUSTRIAL SECTOR: BY REGION
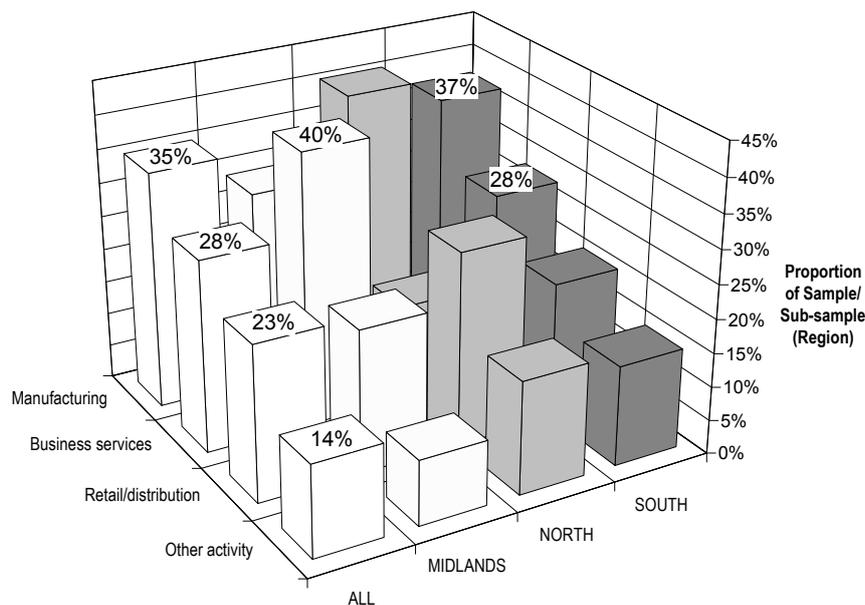
Fig 17 - REGION: BY EMPLOYEE SIZE
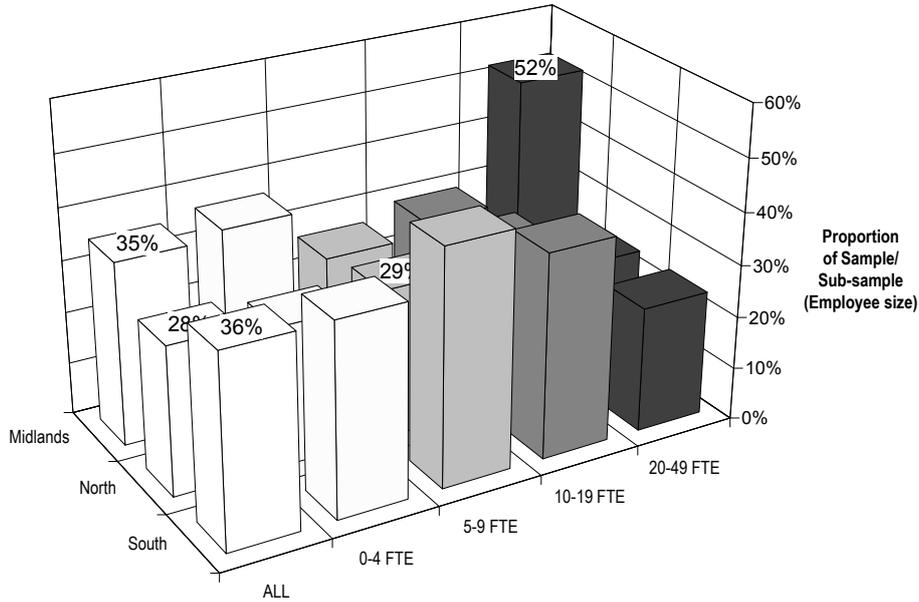
The sub-sample in the **South** has a concentration of **smaller firms**. In the **Midlands**, the emphasis is towards the larger 20-49 employee size band businesses (see also Figure 17). **Manufacturing** firms in the sample tend again to be **larger**, in terms of employees, whereas the **business services** and the firms in **retailing/ distribution** tend to have **fewer full-time equivalent employees** (Figure 18).

Fig 18 - INDUSTRIAL SECTOR: BY EMPLOYEE SIZE
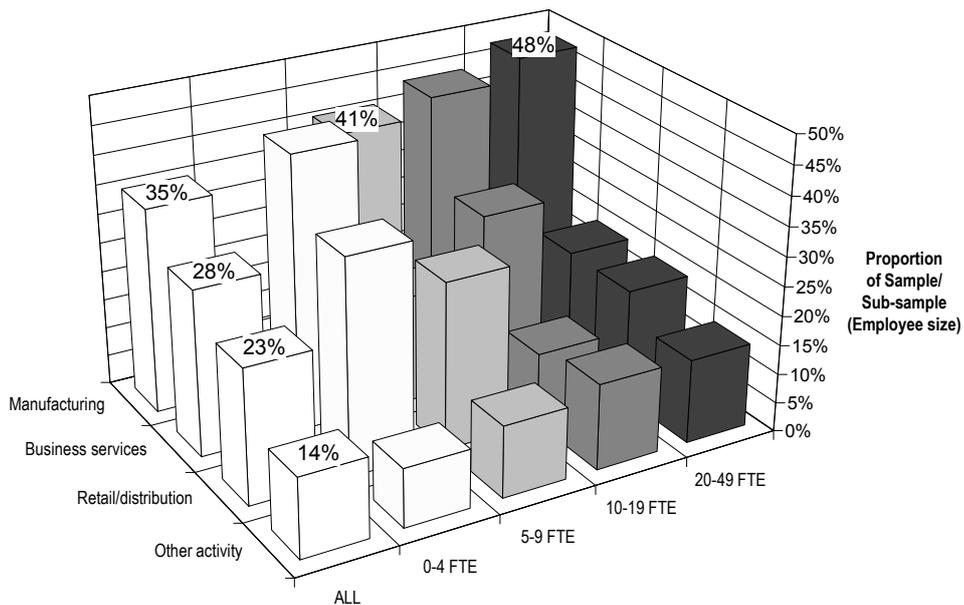
Lloyds Bank

This questionnaire will take approximately 5-10 minutes to complete - most answers require only a single tick. All information received will be treated in complete confidence. ***PLEASE DESPATCH AS SOON AS POSSIBLE.***

1 | **How many people work in your business (including yourself) ?**

Full-time: .... A

Part-time (16 hours/wk or less): .... B

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2 | **Equipment - Which of these items are used in your business:**

✓ *Against all which apply*

Answering machine... ❏ A

Computer... ❏ B

Fax machine .... ❏ C

Mobile phone .... ❏ D

Modem (or ISDN terminal adapter)...................... ❏ E

Pager... ❏ F

Telex .... ❏ G

3 | **Telephone lines - How many lines does your business have (including fax and data communication lines) ?**

1 Telephone line .... ❏ A

2-4 lines.. ❏ B

5-9.. ❏ C

10-19.. ❏ D

20 or more .... ❏ E

4 | **Understanding - Would you describe yourself as computer literate ?**

Just ONE ✓ only

Yes.. ❏ A

No .... ❏ B

Don't know.. ❏ C

5 **Tasks/applications - If your business uses one or more computers, for what purpose(s) are they used ?**

✓ *Against all which apply*

Payroll .... ❏ A

Invoicing and credit control.................................. ❏ B

Other accounting purposes.................................. ❏ C

Planning - spreadsheets etc. .... ❏ D

Stock control.. ❏ E

Databases and mailing lists................................. ❏ F

Computer-aided design/mfg. (CAD/CAM) .... ❏ G

Desk top publishing... ❏ H

Word-processing... ❏ I

Other (please state): ❏ J

_____

6 **Decisions - Do you have responsibility for strategic information technology decisions within your business ?**

Just ONE ✓ only

Yes - solely... ❏ A

Yes - but shared with others................................ ❏ B

No .... ❏ C

7 **Do you find it hard to keep abreast of developments in information technology ?**

Yes... ❏ A

No .... ❏ B

8 **Recruitment - Do you have difficulties in recruiting computer-literate staff ?**

Just ONE ✓ only

Yes... ❏ A

No .... ❏ B

Have no need for computer-literate staff .... ❏ C

9 **Information technology - If you have any strong views about it, especially if you feel that any aspect is not fully appreciated by important sections of the business community (such as the government help agencies or the financial services), then please comment**

_____
_____
_____
_____
_____
_____

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