THE INFORMATION-SEEKING BEHAVIOUR OF BRITISH IT EXPORTERS AND SAUDI IT IMPORTERS

by

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ABSTRACT

The objects of this research are large, medium and small export/import firms. This investigation represents an attempt to understand information-seeking behaviour in the IT export/import business in Britain and Saudi Arabia. Quantitative and qualitative research methods have been used in analysing the structure of the various IT export/import information provisions. The strengths and weaknesses of various forms of information provision are examined in terms of their effectiveness and efficiency. A structured analysis of various information sources (such as magazines and IT trade fairs) has also been made.

The cognitive and systems approaches have been used to build the theoretical framework of this thesis. Macro and micro-behavioural models representing IT corporate information provision have been developed. These models are used to investigate the information-seeking behaviour of IT exporters/importers, viewed as both information seekers and information providers. It was found that parallel clusters of information-seeking behaviour could be discerned in both Saudi Arabian and UK IT firms, despite their organisational and cultural differences.

ACKNOWLEDGEMENTS

CHAPTER 1

INTRODUCTION

The main objective of this research is to understand the information requirements of the IT export/import business, concentrating on Saudi Arabia and the UK. This leads to an analysis of the strengths and weaknesses of the systems of information provision for this trade community (Saudi IT importers and the British IT exporter.) It is hoped that the results of this study will help increase the effectiveness and efficiency of information provision and information problem-solving in the field of IT exports/imports.

This introductory chapter will cover various aspects of this research. These are: the background to Saudi Arabia's IT environment, which will include IT marketing trends. The concept of information-seeking behaviour; the systems and cognitive approach to information-seeking behaviour; and related research into IT exports/imports and information-seeking behaviour will be in Chapter Two.

1.1   Background to Saudi Arabia's IT Environment

Almost every country in the world is trying to export some of its their national products. Exporting has become one of key remedies for unbalanced economies in the developed and under-developed countries. While financial and economic benefits are the prime objective of exporting, it also widens contacts between the countries concerned. Such interaction also produces a world-wide exchange of information and so involves the exporting of knowledge. Transfer of information for educating overseas purchasers and consumers almost always precedes the transfer of hardware. Information exchange occurs as people seek information, or provide information during their commercial transactions.

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Information for exporting/importing is provided from various sources to meet the needs of the industries involved. The exporting/importing industries have certain types of information need which will be looked at in this thesis specifically in the context of the IT industry.

Managers of exporting firms look forward to expanding their market share, so they need to examine the positive and negative aspects of trading with a specific country. They normally seek certain types of information, e.g., information about the nature of the government and its attitude to importing to the country; the way of treating money exchange; the restrictions and regulations that the government imposes on exporting/importing. IT exporters/importers would normally be concerned with any indication of technological pirating and any cost of adapting their products and services to a foreign country's standards.

For Saudi Arabia, specifically, these queries include the following topics: the economic environment and its effect on IT trading; the political environment, its stability, and attitudes towards IT exports/imports; information about the business environment in Saudi Arabia. Aspects of the cultural environment which might affect business can also be relevant, e.g., how Saudi Arabia perceives foreign hosts and businesses.

1.2 The Economic Environment of Saudi Arabia as Related to IT Importing

There are three basic elements with which exporters are almost always concerned when they think of exporting to any country. These are the country's population, its industrial structure and the income distribution among the people.

Population

The population of Saudi Arabia, according to official estimates, was 14,870,000 in 1990. About 77% of this population live in conurbations, and the rest live on farms, or as bedouin in desert areas. However, Saudi Arabia has a considerable number of foreign workers. In 1985 there were 4,563,000, but the number has fluctuated from one year to the next. There are no official estimates of exactly how many foreigners are currently working in Saudi Arabia. According to unofficial reports, as a result of the training and development introduced by the fourth plan, foreign expatriates have been reduced in number by 24% since 1985.

There are no official statements concerning the income distribution, though it is known that the overall Gross Domestic Product (GDP) in 1990 exceeded $100,000m (1). There are no official estimates of the personal income of Saudi families but the average spending of a middle income Saudi family, according to government statistics for 1989, ranged between £546-2000 per month. This can be compared with the average British income for 1989, when the female monthly income was £790, and the male income was £1,168 (2).

The Industrial Structure of Saudi Arabia

The industrial structure of Saudi Arabia can be looked at for present purposes from two aspects. The first is the general nature of the country's industrial background. The second is the specific IT trade market background.

Saudi Arabia is perhaps generally thought of as the largest exporter of crude oil, but it is also the largest importer in the Middle East of consumer goods and technology. Before the discovery of oil, Saudi Arabia's economy was based on cultivation around some oases and water wells. The inhabitants raised sheep, goats, camels and horses. There were farms for fruit and grain scattered over

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the estimated area of 2,240,000 sq km. The discovery of oil provided the country with enough money for the people to change their life style, and their needs and requirements have changed accordingly. The government decided to guide the economy through a series of five-year plans.

The Five-Year Plans of Saudi Arabia

The first plan covered the period between 1970-75. It was concerned with general development of the economy and the social life of the country. The second five-year plan followed between 1975-80, and was devoted to the development of the following sectors: defence, education, industrial production (such as minerals). The major intention of this plan was to build up the industrial infrastructure. The plans concentrated on projects such as roads, ports, airports, utilities and schools. The goals of the plans, according to the government's subsequent official report, were achieved.

The third five-year development plan spanned 1980-85. It was devoted to the building up of Saudi industry in order to become self-sufficient in basic goods, such as cement and metal. In this plan, the Government encouraged local labour by establishing training schools. This shift to a production plan, rather than concentrating on infrastructural projects, was reported to be a success. The agricultural sectors received prime attention from the government. The aim was to achieve independence of foreign imports as regards food products. Saudi food products now appear to be competitive in price and quality. However, the Saudi market has remained an open market for imports/exports.

The fourth development plan covered 1985-90. In this, the government put greater emphasis on developing the non-oil sectors, such as agriculture. The fifth development plan started in 1990 and will end in 1995. Its aim is to accelerate economic diversification by involving the private sector in areas

which used to be led by the government, such as utilities and some government services. This plan noted various information needs of the government. These were mainly to improve the quality and the flow of information to all the ministries and to the government service in general. The new policy is aiming to implement standardisation, and to maximise the use of electronic information technology. There are still few details concerning what exactly the government agencies are expected to do in order to create their own services using the latest IT. Billions of Saudi Riyals are expected to be spent in the automation of government offices and the creation of information centres.

The government in this fifth plan has considered the computer education programme throughout Saudi universities and schools. Graduates of Saudi universities are now holding key positions in computer facilities throughout the country. Computer courses are being offered as a standard part of the curriculum of the high schools.

One other intention of this fifth plan, which is important to this thesis, is the aim of the government to broaden trading relations with the world and to welcome foreign investment into country. This is expected to help in transferring technology and foreign expertise to Saudi Arabia. It will also encourage the provision of information channels to provide information on marketing, products and business management. It is intended to stimulate the Saudi economy into more rapid growth and to move into the world of joint venture businesses and foreign companies.

1.3   Trading with Saudi Arabia

Saudi Arabia follows traditional Islamic law as regards free trading, and free capital movement in or out of Saudi Arabia. (Such trading is free so long as it does not violate Islamic law and the normal practices of the people of Saudi

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Arabia.) Any international firm wishing to export to Saudi Arabia, or perhaps be involved in direct trading with various organisations, including government organisations, needs to choose one of two options. These options are having a Saudi representative, or establishing a joint-venture company (3).

Saudi Agent Option

Depending on its situation, a foreign firm may wish to have an agent in Saudi Arabia. Agents may offer various services, such as arranging accommodation and visas, or selling products and services. Saudi law requires that agents may charge a 5% maximum on any contract. A foreign firm may have more than one agent. However, once a firm has selected an agent, it cannot change agents. A Saudi representative is essential in order to enter into government contracts (4).

Joint-Venture Option

A joint-venture enterprise can be formed with a Saudi investor or firm, and is the better option when seeking large government contracts. Foreign firms can gain up to 20% tariff protection in competing with imports if they follow this path. They will also be exempted from duty when importing raw materials or machinery, and pay only a low price for renting land and using water and electricity. A joint-venture approach is encouraged by the government when the project includes transfer of foreign technology and expertise (5).

1.4   Information Technology Marketing Trends in Saudi Arabia

IT market development in Saudi Arabia can be categorised in terms of two trends. These have overlapped one another historically, so there are no clear-cut lines to divide them. The beginning of the first trend was perhaps in the late

1970s, and it lasted until the mid-1980s. This was seen as the period of selling Latin-based hardware and software to Arabic- speaking countries which do not use the Latin alphabet for their official work. The second is the arabisation trend. This began with the demand from the general public for Arabised computer hardware and software. It started in the early 1980s, but achieved its major impact after the mid-1980s.

The First IT Market Trend in Saudi Arabia

The PC and related IT products and services were introduced gradually to the Saudi market. Marketing the Western PC started in the late 1970s and continued until the mid-1980s. In 1979 the Saudi market imported £34 million worth of IT products, and this rose to £167 million in 1982. However, the value of such imports decreased again to £120 million in 1985 (6) (see Tables 1, 2 and 3). The slow-down related to the difficulties of marketing computers which would only work with the Latin alphabet, and had no support for the Arabic language. The second difficulty in marketing the PC in Saudi Arabia (and perhaps in the other Arab markets, which cover 22 countries and over 210 million people) was the lack of knowledge of the inhabitants concerning computers. These two difficulties were the main deterrents to marketing the PC in Saudi Arabia at that time. Consequently, the PC market was limited to professionals who had had previous experience with computers, such as academics, doctors in hospitals, pharmacists, and so on.

In the early 1980s, the computer firms who were selling the PC found it hard to sell to the general public. The public lacked interest in it then because there was no good Arabic applications software to appeal to them. The PC firms therefore introduced the selling of cheap IBM compatibles. These low-priced PCs were considered to be within the range of the purchasing power of the middle income Saudi family. However, the problem remained - what would a

native Arabic speaker who does not have a good command of the Latin alphabet want with a Latin-based computer?

Unprotected Computer Games

The activity which finally introduced the PC to Saudi homes was mainly the very low-priced computer games, along with educational software. A computer game on a floppy 5¼" diskette was priced at 80p (= SR5). There were a variety of well-known games which could be obtained through copying in the shops. They were not protected and were intended to help sell the hardware. People used to exchange their copies, or copy for each other. Computer firms who traded in software and hardware were well aware of what was happening. Subsequently, this copying of games slowed due to the spread of software viruses. However, it was reported (7) that Microsoft's policy was still to sell unprotected software at a very low price in order to encourage the Arab market.

The Second IT Marketing Trend in Saudi Arabia

This can be called the 'arabisation' trend. The arabisation of IT products means here to incorporate the Arabic language and its many true writing fonts into the existing IT hardware and Latin language applications software. Such joint involvement of Arabic and Latin should be acceptable when the computer hardware and applications software allow users to do the following:

- insert Latin text into Arabic text, and vice versa

- allow users to handle applications software in Latin only, in Arabic only, or in both, with the same effectiveness and capability as in Latin only.

The three leading developments in IT Arabisation have been:

TABLE 1:

Saudi Government Report of IT Imports in 1991

Country

USA	UK	Japan	China Formosa	S.Korea	Germany	France	Belgium	Switzerland	Thailand	Spain	Singapore	China Mainland
£132,965,220	£19,210,000	£6,160,206	£5,472,285	£24,025,009	£2,316,246	£1,748,384	£1,428,464	£709,193	£611,024	£405,327	£216,105	£156,666

Source: Saudi Arabia Central Department of Statistics. *Foreign Trade Statistics, 1991*

-       IBM and all IBM-compatible producers have made efforts to introduce arabisation. This includes the Microsoft arabisation effort to provide IBM-compatible applications software. Microsoft is one of the leading firms in this trend, as will be explained below.

-       Apple Macintosh invested in arabisation before developing their joint standard with IBM.

-       Alalamiah, a Kuwaiti firm, took the lead in arabisation with its Sakhr standard, and its IBM-compatible standard for Arabic Windows. The firm offers applications software suitable for the Sakhr Windows environment, but not for Microsoft.

The arabisation of computer hardware and applications software proved a vital marketing development in Saudi Arabia, as well as perhaps in the other 22 Arab countries. As a result, marketing developing changed in Saudi Arabia. These developments can be seen by comparing Saudi IT import statistics in 1979, 1982 and 1985 (see Tables 1, 2 and 3 in this chapter). There are no official reports on individual firms' activities in importing or selling, but there are a few official statistical reports about the whole Saudi IT importing activities which give some idea of trends.

There are four reports available concerning the volume of IT sales and imports to the Saudi market (8). Canon distributors in Saudi stated that, in 1992, the firm had record sales (SR400 million, which is about £67 million) in the Saudi market. The sales of IT products in Riyadh City alone was £34 million, nearly half of what was sold in all of Saudi Arabia. This means that one firm in Saudi Arabia in 1992 sold one third in monetary terms of what the whole country imported as IT products in 1982, and about 50% of what the whole country imported in 1985. The Saudi Computer Exhibition of 1993 in Riyadh, which

was attended by 248 firms from 22 countries, saw business of about £15-16 million concluded. Alalamiah reported their volume sales for 1992 were £90 million, three times the imports of IT products in 1979, and about 50% of 1982 imports. The last data concern total IT imports by Saudi Arabia from the UK.

TABLE 2:

Saudi Importation of IT Products During the Following Years

1979	1982	1985
£34M	£167M	£120M

Source: Al-Sakran, S. and J. A. Ghani. The changing data processing environment in Saudi Arabia. *Information and Management,* 1988, 14.

TABLE 3:

British IT Exports to Saudi Arabia

1990	1991
£14.974M	£19.210M

Source: *Business Monitor,* Overseas Trade Statistics of United Kingdom, MA20, Table V22,75, 1991.

In 1990 Saudi Arabia imported IT products from the UK worth £14.974 million, rising to £19.210 million in 1991. This improved Saudi IT market in the 1990s reflects the arabisation efforts.

The First Approach to Arab Development

Arabisation efforts within the IBM environment concentrated on three approaches. These approaches were: arabisation through adding hardware to the existing IBM environment, arabisation of the operating system; arabisation of the shell around the MS-DOS environment.

The Hardware Approach to Arabisation

One of the earliest approaches to arabisation, in the early 1980s, was to add a card containing a code solution to incorporate the Arabic language in Latin-based applications software. This effort was made by a Jordanian firm, which produced the "Ameer" card to be added to PCs. ("Ameer" was named after its Jordanian developer.) It was popular in Saudi Arabia, but the problem was the unavailability of major applications software to satisfy the needs of Arab users. Ameer was not a complete solution for two reasons: first, the different Arabic fonts were not available through hardware cards; second, there was no conversion of major applications software, such as Word Perfect.

The Software Approach to Arabisation

The second approach to Arabisation within the IBM environment was made by a Bahraini firm called "OI" in 1987. They produced an applications program called "Nafitha" (which means Window). This program used a shell around the MS-DOS to incorporate Arabic and Latin letters, so it represented a software solution to arabisation.

The Arabisation of the Operating System

The third approach to arabisation came from Microsoft in 1988. This was a major development involving the arabisation of the PC operating system. The Arabic DOS 3.2 came first, but it was a bad program, full of bugs, and was

considered unusable. Unfortunately, Microsoft did nothing to correct its mistakes, so it remained in use until 1992. In 1992, a new release came from Microsoft-MS-DOS 5.0 with Arabic support. According to several Arabic users, this is a much better program, and has had considerable success.

Since the beginning of 1993, Microsoft have appointed 35 dealers in Saudi Arabia and are still expanding. They introduced three new programs late in 1992 - the applications software Arabic Excel, Beta Versions and the Arabic Word Windows. These applications software have all been successful in the market as reported by the *Arabian Computer News* in 1993). Microsoft's strategy is to sell its software at very low prices, and to issue all its software unprotected from copying in the Saudi market. Microsoft is trying to dominate the PC market software by introducing a Microsoft Arabic Windows 3.1 environment. If successful, then all its applications software requiring Microsoft Windows will be sold easily. It will also be able to compete with Alalamiah, which produces its own standard of PC Windows.

These arabisation efforts within the IBM environment have led to a massive importation of IT products into Saudi Arabia (Table 2). This is encouraged by the production of application programs which are wanted by the general public. Such programs include Arabic Word, Arabic Word Perfect 5.1, Awrite, Arabic Lotus 1-2-3 V.1.1.

The Second Approach to Arab Development

Alalamiah is a Kuwaiti firm known for its Sakhr computer, (which was not IBM compatible in the early 1980s). Sakhr operated on a floppy diskette, and on cartridges for its applications software. Sakhr computers incorporated their own standard arabisation. In 1989 Alalamiah produced a PC which is compatible with the IBM, so entering into competition with Microsoft. Their arabisation

software requires a card, and so can be seen as a hardware solution to arabisation. It requires that the user should buy a software development kit (SDK) which has been given free to any Arab software developer. This kit gives the software developer control over arabising Latin programs. It is Arabic applications software which will transfer any Latin software to Arabic. The developer needs only to worry about such things as the different Arabic fonts and perhaps some minor changes. Alalamiah is hoping, in this way, to convert the PC arabisation market to their standard.

The Third Approach to Arab Development

Apple Macintosh hardware/software standards are different from IBM or Sakhr, and their arabisation approaches have also been different. However, Apple Macintosh users never suffered in the same way as Arabic users of IBM and its compatibles, for the firm soon produced Arabian Apple 11E, Apple 11G, Apple Macintosh SE and Apple Macintosh II with Arabic/English keyboards and all the necessary applications software. This was enough to give Macintosh a strong competitive advantage over Sakhr compatibles. The main advantage of Macintosh's applications software has been that it supports a desk-top publishing environment with true Arabic writing fonts. This advantage was not available to the IBM or Sakhr until late in the 1980s,and they are still behind Macintosh in the use of true Arabic writing fonts. This arabisation effort helped Apple in gaining success in the publishing and newspaper industries (such as Okaz newspapers, Madena and the Tohama publishing firm). The key for these industries was Macintosh's applications software, which allows the users to employ various artistic Arabic fonts, such as Naask, Rigaa and Koofy.

1.5   References

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CHAPTER TWO

THE CONCEPT OF INFORMATION-SEEKING BEHAVIOUR

2.1   The Concept of Information-Seeking Behaviour

Introduction

It has been suggested that the amount on literature of information needs and user studies is so large that no one dominant paradigm has prevailed (1). This literature review will therefore not attempt to bring together all the various definitions and approaches scattered through the literature. The aim is rather to examine the concepts that can be applied to the present study and its methodology.

The concept of information-seeking behaviour has developed within the general field of 'user studies'. It evolved from the original practical objective of user studies - to design efficient and effective information systems which meet the user's needs. For the present study, the focus of attention is the information-seeking behaviour of exporters and importers. This means looking at the conduct, or actions pursued by Saudi IT importers when searching for IT products to import, and by the British IT exporters in their search for importers to purchase IT.

Information-seeking behaviour almost always occurs in a situation where an individual, or organised group (such as export/import firms) requires to solve a

problem, and to decide between various alternatives for action. Three aspects of information-seeking behaviour need to be examined: the way people decide to seek information, the structure of the information provision, and what invokes information-seeking behaviour in people's minds.

The paths individuals select to find information and the nature of information provision within various information structures is looked at here in terms of a systems approach. This approach will be used for the purpose of looking at IT exporters/importers functioning within their work environments, and for identifying a set of variables affecting information-seeking within those environments. The work of Paisley (2), Wilson (3) and Kotler and Armstrong (4,5) will be examined from this viewpoint.

IT Export/Import Firms as a Trade System

British IT exporters and Saudi IT importers can be seen as a trade system, both within their countries, and within the international environment. To justify this, the meaning of 'system' in terms of IT exports/imports must be clarified and applied to an export/import 'system' to see if it exists or not. What is a system? Meadows defines a system as "... a group of related elements organised for a particular purpose. Systems can be physical, biological, social, etc" (6). Do the IT export/import firms in Britain and Saudi Arabia fit this definition?

The IT exporter deals with various IT products and services. Saudi IT importers will offer these products and services to IT customers as part of their marketing system effort. These marketing efforts are always accompanied by information flows or communications. This is necessary, for example, to help inform the customers, so that they can acquire and communicate their needs for IT. This

situation in the market helps relationships form between exporters/importers and their customers. "The firm and consumers are both input-output systems ..." and "the marketing firm as an organised behaviour system is a sensory and data gathering and dissemination system" (7).

The relationships between the IT exporters/importers and their customers are thus continuous through a series of marketing communications facilitated by information flows necessary to maintain these relations. When IT importers sell their products to customers, the latter normally receive support and warranty for the products purchased. The expectation of the customers that the IT products will deliver certain benefits for a reasonable period of time plays a major part in the customer's decision-making. Manufacturers normally support importers, and all the parties involved, to secure the delivery of their product's benefits.

The types of IT products and services that IT exporters/importers deal with therefore dictate and influence the systematic relationships between the manufacturer and the exporter or overseas importers. Do IT manufacturers and exporters/importers become involved in systematic relationships of any sort? Do competitors dealing with IT products ever act together? The answer is that they do. Thus, British IT exporters act together through their trade organisations and through organised marketing using DTI services (see later).

IT export/import firms can be seen as a group of businesses involved in designing the IT marketing mix. Marketing mix can be defined as: "the unique blend of pricing, promotion, product offerings, and distribution systems designed to reach a specific group of consumers" (8). Two firms in Saudi Arabia will be viewed here as an example to explain briefly how this system works. These two firms are Bugshan Information Systems and Jeraisy, both of which offer to

provide "the total solution". This total solution in their marketing is the offering of whatever the customer requires in terms of a mix of IT products - especially in the office environment - such as hardware, software, networking, office furniture, in-house training, on-site maintenance and so on.

Bugshan information systems was established in 1991 to deal with a blend of IT products related to information processing and systems. They offer a variety of computer hardware, such as Fujitsu, Farabi Technology, which is a bilingual 5250, and IBM 3270 personal computers. They also offer Seagate computers, AST, Epson and many other products. The other firm, Jeraisy, offers AT and T paradyne, advanced data communication, Hitachi, Data Systems, Accodata computer accessories, a PC magazine and so on. The total solution which offers a blend of IT products and services through one importer is thus a reality in Saudi Arabia. This concept of trading involves exporters from various countries engaging in servicing part of the hardware or software installed within their competitor's hardware environment.

The 'market mix' therefore shows exporters/importers involved in a systematic marketing plan. A related trend in Saudi Arabia since 1992 is the marketing of assembled products to meet customers needs. Many computer shops in Saudi Arabia now purchase hardware from various countries - motherboards from Far East countries, keyboards from Japan and all the bits and pieces of computers they need to assemble in their own shop. For example, one might visit one of these shops and ask for a computer simply as "no name, just IBM compatible". The customer can specify a certain memory size, speed and special features according to what is available on the market. The shop will fit the required computer into a computer case and within two or three days the computer will be ready, satisfying all the requirements, and with a warranty for labour and parts. The shops import from various firms to meet the requirements of small

businesses and individual consumers.

This discussion suggests that it is logical to view the IT exporters/importers' firms as a trade system. The systematic relations are influenced by the type of product, services, marketing behaviour and information provision. The actual system approach to be utilised in this research will be considered next.

2.2 Systems Approaches to Information-Seeking Behaviour

One of the first to apply a systems approach to information-seeking behaviour was Paisley. He focused on the individual's behaviour within an engineering corporate environment. In his conceptual framework, he described how scientists/technologists function within various systems. The formal information system was considered to be one of these systems, but he suggested ten potential information systems within the scientist/technologist work-environment. These were: cultural, political, scientist/technologist group members, reference group members of scientists with similar interests, invisible college, formal organisation, team work, scientists' own knowledge and cognitive structure, the legal and economic system and the formal information system of the scientist/technologist. British IT exporters and Saudi IT importers can also be seen as functioning within various potential information systems which may be accessible to information providers. These will be discussed later in terms of macro-level and micro-analytical behaviour models.

The work of Paisley can be seen as a development of, or departure from, the traditional approach to user studies. The traditional approach concentrated on the users functioning within a formal information system. This traditional approach to information studies has been described in the following way: "information is seen as objective and the users are seen as input-output processors of information" (9). Paisley's systems' approach saw the user as a free agent acting within an environment of various information sources. His

ideas were concerned with the individual user's activities within the appropriate social systems. Though descriptive of the various information systems, these ideas do not seem to give any help in the improvement of such systems. An information designer cannot immediately use his descriptions to redesign or improve information systems. However, if detailed descriptions are available of information-seeking behaviour, they might be used in a practical sense to examine the operation of the various information systems in a user's corporate environment.

The period between 1978-86 was dominated by systems studies which clustered around such topics as how many information systems, services, or materials were utilised by the user, which barriers would deter the users of such systems and how satisfactory were the services provided within the information system. Most of these research efforts were attempting to explain the differences between respondents, and/or assessing information-seeking patterns based on demographic differences, educational activities and/or social grouping. They also examined demand for information within the framework of the formal information system.

The idea of the social system approach has been traced to Parsons (10), when he proposed a "system-theoretic sociology". His idea was that human behaviour is affected by the various social systems within which individuals operate. The idea of a user's information exchange is a fundamental aspect of human interaction within a social system environment. As a part of this context, a model of the individual functioning within a work environment has been discussed by Wilson (Fig. 1). Wilson's work is of interest for the theme of this thesis. His model of information-seeking paths views the user as functioning within a variety of information systems. Wilson stresses the element of information exchange as a reciprocal action within the social framework of

human relations. He notes that an individual seeks information from three different sources: formal information systems, people and potential information systems that might fill the information need.

Wilson's model of information-seeking paths defines the possible information sources that the user might contact when engaged in information- seeking behaviour. He has categorised these paths into four general categories which might be used in studying information-seeking behaviour in the user's world. The first category (A) is the user's life world, as defined by Wilson: "the totality of experience centred upon the individual as an information user". This life world consists of sub-systems which include fellow professionals and peer groups both within the user's organisation and outside it. The second category (B) is the formal information system, as part of the user's corporate environment: it consists of two sub-systems - the mediators and technology. The third category (C) contains the universe of knowledge, which "embraces all knowledge-related objects". Finally, the fourth category (D) is the embodiments of knowledge: these might be documents, or people who can help the user satisfy his need. For further clarification, the various letters mentioned in Wilson's model mean the following: a, b, c - individual searches outside the formal information system; d e and f - searches involving a mediator; g, h - searches by a mediator for the users; j and k - searches via an automated system.

This may be compared with a different approach by Belkin (11), which led him to design an alternative information systems model. This will be considered here to see whether it gives insight into the nature of the IT export/import information system. Belkin suggested a model information system, which he called a "recipient controlled communication system", consisting of three components', namely:

User's Life World

Information System

Reference

User

'Mediator'

F

H

A

B

C

E

'Technology'

Group

D

J

K

I

Embodiments of Knowledge
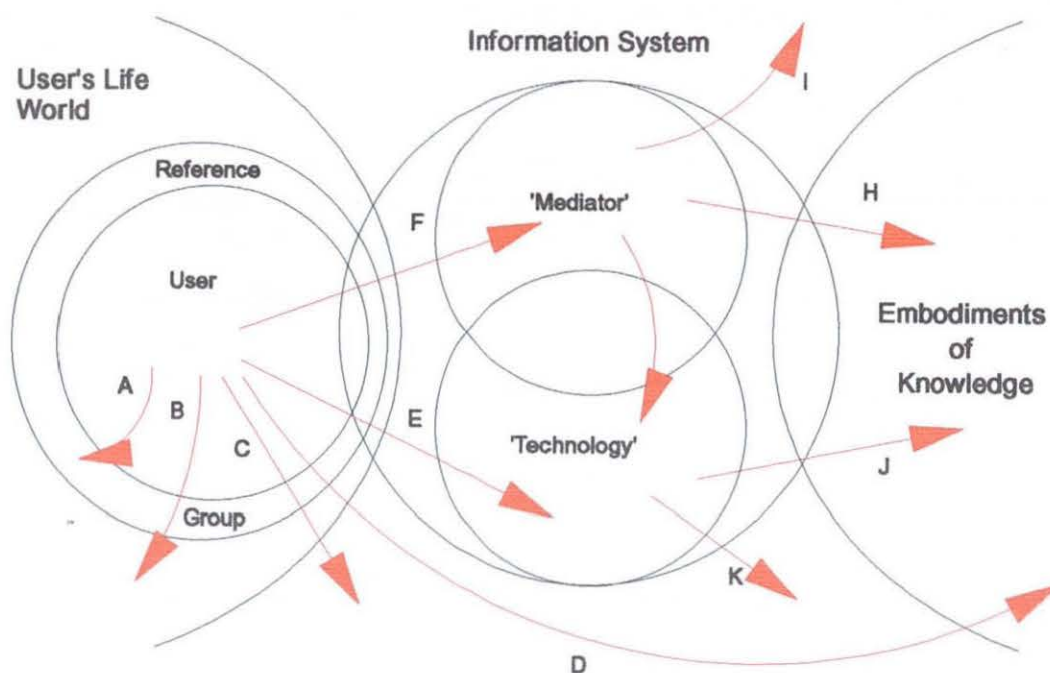
Wilson's Model of Information-seeking Paths.

Figure (1)

- The user ↔ the intermediary ↔ the knowledge resource.

He suggested that the components involved in the system here have an image of the other interacting system components:

- The user with his information problem, goal, or intention to know something, should have an image of the intermediary and what to expect from him/her/it.

- The intermediary may be either human or technological. The intermediary's objective is to mediate between the user and the source of knowledge. The intermediary must have an image both of the user and the information sources and what they can do for the user in terms of his need. The intermediary is assumed to find information for each potential user of the formal information system.

- The knowledge resources may consist of a range of informative elements, e.g., reports organised systematically to help the intermediary find the information that is needed.

Belkin's ideas about images of the information system correspond to defining a cognitive function which can be used for the present discussion. He suggested further that the function of the information system is information transfer, which is a result of dynamic interaction between the three components. Successful interaction requires formation of a cognitive image that can be

recognised by the participants in the system. This leads, in the present case, to the hypothesis that all information providers concerned with IT exports/imports, including the British IT exporters and Saudi IT importers, must have a correct image of the other for the effective, efficient exchange of information to meet their needs.

2.3   Systems Approach to the Information-Seeking Behaviour of the British Exporters and Saudi Importers

IT exporters/importers are perceived as information consumers and producers in various information systems. When IT exporters seek information about importers and overseas markets they can be seen as information seekers. The same can be said about the IT importers when they look for IT products and services to import. While consuming information from various relevant organisations within their field of work at a national and international level, they also produce and exchange information and transfer products/services. In order to export products and services, exporters produce relevant information sources, such as newsletters, information about their products, and specific technical information. Importers also disseminate information to their customers and provide advice as part of their marketing efforts.

The British IT exporters/Saudi IT importers seek information for their exports/imports utilising various explicit and implicit information sources. Explicit information providers in the IT exports/ imports would be every existing relevant formal and informal information system. Their implicit information sources are their personal contacts, own agents and so on. Their information-seeking paths can be categorised into three ways of seeking information:

- from their own personal files, or from a personal agent (implicit sources of information)

- from national sources, such as governments, libraries, banks, chambers of commerce, foreign embassies, information brokers, and so on.

- from international sources: personal contacts, or through intermediaries. such as export/import link facilities via government organisations, banks, commercial firms and so on.

As the IT exporters/importers are involved in marketing their products and services to one another and to the end-consumer, their sources of information will be of two types - primary and secondary sources of information. These two groups of sources have been described by Kotler and Vichas (12) as follows:

- A primary source of information is information collected for a specific situation to meet the needs of that particular event. Primary information is sought in various ways - observation, surveys, experimental research, mail questions, telephone interviews, personal interviews, and group interviews.

- A secondary source of information consists of existing information which has been collected for purposes other than the problem at hand. It contains materials from the formal information system, such as printed research reports, government publications (e.g., statistical data), trade journals, as well as commercial data sold to IT exporters/importers and end-customers.

Information needs vary from time to time. Changes in products, and so in the way people are used to seeing them, may mean that customers will not react to the new product in the same way as they reacted to the old one. Thus, British IT exporters/Saudi IT importers need information on the reaction of people to products, but the consumers' behaviour towards an IBM, for example, is not necessarily the same as for other models, or other software.

British IT exporters and Saudi IT importers marketing activities thus involve exchange and transfer of information at a cross-international level. Sales will not be optimum unless education precedes the exporting/importing of the product and of any related services. This information exchange and transfer involves communication, which, in turn, involves messages being transmitted between exporters and importers. The messages must have meaning for the participants. This happens when the two parties (British IT exporters and Saudi IT importers) understand each other and have an appropriate "image" of one another. This requires each of the parties involved to have a knowledge of the environment of the other, and an ability to understand the messages which will be sent. This is the main focus of the cognitive approach, which will be discussed below.

Analysing the information-seeking behaviour of British IT exporters, and Saudi IT importers involves a study of information provision under the following headings:

-       identify the possible information provision systems for British IT exporters and Saudi IT importers;

-       identify the existing information-seeking paths and information flows at a cross-international level;

- identify differences and similarities in the information-seeking behaviour of British IT exporters and Saudi IT importers within their respective environments;

- evaluate the efficiency and effectiveness of possible forms of information provision for British IT exporters and Saudi IT importers.

2.4   Systems Models

Introduction

Models of information-seeking behaviour found in the literature can be categorised into three groups. First, there are models representing a cognitive approach to the user's internal state (such as Belkin's model). Next come models representing abstract elements of participants in the information system and how they might interact systematically (such as Wilson's model of information-seeking paths). Finally, there are models combining systems and cognitive approaches - such as Wilson's "factors influencing needs and information-seeking behaviour" and Belkin's "the cognitive communication system".

All these models refer to three elements in their theoretical structures. The first is the system participants, followed, secondly, by the data flow between these participants. (These flows are normally based on how the real world is viewed through the model.) The third element relates to the context of the model, such as where this model might work. Most information-seeking behaviour models to date have considered users within the science and engineering field. These models provide a theoretical structure of the information-seeking behaviour necessary to study and analyse certain user situations. Clearly, no single model or approach to information-seeking behaviour can fit every

situation in every environment.

Belkin's, Wilson's and Kotler's theoretical approaches and models have provided the basic ideas for this thesis. In the first instance, Belkin's cognitive approach to information-seeking behaviour is used. This applies mainly to individuals, so Kotler's cognitive approach will be used to look into the information-seeking behaviour of IT exporters/importers from the organisational point of view. Wilson's ideas of a systems approach will also be developed, but in a rather different way. His approach was intended for individual users, and to help understand the possibilities of accessing various information sources within the user's social system, not least the formal information system. This will be adapted here to consider British IT exporters and Saudi IT importers as organisations rather than individual users, and also as both information seekers and producers within various information systems.

Information-Seeking Behaviour Models used in this Research

Three empirical models have been developed to provide a theoretical and practical framework for this present investigation. The three models are [1] a macro-level model of British and Saudi IT exporters/importers and their information provision; [2] an information-seeking behaviour model for an individual IT exporter/importer; [3] a micro-behavioural analytical model of the types of information sought and produced within various IT corporate information environments. Each of these models is described here.

The Macro-Level Model of the IT Exports/Imports

This is best described in terms of a diagram (Fig. 2). The circle on the left represents the British IT export environment and the one on the right the Saudi

29
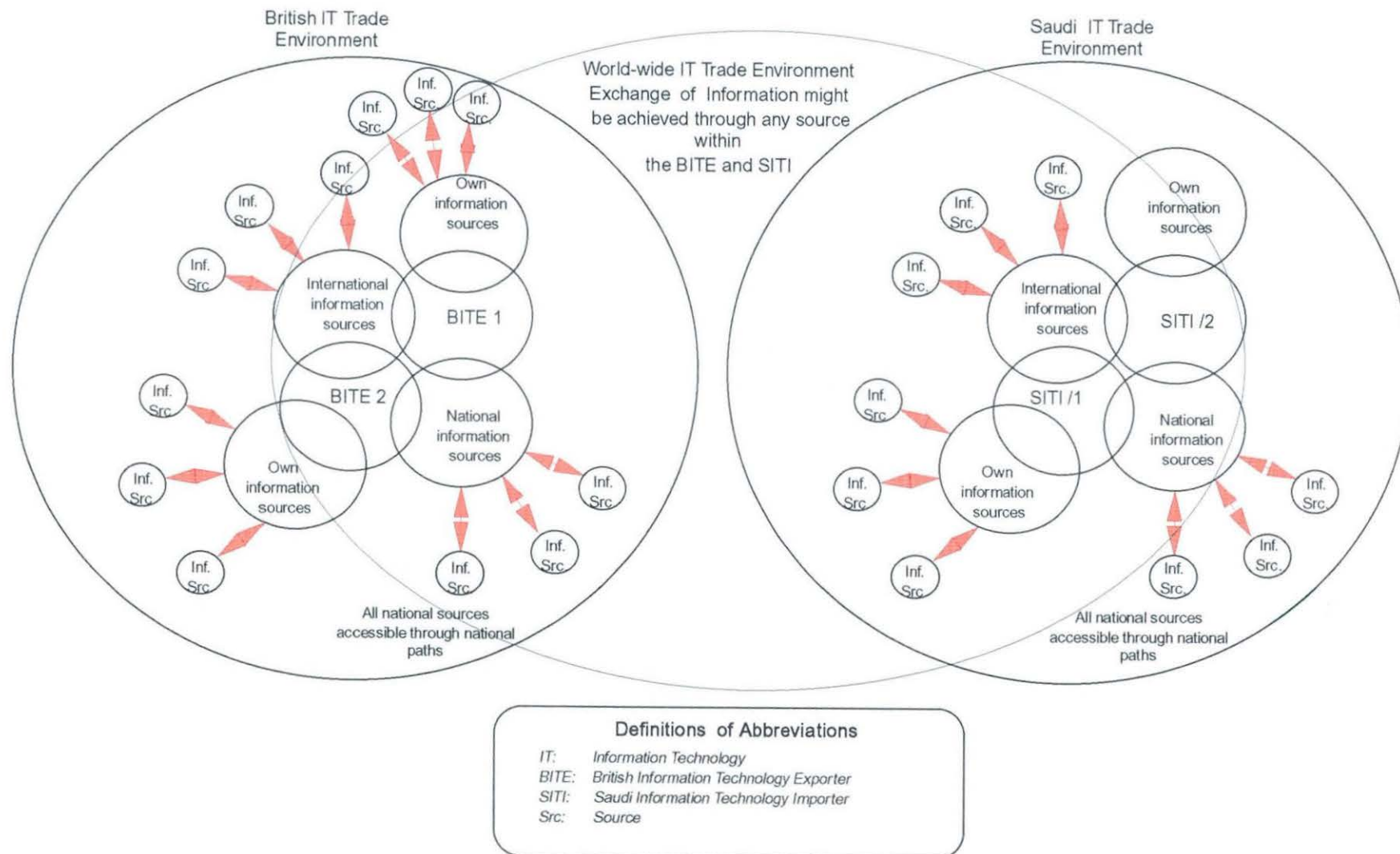
The macro-level model of British and Saudi IT
Importers/Exporters and their information provision.

Figure (2)

IT import environment. Each of these two large circles contains medium-sized circles, overlapping each other, and small circles attached to them which do not overlap. The overlapping circles denote explicit information sources common to all. IT firms in both circles reflect interaction in the trade market. The very small circles (Inf.src) denote implicit information sources, which may be one's own personal contacts within the national or international information systems. The large ellipse that connects the two large left and right-hand circles indicates that the IT trade system interacts nationally and internationally. To expand the macro-level model a step further, a secondary model was developed. This represents the information-seeking behaviour of IT exporters/importers and is discussed next.

Description of the Macro Level Model of British IT Exporters and Saudi IT Importers

These different levels of model (Figs. 3 and 4) can be applied to IT export/import information sources:

Personal information sources These include both formal and informal personal sources of information. In particular, they include contacts such as importers, or agents located locally or internationally (e.g., brokers, banks). These sources of information may, or may not be accessible to other organisations.

Local information sources These are, in principle, available to all IT firms in the locality. Possible such information sources include - formal information, local databases, foreign trade representatives, embassy officials, (including attachés) and so on. Another IT exporter/importer might be a local source of information, but is less likely due to competitive reasons.

THE INFORMATION-SEEKING BEHAVIOUR MODEL
OF IT EXPORTER/IMPORTERS

These are information interfaces
to facilitates the information
transfer and exchange

IT exporter
or
individual
Information
seekers

IT importer(s)
or
IT end users

Need for IT
export/import
information causes
demand

behaviour within IT
export firm

Need for IT
export/import
information causes
demand

behaviour within IT
import firm

Interfaces or intermediating
Dominant Sources

Trigger Information
seeking

Demand upon
international
information sources,
brokers, foreign
ambassadors, attache
or any facilities that link
IT exporter to
IT importer

Trigger Information
seeking

International
Information-Exchange
and transfer

What
information
paths would
answer the
question?

International
Information-Exchange
and transfer

What
information
paths would
answer the
question?

Demand upon
national information
sources, libraries,
BOTB, Chamber of
commerce

Mediators could be
British or Saudi,
Government Organisations,
or Commercial Organisations.

Demand upon
national information
sources

Demand upon
own personal sources,
agents, data, etc

International Information
Exchange and Transfer

Direct interaction between two
organisations
having relation already

Demand upon
own information
sources

Figure (3)

Prediction of national/international market

New regulation report

Standard reports

Financial reports

Cash flow report

Current information on IT market

Types of IT exporters information needs

National information sources

Which information path needed?

Own sources of information

International information sources

Competitor Activity

Market Condition

Customer satisfaction

Warranty Problems

IT Services Reports

Money Reports

Inventories

Insurance

Other Reports

Others

Political situation reports

Shipping insurance etc. reports

Competitors news reports

New patents developments

Trends in market review

New market reports

special IT cases reports

A micro-behavioural analytical model of types of information sought and produced within various IT corporate-information environments.

Figure (4)

International sources These can be accessed through direct contact using the available channels, or can be accessed via an intermediary, either locally or internationally. The various possible sources available to the IT trade include international agencies, international databases, overseas trade representatives, overseas trade papers, journals, newspapers, magazines, overseas banks, trade brokers, marketing companies and so on.

The models suggest that IT exporters/importers information-seeking activities can be categorised into three groups. These are - international information-seeking paths; national information-seeking paths; personal information paths. Each path leads to a number of sources that the IT exporters might seek and exchange information with.

2.5   The Cognitive Approach to the Information-Seeking Behaviour

The works of Taylor (13) and Belkin have attempted to explain information-seeking behaviour in terms of the internal state of the user. The main purpose of their efforts was to develop a cognitive model for use with an artificial intelligence system which could act as an intermediary. However, the purpose of reviewing the cognitive approach here is to clarify its use in the context of the IT export/import business environment.   The approach emphasises understanding consumer behaviour.

IT consumers' decisions are affected by information flows, and by communication of information controlled by IT marketing firms. These firms base their marketing strategies on creating needs via communication with their (potential) customers and then in satisfying these needs. The cognitive approach assumes that there are logical consistencies behind the information-seeking behaviour involved. Assuming also that the human state of knowledge

is dynamic, and that information is not a thing - such as the right book, or right answer - but a construct, then information behaviour can be examined as a part of learning. The construct can be changed and manipulated by utilising appropriate information tools. The cognitive approach helps explain why people seek information from certain information sources, and also how they develop styles of behaviour affecting information exchange and transfer at international or local levels.

Cognition can be defined as the mental processing of information, including the processing of thoughts, reasoning and perception. Cognitive processing affects human beings' behaviour and is reflected in external social behaviour. The main interest of the cognitive approach in the field of information science is in examining what triggers information-seeking behaviour and how an individual finds meaning from data, so reducing his uncertainty and allowing him to reach the desired state of knowledge. It also concerns the way in which an individual transforms the meaning to a course of action relevant to the desired goal. Thus, how the user's mind works during information-seeking behaviour, and how he/she makes a decision is the focus of this approach.

It has been suggested by Wilson that information-seeking behaviour is rooted in various human needs, such as the physiological, affective, and cognitive. These needs are interrelated, and can trigger each other when associated with influencing factors, such as the need for information at certain times to make a decision. Individuals may make a decision based on beliefs, faith, or prejudices without seeking information, but the focus here is on contexts where it is recognised there are needs that require information.

The cognitive approaches reviewed here provide a model for looking at information-seeking behaviour and at the strategies recipients (consumers) use

to make a decision. This is the core interest of marketing. Information scientists typically study the user's cognitive activities to help the user clarify his needs in terms of the formal information system. They assume that the user's needs can be located within this system. The marketers view the formal information system as a secondary source of information. Their prime information source is what they determine for themselves.

The Five-Stage Model

This leads on to Kotler's model (Fig. 5), which can be applied to marketing. It involves need recognition, information search, evaluation of alternatives, then the purchase decision and post-purchase behaviour.

The need recognition comes from the consumer's sense of a gap between the current state of what is available and the desired state. Here, Kotler's view matches Taylor and Belkin *et al* in their cognitive approaches.

Information searching When a need is recognised, the consumer may go through two stages - heightened attention and active information search. Heightened attention leads the person to pay attention to the topic of interest. For example, when a person needs a computer, he may pay attention to relevant advertising and to discussions about computers. Active information searching happens when the customer experiences an information need that must be filled. An active search utilises reading, searching activities, telephoning and so on, until the need is satisfied.

Kotler's Five-stage Model of the
Buying Process

Evaluation of Alternatives

Kotler suggests that the consumer, when seeking information about certain products, considers first how to satisfy his/her needs. A customer most probably will develop some initial thoughts which will relate to a consideration of utility - for example, how a computer will handle the accounting system. The customer will develop his own evaluation of how to make a choice.

Categories of Information Sources

From a marketing point of view, Kotler categorized the individual's consumer information sources into four groups, each of which has a specific role and performs a specific function affecting the user's behaviour. The consumer can seek information from certain sources, known in marketing as "personal sources", "commercial sources", "public sources" and "experimental sources". These can be explained as follows:

Personal sources here mean all information exchange within individual social groups, such as family, friends, etc. This channel of information is effective in informing and creating awareness of what is going on in the market. This particular source may play a role in the evaluation of sources of information when one person tells another of his experience with hardware or software.

Commercial sources include magazines, newspapers, dealers, publications, etc. These sources are available for purchase when individuals need to have wide exposure to various IT products in the market. Normally, sources of this nature are controlled by marketers, and intended for a large audience.

Public information sources have a similar function to commercial sources, but are available to individuals mostly on a free basis. They include information obtained via television, radio, etc. These sources are intended to inform large audiences and are paid for by the advertisers or the general public.

Experimental sources include the person examining the product and using it - at work, in computer shops, or at trade shows and so on. Thus the types of information needed dictate and influence the individual's systematic searching for information.

The Successive Sets of Decision Model

Kotler suggested a parallel cognitive model (Fig. 6) dealing with the "successive sets involved in consumer decision making". This model supports the previous five-stage model, mainly in order to explain the evaluation of alternatives and the purchase decision process, and also consists of five steps. These steps are:

total set → awareness set → consideration set → choice set → decision?

The Application of Kotler's Successive Sets Model to the Process of Purchasing a Computer

In the present case, all the computers on the market can be considered as the total set, but the consumer (who might be a Saudi IT importer) is only aware of some of them. This awareness set may include a few major types of computer, such as IBM and Apple. The consumer would normally examine some of these that he/she believes might satisfy his/her interest - the consideration set. Other factors - cost, for example - may now lead the consumer to eliminate some possibilities, leaving the choice set. The consumer

Total Set		Awareness Set		Consideration Set		Choice Set		Decision
IBM Apple Radio Shark Hewlett-Packard Xerox Compaq Commodore . .		IBM Apple Radio Shark Commodore Hewlett-Packard		IBM Apple Radio Shark Commodore		IBM Apple Radio Shark		?
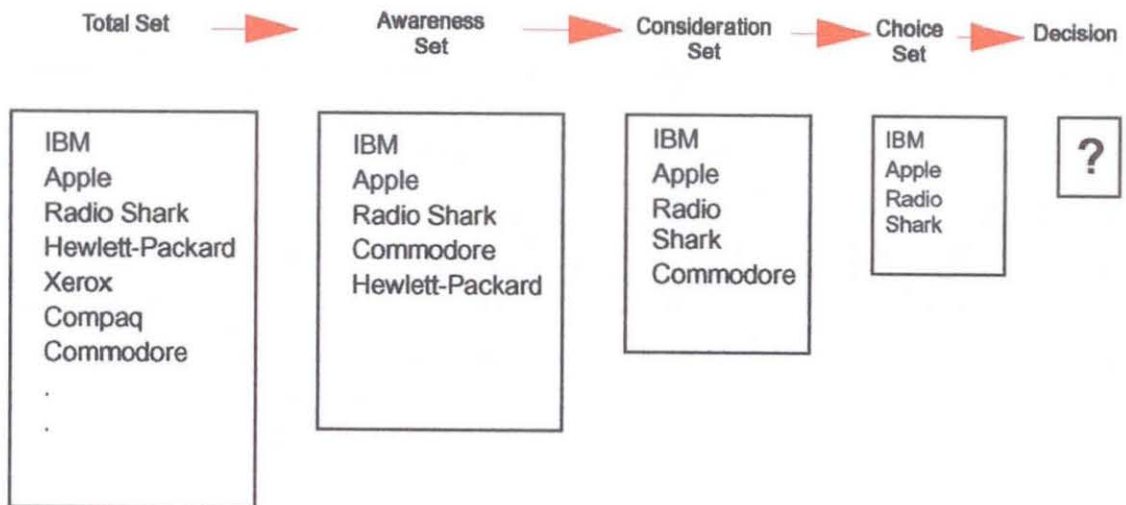
**Kotler's Model of Successive Sets involved
in Consumer Decision Making.**

is then ready to make a formal evaluation, and will decide on one which he believes will deliver the needed benefits for the amount that he, or his customer, can afford - the decision process.

Kotler suggested that companies - in this case, computer companies - could influence consumer decisions by modifying their products to have the highest standard in those areas that most concerned customers. Another way was through altering beliefs about brands or competitors. This involves advertising activities, which will be looked at later.

The Logical Model Governing Information-Seeking Behaviour

The first to consider this approach in information science was Taylor (14), whose work was essential to Belkin et al. He started with the "user's need" and suggested that the ultimate source of an information need is essentially an internal psychological state. It arises from a gap in the user's understanding of the world around him. This "incompleteness" in the user's mind, as Taylor defined it, is complex and possibly indescribable. He listed four levels of cognitive states that the user goes through in order to clarify this need: visceral, conscious, formalised and compromised. In the visceral state, the user does not know if he needs any particular information. In the conscious state, he knows that there is an information need: this leads to formalising it in the form of questions. In the final compromised state, the user knows exactly what he needs to find out. Belkin's and his colleagues' work looked primarily at the initial "visceral need". Their efforts were an attempt to explain the cognitive aspects which invoke the user's information-seeking. Belkin suggested a concept which he labelled the "anomalous state of knowledge" (ASK), similar to the "visceral need", and defined as "the recognition of an anomaly by the recipient in his/her state of knowledge".

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2.6   The Cognitive Conclusion

The purpose of reviewing the cognitive approach within the field of information science has been to provide a conceptual framework for information-seeking behaviour as treated here.   This thesis approaches information-seeking behaviour at an organisational level, rather than from an individual point of view, looking for similarities and differences in organisational behaviour and patterns of information-seeking behaviour. In order to understand what invokes information-seeking behaviour at the organisational level, however, individual information-seeking behaviour must be understood as a first stage.   The organisational decision process parallels the individual decision process, but involves group behaviour.   Cognitive explanations suggest how people form structured habits to seek information, and how information sources can influence, and perhaps alter, the beliefs and attitudes of people.   From experience, people find that following certain courses of action is more effective than other ways of searching.   Thus people develop certain styles of behaviour to avoid conflict, minimise problems, and achieve their needed satisfaction (14).

Marketing studies focus on both the consumer's and the organisation's behaviour in terms of their information searching, and their decision processes when purchasing products and services (such as IT). Marketing researchers have investigated the decision process both for the individual consumer and for groups of individuals, such as a purchasing organisation. Kotler has suggested that the organisational decision process goes through the same sequence for organisations as for individuals.   The sequence of five stages may differ, depending on the size of the organisation and the way in which the organisation finalises the decision process. The major differences, as indicated by marketing specialists, such as Kotler, relate especially to responsibility.   The individual is responsible only to him/herself, but managers of organisations are responsible to the whole organisation. Thus the risk of decision-making in an organisation

normally leads to more information-seeking, so as to provide the managers with the best assessment of a situation. Essentially, the organisation must be satisfied it has reached the right decision guided by the organisation's goals and objectives. This is true even though, for many organisations, the final decision is made by a manager.

2.7   Research Relating to IT Export/Import Information-Seeking Behaviour

A review of the information-seeking literature revealed no research dealing with the IT export/import trade. However, in the marketing and business literature, three studies were found to be relevant. Their concern was not with information use studies as such, but rather they included information-seeking behaviour as one of the factors investigated. In general, their approach was suitable for examining marketing, but was rather limited as an information-seeking behavioural study. They will be discussed in turn here.

The first project (15) explored UK manufacturers' methods of selecting an overseas intermediary. The subjects were UK exporting manufacturers, covering a wide range of products, and a mail questionnaire was used to collect the data. Some 81 responses (about a third) were received and analysed. This led to a method of selecting intermediaries based on a multi-step process.

The first step is to decide what entry to the market a manufacturer wants to take, whether by direct or indirect exporting. Indirect exporting is to sell the product to overseas customers through a person, organisation (such as export agents) or international trading company. Direct exporting is when a company sells directly or through an intermediary to overseas customers. When a company decides to employ direct exporting, it must consider whether to

choose an intermediary.

The second step is desk research. The manufacturer should establish a list of suitable intermediaries by exploring especially the following information sources: British Overseas Trade Board, direct contact with a selected intermediary, trade directories, trade fairs, management consultants, agent finders, commercial banks and Chambers of Commerce.

The third step is drawing up a shortlist and making personal visits. After the company has established a shortlist of selected agents, it must decide which one is the best. This can be done using well-known criteria for assessment, such as the agent's ability to cover the territory, the ability of the agent to market the product effectively, the agent's business reputation, technical ability and competence.

The fourth step is to obtain comments from banks and the British Overseas Trade Board. These two sources, along with personal visits, are the most important actions in selecting an export intermediary.

Moore asked the manufacturers to identify the information sources that they used in order to build an image of a potential intermediary. He then ranked twelve information sources in hierarchical order according to their importance to manufacturers. These sources of information are: recommendations, personal knowledge of the territory, direct approach by agent/distributor, trade fairs, British Overseas Trade Board, Chamber of Commerce, commercial bank, trade directories, British Export House Association, management consultants, professional institutes, the British Embassy, and agent finder (see Table 4).

Some of his conclusions are relevant to the present research. These are:

- that manufacturers use various export channels when employing agents

- that manufacturers use various information sources to find a suitable intermediary

- that overseas visits help manufacturers in identifying market needs and establishing good relationships

- that UK manufacturers were generally satisfied with their intermediaries and agents except for the Middle East, Africa and South America. For these, 17% of agents and distributors were considered unsatisfactory (though it was not stated why).

The second relevant project investigated and compared the export information needs and the marketing research of some Turkish exporting firms (16). The authors selected 88 export firms who agreed to allow interviews. These firms were food and textile exporters. They divided these exporters into two groups, based on the countries to which they export. The first group contained the firms that export to the Middle East and North Africa, and the other those who export to the remaining geographical destinations. The groups concerned with the Middle East and North Africa were mainly exporting processed food, while the second group dealt mainly with textiles. (Processed food and textiles then made up about 70% of Turkish export activities.) The first group consisted of small firms, new to the market and also new in their overseas market. The second group were well-established.

It was found that, in North Africa and the Middle East, two types of market were promoted by the political situation. The first type, which they called the state-run countries, included Iran, Iraq, Syria, Libya and Algeria. In these countries,

Turkish marketing was doing well since no competition existed. The Government makes the major purchases and they normally give orders to the lowest bidders. The second type of market is the free-market countries; in these, competition comes from all over the world, so exporting was harder. The countries promoting free markets included Saudi Arabia, the Gulf States, Kuwait and Egypt.

Although it is relatively easy for Turkish exporters to market their products in the Middle East and North Africa, because of proximity in terms of geographical and cultural links, they still do a lot of marketing research. Their information needs as regards the Middle East and North Africa cover the following types of information: religion, population, engineering, communication facilities, transportation facilities, level of urbanisation, political regime and stability, information on foreign investment, and so on. Religion was thought to be a major support for Turkish marketing in the Middle East and North Africa.

It was found that there were three channels of information which achieved the highest utilisation. These were: visits to foreign markets, market research conducted by one's own company, and visits by foreign commercial representatives to Turkey. It was concluded that the reason for this high utilisation is because these channels provide more specific information about the overseas market (see Table 5).

In the final project, information sources were investigated as part of studying the export orientation of Turkish manufacturers and trade-houses (17). The authors used a questionnaire mailed to 125 firms (50 of whom replied) and interviews with about 50 firms. Their research was concentrated on themes related to marketing, and the structure of the Turkish economy as this affected manufacturers and trade-houses. However, as part of their investigation they

looked at the information sources used by the two groups. They found significant differences between them. The manufacturing firms saw personal contacts via the executives of their firms as the most important source of information. The most important source of information for trade-houses was banks and financial institutions. For manufacturers, government-related agencies came next, but trade-houses now mentioned personal contact via their executives (see Table 6).

The common factor for present purposes among the three projects reviewed here is their investigation of information sources utilisation by exporting firms. None of these investigations talked about the importer's sources of information. The comparison was made only at the national level and was based on rankings of usage.

Conclusion

The concept of information-seeking behaviour has been defined in general terms in an attempt to understand information-seeking behaviour in the IT export/import business in the UK and Saudi Arabia. A conceptual theoretical frame has been presented for examining the IT export/import business as a system. The systems approach can be used to study and analyse information-seeking behaviour and existing information provision. Empirical models can be used to represent the world of UK and Saudi IT export/imports.

Only a very limited range of research is available which treats export/import information source utilisation. Despite their marketing orientation, all the projects analysed see information use as an important variable that has a significant effect on exports.

TABLE 4: Profile of UK Exporting Companies

Sources of information on potential agents/distributors	
Source of Information	Rank of Importance
Recommendation	1
Personal knowledge of territory	2
Direct approach by agent/distributor	3
Trade fairs	4
British Overseas Trade Board	5
Chamber of Commerce	6
Commercial bank	7
Trade directories	8
British Export House Association	9
Management consultants	10
Professional institutes	11
Other (British Embassy, agent finder)	12

Source: Moore, H.A. A profile of UK exporting companies - an empirical study, 1989

TABLE 5: Table of Utilisation of Export-Related Information Channels

Information Channels		Utilisation percentage of firms exporting to			Level of significance
		All firms (n=88)	OECD (n=50)	NA/ME (n=37)	
1.	Visits to foreign markets	83.1	81.6	88.9	NS
2.	Market research conducted by own company	69.7	67.3	77.8	NS
3.	Visits by the foreign commercial representatives to Turkey	58.4	59.2	61.1	NS
4.	Chambers of Commerce and Industry, Associations of exporters	51.2	48.0	58.3	NS
5.	Centre for Promotion and Evaluation of Exports (IGEME)	46.1	42.9	50.0	NS
6.	Foreign commercial attaches located in Turkey	44.9	42.0	50.0	NS
7.	Banks	18.0	12.5	25.0	NS
8.	Other channels	22.0	18.7	27.4	NS

NS = Not significant Source: Bodur M. and T. Cavusgil. Export marketing research orientations of Turkish firms, 1985.

TABLE 6: Degree of information assistance from various sources: Turkish manufacturing (M) trading house and (T) firms

Sources of Information Utilised	Proportion of Firms Manufacturing		Naming Sources Trading House	
	Exporters	Rank	Exporters	Rank
Personal contact through the executive of your firm overseas*	0.79	1	0.42	2
Semi-government agency	0.72	2	0.39	3
Ministry of Commerce and Industry	0.64	3	0.36	4
Industry Association	0.36	4	0.33	5
Banks and financial institutions	0.22	5	0.44	1
Others	0.07	6	0.27	6
None of the above	0.07	7	0.08	7

Source: Kaynak, E.C. and Erol. The export propensity of Turkish manufacturing and trading house firms, 1989

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CHAPTER THREE

HYPOTHESES AND METHODOLOGIES

The subjects of this research - British IT exporters - include large, medium and small firms. These firms (organisations) perform an industrial and economic role in British society. Exporting and marketing IT product services are a core function of that role. In their marketing, they strive to understand the importers' IT neds and their buying behaviour. The Saudi IT importing firms are similarly large, medium and small-sized (see the Methodology section). Their role in Saudi society covers the purchasing of IT products and services from overseas markets on behalf of their customers. The main concern here is their information sources - trade shows, trade papers, and so o n. These sources will be examined in detail later.

3.1 Hypotheses

The hypotheses made here are based on the systems and cognitive approaches reviewed in Chapter One. They will be used for structuring and co-ordinating the questionnaires and the interviews designed to elicit feedback from the subjects, and in their subsequent analysis. For each hypothesis there will be a question, or several questions, to serve to extract the information needed for its testing.

The necessary hypotheses fall into three groups. The first category reflects the system/cognitive approach. The second relates to the IT export/import industrial situation. The third concerns information provision to the IT export/import industries.

Systems/Cognitive Hypotheses

The reason for bringing the hypotheses of these two approaches together is because they parallel each other for the purposes of this investigation. The systems approach assumes that the information-seekers, whether an individual or an organisation, are in touch with a variety of systems which might have potentially useful information. This assumption does not imply that the information-seekers are limited to certain information systems only, nor to seeking information in a stereotyped way. It assumes that the individual, or the organisation, who consumes information is also an information provider within the corporate environment.

The cognitive approach assumes that the state of knowledge of an individual, or of a group, is dynamic. The individual passes through states of knowing, until the gap in his knowledge is filled (1, 2). This again implies that the information-seeker can be flexible in seeking information. It depends on the individual's recognition of need in each new situation within a changing environment. The need and the situation influences the relevant sources of information within the various systems. The system provides information within the individual's environment which can form part of the individual's total set (3).

However, the cognitive approach suggests that these assumptions of flexibility can be wrong. Human beings can develop stereotypical behaviour and utilise certain information sources too frequently. This can happen, for example, when the sources of information are manipulated by marketing strategies to create an apparent need within an individual or organisation through stimulating the need and then acting to satisfy it. An important element is always feedback: good experience of using a particular source can influence individuals to develop a habit of usage (4). This leads to the following null hypotheses:

Hypothesis 1

It proposes that there is no difference between Saudi IT importers and UK IT exporters in their utilisation of the various potential types of information source. Question number 14, in questionnaire Version 1, and number 7 in questionnaire Version 2, are included to test this hypothesis (see Appendix).

Hypothesis 2

There are no differences between small, medium and large IT exporters/importers in their utilisation of various potential types of information sources

Hypothesis 3

This is an extension of the first. There should be no difference between the UK IT exporter, who exports to Saudi Arabia, and those who do not export to Saudi Arabia, in terms of information sources utilisation. Question number 7 in questionnaire Version 2 tests this hypothesis.

Export/Import Hypotheses

These hypotheses are targeted to investigate variables within the structure of the IT export/import trade of Saudi Arabia and the UK. Such variables are, for instance, obstacles to IT trading and information-seeking behaviour, such as making necessary contacts, linguistic problems, bank LC, payments, Government regulations, the nature of their information searching and provision, their marketing efforts, and their preferred information sources. Information-seeking behaviour has been described in the literature review as a form of social interaction (5). The data can be collected by various methods, but most require a qualitative approach. Relevant data were collected through observing

IT trade shows and using semi-structured interviews, as well as structured and unstructured interviews (see Chapter Four). The data which require qualitative analysis are those involving views, opinions and personal judgements of the IT exporters/importers. The corresponding hypotheses are:

Hypothesis 4

There are no differences between Saudi IT importers and UK IT exporters in terms of export/import information obstacles which might deter their information-seeking behaviour. Question number 11, questionnaire Version 1, and question 5, questionnaire Version 2, test this hypothesis.

Hypothesis 5

There are no differences between small, medium and large IT exporters/importers in terms of the export-import obstacles affecting their information-seeking.

Hypothesis 6

There is no difference between Saudi IT importers and UK exporters in their evaluation of the various sources of IT information provision. The content of question number 3, questionnaire version 3, and number 4, in the Arabic version, test this hypothesis.

These hypotheses require quantitative, as well as qualitative data in order to be tested. Quantitative data mean here any data which can be quantified and described objectively in terms of numbers and categories. Such quantitative data are: specific data about the utilisation of IT export/import information sources; the number of sources used, and the rate of usage of each source;

the effect of certain information barriers which might deter IT export/import.

3.2 Data Analysis Methodology

Data analysis methods had also to be selected for use with quantitative studies of the information-seeking behaviour of IT exporters/importers. After examining the possibilities, the Kolmogorov-Smirnov two - sample test has been chosen for testing the hypotheses, and in analysing information-seeking behaviour. Structured analysis and readability tests will be used for evaluation of the IT export-import literature.

Statistical Methodology

There are three main groups to be tested and compared statistically. These are the two groups of British IT exporters - those who export to Saudi Arabia and those who do not - and the Saudi IT importers. These three groups are not equal in sample size, and in the number of variables to be compared, and they are drawn from different populations. The Kolmogorov-Smirnov two-sample test was selected for testing the hypotheses which look for differences between the three groups. The Kolmogrov-Smirnov test was selected over the chi-squared test because it is better fitted for use with populations that differ in some of their characteristics. For example, there are several variables that are not common to Saudi importers and to those British IT exporters who do not export IT to Saudi Arabia. The Kolmogorov-Smirnov test allows for these differences better than the chi-squared test. It does not require that the sample be drawn from the same population, or be normally distributed, and it can be used with any sample size (6). However, the chi-squared test will be used to test all hypotheses related to differences within each group. It can, for example, be used to see if there is any difference between Saudi firms of different sizes in terms of information sources utilisation and information

obstacles.

The Kolmogorov-Smirnov Testing Procedure

The Kolmogorov-Smirnov test is available in Unistat III, a statistical computer package. The rules for accepting and rejecting hypotheses according to the Kolmogorov-Smirnov test are as follows:

1. Data are entered in the computer using the Unistat III package to compute the differences between two samples using the Kolmogorov-Smirnov test.

2. The Unistat III package then produces K-S statistics with the 2-tailed significance tests for the two samples tested.

3. The result for K-S, computed by the Unistat III package, is compared to the K-S tabled value for two samples and for a two-tailed test. The samples are not required to be equal in size. This tests the null hypothesis of no difference between the groups being compared.

4. If the K-S value, calculated by Unistat III, equals or exceeds the tabled value for the appropriate 'n' size and the chosen level of acceptance (0.05), for the two-tailed tests, then the null hypothesis will be rejected. Otherwise, it will be accepted.

3.3   Analysing IT Information Sources
Introduction

There are two types of information source for the IT exporters/importers covered in this investigation. The first is specific to themselves and includes

their own internal databases, their special libraries, distributors, agents, their private facilities and their special contacts. Information about these is usually carefully guarded by the firms concerned, and it has not proved possible to gather systematic data on them.

The second type of information source is that providing external information. These sources, which are believed to have an important functional role in supplying IT export/import firms with required information, are examined here. Two types of information source will be subject to a separate analysis because of their major role in the IT export/import business. These are IT literature and trade shows. Trade shows were investigated via observation and will be reported in a later chapter. They were approached by attending and observing trade shows, and asking questions of those who participated in the shows. The methodology for studying the IT literature is as follows.

IT Literature

IT journals, magazines, newspapers, newsletters and all forms of business publications may be described under this category. These are also known among the IT exporters/importers as 'trade papers'. There are different types of journals and newspapers, depending on the subjects they cover and the audience intended to serve.

The selection of these journals or newspapers for this study comes from two sources. First, every publication mentioned by the respondents to the survey has been are considered. Secondly, literature obtained from the Birmingham Computers in Manufacturing 1992 exhibition has been analysed.

Procedure for Analysing the IT Literature

The IT literature has been analysed on the basis of the following set of characteristics:

1. The subjects covered - hardware; software services; software engineering; marketing; advertising. For example, trade papers which focus on software emphasize software engineering, economics, etc.

2. The audience: is the literature for customers; exporters/importers; general audience; etc?

3. The nature of the material: news articles; stories; colour pictures, etc.

4. Readability - a test to see how well trade papers mediate information for IT businessmen.

What is Readability?

Ease of reading can be measured in terms of aspects of clear writing, such as short sentences and short, easy words, which lead to a style that can be understood by the intended audience. Readability tests are a form of content analysis, which can be defined as:

> The first is connected with the content of what is written; the second with the packaging and presentation of this material ... A vast range of texts designed to tell people how to write now exists. They are in general agreement about essentials. In English, common rules include the use of active verbs, short sentences and short words (8).

Why Test the Readability of IT Literature

Readability of IT literature is important when considering its impact on recipients. Easily readable material is a more efficient way of disseminating information.

> even the most highly educated will read more readable materials with increased efficiency ... the person who is not required to read may often stop altogether if he cannot proceed efficiently (9).

This leads to the question: how well does IT literature communicate to IT business readers? To answer this question, a standard readability test needs to be implemented in order to compare a selection of IT publications. So far, such tests have only been validated for the English language. It has been suggested, that readability studies can be conducted on the basis that:

> only two factors need to be checked - the average sentence length plus a hard-word factor ... The portion of words of three syllables or more is, we have found, the best key to word load (9).

The Procedure for Readability Tests

There are many readability tests available for evaluating publications. The FOG Index has been selected because it is well known and has been used to evaluate popular magazines. The Flesch scale has also been used to evaluate magazines and newspapers, and it will be used here as a cross-check. Both the FOG index and the Flesch scale are provided as part of the MacSoft software.

FOG Index Formula

As described before, the FOG Index can be calculated in the following ways:

1. Choose a number of sample passages of one hundred words each from the text. Count how many sentences are contained in these 100 words. If the count for one set of a 100 words stops in the middle of a sentence, the count should continue to the end of that sentence.

2. Divide the number of words by the number of sentences. This will give the average length of sentence (which can be abbreviated as $L = W \div S$).

3. Count the number of words of three syllables or more in the passage under test. A combination of short words, and words ending with es or ed should not be counted as additional syllables.

4. In some cases, passages with semi-colons or colons may form one complete sentence.

5. The sentence length (L) is added to the percentage of long words, and multiplied by 0.4. The result is the FOG index. An example of the calculation is given in the Appendix.

The Flesch formula

The Flesch formula measures the readability of a text in a slightly different way from the FOG index, but uses a similar sampling process.

1. Select 100-word passages from the text concerned.

2. Count the number of syllables in each 100 words (Sylls/wds)

3. Count the average number of words per sentence (wds/sent)

Flesch Scale Equation

Reading ease = 206.835 - (0.846 x SYLLS/100 wds)-(21.015 x 2wds/sent)

where: SYLLS/100 wds = syllables per 100 words; WDS/SENT = average number of words per sentence in the sample. Again, an example is given in the Appendix.

The Flesch and FOG formulae measure the difficulties of reading English text clearly: a test that is difficult for a native English speaker will be even more difficult for a non-native speaker, such as a Saudi businessman. Unfortunately, a direct comparison with Saudi material is not possible, because there is no corresponding readability test for Arabic.

3.4   The Methodology of Predicting Information-Seeking Behaviour

Behavioural scientists use statistical prediction techniques to enable them to predict outcomes of human behaviour. Correlation, regression and expected value are used in some statistical text books to describe roughly similar approaches. The data available may well determine which prediction tool best is better fitted to use with the data. Correlation and regression are used only when the researcher has two or more related cases for every single variable and for every case in the investigation. The need here is for a comparison tool to show the relative of utilisation and to predict future use from current utilisation. The best tool to meet this research requirement seemed to be a contingency table using the expected values. The expected value is a prediction technique used to consider future outcomes of human behaviour from current behaviour. Levin and Rubin (10) have utilised it to show how a clinic director can base decisions on expected values. This example involved predicting the expected visits of women to the clinic in the future from their known visits. The expected value is used in cases where only one measureis

available. It will be used here for predicting future of information-seeking behaviour and information obstacles from current usage.

Questionnaires and Interviews

Three forms of questionnaire and two types of interviews were used in this study. The first form of questionnaire was sent to the British IT exporter who exports to Saudi Arabia. This questionnaire contains more background questions than the other two questionnaires. The second form of questionnaire was sent to British IT exporters who do not export to Saudi Arabia or the Gulf States. The third form of questionnaire was sent to the Saudi IT importers. (see Appendix A). The interviews were of two types: structured interviews will be explained below and other semi-structured and unstructured interviews to be explained subsequently.

VARIABLES

The variables relate to the various information systems which exist in the IT exporters/importers environment: how much use is made of the information; what is the rate of usage of each source; what are these sources. The range of available sources is wide, and includes public libraries, special libraries, information brokers, agent finders, local databases, international databases, trade papers, trade shows, overseas trade shows, overseas consultants, the Chamber of Commerce, Government organisations, etc. It is also necessary to consider the effects of information barriers, the firm's size and the type of services provided to help utilise the various information sources. The problems may be listed as: linguistic; marketing; making necessary contacts; obtaining information about potential exporters; Government regulations; Bank LC, payments, etc.

3.5   The Structure of the Questionnaires

The questions could be grouped under three headings:

1.   Background

2.   Information obstacles

3.   Information sources utilisation

Background Questions

The Objectives of Asking Each Question

-   The first question is: 'Does your business deal with any of the following aspects of information technology?'

The particular product with which an IT exporter/importer deals can be expected to influence the marketing strategy and the level of interaction with customers. It can therefore also be expected to affect the way information is sought. IT firms dealing with systems analysis or designing software perhaps interact for longer than those who only sell computers. They may also utilise different channels of information, depending on their information requirements. Thus, three variables were considered here to describe the IT exporter/importer business.

Hardware   Software   Service

-   The second question is: 'Briefly, indicate the nature of your business'

Some businesses are manufacturers, others are representatives of manufacturers, while manufacturers may be involved in establishing their own representatives. The nature of the business affects information-seeking

behaviour since it can change both the information needed and the channel through which it is provided.

- The third question is about: 'Size of the business. How large or small?'

The size of the firm is likely to affect information flow both within the firm, and between the firm and the outside world. Employee number is probably the best way of determining the size of the company when evaluating information behaviour (please see Classifying the IT Export/Import Firms at the end of this chapter).

- The fourth question was for British firm's who do not export to Saudi Arabia and the Gulf States: 'Have you ever thought of dealing with Saudi Arabia and the Gulf States, Yes or No?'

The corresponding question asked of importers in Saudi Arabia and the Gulf States is: 'Have you ever thought of dealing with Britain (UK) Yes/No?'

The importance of this was to see whether any information-related factors were involved.

- Question number five is: 'What country (countries) do you (export to)/(import from)?

The countries the IT exporters/importers deal with might have a direct effect on their information-seeking behaviour. Some countries have restrictions on the flow of data, some do not. Certain countries assist access to information sources and provide intelligence to their trade. The country may therefore be

related to the number of information-seeking barriers (the obstacles) that exporters/importers face, and the number of sources utilised.

-   Question number six is: Looking ahead a few years from now, do you think your trade with countries you are dealing with now will grow in volume? Yes/No. If yes, which countries?

IT exporters/importers' perception of the market in the countries they deal with will have direct effect on their behaviour.   This perception may also influence their information-seeking behaviour. Thus, this variable has been taken into consideration.

The last questions in this questionnaire specifically related to information.

-   Has your business in any country you are dealing with ever been significantly affected by lack of information: Yes/No.   If yes, which countries?

This refers to the information, itself: the following question relates to the information channel.

Do you have any form of representation in Saudi Arabia? If yes, what form does it take? Yes/No

The IT exporter may lack information because of poor representation in the market. Good agents can be most helpful in selling and providing up-to-date information.   The next question was designed to check on the IT firm's

information dissemination.

Do you advertise in Saudi Arabia and/or the Gulf States? Yes/No. If yes, in what way? .

The following question was: 'Have any of the following represented major obstacles when dealing with the countries you are dealing with now? Linguistic problems, marketing problems, making necessary contacts, obtaining information about potential exporters, your Government regulations, Foreign Government regulations, Bank LC, payments, others.

This contains a list of information obstacles which could be barriers to IT exporters/importers in their efforts to find information. The list is left open so that the exporters/importers can add to the list any additional obstacles they have encountered.

The next question is: 'Have you made use of any of the following sources in order to obtain information about importing from the countries you are dealing with? Public libraries, special libraries, information brokers, agent finder, local database, international database, trade papers, trade shows in your country, overseas trade shows, overseas consultants, the Chambers of Commerce of the countries you are dealing with, Government organisations of the countries you are dealing with, others.'

The list contains 12 sources expected to be used by IT exporters/importers, but the list is left open for additional sources to be added. The number of sources may provide an indicator of how active the exporter is in information-seeking.

The final question is: 'What are your best sources of information when dealing with Saudi Arabia and the Gulf States as these relate to the Arabic market?' Since the question is phrased generically, firms should not be deterred from replying to it by considerations of commercial secrecy.

3.6   Interview Questions

The interview questions are designed to identify aspects of the information-seeking behaviour of British and Saudi exporters which have not been covered in the questionnaire. The questions are discussed below.

Information Sources

As you seek information for your typical business information, do you rely on oral communication sources of information; on formal authoritative sources of information; on written information sources; on personal sources of information; on sources of information selected by company policies; on other (please specify).

The first question is designed with an idea of exploring the exporter's methods of gaining information. It was hoped to discover whether particular channels of information are more popular.

What sort of information do your customers mainly rely on?

Trade names   Technical specifications   Others (please

specify)

The idea here is explore the customers' information-seeking patterns. This

pattern will affect the information dissemination of the exporters.

Do you monitor your customers' reactions and needs? Yes/No. If yes, to what extent and in which ways.

This question explores not only how the exporters seek information about their customers, but also about how they do it: telephone calls, interviews, etc.

3.7   Evaluation

After the main questionnaire had been analysed, a further small-scale questionnaire survey was carried out to investigate the assumption that there could be reasons for frequent utilisation and non-utilisation of information sources. The main variables here were expected to be the information source's effectiveness, efficiency, reliability and up-to-datedness. A copy of this supplementary questionnaire is included in the appendix.

Two variables were defined for the respondents - the effectiveness and efficiency of the information sources. Effective sources of information are those which produce the required information at the level expected. Efficient sources of information are those which provide users with accurate information within the required time with minimum cost and effort. The reliability of the information sources were investigated, since, for IT exporters/importers, trustworthiness is an important characteristic. Up-to-dateness is a major factor for a fast-developing industry such as IT export/import. A reliable up-to-date information source may attract customers to use the source frequently.

While these were the main concern, other elements were added to the evaluation. The first was how much information was acquired by IT

exporters/importers via word-of-mouth. (This was rated from a high of more than 80% to a low of less than 20%.) The second query investigated whether IT exporters adapt their product to fit local standards. The third issue asked whether British IT standards limited IT exporting to overseas countries. The fourth question was whether the firms provide instructions, manuals, etc., in Arabic, as well as English.

Classifying the IT Export/Import Firms

There is no single standard definition agreed upon for small, medium or large firms amongst the countries considered in this study. The most useful classification for cross-country comparison and for information studies is likely to be a division according to the number of employees. A small IT export/import firm will therefore be defined as one which employs between one and fifty people. A medium-sized IT export/import firm employs between fifty and two hundred people. A large-sized IT export/import firm employs more than two hundred people.

The number of employees can be expected to link to the volume of money available to search for information, and the number of personnel involved in information-seeking. Thus, large companies might have a representative overseas who searches and seeks information on behalf of the company.

3.8   References

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CHAPTER FOUR

RESULTS

These results will be presented in five sections.   Three of these sections are the results on the three firm sizes; small, medium and large within the three main groups of Saudi IT impoters, British IT exporters who export to Saudi Arabia, and the Gulf States, and British IT exporters who export to other countries. For ease of presentation in the tables, and of the three main groups, these results will be noted in an abbreviated form as follows:

"Saudi" for the Saudi IT importers

"British 1" for the British IT exporters who export to Saudi and the Gulf States

"British 2" for the British IT exporters to export to other countris.   These apply to all sizes of firm in each group.   If it is necessary to divide by size, an abbreviation of the form "British 1 small" will be used.

4.1   Use of Pie Charts

The descriptive statistical results of the data is presented here via pie charts (expressed as percentages).   These presentations derive from the numbers obtained from the contingency tables in Appendix B.   The responses, as previously described, were to multi-choice questions.   Thus the answers do not always add up to one hundred per cent.

4.2   Survey's Responses from Saudi IT Importers

The contents of the survey questionnaire have been described in Chapter Two. The results are presented in this chapter, and their detailed analysis.

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The first intention was to investigate all Saudi and Gulf States IT importers. However, due to the circumstances created by the Gulf War, the sample obtained from the Gulf States was deficient. There were eight replies, one or two from each of the States. Hence, these replies were discarded. A list of IT firms in Saudi Arabia was obtained form the Saudi Ministry of Trade and Industries. The list for 1991 contains 128 IT firms. It includes only firms which have obtained IT importing licences. (The Computer Guide Middle East (1993) listed only 71 Saudi IT firms involved in IT importing.) The quetsionnaire was sent to all possible IT importers in Saudi Arabia. Altogether, 47 responses were returned which answered the questions, and about 15 letters were returned unopened. Thus, a 42% response rate was obtained from Saudi IT importers, assuming the number of operating IT firms is only 113 (since 15 firms do not exist any more). The response rates by size of firm were as follows: 17% large, 13% medium and 70% small-sized firms. The responses required subsequent modifications to the questions: m ore especially, they were widened to cover IT imports from any country, rather than British importers alone, since not many Saudi firms apparently imported IT from Britain. However, the question which says: 'Have you every thought of dealing with Britain (UK)?' was retained to complete the picture.

Other modifications related to sources of information. Two additional sources of information were seen by respondents as very important for them in Saudi Arabia. These were local distributors and special contacts, which were therefore added. Two items were added regarding information on transactions - bank LC and payments. Bank LC means a Bank's Letter of Credit. IT importers, when purchasing IT products or services from the UK or elsewhere, deposit the price of the product or service in their bank. They then request a letter from their bank to the IT exporter's bank saying that the importer's bank will send the money as soon as the product or service has been dispatched

(or delivered) to Saudi Arabia. The UK or other bank will verify the shipping/delivery documents, after which the IT exporter will receive his money.

The second item - payment - was an IT trade obstacle mentioned by some British IT exporters. Payment here refers to the price of the IT product or services. Some respondents complained that information to secure the flow of money to their company is a problem. This appears to be particularly a problem for small firms.

All the sample were involved in the IT trade and, hence, had been correctly selected. As Table 7 indicates, the majority were involved in importing all types of IT.

Respondents were asked whether they could identify obstacles to the free flow of trade and trade information. Their responses are recorded in Figure 1 in Appendix B, and Chart 1 in this chapter.

Export/Import Obstacles for all Saudi IT Importers

Chart 1 shows eight possible information-seeking and trade obstacles. Three main factors are potential information obstacles to all Saudi IT importers. The most important is obtaining information about IT exporters (29.8%); the second is making necessary contacts for IT importing with exporters of those involved in it exporting (21.3%). The third relates to marketing problems (14.9%). However, marketing is less of a problem for medium-sized Saudi firms: their third obstactle, which is common to all Saudi firms, is foreign government regulations (10.6%). Marketing IT was discussed in Chapter One. It involves exchange of information between IT exporters, importers and potential customers as well as clients. However, it is surprising to find that foreign government regulations is one of the moderate obstacles to all IT trading to Saudi Arabia.

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Information-Seeking Obstacles

of Saudi IT Importers

21.3%   14.9%

8.5%

6.4%

4.3%

29.8%

10.6%

4.3%

- A- Linguistic Problems
- B- Marketing Problems
- C- Making Necessary Contacts
- D- Obtaining Information about potential customers
- E- Saudi Government Regulations
- F- British Government Regulations
- G- Bank LC
- H- Payments
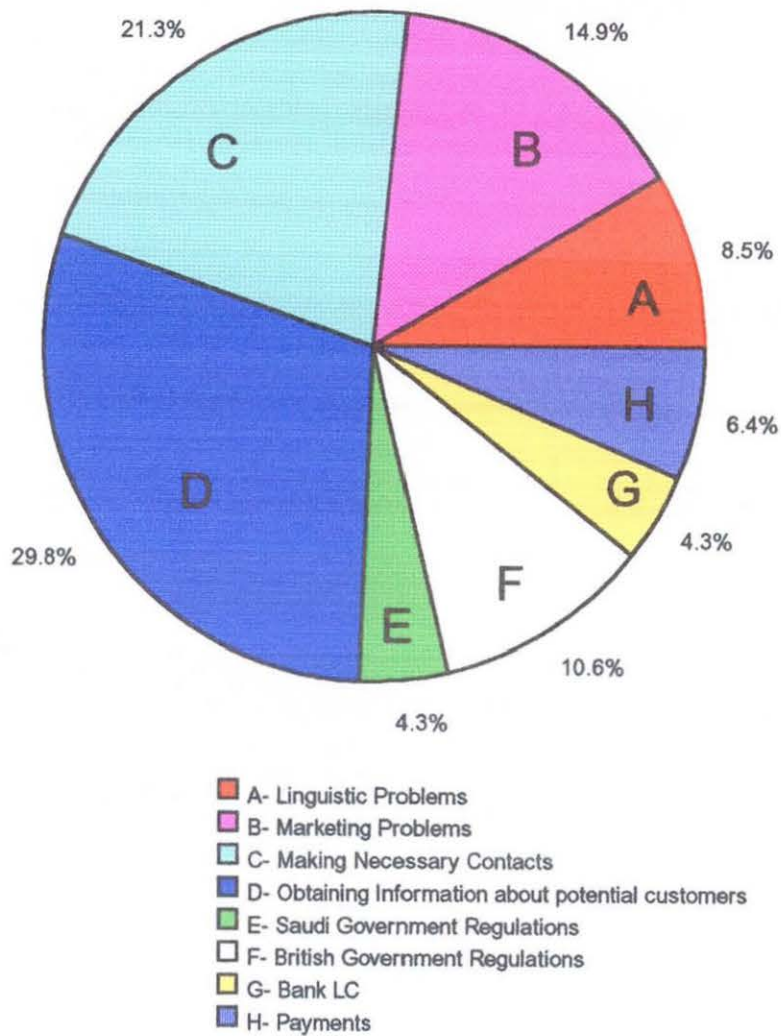
CHART (1)

TABLE 7

SAUDI IT IMPORTERS BY TYPES OF IT PRODUCT

TYPES OF IT PRODUCT IMPORTED	PERCENTAGES OF RESPONDENTS
Hardware	6%
Services	4%
Software	0%
Hardware, software and services	61%
Hardware and services	16%
Hardware and software	10%
Software and services	2%

The Saudi IT importers were asked whether they ever thought of importing IT from UK or not. Their responses are in Table 8.

TABLE 8

ATTITUDE OF SAUDI IT IMPORTERS TOWARDS IMPORTING FROM UK

ATTITUDE	PERCENTAGE
Saudi IT importers who have considered importing from the UK	71%
Saudi IT importers who have never considered importing from the UK	4%
No response	25%

Respondents were next asked about their use of various sources of information. Their responses are listed in Figure 2 in Appendix B, and Chart 2 in this chapter.

Comparison of the Information-Seeking Behaviour of Saudi IT Importers

Chart 2 illustrates fourteen possible information sources for all sizes of firm amongst Saudi IT importers. Three sources among the fourteen sources were sought for information more than others. These are, firstly, trade shows in Saudi Arabia (18.9%), secondly, overseas trade shows (18.2%) followed by trade papers (16.2%). Foreign Chambers of Commerce (7.4%) and government organisations (7.4%) were ranked a good deal lower, as their joint fourth information source. Then came international databases (6.8%) and local databases (4.1%). Special libraries (3.4%) and Saudi Chambers of Commerce were low IT information sources. The lowest scoring information sources were public libraries, information brokers, agent finders and special contacts (at 2%).

Saudi IT importers were next asked which countries they normally deal with. Most respondents were dealing with a number of different countries. Two were importing from the UK and the USA only. One imported only from the USA. Two were importing from Taiwan and the USA only, and one from Taiwan and the UK only.

IT importers were next asked to predict growth or decline in IT imports and from which countries the growth might be expected to come. All respondents without exception predicted growth in IT imports. About 33% of respondents predicted growth in IT imports from the UK, 42% from USA and 22% from Taiwan.

Information Sources Used By

Saudi IT Importers

16.2%

6.8%

4.1%

2.0%

2.0%

3.4%

2.0%

2.0%

3.4%

18.9%

18.2%

6.1%

7.4%

7.4%

A- Public Libraries

B- Special Libraries

C- Information Brokers

D- Agent Finder

E- Local Database

F- International Database

G- Trade Papers

H- Trade Shows in Saudi Arabia

I- Overseas Trade Shows

J- Overseas Consultants

K- Foreign Chamber of Commerce

L- Government Organisation

M- Saudi Chamber of Commerce

N- Special Contacts
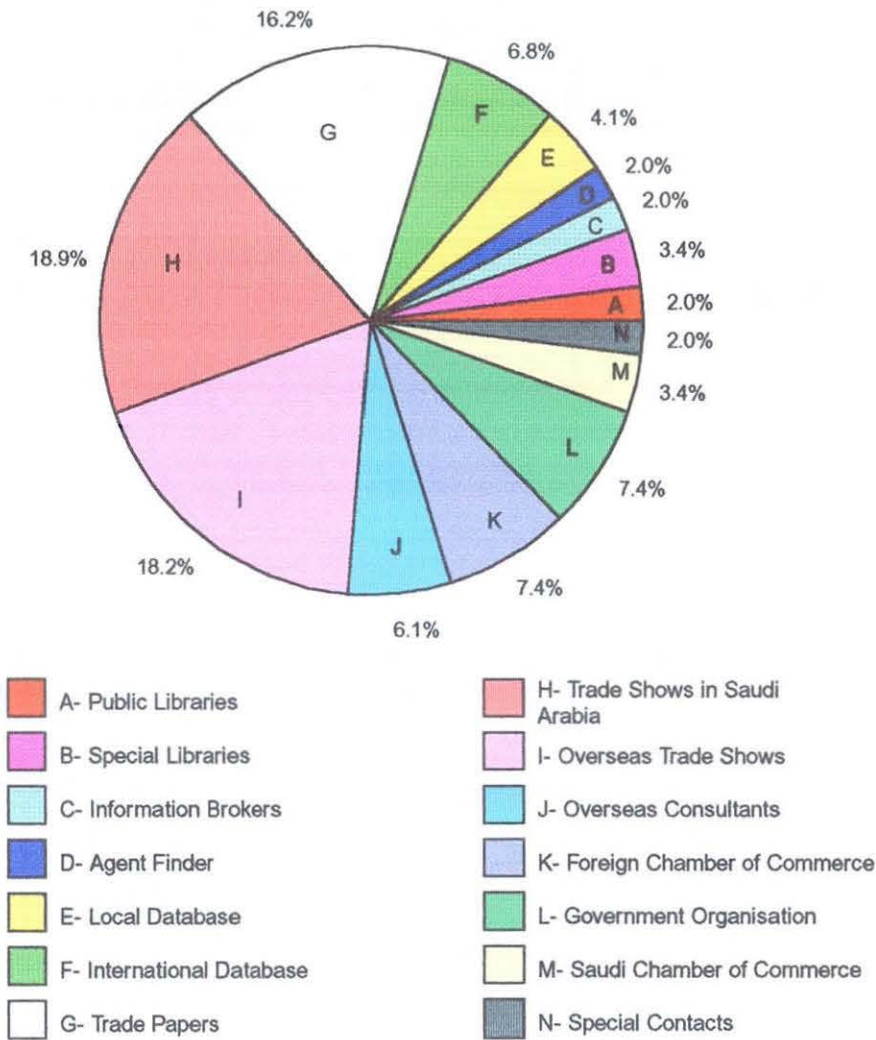
CHART (2)

Finally, the respondents were asked whether they had been significantly affected by lack of information, and, if so, with which country. About 53% of the respondents had experienced no problems of this nature. but 49% mentioned the UK by name among those who were affected significantly by lack of information.

Information-Seeking Behaviour of Small-Sized Saudi IT Importers

Chart 3 shows the small Saudi IT importers' firms' utilisation of fourteen possible information sources. It seems that their main source of information to find exporters is overseas trade shows (16.7%). The next two sources of information for this group is trade papers (13.3%) and trade shows in Saudi Arabia (13.3%). However, this particular group of Saudi businesses used information brokers (6.7%), overseas consultants (10%) and Government organisations (10%) more than others groups.

The Information-Seeking Behaviour of Medium-Sized Saudi IT Importers

Chart 4 shows fourteen possible information sources for the medium-sized Saudi IT importers. Their prime information source is trade papers (22.6%). Trade shows in Saudi Arabia and overseas came joint second (19.4%). Three sources seem to be used to a slight extent. These are local databases (6.5%), overseas consultants (6.5%) and foreign Chambers of Commerce (6.5%). Two of these sources were never used for information by this group. These sources are information brokers and special contacts. Six information sources were used at a low level. These are public libraries, special librarie, agent finders, international databases, Government organisations and Saudi Chambers of Commerce, all at (3.2%). Medium-sized firms therefore search various sources of information but emphasise trade papers and trade shows.

The Information-Seeking Behaviour of Large-Sized Saudi IT Importers

Chart 5 shows three sources of information among the total of fourteen sources were considered mots important by the large Saudi IT firms. Trade shows in Saudi Arabia are their highest utilised source of information (20%). Trade papers (14%) and overseas trade shows (18.4%) were considered their second best sources of information. Their lowest utilised information sources are public libraries, information broker and agent finders, all at (1.1%). Large firms use their own special libraries sources, and this particular group uses international databases (9.2%) more than other groups of Saudi importers.

Results on Export/Import Information Obstacles for Small-Sized Saudi IT Importers

Chart 6 shows eight possible information-seeking obstacles to export/import. The chart indicates that the small Saudi IT firms experience all these possible obstacles. The major obstacle was obtaining information about potential exporters (27.2%). Next to this came making necessary contacts in the IT export world (21.2%). Marketing information is their third major obstacle (15.2%). Their least important obstacles are Saudi Government regulations (6.1%), foreign Government regulations and Bank LC obstacles, all at (6.1%). It seems linguistic problems and information related to the payments are somewhat more important (9.1%).

Results on Export/Import Information Obstacles for Medium-Sized Saudi IT Importers

Chart 7 shows there are only three information-seeking obstacles facing the medium-sized Saudi IT importers. These are obtaining information

Information Sources Used By
Small Saudi IT Importers

■	A- Public Libraries	■	H- Trade Shows in Saudi Arabia
■	B- Special Libraries	■	I- Overseas Trade Shows
□	C- Information Brokers	■	J- Overseas Consultants
■	D- Agent Finder	■	K- Foreign Chamber of Commerce
□	E- Local Database	■	L- Government Organisation
■	F- International Databa	□	M- Saudi Chamber of Commerce
□	G- Trade Papers	■	N- Special Contacts

CHART (3)

Information Sources Used By

Medium-sized Saudi IT Importers

A- Public Libraries	H- Trade Shows in Saudi Arabia
B- Special Libraries	I- Overseas Trade Shows
C- Information Brokers	J- Overseas Consultants
D- Agent Finder	K- Foreign Chamber of Commerce
E- Local Database	L- Government Organisation
F- International Databa	M- Saudi Chamber of Commerce
G- Trade Papers	N- Special Contacts
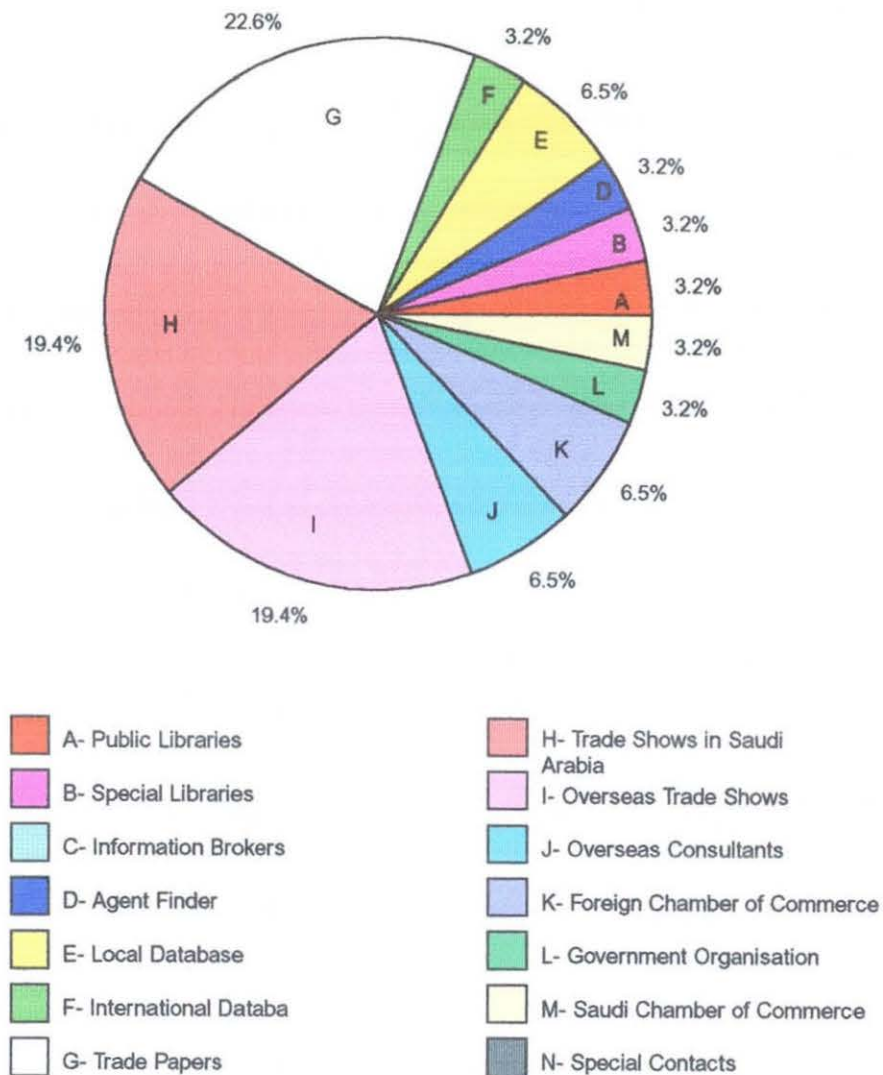
CHART (4)

Information Sources Used By
Large-sized Saudi IT Importers

■	A- Public Libraries	■	H- Trade Shows in Saudi Arabia
■	B- Special Libraries	■	I- Overseas Trade Shows
■	C- Information Brokers	■	J- Overseas Consultants
■	D- Agent Finder	■	K- Foreign Chamber of Commerce
■	E- Local Database	■	L- Government Organisation
■	F- International Databa	■	M- Saudi Chamber of Commerce
■	G- Trade Papers	■	N- Special Contacts

CHART (5)

Information-Seeking Obstacles

of Small-sized Saudi IT Importers

A- Linguistic Problems
B- Marketing Problems
C- Making Necessary Contacts
D- Obtaining Information about potential customers
E- Saudi Government Regulations
F- Foreign Government Regulations
G- Bank LC
H- Payments

CHART (6)

Information-Seeking Obstacles

of Medium-sized Saudi IT Importers

50.0%

16.7%

C

D

F

33.3%

■ A- Linguistic Problems
■ B- Marketing Problems
□ C- Making Necessary Contacts
■ D- Obtaining Information about potential customers
■ E- Saudi Government Regulations
□ F- Foreign Government Regulations
□ G- Bank LC
■ H- Payments

CHART (7)

about potential customers (50.0%), foreign government regulations (33%) and making necessary contacts (16.7%). None of the medium-sized firms complained about linguistic problems, marketing problems, Saudi Government regulations, Bank LC or information obstacles regarding payments.

Results of Export/Import Information Obstacles for Large-Sized Saudi IT Importers

Chart 8 shows two sets of information-seeking obstacles to IT exporting/importing for large Saudi IT firms. The first major obstacle set includes marketing problems (25%), making necessary contacts (25%), and obtaining information about potential IT exporters (25%). The second set comprises linguistic problems (12.5%) and foreign government regulations (12.5%).

Results of Predicting Information-Seeking Behaviour for Small-Sized Saudi IT Importers

Chart 9 is about predicting the expected use by Saudi IT importres of fourteen possible information sources. Trade shows in Saudi Arabia is expected to be the major source to be utilised by small Saudi IT firms. The second source is overseas trade shows, the third is trade papers. (The prediction of high utilisation for these sources is based on an overall prediction derived from the three sizes of Saudi IT firm.) There are two sources predicted to perform at the same level: these are foreign Chambers of Commerce and government organisations. It seems that both sources are types of government organisation involving information coming through public sources.

Information-Seeking Obstacles

of Large -sized Saudi IT Importers

25.0%

B

12.5%

A

C

25.0%

F

12.5%

D

25.0%

A- Linguistic Problems
B- Marketing Problems
C- Making Necessary Contacts
D- Obtaining Information about potential customers
E- Saudi Government Regulations
F- Foreign Government Regulations
G- Bank LC
H- Payments
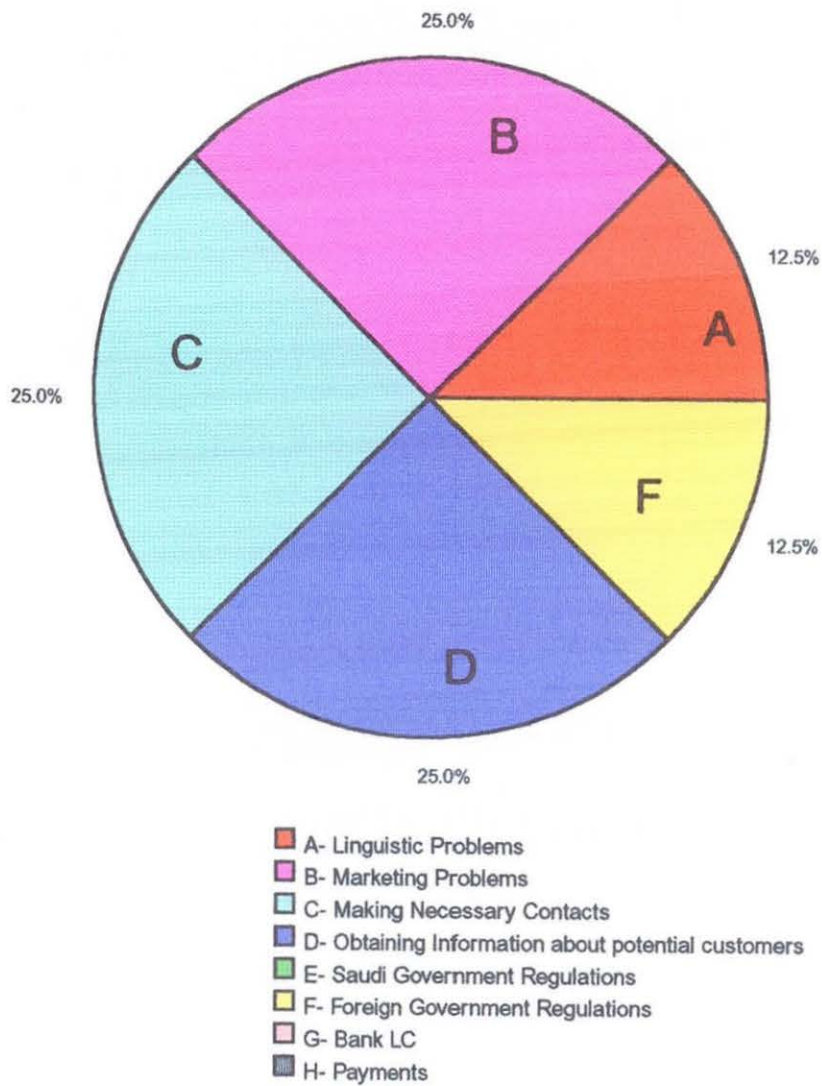
CHART (8)

Expected Information Sources Used by
Small-sized Saudi IT Importers
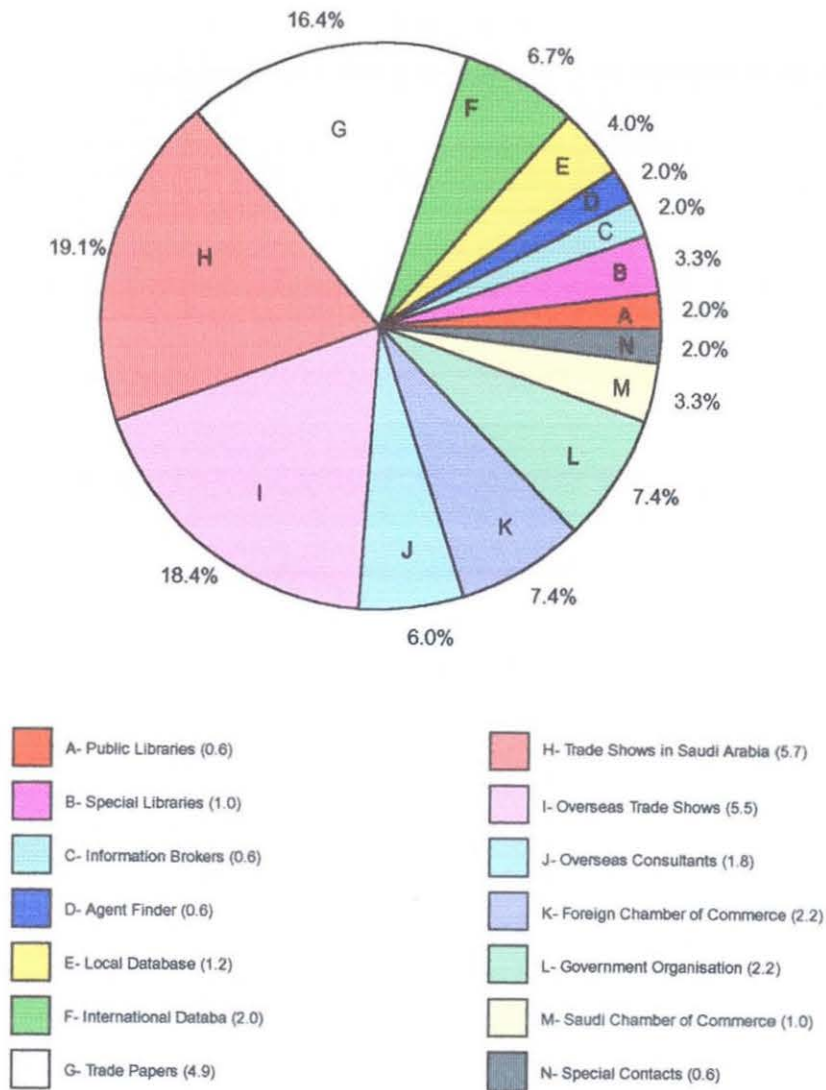
Legend:

A- Public Libraries (0.6)

B- Special Libraries (1.0)

C- Information Brokers (0.6)

D- Agent Finder (0.6)

E- Local Database (1.2)

F- International Databa (2.0)

G- Trade Papers (4.9)

H- Trade Shows in Saudi Arabia (5.7)

I- Overseas Trade Shows (5.5)

J- Overseas Consultants (1.8)

K- Foreign Chamber of Commerce (2.2)

L- Government Organisation (2.2)

M- Saudi Chamber of Commerce (1.0)

N- Special Contacts (0.6)

*Note: Numbers between brackets represents the expected values
and the percentage numbers on the chart are the percentage of the individual
expected value to their sum (29.9)*

CHART (9)

Results of Predicting Information-Seeking Behaviour for Medium-Sized Saudi IT Importers

Chart 10 indicates that medium-sized Saudi IT firms should use IT trade shows in Saudi Arabia most, then overseas trade shows and then trade papers as their prime information sources. Their lowest predicted use of information sources is for public libraries, information brokers, agent finders and their special contacts.

Results of Predicting Information-Seeking Behaviour for Large-Sized Saudi IT Firms

Chart 11 shows that large-sized Saudi IT firms should use trade shows in Saudi Arabia (18.9%) more than trade shows in overseas countries (18.2%). Trade papers is the third prime information source (16.2%). Foreign Chambers of Commerce and government organisations were listed as equally likely to be used (7.5%). However, the leaste used sources of information came out as public libraries, information brokers, agent finders and special contacts (2.1%). However, large firms are expected to utilise international databases (6.8%) and overseas consultants (6.2%) as well as foreign Chambers of Commerce (6.1%), at a moderate level.

Results of Predicting Information-Seeking Obstacles for Small-Sized Saudi IT Firms

Chart 12 shows the likelihood that small Saudi IT importers will have most problems in obtaining information about potential exporters (29.8%). Making necessary contact with potential exporters (21.3%), or with key persons in

Expected Information Sources Used by
Medium-sized Saudi IT Importers
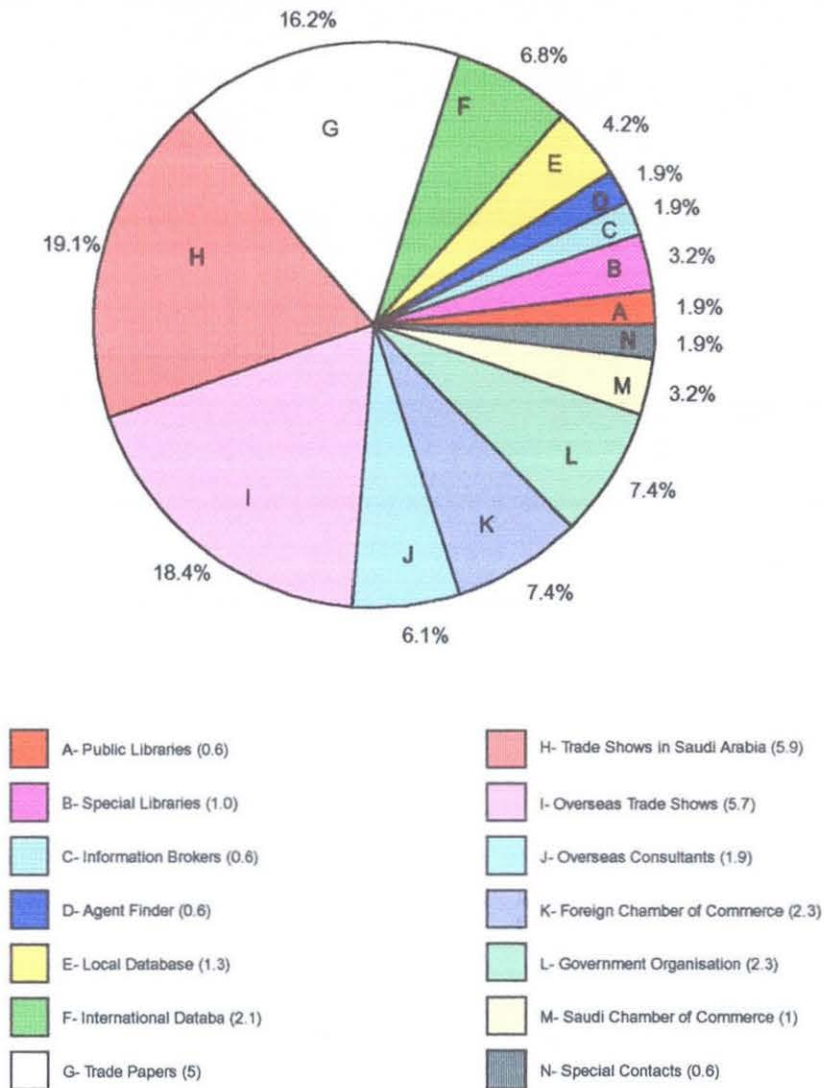
16.2%

6.8%

4.2%

1.9%

1.9%

3.2%

1.9%

1.9%

3.2%

7.4%

19.1%

18.4%

6.1%

7.4%

A- Public Libraries (0.6)

B- Special Libraries (1.0)

C- Information Brokers (0.6)

D- Agent Finder (0.6)

E- Local Database (1.3)

F- International Databa (2.1)

G- Trade Papers (5)

H- Trade Shows in Saudi Arabia (5.9)

I- Overseas Trade Shows (5.7)

J- Overseas Consultants (1.9)

K- Foreign Chamber of Commerce (2.3)

L- Government Organisation (2.3)

M- Saudi Chamber of Commerce (1)

N- Special Contacts (0.6)

*Note: Numbers between brackets represents the expected values
and the percentage numbers on the chart are the percentage of the individual
expected value to their sum (30.9)*

CHART (10)

Expected Information Sources Used by
Large-sized Saudi IT Importers
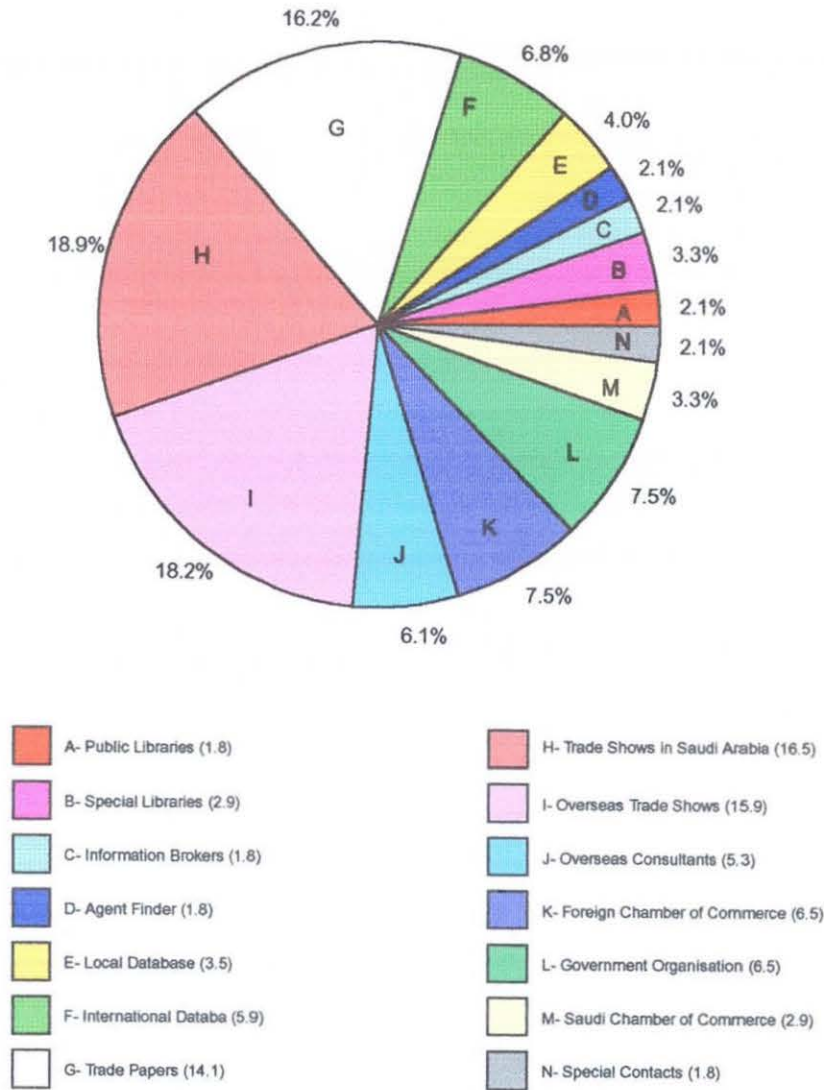
Legend:

A- Public Libraries (1.8)
B- Special Libraries (2.9)
C- Information Brokers (1.8)
D- Agent Finder (1.8)
E- Local Database (3.5)
F- International Databa (5.9)
G- Trade Papers (14.1)

H- Trade Shows in Saudi Arabia (16.5)
I- Overseas Trade Shows (15.9)
J- Overseas Consultants (5.3)
K- Foreign Chamber of Commerce (6.5)
L- Government Organisation (6.5)
M- Saudi Chamber of Commerce (2.9)
N- Special Contacts (1.8)

Note: Numbers between brackets represents the expected values
and the percentage numbers on the chart are the percentage of the individual
expected value to their sum (87.2)

CHART (11)

Expected Information-Seeking Obstacles of
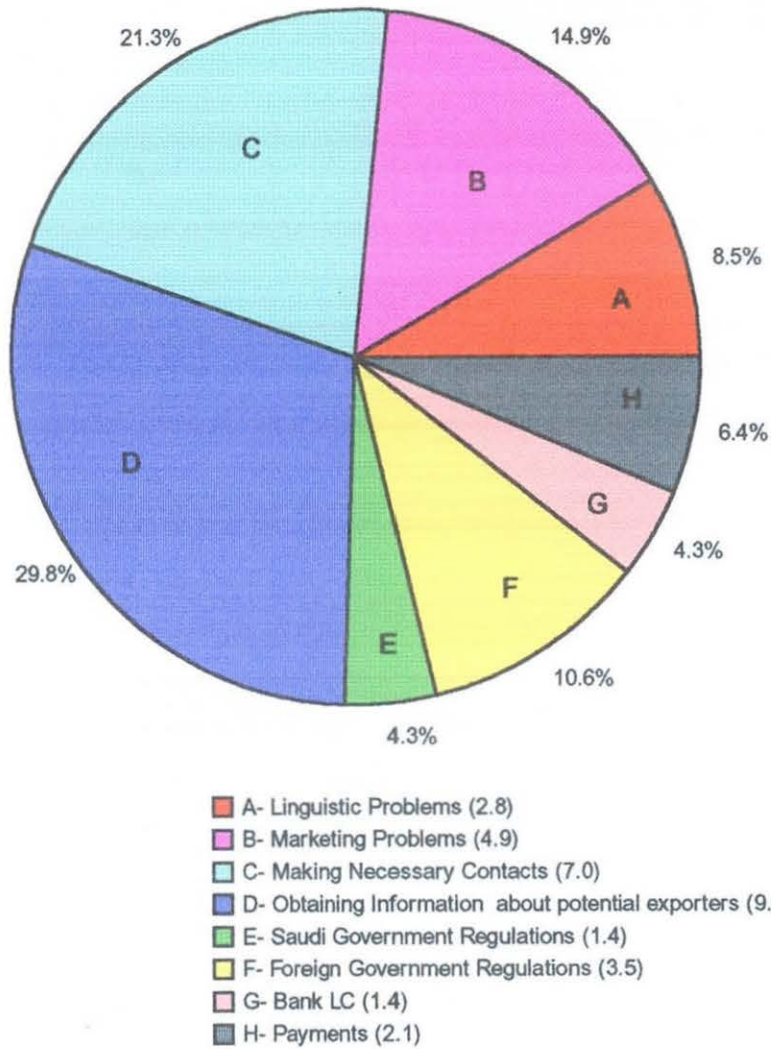
Small-sized Saudi IT Importers

21.3%   14.9%

8.5%

6.4%

4.3%

29.8%

10.6%

4.3%

A- Linguistic Problems (2.8)
B- Marketing Problems (4.9)
C- Making Necessary Contacts (7.0)
D- Obtaining Information about potential exporters (9.8)
E- Saudi Government Regulations (1.4)
F- Foreign Government Regulations (3.5)
G- Bank LC (1.4)
H- Payments (2.1)

*Note: Numbers between brackets represents the expected values
and the percentage numbers on the chart are the percentage of the individual
expected value to their sum (32.9)*

CHART (12)

overseas countries, is their second major obstacle. Marketing problems (14.9%) are also a major difficulty. Foreign government regulations also create obstacles (10.6%).

Results of Predicting Information-Seeking Obstacles for Medium-Sized Saudi IT Importers

Chart 13 shows it is likely that three main information obstacles will face medium-sized Saudi IT importers. These are problems of obtaining information about IT exporters (29.5%), making necessary contacts with the export/import key persons (21.3%), and marketing problems (14.8%).

The prediction indicates moderate obstacles in terms of foreign government regulations (9.8%), and information obstacles caused by linguistics problems (8.2%). The lowest predicted obstacles are in obtaining information regarding payments or Bank LC to (6.6%).

Results of Predicting Information-Seeking Obstacles for Large-Sized Saudi Importers

Chart 14 shows three main information obstacles. These are, firstly, obtaining information about potential IT exporters (30%), making necessary contacts (21.3%) and marketing (15%). The linguistic obstacles and foreign government regulations and information regarding payments are predicted to be moderate obstacles. However, Bank LC (3.8%) and Saudi government regulations (3.8%) are predicted to rank low as information obstacles.
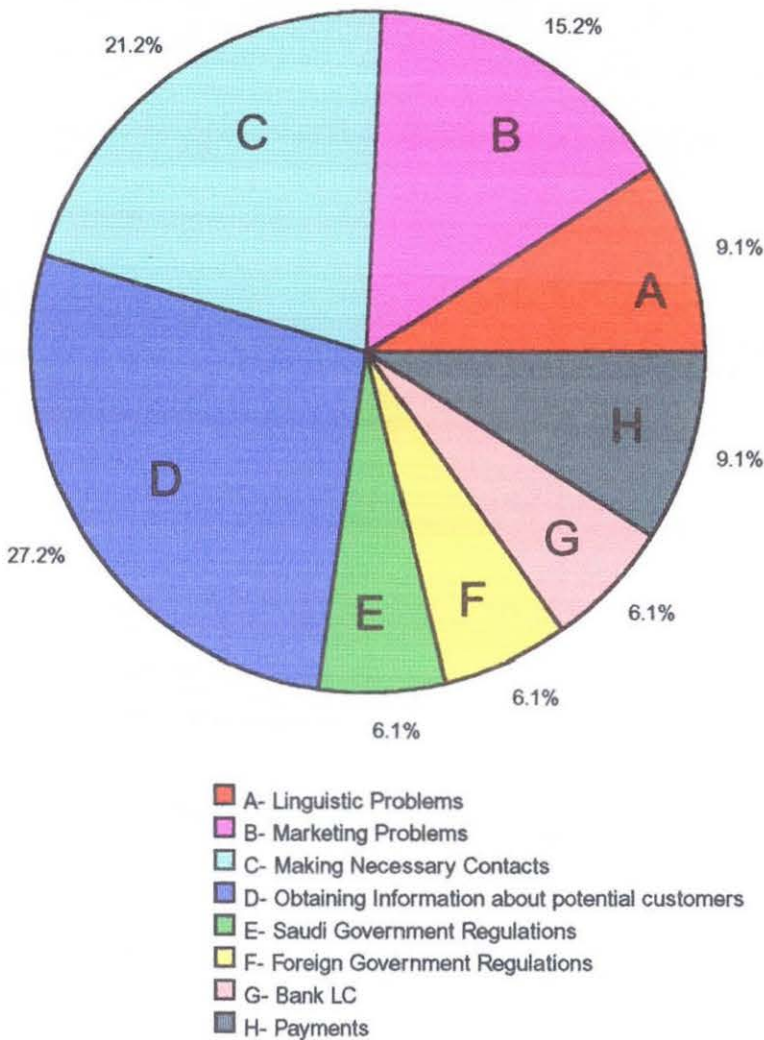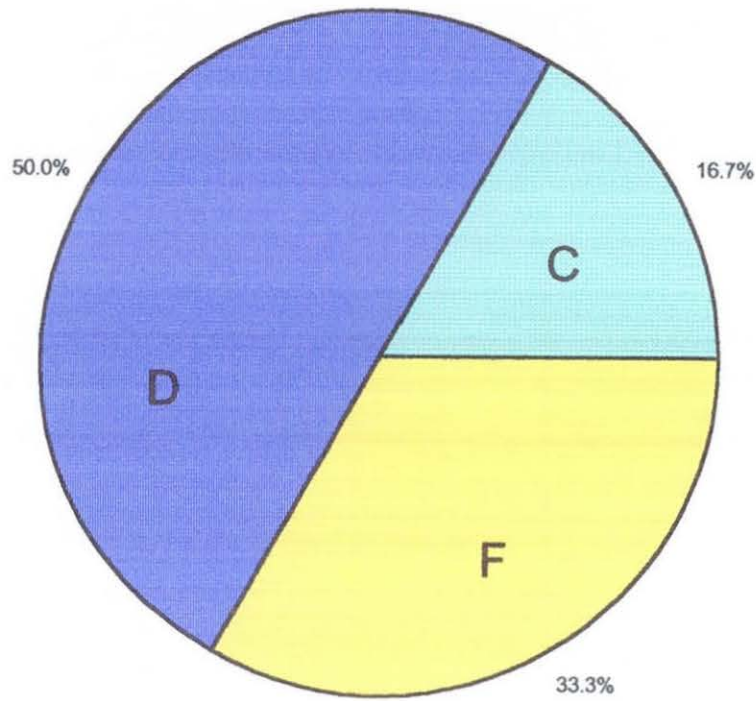
Expected Information-Seeking Obstacles of
Medium-sized Saudi IT Importers
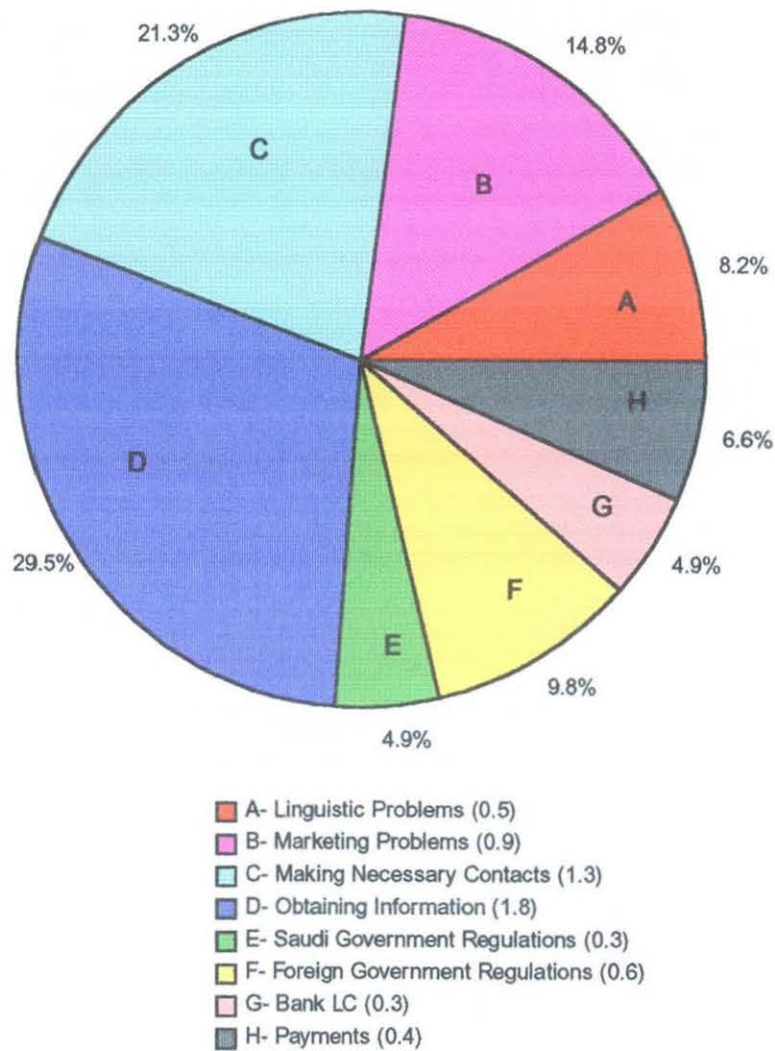
- A- Linguistic Problems (0.5)
- B- Marketing Problems (0.9)
- C- Making Necessary Contacts (1.3)
- D- Obtaining Information (1.8)
- E- Saudi Government Regulations (0.3)
- F- Foreign Government Regulations (0.6)
- G- Bank LC (0.3)
- H- Payments (0.4)

*Note: Numbers between brackets represents the expected values
and the percentage numbers on the chart are the percentage of the individual
expected value to their sum (6.1)*

CHART (13)

Expected Information-Seeking Obstacles of
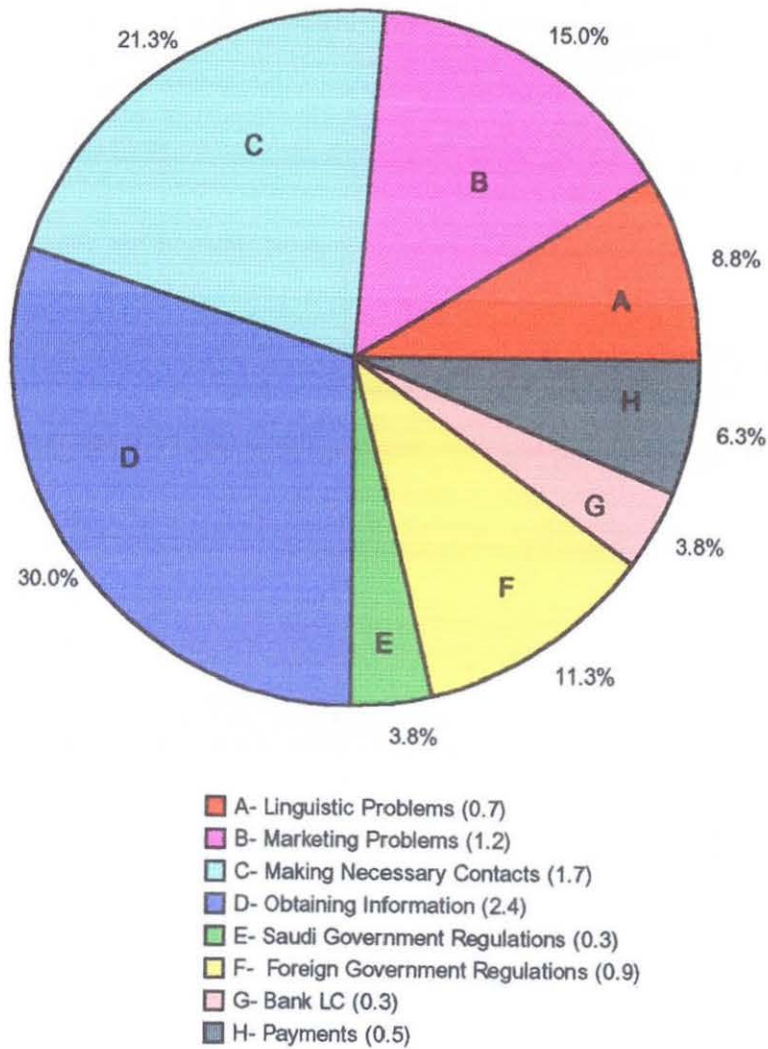
Large-sized Saudi IT Importers

21.3%   15.0%

8.8%

6.3%

30.0%   3.8%

11.3%

3.8%

■ A- Linguistic Problems (0.7)
■ B- Marketing Problems (1.2)
□ C- Making Necessary Contacts (1.7)
■ D- Obtaining Information (2.4)
■ E- Saudi Government Regulations (0.3)
□ F- Foreign Government Regulations (0.9)
□ G- Bank LC (0.3)
■ H- Payments (0.5)

*Note: Numbers between brackets represents the expected values
and the percentage numbers on the chart are the percentage of the individual
expected value to their sum (8)*

CHART (14)

4.3   The Survey Responses from British IT Exporters

The Pilot Study

Twenty-six questionnaires were mailed to British IT exporters in different parts of the UK. Eight responses were receiving from firms exporting to Saudi Arabia and the Gulf States. An additional two responses were received from IT exporting firms not immediately dealing with Saudi Arabia or the Gulf States, but who wished to be included in this study. Two responses were returned due to the firms having gone out of business. The response rate was therefore 46%.

The pilot studies were conducted during the Iraqi invasion of Kuwait. The low response rate was probably an effect of the Gulf War, since some businesses sent letters expressing their interest in the study, but regretted being unable to answer due to the situation in the Gulf at that time. The questionnaire was revised in the light of these responses, and the main survey then went ahead.

The actual number of UK IT exporters listed in Kompass, 1990/91, was 220. After mailing the questionnaire to all those listed, 132 response were returned. Among them, 36 letters were returned unopened due to the business not operating at that address. Eight responses were returned uncompleted due to the war circumstances. Of the remainder, 49 responses were received from IT exporters dealing with Saudi Arabia and the Gulf States. The question then arose as to what deterred the other IT export businesses from dealing with Saudi Arabia. Another version of the questionnaire was therefore developed and mailed to those who did not deal with Saudi Arabia or the Gulf States to investigate this problem. It was also sent to those who did not respond to the first questionnaire.

Thirty-nine responses were then obtained from British IT exporters who export to other countries. Thus, a total of 88 responses were obtained from the entire project; 49 from those who export to Saudi Arabia and Gulf States and 39 who export to other countries.

The first question to British exporters was therefore intended to determine whether they exported IT to Saudi Arabia and the Gulf States. Any respondent who did not export to Saudi Arabia or the Gulf State was excluded from the rest of this first survey.

This was followed by an attempt to separate out those who deal only with Saudi Arabia from those who deal with both Saudi Arabia and the Gulf States. It appears that (76%) of these British IT exporters deal with Saudi Arabia and the Gulf States; (16%) deal with the Gulf States only; the remainder deal only with Saudi Arabia.

Exporters were then asked what type of IT they dealt in: their responses are listed in Table 9. As with Saudi importers, the largest group of British exporters dealt with all types of IT. All firms who responded to the questionnaire handled IT products and services as their prime concern, except for one who exported food as well as IT products. The responses of the survey came from 49 British IT export firms. About 39% large, 20% medium, anad 41% small-sized firms.

TABLE 9

PRODUCTS OF BRITISH IT EXPORTERS WHO EXPORT TO SAUDI ARABIA

TYPES OF IT PRODUCT EXPORTED	PERCENTAGE OF RESPONDENTS
Hardware only	18%
Software only	2%
Services only	6%
Hardware, software and services	43%
Hardware and services	4%
Hardware and software	20%
Software and services	6%

The next question asked these firms to comment on how they felt they were performing in the Saudi/Gulf States market. The rating of the respondents is listed in Table 10.

TABLE 10

PERFORMANCE RATING OF BRITISH IT EXPORTERS

RATING	PERCENTAGE
Performance excellent	14%
Performance very good	24%
Performance good	35%
Performance fair	16%
Performance poor	10%

Firms were asked whether they had established representation in Saudi Arabia or not. It appeared that 78% of the respondents have agents or representatives in Saudi Arabia/Gulf States, whilst (22%) had no representation.

The British IT exporters found various advantages in dealing with Saudi Arabia. These advantages are financial and in marketing. The financial aspect which attracted British IT exporters is the country's stability, strong economy, government and private organisations' spending power, the availability of funding, and good payment record. The marketing aspect of IT in Saudi Arabia was another advantage which attracted some British IT exporters. One of the factors is that the market appreciates new technology when properly supported.

The second is that, while competition in the IT market is tense, it is a potentially large market with little by way of local manufacturing.

However, while British IT exporters found there were advantages in dealing with Saudi Arabia, they also recognised some disadvantages. These were related to local laws, time-scale, lack of information and competition. The legal problems relate to establishing an agency. This has been mentioned in Chapter 1 under the heading of trade with Saudi Arabia. The respondents noted that to obtain importing certificates to Saudi Arabia involved long deals, and bureaucracy problems were also mentioned. Lack of copyright protection laws on software was one of the disadvantages mentioned by some IT exporters. A lack of market knowledge and of access to influential people is one disadvantage that can be directly related to a lack of information.

Some IT exporters complained that the high level of competition leads customers to ask for too many quotes, which results in an increased timescale to complete a sale. In terms of future trade with Saudi and the Gulf States, (98%) of the respondents predicted growth in IT exports to Saudi Arabia and the Gulf States. When asked about obstacles to trade and information-seeking, the respondents listed the problems recorded in Figure 3, Appendix B and Chart 15.

The Information-Seeking Obstacles for British Exporters

Chart 15 shows the percentage of all export/import information obstacles which face British IT exporters to Saudi Arabia and Gulf States. The most important are making the necessary contacts (26.3%), obtaining information about customers (23.2%). Saudi government regulations (15.8%) and marketing problems (15.6%) were ranked about the same. The least significant obstacles

are payments (6.3%), linguistic problems (5.2%) bank LC (4.2%) and British government regulations (3.1%).

Most British IT exporters (65% of the respondents) do not advertise in Saudi Arabia and the Gulf States. The remainder do advertise, but their advertisements are spread over a range of magazines - *The Middle East Economic Digest, BBC Magazine* and various trade journals - and also include such events as trade fairs.

About (53%) of the respondents said their business has been affected on occasion by a lack of information. Their main information sources are listed in Figure 4 in Appendix B and chart 16 in this chapter.

Comparison of the Information-Seeking Behaviour of all British IT Exporters to Saudi Arabia

Chart 16 shows seventeen possible information sources that could have been utilised. The most used sources by all British IT exporters to Saudi Arabia are the British Overseas Trade Board (12.7%), local distributors (12.0%) and special contacts (11.4%). Three sources of information were ranked the same at (8.2%). These are British government organisations, British Chambers of Commerce and trade papers. The Saudi Chamber of Commerce in London (7.6%) were used much the same, along with overseas consultants (6.2%). The least utilised sources are trade shows in the UK (5.1%), international databases (3.8%), Saudi Chambers of Commerce in Saudi Arabia (3.2%), local databases, special libraries (1.3%), agent finders (0.6%).

Information-Seeking Obstacles

of British IT Exporters to Saudi
and Gulf States

A- Linguistic Problems
B- Marketing Problems
C- Making Necessary Contacts
D- Obtaining Information about potential customers
E- Saudi Government Regulations
F- British Government Regulations
G- Bank LC
H- Payments
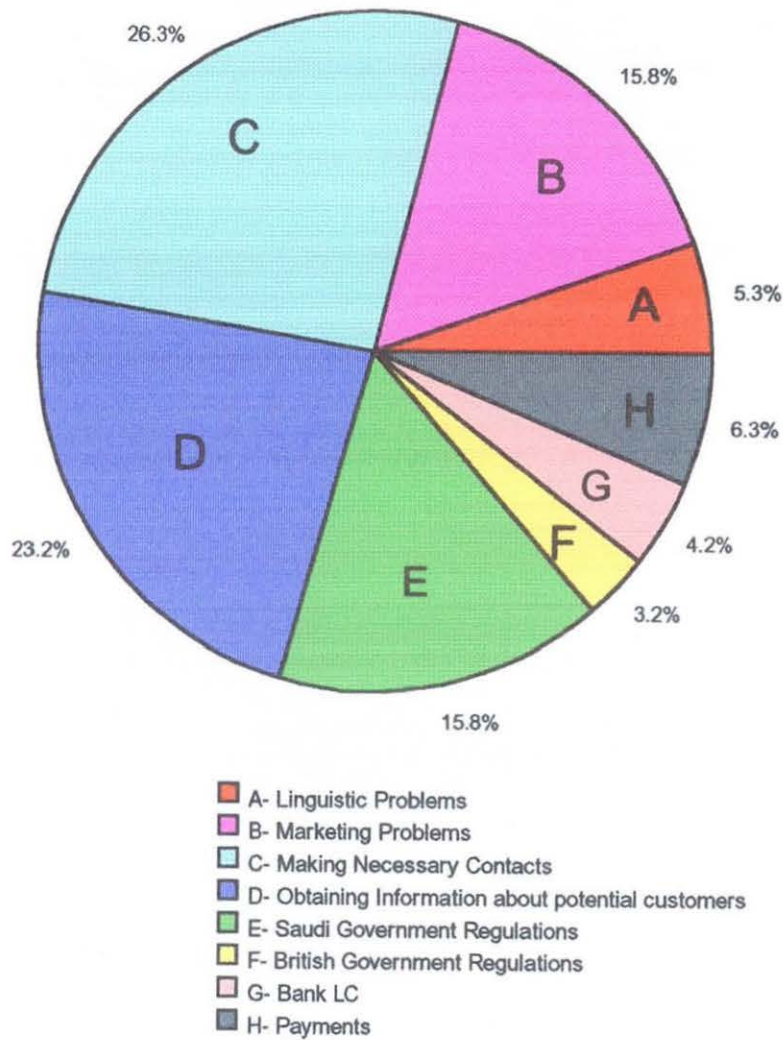
CHART (15)

Information Sources Used By

British IT Exporters to Saudi Arabia and the Gulf States

B- Special Libraries

D- Agent Finder

E- Local Database

F- International Database

G- Trade Papers

H- Trade Shows in Britain

I- Trade Shows in Saudi Arabia

J- Overseas Consultants

K- British Chamber of Commerce

L- British Government Organisation

M- Special Contacts

N- Saudi Chamber of Commerce in Saudi Arabia

O- Local Distributers

P- British Overseas Trade Board

Q- Saudi Govern. Organisation

R- Saudi Chamber of Commerce in UK.
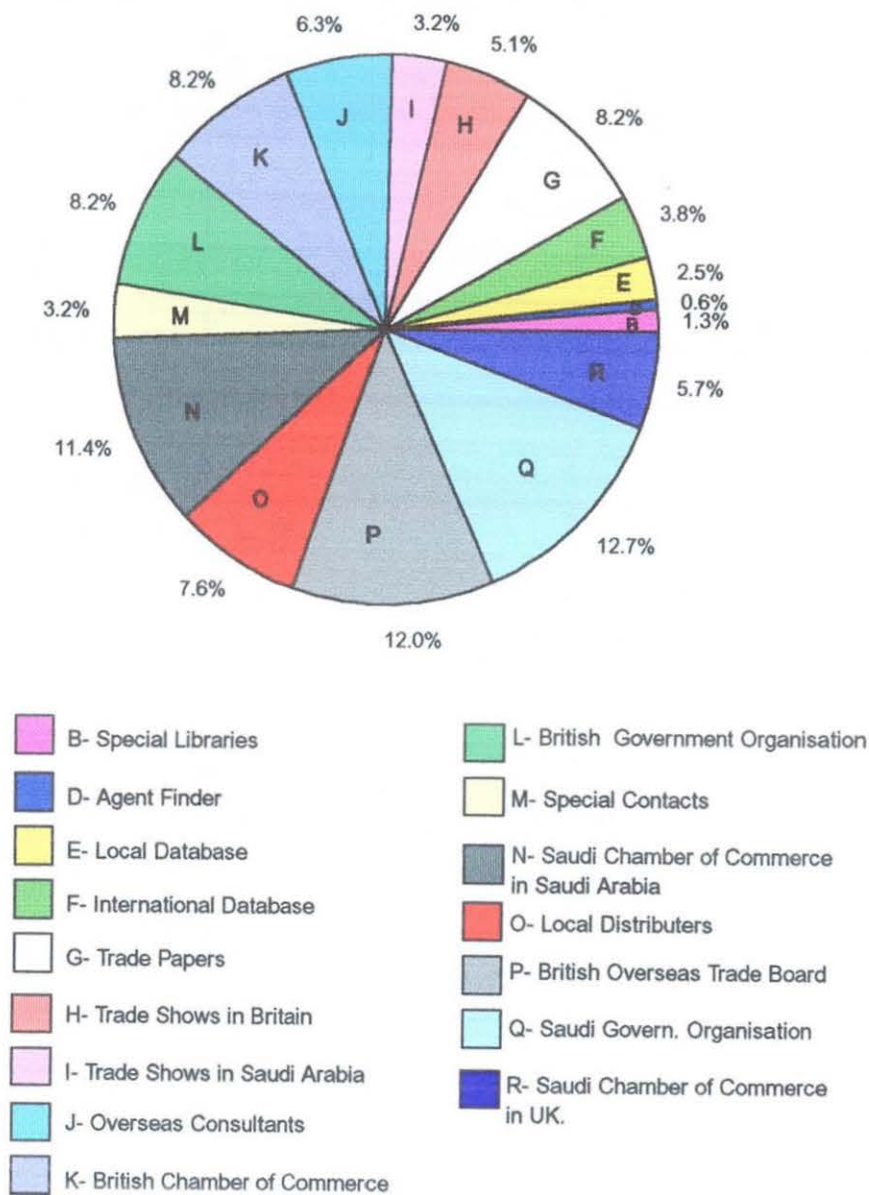
CHART (16)

Results on the Information-Seeking Behaviour of Small British IT Exporters to Saudi Arabia and the Gulf States

Chart 17 shows seventeen possible information sources. There are three prime sources indicated by the chart. The first source is the British Overseas Trade Board (13%). The second is British Chambers of Commerce (11.6%) and the Saudi Chamber of Commerce in London (10.1%). A number of sources then followed of about equally importance. These were: local distributors (8.7%), Saudi government organisations (8.7%) special contacts (8.7%)., British government organisations (7.2%), trade shows in Britain (7.2%) and trade papers (7.2%). Five sources were employed to a very small extent: special libraries (2.9%), Saudi Chambers of Commerce in Saudi Arabia (1.4%), international databases (1.4%), overseas trade shows (2.9%) and local databases (2.9%). Information brokers and agent finders were not mentioned at all.

Results on the Information-Seeking Behaviour of Medium-Sized British IT Exporters

Chart 18 shows how the medium-sized British IT exporters utilised various information sources. Their information-seeking behaviour is perhaps a function of their sizes and their needs. As the chart indicates there are seven prime information sources or perhaps three groups of sources. The most highly utilised source of information is the BOTB (17.5%). Then come local distributors (13%) and special contacts (13%). A further group covers four sources. These are the Saudi Chamber of Commerce in the UK, British government organisations, overseas consultants and trade papers, all at (8.7%). The least utilised sources of information are trade shows in the UK, Saudi government organisations, overseas trade shows, British Chambers of Commerce, all at (4.3%). Sources that were not mentioned at all were:

international databases, Saudi Chamber of Commerce in Saudi Arabia, agent finders and information brokers.

Results on the Information-Seeking Behaviour of Large-Sized British IT Exporters

Chart 19 shows there are three main information sources for the largest British IT export firms. The first is their local distributors (15.2%). Then comes their special contacts (13.6%), followed by the BOTB (10.6%). The BOTB is third thus relatively less important for large firms than for the small and the medium-sized IT firms. The remaining sources were used at the (3%) level. These included trade shows in Britain, Saudi government organisations and overseas trade shows. Another group of sources used marginally better were the British Chambers of Commerce, the Saudi Chamber of Commerce and overseas consultants.

Results on the Export/Import Information Obstacles of Small-Sized British IT Exporters

Chart 20 shows eight export/import information obstacles. Small British IT exporters mostly face problems in obtaining information about potential customers for their products. Obtaining information represents 28.2% of these small business problems. Making contacts with IT importers presented them with (25.6%) of their problems. Saudi government regulations come next (12.8%) as an export information obstacle. These are followed by marketing problems (10.3%) either related to Saudi Arabia or other countries.

Information Sources Used By

Smal-sized British IT Exporters who export to Saudi Arabia
and the Gulf States

A- British Gov't Organisation

B- Trade Shows in Britain

C- Saudi Chamber of Commerce in U.K

D- Local Databaser

E- Local Distributers

F- British overseas trade board

G- Sudi Gov't organisation

H- Overseas Trade shows

I- British Chamber of Commerce

J- International database

K- Saudi Chamber of Commerce

L- Agent Finder

M- Trade Papers

N- Special Libraries

O- Overseas Consultants

P- Information Broker

Q- Special Contacts

CHART (17)

105

Information Sources Used By

Medium-sized British IT Exporters who export to Saudi Arabia and the Gulf States

A- British Gov't Organisation	I- British Chamber of Commerce
B- Trade Shows in Britain	J- International database
C- Saudi Chamber of Commerce in U.K	K- Saudi Chamber of Commerce
D- Local Databaser	L- Agent Finder
E- Local Distributers	M- Trade Papers
F- British overseas trade board	N- Special Libraries
G- Sudi Gov't organisation	O- Overseas Consultants
H- Overseas Trade shows	P- Information Broker
	Q- Special Contacts

CHART (18)

Information Sources Used By

Large-sized British IT Exporters who export to Saudi Arabia and the Gulf States

Legend:

- A- British Gov't Organisation
- B- Trade Shows in Britain
- C- Saudi Chamber of Commerce in U.K
- D- Local Databaser
- E- Local Distributers
- F- British overseas trade board
- G- Sudi Gov't organisation
- H- Overseas Trade shows
- I- British Chamber of Commerce
- J- International database
- K- Saudi Chamber of Commerce
- L- Agent Finder
- M- Trade Papers
- N- Special Libraries
- O- Overseas Consultants
- P- Information Broker
- Q- Special Contacts
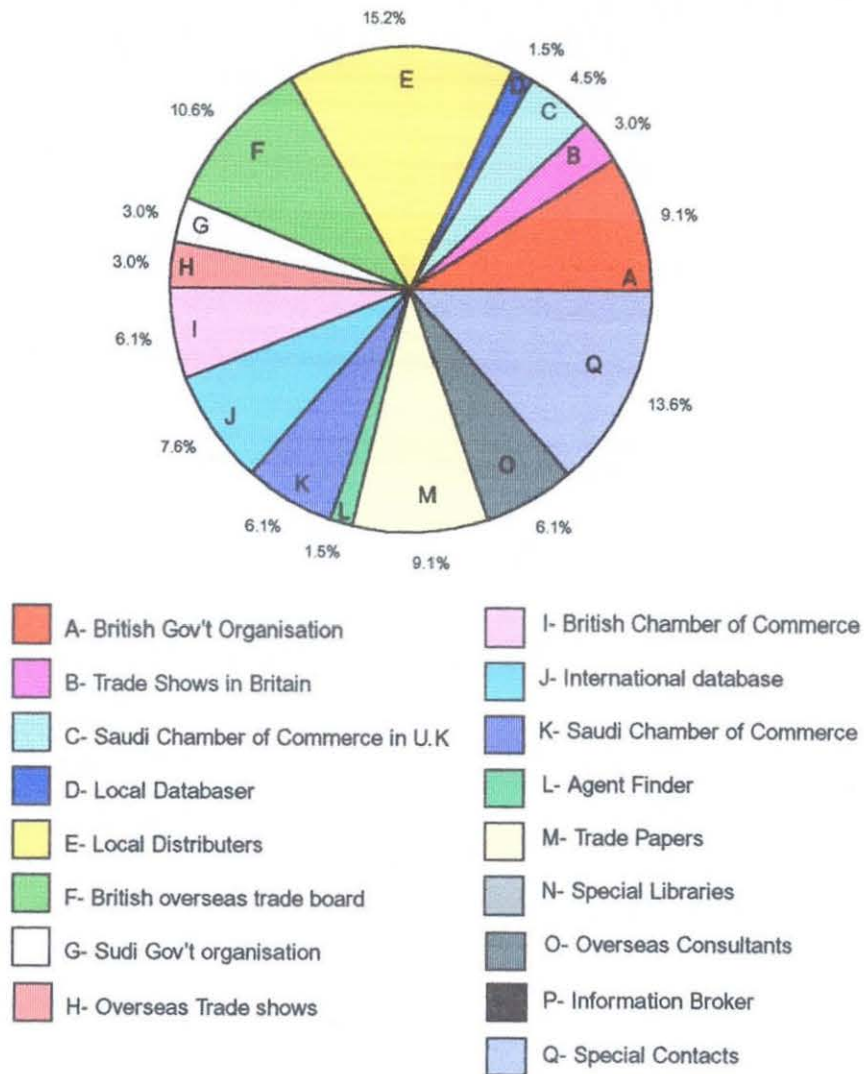
CHART (19)

Information-Seeking Obstacles

of Small-sized British IT Exporters to Saudi
and Gulf States

25.6%

10.3%

2.6%

28.2%

5.1%

7.7%

7.7%

12.8%

A- Linguistic Problems
B- Marketing Problems
C- Making Necessary Contacts
D- Obtaining Information about potential customers
E- Saudi Government Regulations
F- British Government Regulations
G- Bank LC
H- Payments
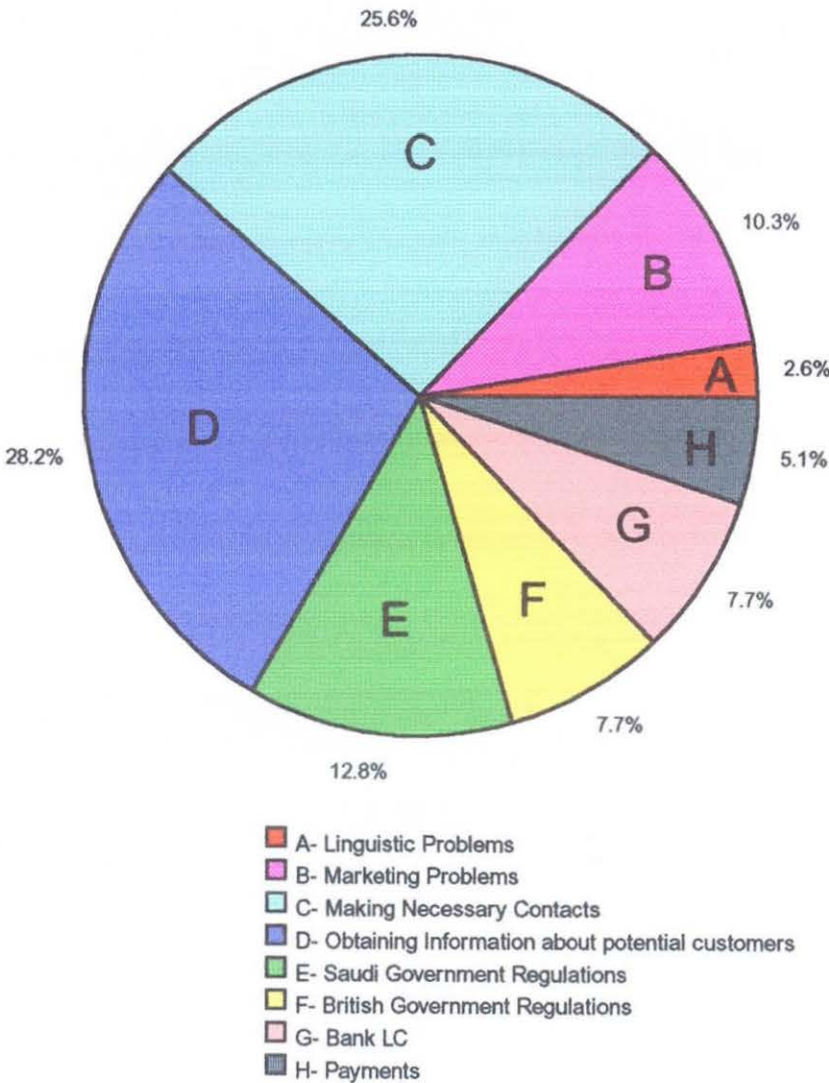
CHART (20)

Results on the Export/Import Information Obstacles of Medium-Sized British IT Exporters

Chart 21 shows six information obstacles facing these IT exporters, of which the most important is making necessary contacts (25%). This is followed by marketing problems and obtaining information about potential customers, both at (18.8%). The medum-sized firms did not mention British government regulations or bank LC.

Results on the Export/Import Information Obstacles of Large British IT Exporters

Chart 22 shows that these firms experienced seven export/import information obstacles. Large IT exporters face significant obstacles which is making necessary contacts in dealing with Saudi Arabia (27%). Next come obstacles in obtaining information about potential customers (22%). Not far behind are marketing problems (19.5%) and Saudi government regulations (19.5%). The remaining problems are relatively small, and British government regulations do not figure at all.

Results of Predicting the Information-Seeking Behaviour of Small, Medium and Large British IT Exporters

Charts 23, 24 and 25 show predictions of information source utilisation. It is expected, based on current use, that firms will utilise the British Overseas Trade Board as their first source for finding importers in Saudi Arabia and the Gulf. There is obviously a high level of trust in this non-commercial source of information. The second major source which British exporters are likely to use is their local distributors.

Information-Seeking Obstacles

of Medium-sized British IT Exporters to Saudi
and Gulf States

18.8%

B

25.0%   C   12.5%

              A

                   H

                        12.5%

        D   E

18.8%

              12.5%
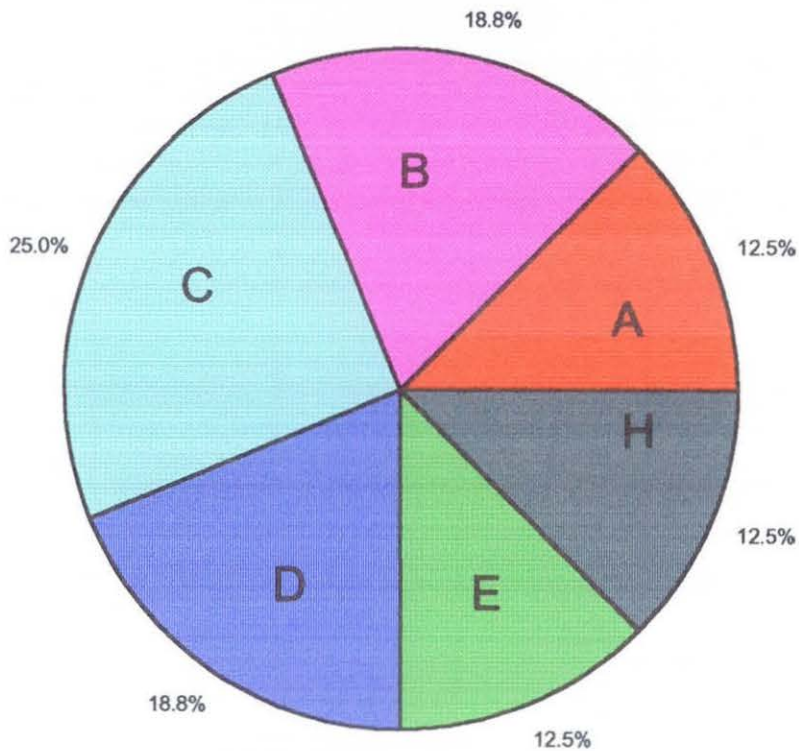
- ■ A- Linguistic Problems
- ■ B- Marketing Problems
- ☐ C- Making Necessary Contacts
- ■ D- Obtaining Information about potential customers
- ■ E- Saudi Government Regulations
- ☐ F- British Government Regulations
- ☐ G- Bank LC
- ■ H- Payments

CHART (21)

Information-Seeking Obstacles

of Large-sized   British IT Exporters to Saudi
and Gulf States
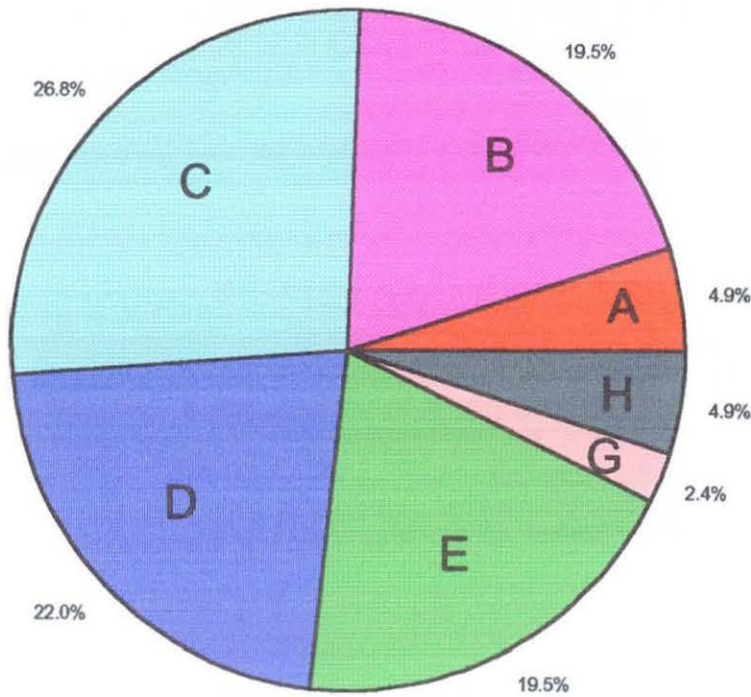
A- Linguistic Problems
B- Marketing Problems
C- Making Necessary Contacts
D- Obtaining Information about potential customers
E- Saudi Government Regulations
F- British Government Regulations
G- Bank LC
H- Payments

CHART (22)

Expected Information Sources Used by

Small-sized British IT Exporters who export to Saudi Arabia
and the Gulf States

A- British Gov't Organisation (5.7)	I- British Chamber of Commerce (5.7)
B- Trade Shows in Britain (3.5)	J- International database (2.6)
C- Saudi Chamber of Commerce in U.K (5.2)	K- Saudi Chamber of Commerce (2.2)
D- Local Databaser (1.7)	L- Agent Finder (0.4)
E- Local Distributers (8.3)	M- Trade Papers (5.7)
F- British overseas trade board (8.7)	N- Special Libraries (0.9)
G- Sudi Gov't organisation (3.9)	O- Overseas Consultants (4.4)
H- Trade shows in Saudi Arabia (2.2)	P- Information Broker (0)
	Q- Special Contacts (7.9)

*Note: Numbers between brackets represents the expected values
and the percentage numbers on the chart are the percentage of the individual
expected value to their sum (69)*

CHART (23)

Expected Information Sources Used by
Medium-sized British IT Exporters who export to Saudi Arabia and the Gulf States

A- British Gov't Organisation (1.9)	I- British Chamber of Commerce (1.9)
B- Trade Shows in Britain (1.2)	J- International database (0.9)
C- Saudi Chamber of Commerce in U.K (1.7)	K- Saudi Chamber of Commerce (0.7)
D- Local Databaser (0.6)	L- Agent Finder (0.1)
E- Local Distributers (2.8)	M- Trade Papers (1.9)
F- British overseas trade board (2.9)	N- Special Libraries (0.3)
G- Sudi Gov't organisation (1.3)	O- Overseas Consultants (1.5)
H- Trade shows in Saudi Arabia (0.7)	P- Information Broker (0)
	Q- Special Contacts (2.6)
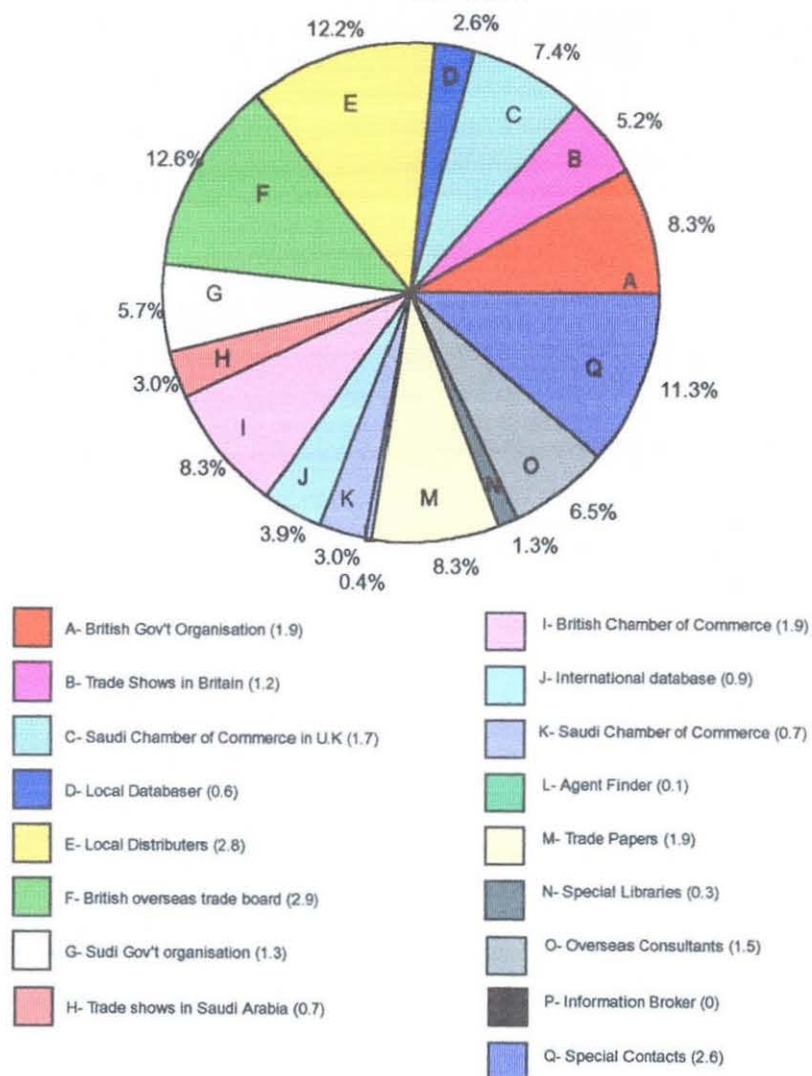
*Note: Numbers between brackets represents the expected values
and the percentage numbers on the chart are the percentage of the individual
expected value to their sum (23)*

CHART (24)

Expected Information Sources Used by
Large-sized British IT Exporters who export to Saudi Arabia
and the Gulf States

12.0%   2.6%
7.6%
5.0%
12.7%
8.2%
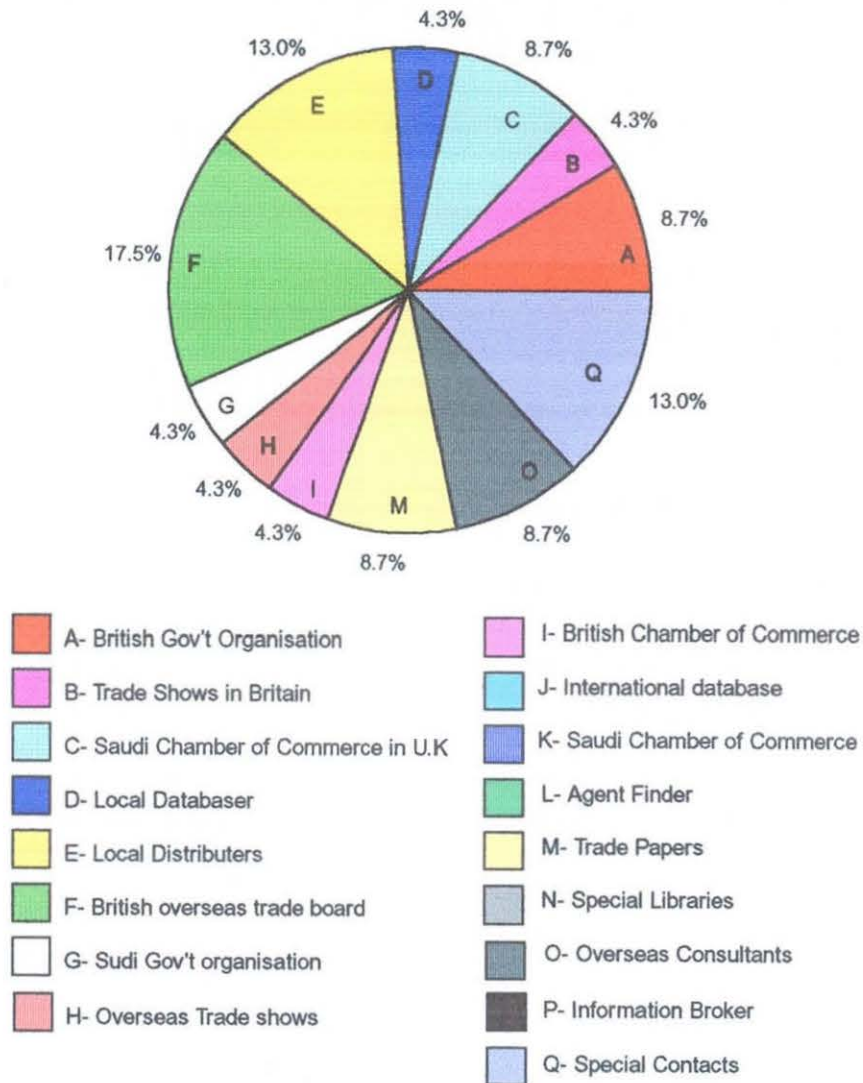5.8%
3.2%
8.2%
3.8%   11.4%
3.2%   6.4%
0.6%   1.2%
8.2%

A- British Gov't Organisation (5.4)

B- Trade Shows in Britain (3.3)

C- Saudi Chamber of Commerce in U.K (5)

D- Local Databaser (1.7)

E- Local Distributers (7.9)

F- British overseas trade board (8.4)

G- Sudi Gov't organisation (3.8)

H- Trade shows in Saudi Arabia (2.1)

I- British Chamber of Commerce (5.4)

J- International database (2.5)

K- Saudi Chamber of Commerce (2.1)

L- Agent Finder (0.4)

M- Trade Papers (5.4)

N- Special Libraries (0.8)

O- Overseas Consultants (4.2)

P- Information Broker (0)

Q- Special Contacts (7.5)

*Note: Numbers between brackets represents the expected values
and the percentage numbers on the chart are the percentage of the individual
expected value to their sum (65.9)*

CHART (25)

Results on Predicting Information-Seeking Obstacles of Small, Medium and Large British IT Exporters

Charts 26, 27 and 28 present the likelihood expected obstacles facing the small, medium and large-sized British IT exporters to Saudi Arabia and the Gulf States. These tables all indicate that making necessary contacts in Saudi Arabia and the Gulf States is the first major obstacle. Obtaining information about potential customers or importers comes second. It is followed by marketing problems and Saudi government regulations.

4.4   The Survey's Response of British IT Exporters who do not Export to Saudi Arabia

The final questionnaire survey related to British IT exporters who do not export to Saudi Arabia or the Gulf States. A total of 39 completed responses were obtained from UK IT exporters who have never dealt with Saudi Arabia or the Gulf States. The respondents were divided in to groups according to the type of IT export (such as hardware, software, services, or a combination). The responses are listed in Table 11.

All the exporters who responded dealt only with IT products and services. The responses of the suvey came from 39 British IT export firms who do not export to Saudi Arabia or the Gulf States. About 18% of large, 33% medium and 49% of small-sized firms.

Expected Information-Seeking Obstacles of

Small-sized British IT Exporters to Saudi and Gulf States

A- Linguistic Problems (2.0)
B- Marketing Problems (6.1)
C- Making Necessary Contacts (10.2)
D- Obtaining Information (9.3)
E- Saudi Government Regulations (6.1)
F- British Government Regulations (1.2)
G- Bank LC (1.6)
H- Payments (2.4)
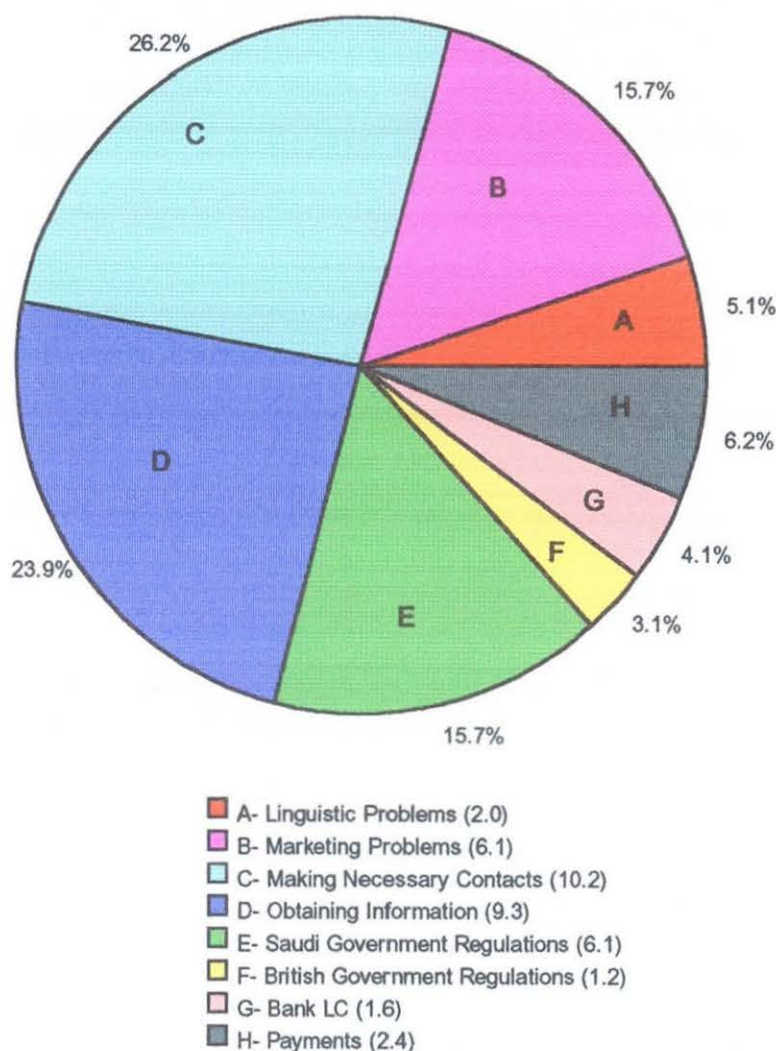
Note: Numbers between brackets represents the expected values and the percentage numbers on the chart are the percentage of the individual expected value to their sum (38.9)

CHART (26)

Expected Information-Seeking Obstacles of

Medium-sized British IT Exporters to Saudi
and Gulf States

A- Linguistic Problems (0.8)
B- Marketing Problems (2.5)
C- Making Necessary Contacts (4.2)
D- Obtaining Information (3.8)
E- Saudi Government Regulations (2.5)
F- British Government Regulations (0.5)
G- Bank LC (0.7)
H- Payments (1.0)
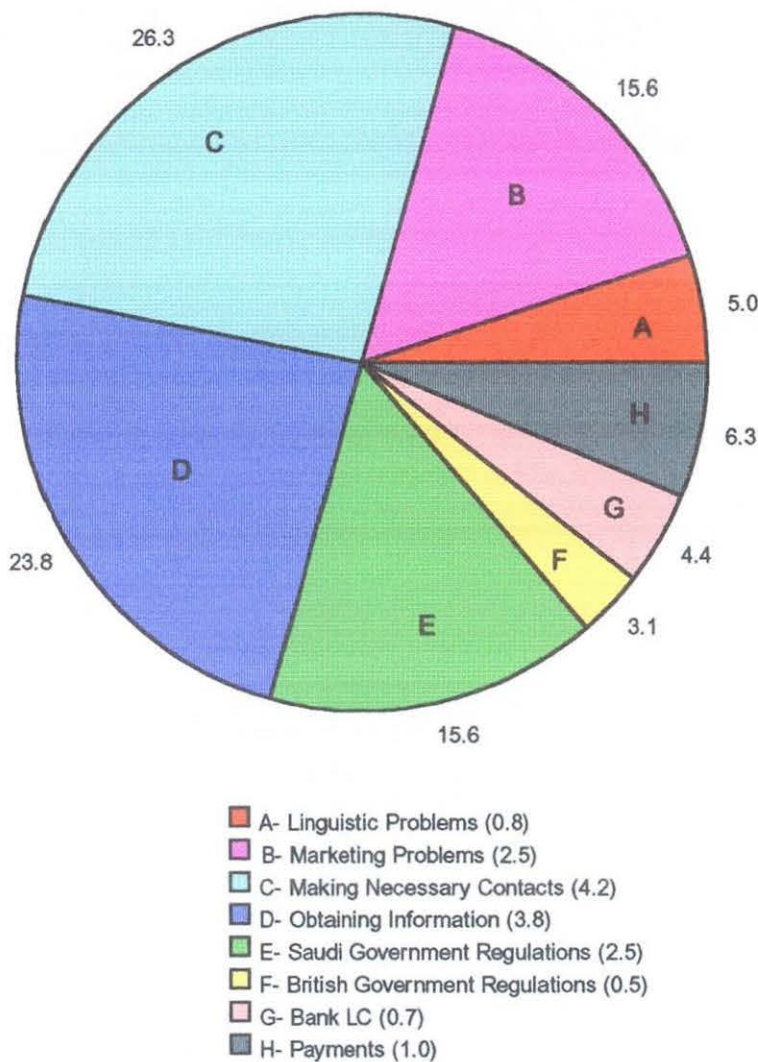
*Note: Numbers between brackets represents the expected values
and the percentage numbers on the chart are the percentage of the individual
expected value to their sum (16)*
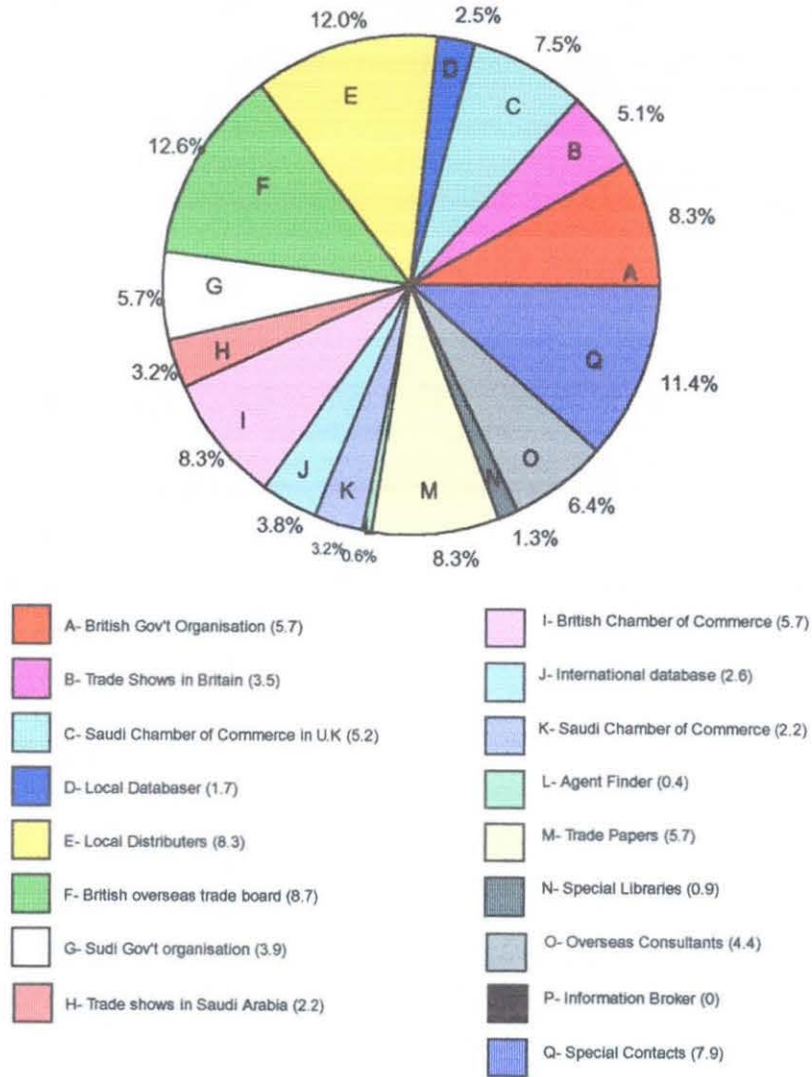
CHART (27)

Expected Information-Seeking Obstacles of
Large-sized British IT Exporters to Saudi
and Gulf States

A- Linguistic Problems (2.1)
B- Marketing Problems (6.4)
C- Making Necessary Contacts (10.7)
D- Obtaining Information (9.8)
E- Saudi Government Regulations (6.4)
F- British Government Regulations (1.3)
G- Bank LC (1.7)
H- Payments (2.6)
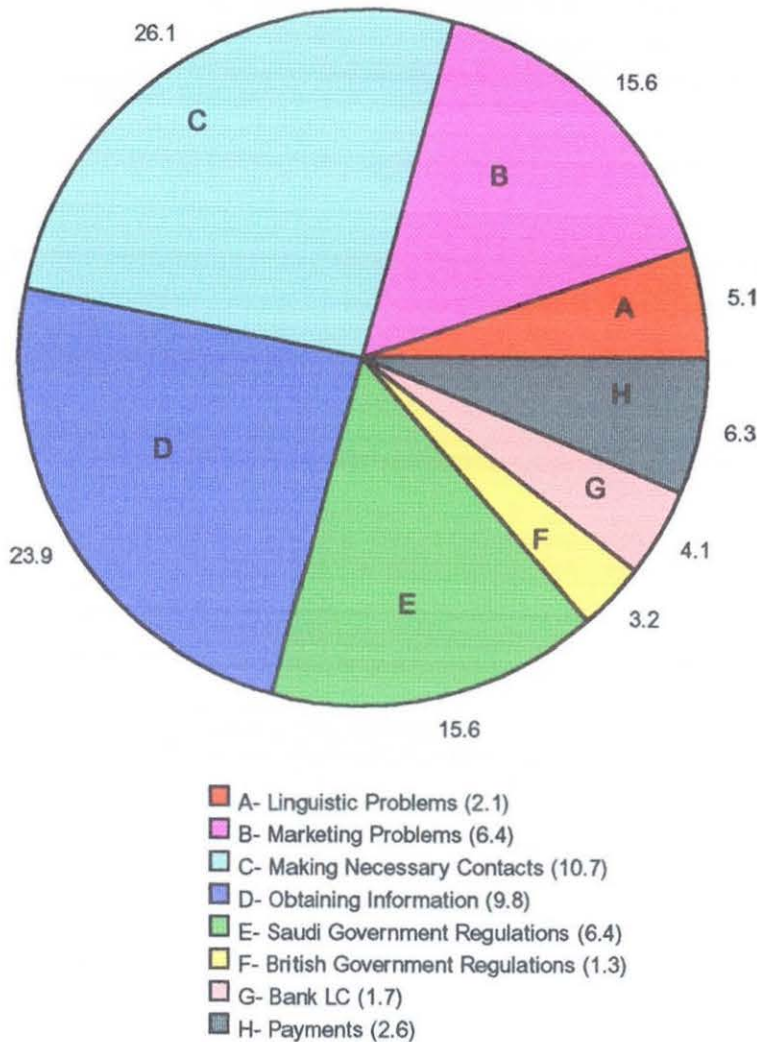
*Note: Numbers between brackets represents the expected values
and the percentage numbers on the chart are the percentage of the individual
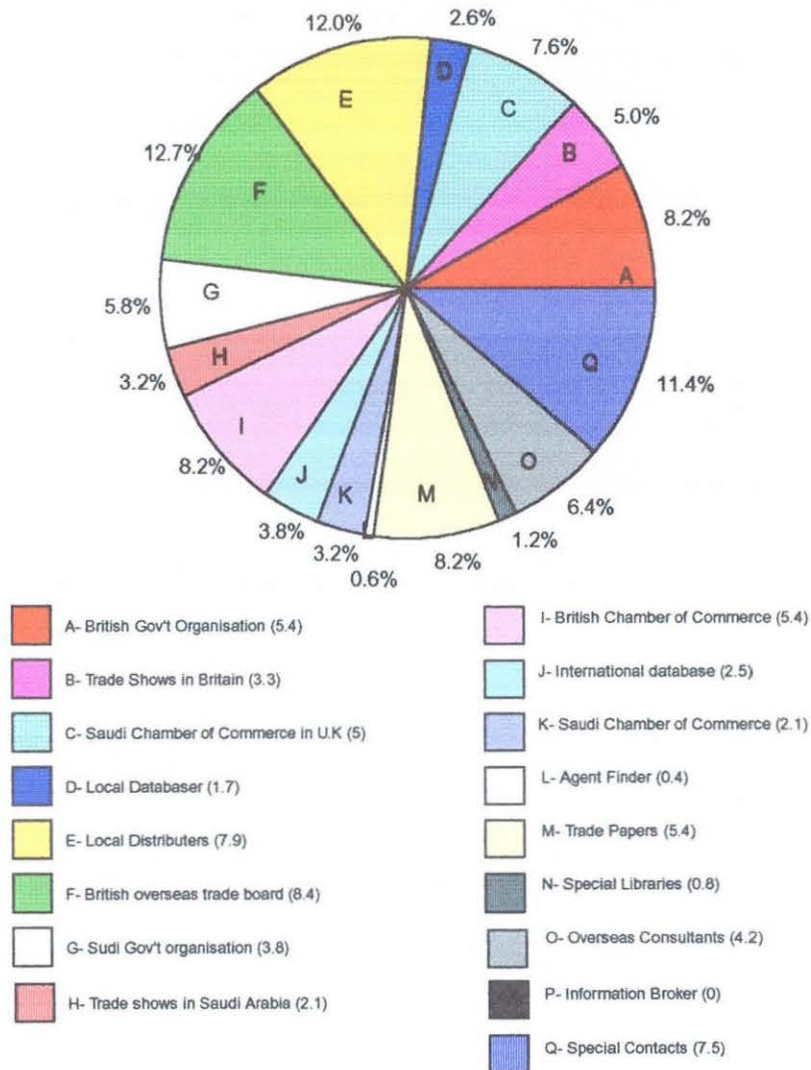expected value to their sum (41)*

CHART (28)

118

TABLE 11

BRITISH IT EXPORTERS WHO DO NOT EXPORT TO SAUDI ARABIA

TYPES OF IT PRODUCT	PERCENTAGE OF RESPONDENTS
IT hardware only	18%
Software only	3%
Services only	0%
All aspects of hardware, software and services	43%
Hardware and services	5%
Hardware and software	23%
Software and services	10%

The firms were asked if they had ever thought of exporting to Saudi Arabia or to the Gulf States. This led to the question of obstacles that deterred them. These are listed in Figure 5, and chart 29 in this chapter.

The Results on the Information-Seeking Obstacles of British Firms

Chart 29 shows seven possible information-seeking obstacles. (British Government regulations are the only obstacle not mentioned.) Marketing problems (31.6%) are the most important obstacle. Then follow making the necessary contacts, and obtaining information about potential customers, both

at (23.7%). Linguistic problems (10.5%) are a medium-level difficulty. Information regarding the flow of information about payments (5.3%), bank LC (2.6%) and Saudi government regulation (2.6%) are the lowest rated obstacles. As with most exporters who export to other than Saudi Arabia and the Gulf States, these firms typically dealt with a range of countries, such as USA, Taiwan, Italy, all European countries and Australia.

The Results on the Information-Seeking Behaviour of British Firms

Chart 30 shows fourteen possible information sources and the percentage of usage by this group of British exporters who do not export to Saudi arabia or the Gulf States. The highest utilised source by this group is trade papers (15.0%), then Saudi Chambers of Commerce (13.8%). Moreover, there are three sources achieved the same attraction to them. These are trade shows in UK (12.5%), overseas trade shows (12.5%) and foreign Chambers of Commerce (12.5%). Three other sources perhaps can be ranked the same usage. These are special libraries (8.8%), public libraries (7.5%) and international databases (7.5%). This group perhaps utilised the services of agent finder (5.0%) better than those who export to Saudi Arabia. However, their lowest sources of information are information brokers (2.5%) and local databases (2.5%).

The Results on the Three Firms' Sizes

The results presented here will follow the same structure as in previous sections. The results on the information-seeking behaviour, and export/import obstacles encountered for all three sizes of IT firms in this group, will be presented first. Expectations regarded information-seeking behaviour and export/import information obstacles will then follow.

Information-Seeking Obstacles

of British IT Exporters to other than Saudi

and Gulf States

A- Linguistic Problems
B- Marketing Problems
C- Making Necessary Contacts
D- Obtaining Information about potential customers
E- Saudi Government Regulations
F- British Government Regulations
G- Bank LC
H- Payments
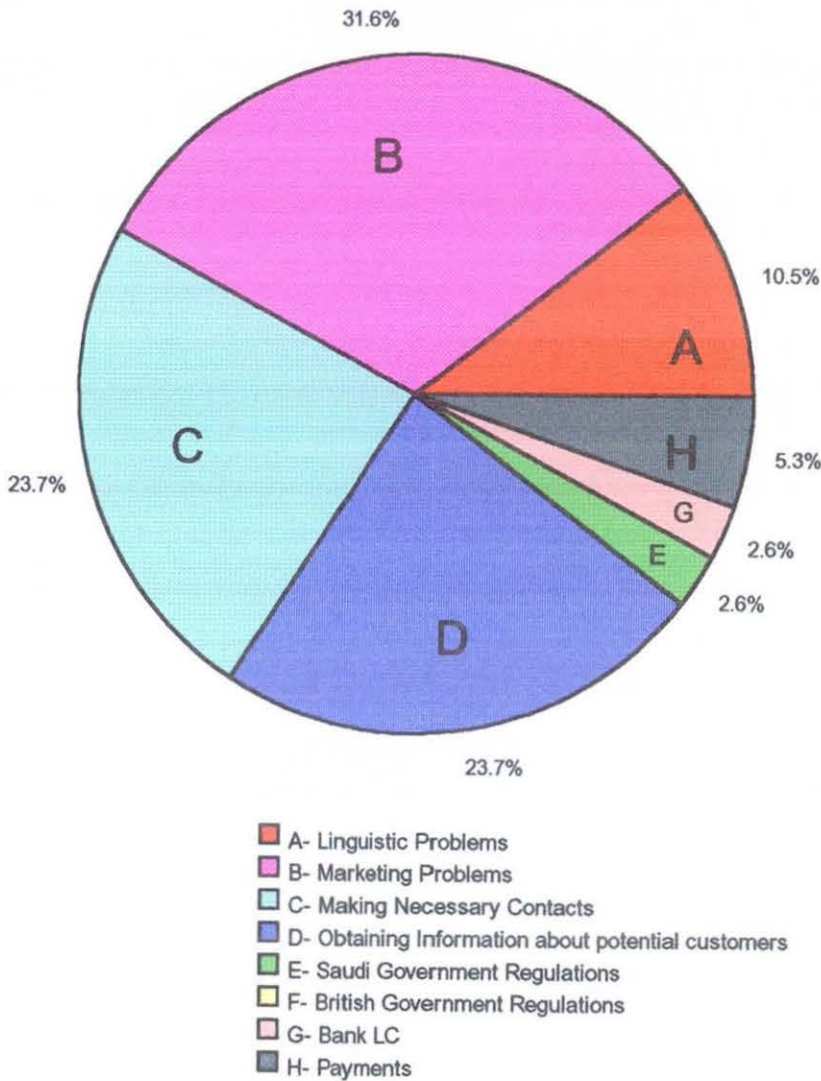
CHART (29)

Information Sources Used By

British IT Exporters who export to other than Saudi Arabia and the Gulf States

Legend:

A- Public Libraries

B- Special Libraries

C- Information Brokers

D- Agent Finder

E- Local Database

F- International Database

G- Trade Papers

H- Trade Shows in UK

I- Overseas Trade Shows

J- Overseas Consultants

K- British Overseas Trade Board

L- British Chamber of Commerce

M- British Government Organisation

N- Special Contacts
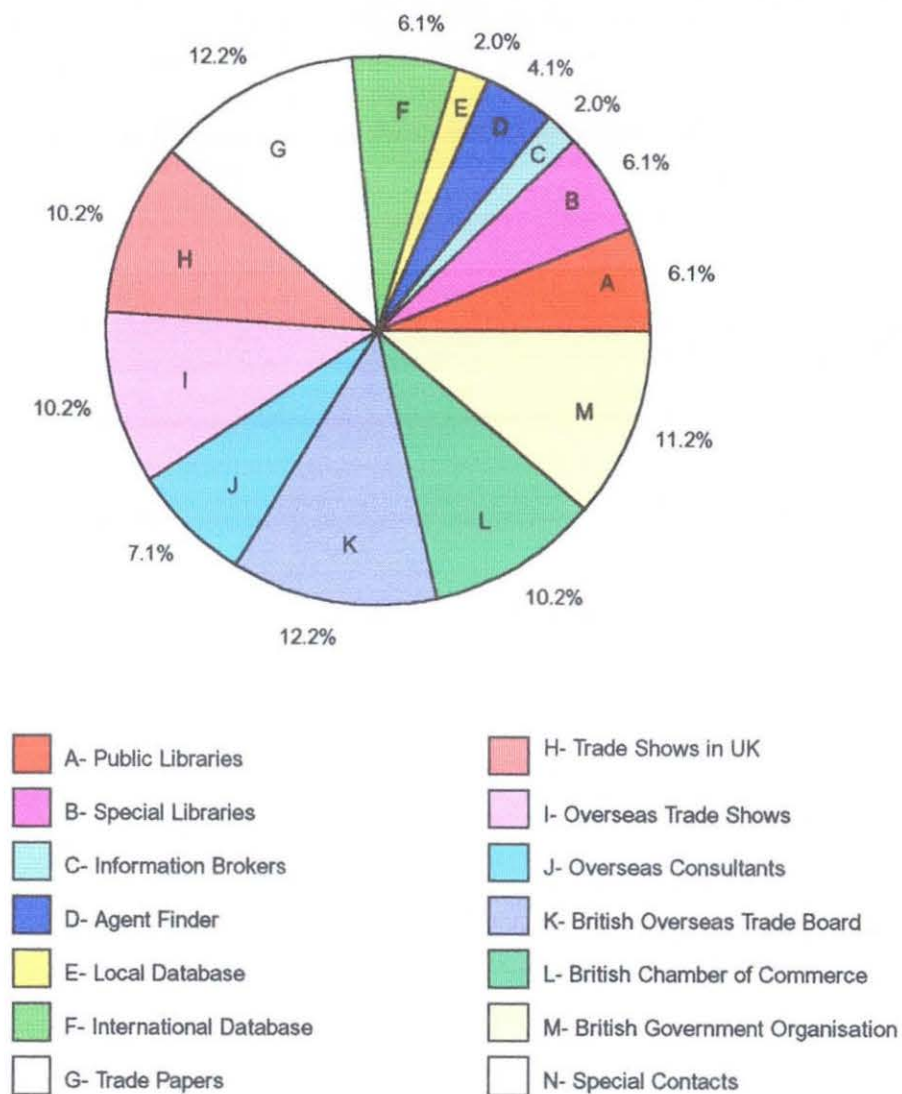
CHART (30)

Results on the Information-Seeking Behaviour of Small British IT Exporters

Chart 31 shows the relative importance of thirteen possible information sources for British 2 exporters. Only eleven sources have been utilised. These sources, as shown in the pie chart, can perhaps be grouped into three sets according to their utilisation rate.

The highly utilised sources consist of trade papers, trade shows in Britain and British government organisations (11.9%). These are followed by public libraries, overseas trade shows, the British Overseas Trade Board and British Chambers of Commerce (9.5%). The third, least-utilised set of sources are special libraries, agent finders, overseas consultants (7.1%) and international databases (4.8%) The non-utilised sources of information were information brokers and local databases.

Results of the Information-Seeking Behaviour of the Medium-Sized British Exporters

Chart 32 shows four groups of possible information sources for these British IT exporters. The most important is the British Overseas Trade Board (14.8%). The second group includes trade papers, overseas trade shows, British Chambers of Commerce and British government organisations (11.1%). The third group covers public libraries, international databases and trade shows in Britain. The final, least important group consists of special libraries, information brokers, agent finders, local databases and overseas consultants (3.7%).

Results of the Information-Seeking Behaviour of Large-Sized British Exporters

Chart 33 shows thirteen possible information sources. Five groups can be recognised from the percentages. The first group consists of trade papers and the British Overseas Trade Board (13.8%) and the second covers trade shows in UK and overseas trade shows, British Chambers of Commerce and British government organisations (10.3%). The third group includes special libraries and international databases (6.9%). The fourth group of information brokers and local databases is little used, whilst the fifth, containing public libraries and agent finders, is not used at all.

Results of the Information-Seeking Obstacles of Small-Sized British Exporters

Chart 34 preesnts the possible information-seeking obstacles of small British IT exporters who export to other than Saudi Arabia or the Gulf States. Marketing problems (27.8%) and making necessary contacts (27.8%) are their major obstacles. Then comes obtaining necessary information about customers (22.2%), followed by linguistic problems (11.1%). Saudi and British government regulations were not mentioned.

Results of the Information-Seeking Obstacles of Medium-Sized British 2 Exporters

Chart 35 shows obstacles due to marketing problems (30.8%), followed by obtaining information about potential customers (23.1%). Linguistic problems and making necessary contacts came next (15.4%).

Results on the Information-Seeking Obstacles of the Large-Sized British Exporters

Chart 36 shows only three information-seeking obstacles as of major importance to this group of British IT exporters. These large British firms typically deal with many foreign countries, though not Saudi Arabia or Gulf States. Marketing problems (42.9%), making necessary contacts (28.6%) and obtaining the necessary information about potential customers (28.6%) are the main problems that they face. They are not apparently worried by linguistic, regulatory or financial problems.

Results on the Expected Information-Seeking Behaviour of British Exporters

The three charts 37, 38 and 39 relating to expectations regarding the use of information sources are very similar. Trade papers (12.1%) and the British Overseas Trade Board (12.1%) are rated highest. British government organisations (11.2%) form the next source for British IT exporters who are not dealing with Saudi Arabia or the Gulf. The cluster of trade shows in the UK and overseas and British Chambers of Commerce are only slightly less important.

The Results on Expected Information-Seeking Obstacles for British Exporters

Charts 40, 41 and 42 suggest that the same obstacles occur despite the differences in the firms' sizes. These predictions appear in Table H, Appendix B. The problem of marketing information comes first as the major obstacle

Information Sources Used By

Small-sized British IT Exporters who export to other than Saudi Arabia and the Gulf States

A- Public Libraries		H- Trade Shows in Britain
B- Special Libraries		I- Overseas Trade Shows
C- Information Brokers		J- Overseas Consultants
D- Agent Finder		K- British overseas Trade Board
E- Local Database		L- British Chamber of Commerce
F- International Database		M- British Gov't Organisation
G- Trade Papers		

CHART (31)

Information Sources Used By

Medium-sized British IT Exporters who export to other than Saudi Arabia and the Gulf States

A- Public Libraries

B- Special Libraries

C- Information Brokers

D- Agent Finder

E- Local Database

F- International Database

G- Trade Papers

H- Trade Shows in Britain

I- Overseas Trade Shows

J- Overseas Consultants

K- British overseas Trade Board

L- British Chamber of Commerce

M- British Gov't Organisation
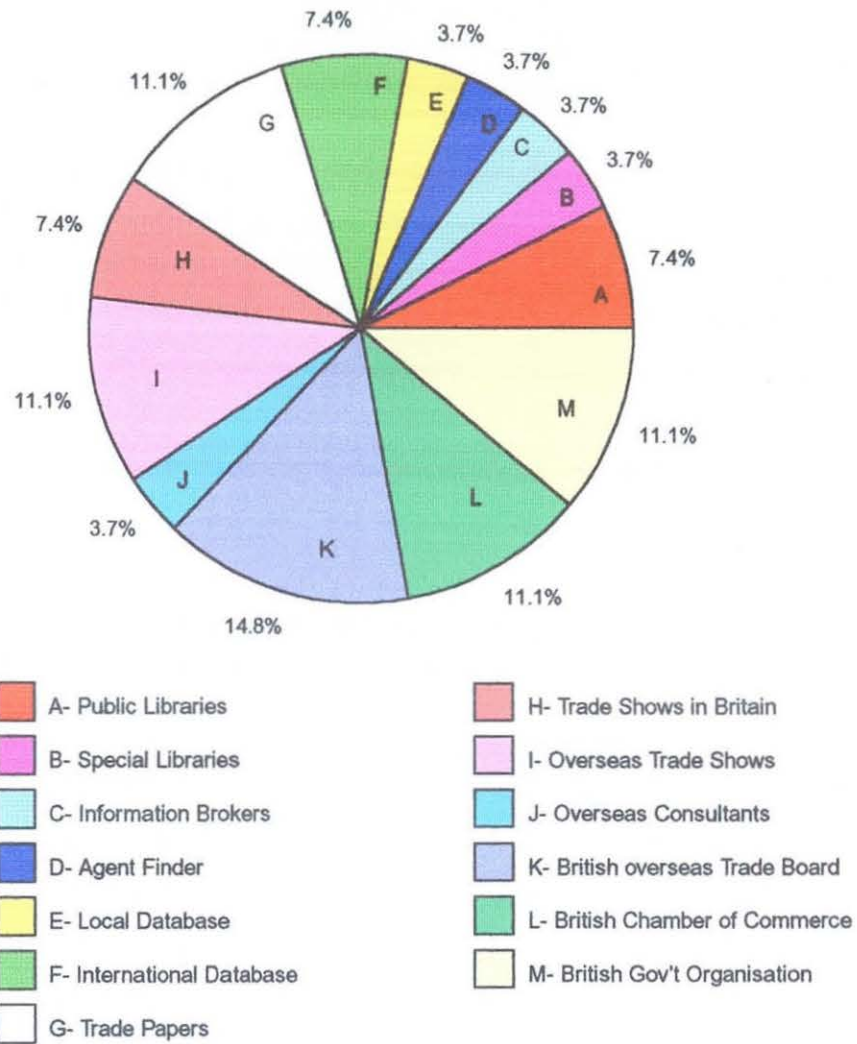
CHART (32)

Information Sources Used By

Large-sized British IT Exporters who export to other than Saudi Arabia and the Gulf States

A- Public Libraries	H- Trade Shows in Britain
B- Special Libraries	I- Overseas Trade Shows
C- Information Brokers	J- Overseas Consultants
D- Agent Finder	K- British overseas Trade Board
E- Local Database	L- British Chamber of Commerce
F- International Database	M- British Gov't Organisation
G- Trade Papers	

CHART (33)

Information-Seeking Obstacles

of Small-sized British IT Exporters to other than Saudi Arabia and Gulf States

27.8%

11.1%

27.8%

5.6%

5.6%

22.2%

■ A- Linguistic Problems
■ B- Marketing Problems
□ C- Making Necessary Contacts
■ D- Obtaining Information about potential customers
□ E- Saudi Government Regulations
□ F- British Government Regulations
□ G- Bank LC
■ H- Payments

CHART (34)

Information-Seeking Obstacles

of Medium-sized British IT Exporters to other than Saudi Arabia

and Gulf States

30.8%

15.4%

15.4%

7.7%

7.7%

23.1%

A- Linguistic Problems
B- Marketing Problems
C- Making Necessary Contacts
D- Obtaining Information about potential customers
E- Saudi Government Regulations
F- British Government Regulations
G- Bank LC
H- Payments

CHART (35)

Information-Seeking Obstacles

of Large-sized British IT Exporters to other than Saudi Arabia
and Gulf States

- A- Linguistic Problems
- B- Marketing Problems
- C- Making Necessary Contacts
- D- Obtaining Information about potential customers
- E- Saudi Government Regulations
- F- British Government Regulations
- G- Bank LC
- H- Payments

CHART (36)

Expected Information Sources Used by

Small-sized British IT Exporters who export to other than Saudi Arabia and the Gulf States

A- Public Libraries (2.6)

B- Special Libraries (2.6)

C- Information Brokers (0.9)

D- Agent Finder (1.7)

E- Local Database (0.9)

F- International Database (2.6)

G- Trade Papers (5.1)

H- Trade Shows in Britain (4.3)

I- Overseas Trade Shows (4.3)

J- Overseas Consultants (3)

K- British overseas Trade Board (5.1)

L- British Chamber of Commerce (4.3)

M- British Gov't Organisation (4.7)
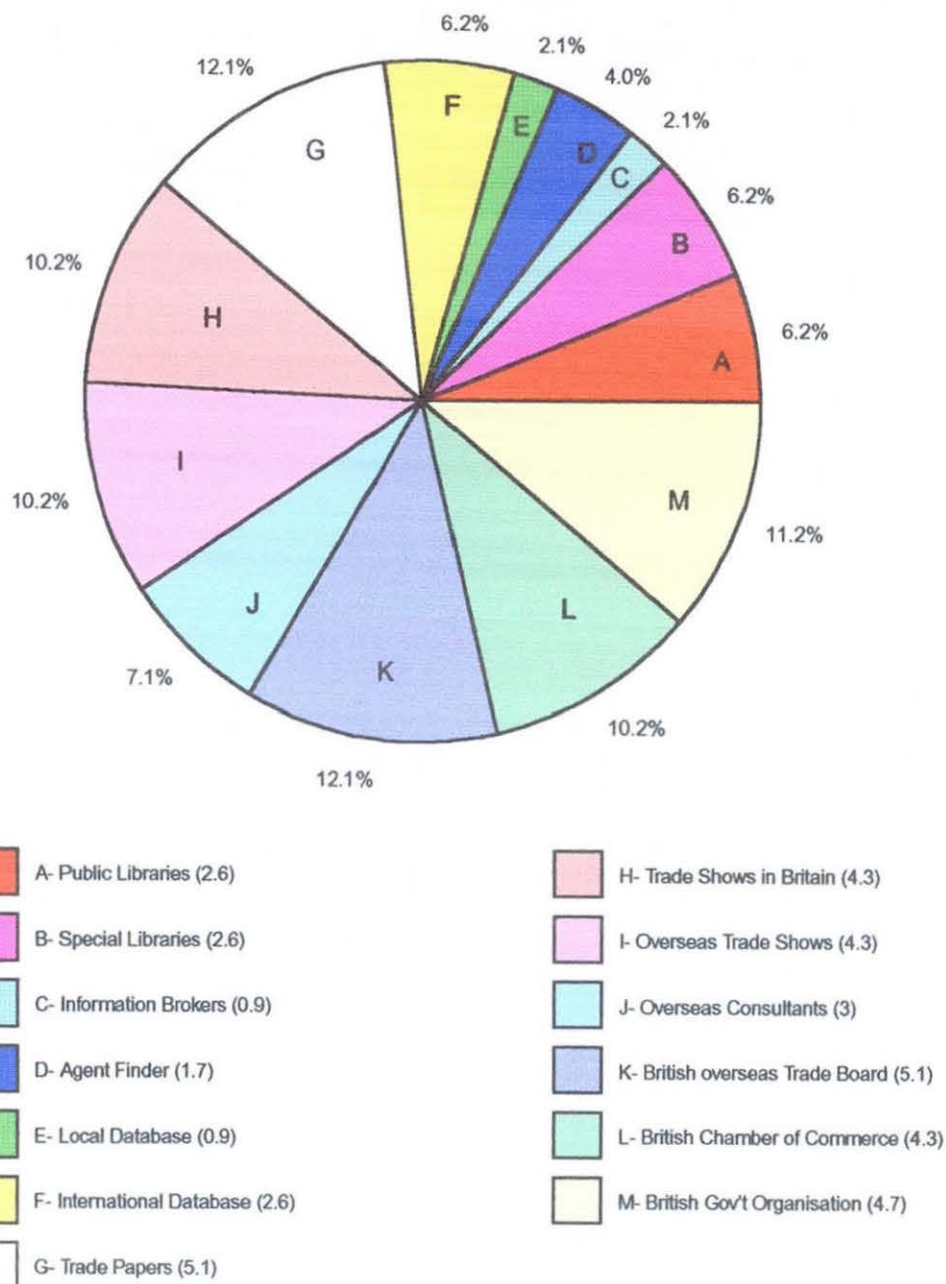
Note: Numbers between brackets represents the expected values and the percentage numbers on the chart are the percentage of the individual expected value to their sum (42.1)

CHART (37)

Expected Information Sources Used by

Medium British IT Exporters who export to other than Saudi Arabia
and the Gulf States
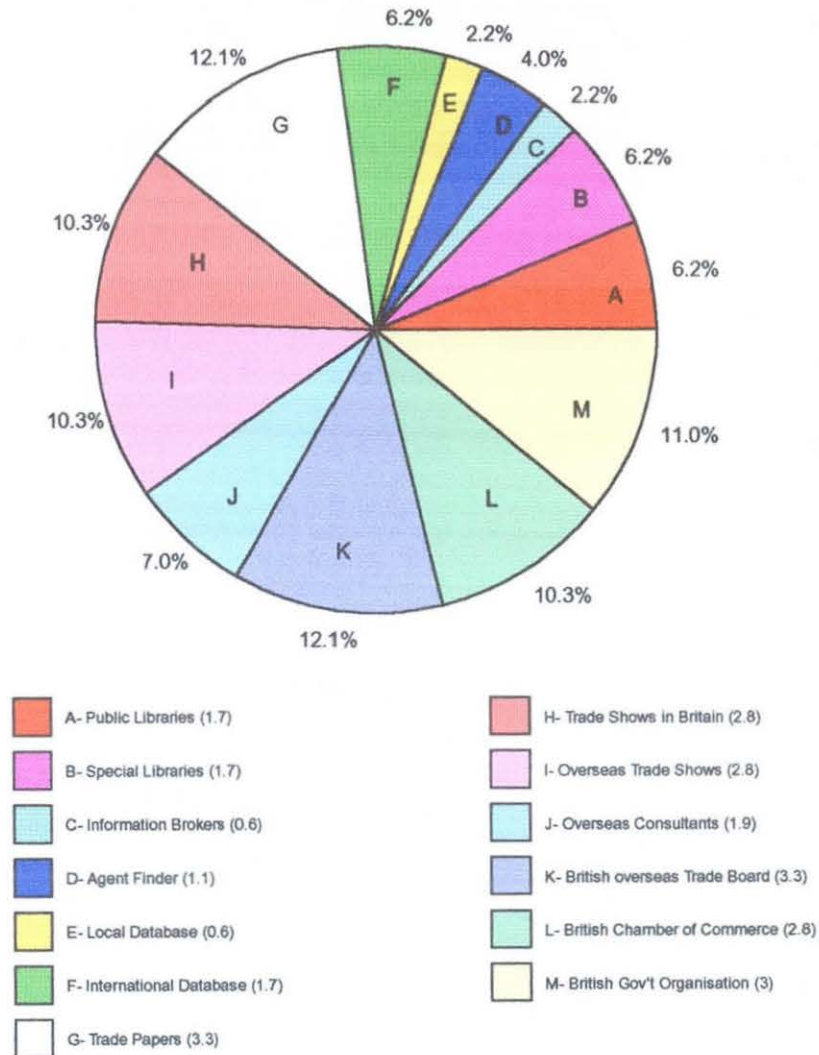
Legend:

A- Public Libraries (1.7)

B- Special Libraries (1.7)

C- Information Brokers (0.6)

D- Agent Finder (1.1)

E- Local Database (0.6)

F- International Database (1.7)

G- Trade Papers (3.3)

H- Trade Shows in Britain (2.8)

I- Overseas Trade Shows (2.8)

J- Overseas Consultants (1.9)

K- British overseas Trade Board (3.3)

L- British Chamber of Commerce (2.8)

M- British Gov't Organisation (3)

*Note: Numbers between brackets represents the expected values
and the percentage numbers on the chart are the percentage of the individual
expected value to their sum (27.3)*

CHART (38)

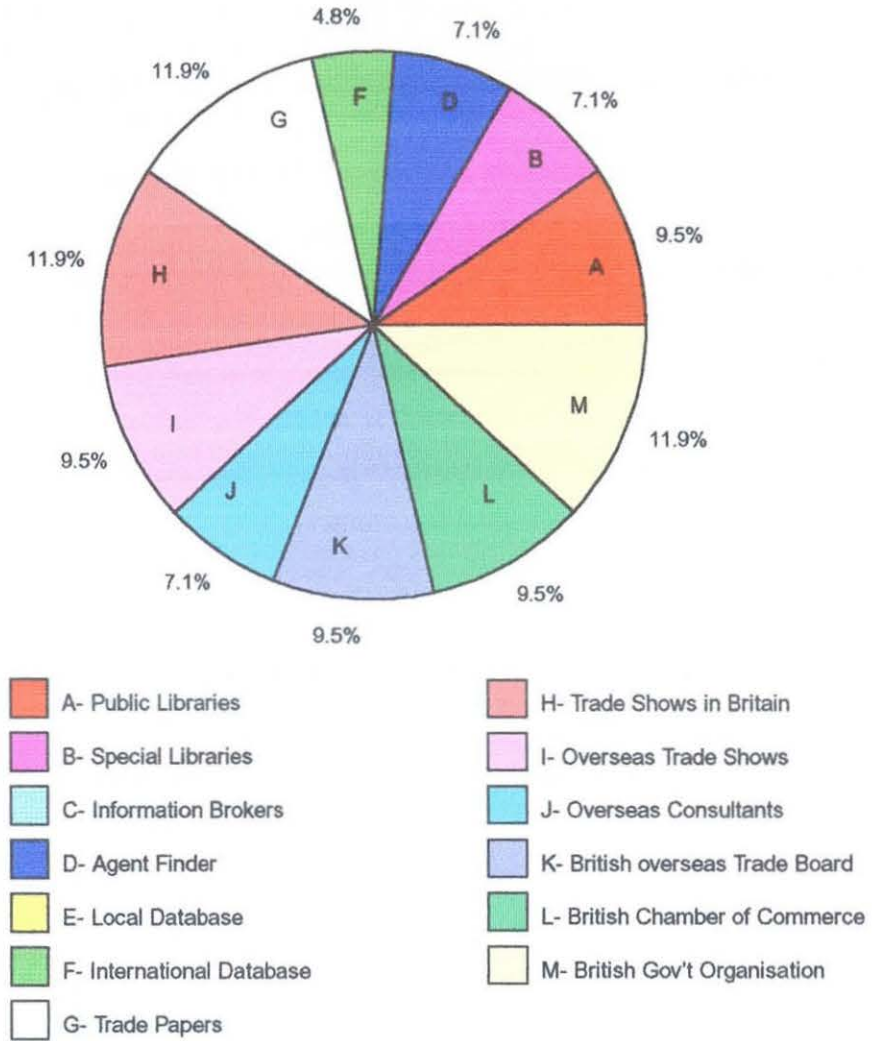# Expected Information Sources Used by
Large-sized British IT Exporters who export to other than Saudi Arabia
and the Gulf States

Legend:

A- Public Libraries (1.8)
B- Special Libraries (1.8)
C- Information Brokers (0.6)
D- Agent Finder (1.2)
E- Local Database (0.6)
F- International Database (1.8)
G- Trade Papers (3.6)

H- Trade Shows in Britain (3)
I- Overseas Trade Shows (3)
J- Overseas Consultants (2.1)
K- British overseas Trade Board (3.6)
L- British Chamber of Commerce (3.0)
M- British Gov't Organisation (3.3)

*Note: Numbers between brackets represents the expected values
and the percentage numbers on the chart are the percentage of the individual
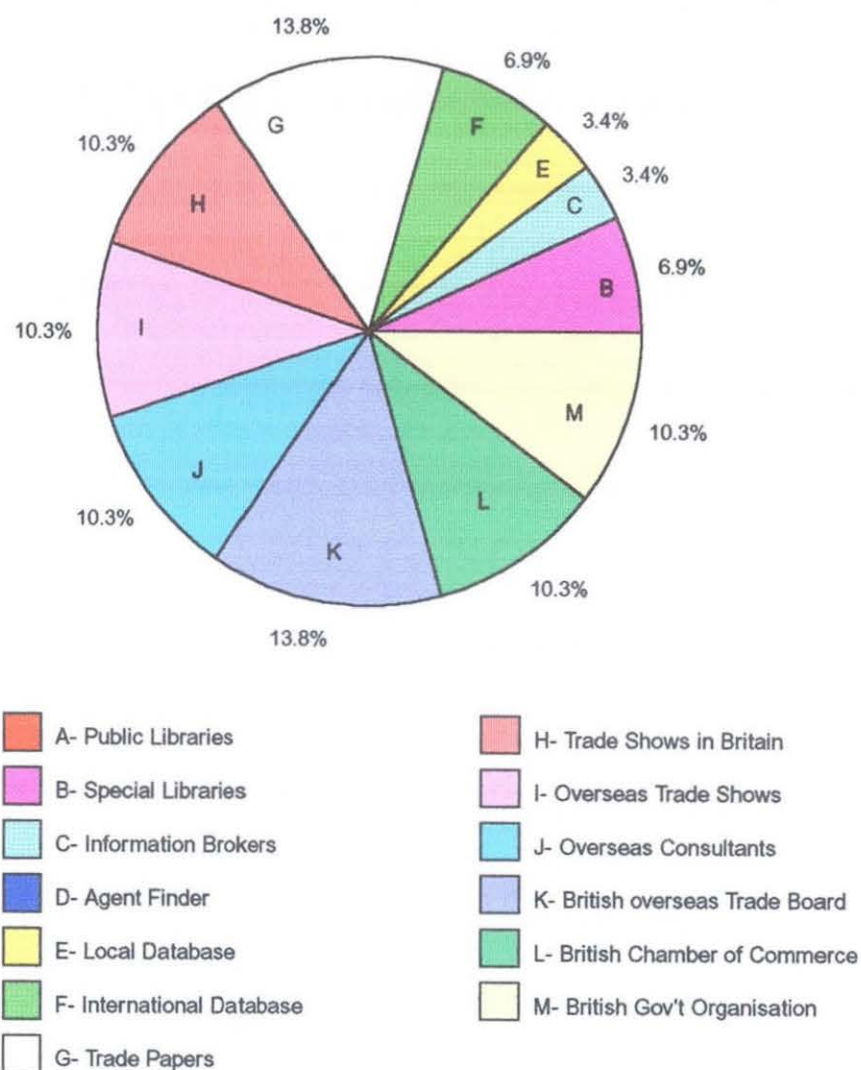expected value to their sum (29.4)*

CHART (39)

Expected Information-Seeking Obstacles of

Small-sized British IT Exporters to other than Saudi Arabia
and Gulf States

31.5%

A- Linguistic Problems (1.9)
B- Marketing Problems (5.7)
C- Making Necessary Contacts (4.3)
D- Obtaining Information (4.3)
E- Saudi Government Regulations (0.5)
F- British Government Regulations (0.0)
G- Bank LC (0.5)
H- Payments (0.9)

*Note: Numbers between brackets represents the expected values
and the percentage numbers on the chart are the percentage of the individual
expected value to their sum (18.1)*

CHART (40)

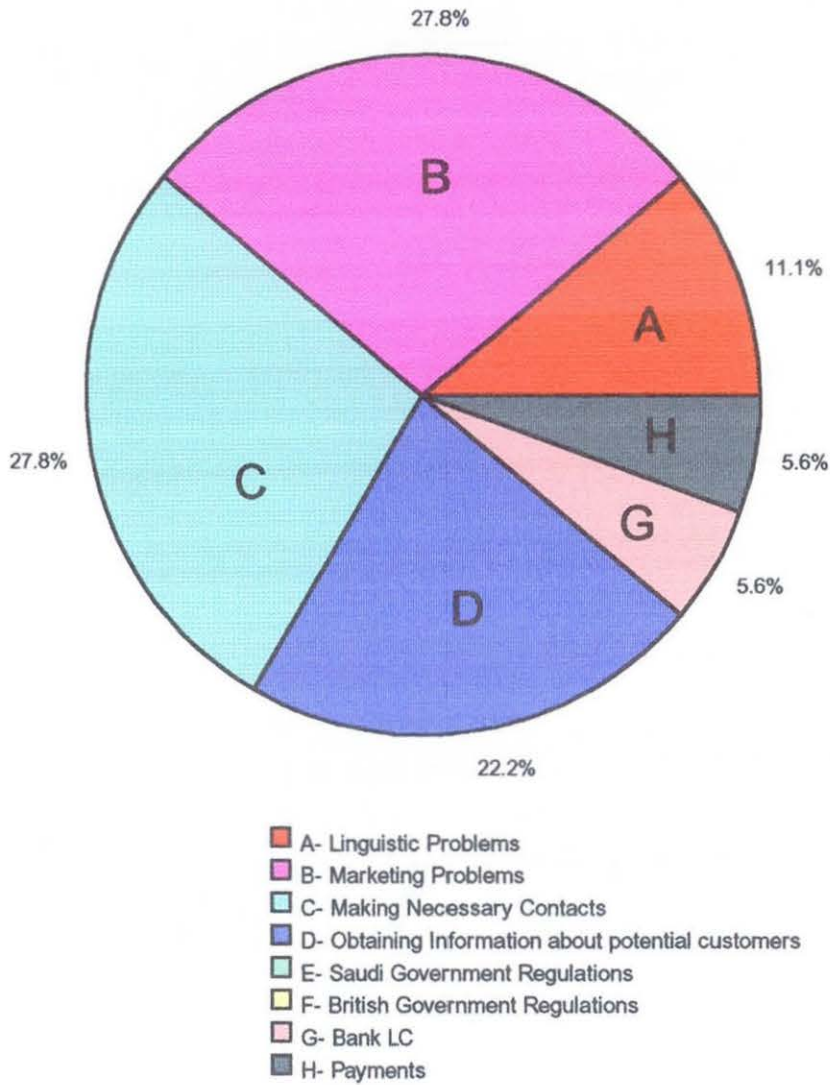# Expected Information-Seeking Obstacles of

Medium-sized British IT Exporters to other than Saudi Arabia
and Gulf States

31.5%

10.8%

5.4%

2.3%

2.3%

23.8%

23.8%

■ A- Linguistic Problems (1.4)
■ B- Marketing Problems (4.1)
□ C- Making Necessary Contacts (3.1)
■ D- Obtaining Information (3.1)
■ E- Saudi Government Regulations (0.3)
□ F- British Government Regulations (0.0)
□ G- Bank LC (0.3)
■ H- Payments (0.7)
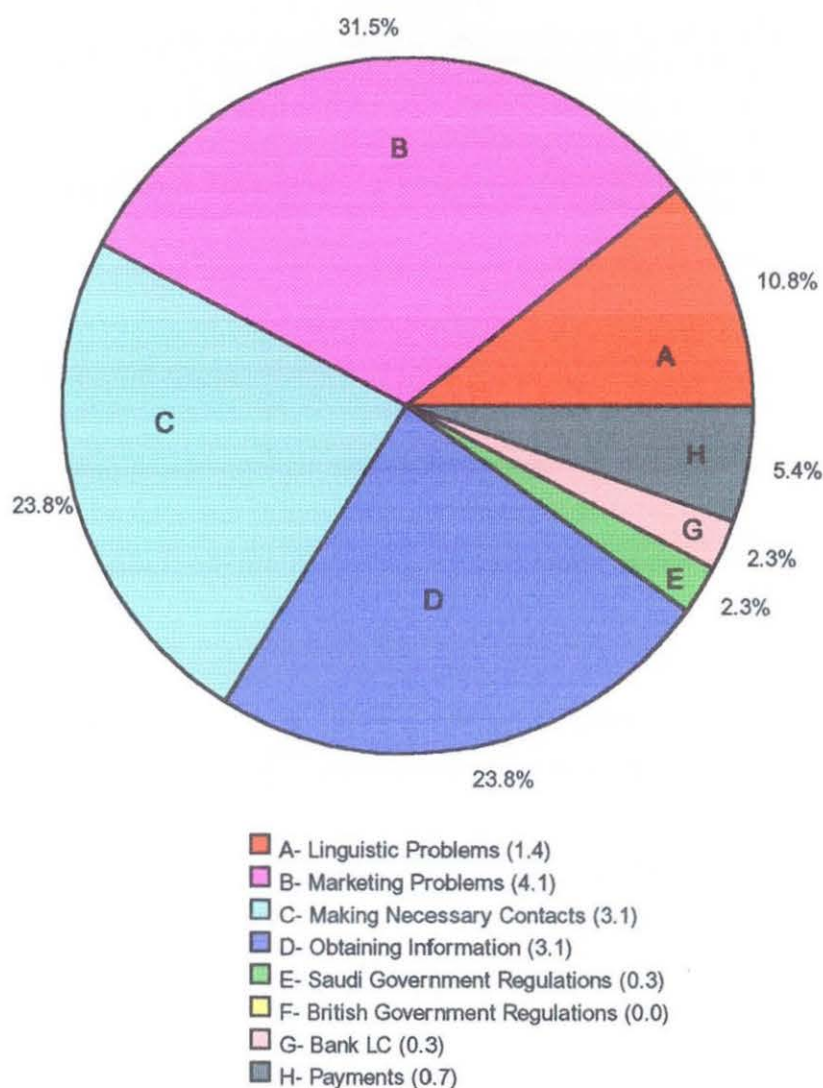
*Note: Numbers between brackets represents the expected values
and the percentage numbers on the chart are the percentage of the individual
expected value to their sum (13)*

CHART (41)

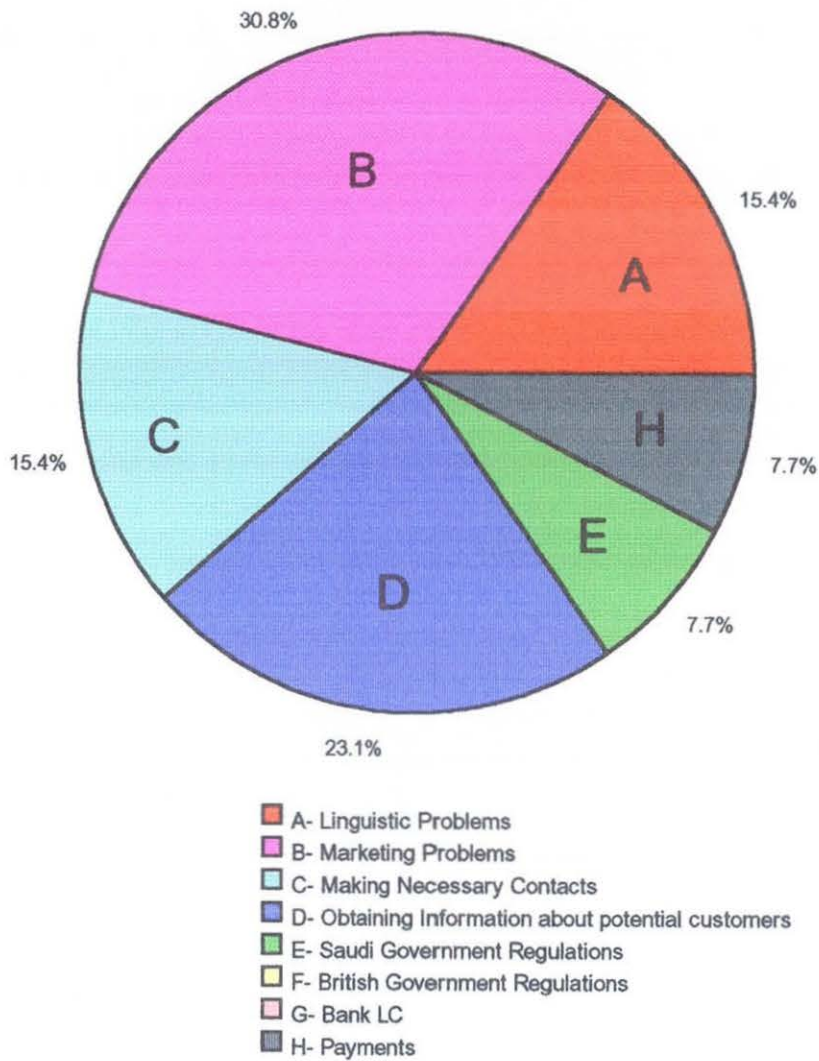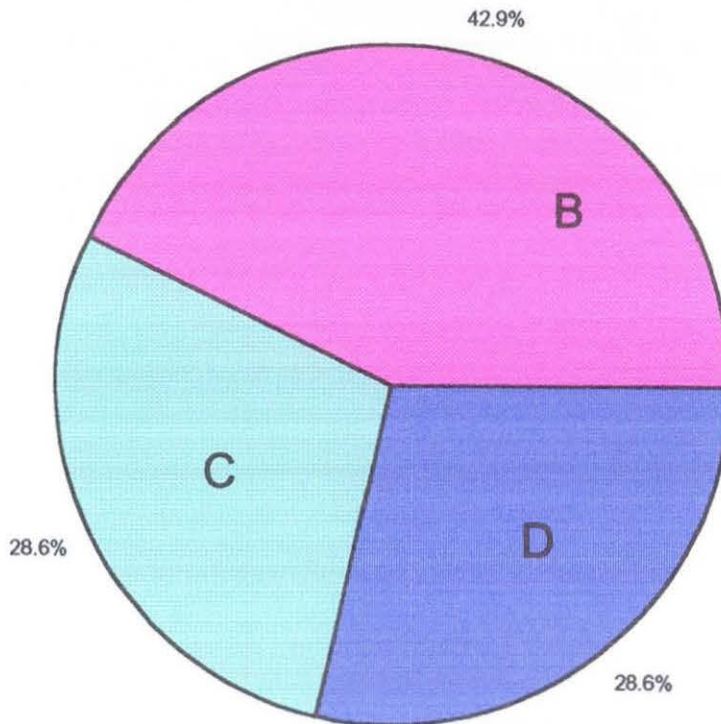# Expected Information-Seeking Obstacles of

Large-sized British IT Exporters to other than Saudi Arabia
and Gulf States

31.0%

A- Linguistic Problems (0.7)
B- Marketing Problems (2.2)
C- Making Necessary Contacts (1.7)
D- Obtaining Information (1.7)
E- Saudi Government Regulations (0.2)
F- British Government Regulations (0.0)
G- Bank LC (0.2)
H- Payments (0.4)
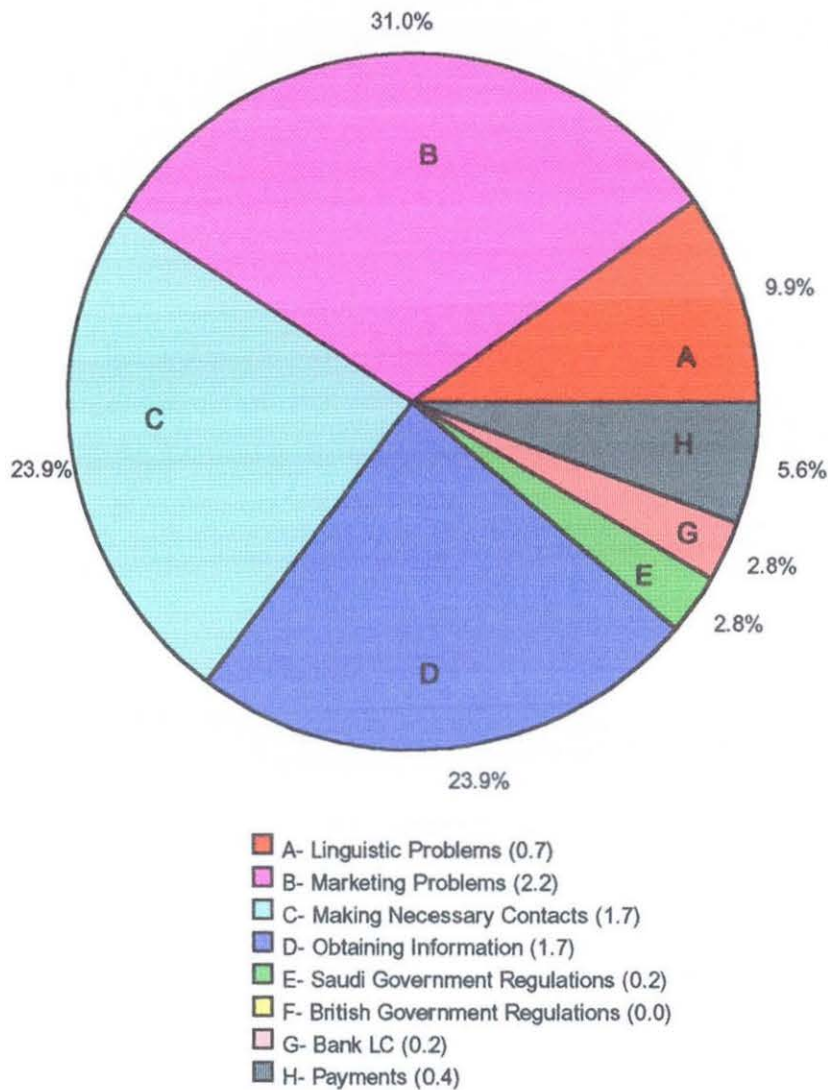
*Note: Numbers between brackets represents the expected values
and the percentage numbers on the chart are the percentage of the individual
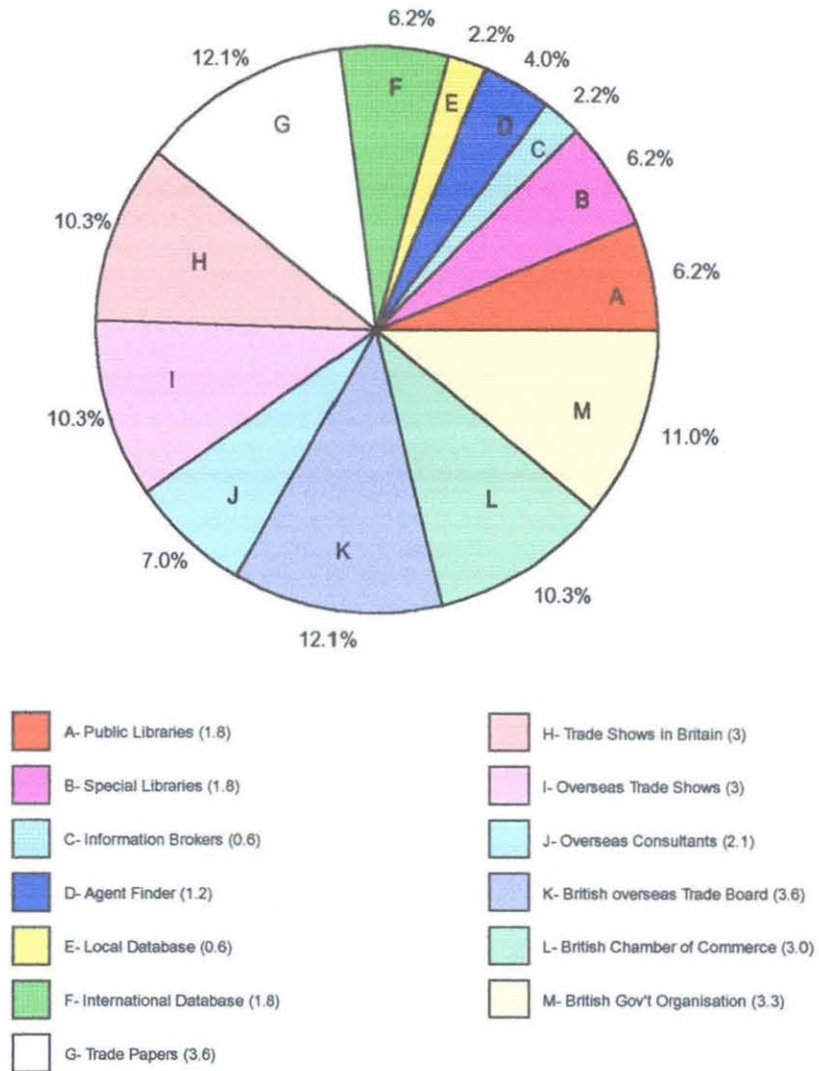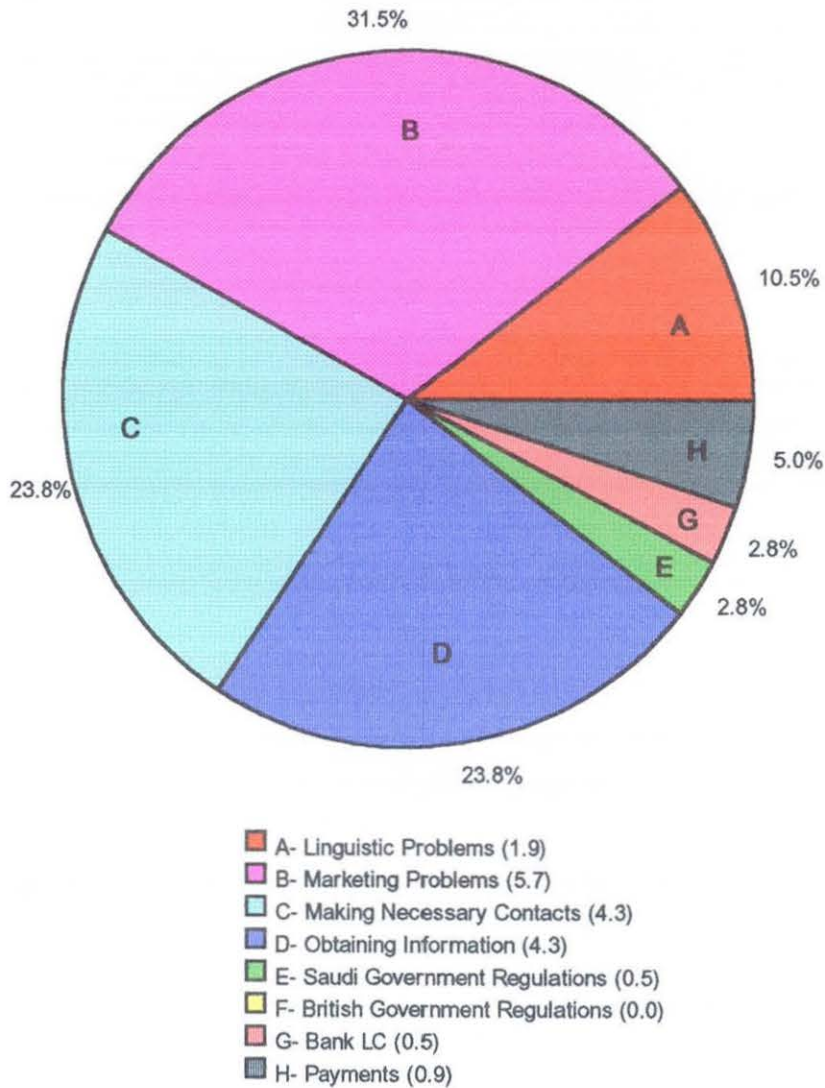expected value to their sum (18.1)*

CHART (42)

(31.5%).   The second-rated problems were making necessary contacts (23.8%), and obtaining information about customers (23.8%). Other problems, apart from linguistic difficulties, are of relatively minor importance.

4.5   Additional Questionnaire from British IT Exporters

The main questionnaire sent to British IT exporters who deal with Saudi Arabia and the Gulf States, asked for a contact name in the firm.   Most of those who responded did not welcome the idea of face-to-face or telephone interviews. They were prepared, however, to respond to additional questions. Eighteen additional responses were obtained in this way. The following is a summary of these responses.

The first question looked for more detailed information about internal and external sources of information. Of the respondents, 33% were using both internal and external sources of information; (44%) relied on external sources of information only; (22%) relied only on internal sources of information.

In-House Sources of Information

The in-house sources of information were stated to be people, reference materials and their own databases. The respondents who used in-houses sources of information stressed the firm's manager as a major source. For some of the firms, this was the international manager, and for some their resident manager. Marketing departments, marketing services and staff contacts in the market were other sources which were mentioned. Reference materials were also mentioned as a part of in-house information. These included specialist publications, as well as newspapers, magazines, etc.

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Private databases, another information source, were typically built to suit their needs and kept up-to-date by an in-house team.

Outside Sources of Information

The responses stressed two types of outside information provision: personal contact and marketing information available through various services. The emphasis was on people as sources of information. Information was obtained via personal contact with Chambers of Commerce; defence export services; consultancy houses in Saudi Arabia; official agents; Department of Trade and Industry; British Overseas Trade Board; word-of-mouth following visits to Saudi Arabia and the Gulf States; local distributors; contact during trade shows. Other external sources of information were those obtained through reading and searching of such items as reports or specific surveys from specialist companies.

The major source - personal contact - transpired in various ways: personal contacts brought about by a particular technical requirement; introduction from previous customers; customers brought by a colleague of one of their employers; agents and representatives in Saudi Arabia; consultants; contact with the London Chamber of Commerce, and personal contacts made during IT exhibitions. One firm mentioned contact through advertising in a US magazine, and through letters and circulars. It was regarded as of considerable importance to establish relations through personal visits to Saudi Arabia, personal contact with consultants, and with agents in Saudi Arabia, as well as with word-of-mouth sources of information to provide them with a lead to appropriate IT importers. The DEI commercial section of the British Embassy served as a means of providing both personal contacts and advertising. Advertising was used as another way of finding IT importers. Respondents

mentioned advertising in magazines, directories such as the *Computer Guide Middle East*, via mailshots and advertising at trade shows.

A related question concerned the sort of information which led Saudi importers to contact British exporters. Two main items were thought to be important - the trade name (such as IBM, Xerox, AT&T) and the technical specification of their products. The responses showed that 22% of the British exporters were contacted as a result both of their trade name and technical specification; 39% were contacted only because of their trade name; 17% were contacted only because of their technical specification. The remaining 22% were contacted for other reasons. These included introductions made by their agents, contacts made because their name was in the appropriate directories, and contact with Saudi IT importers made through visits.

Some of the respondents who were contacted because of their trade name and technical specification mentioned other ways in addition to these (for instance, they obtained contact through being a referee for an applicant). Frequently, the contact comes about because of their firm's reputation as a contractor for certain technologies, or because they have completed a project in a foreign country.

The final question was designed to investigate whether IT exporters monitor the reactions and needs of their importers. It appears that a majority of British IT exporters (56%) do pay attention to their overseas IT importers' reactions.

British IT exporters typically monitor their customers through the level of requests for pricing for bids against specifications and then the subsequent level of orders. They know they are competitive when the customers demand their products. They check, as part of their monitoring, if they have a good

match to the need for the areas in which they sell. Some of the exporters monitor the whole market through regular market survey procedures. These are intended to ensure that they are technically and commercially acceptable as a company and that they meet technical and commercial requirements for each specific bid. They achieve this through their agents, direct contacts with customers, replies to requests for information from customers, and regular visits by customers. In addition, some IT exporters mentioned the use of fax and telephone for monitoring customers.

4.6   Interview with the British Embassy

The British Embassy is one of the important sources of information for many Saudi businessmen. It is also a key to information acquisition and dissemination for British industries. Through the efforts of the DTI, the British Consul (Commercial) in Jeddah and Riyadh arranges visits for businessmen, and is very actively involved in helping British exports to Saudi Arabia. Some detailed information about this help was gained in an interview with Mr Colin Parish, the British Consul (Commercial) in Jeddah.

He explained that they act as middlemen between the two parties involved - the Saudi businessman and the British company - providing information to the Saudis about what is available in Britain and sending their requests through to the appropriate centre in the UK (Prelink Limited, Export House, 87a, Wembley Hill Road, Wembley, Middlesex, HA9 8BU).

On the competitive position of the British IT exporters in Saudi Arabia, Mr Parish stated that all the IBM PCs imported to Saudi Arabia are from Britain, (made in Scotland). The British software is doing well in the market, compared to other material which is being sold. Most of the pirated programmes sold are

contaminated with viruses and, in contrast, the British software companies have built a very good name in selling sound software. This is because they provide guarantees and a specialist back-up service. Some software firms provide training and back-up help to their customers for fixed periods of time.

The Consulate receives many newsletters and leaflets in English and Arabic, which they distribute, together with approximately 9,000 magazines to Saudi businessmen on a regular basis.

As to whether Saudi IT importers prefer to see IT trade shows in Saudi Arabia rather than travelling to UK or USA, Mr Parish stated that the attitude was mixed. Some Saudis, before leaving on their summer vacation, consulted the British Embassy about various trade shows and fairs taking place so they could attend them. The Consulate has never had any problems in obtaining information from the Government or private sectors in Saudi Arabia.

Dissemination of IT literature in the English language does not present a major problem at the highest level of the management in companies. Many of the Saudi businessmen speak two or three languages. However, on the administrative level, there are some problems. A lot of employees do not speak English, but this does not present obstacles in the marketing of British products, especially with large companies such as Aljafali and Aljaraysi. They have many contacts and their way of marketing is very efficient. No obstacles had been encountered in obtaining information about potential IT customers in Saudi Arabia. On the contrary, the companies were very helpful, generous and open to the British Embassy.

Although, of course, trading and marketing is a difficult task in itself, travelling to another country always means a certain amount of organisation and red tape

to get through. There are many British businessmen who, when presented with the idea of travelling to Saudi Arabia and its importance, ask how much it costs, then seem to find it too expensive to go.

In connection with selling IT products in Saudi Arabia through marketing initiatives, advertising, personal contacts, etc., the Consulate organised meetings between the Saudis and the British for many products. These meetings were successful and the markets accept a lot of material. The door is open for importing. The Consulate makes all the arrangements for the British before they come here, acts as a middleman, gives information and seeks importers, etc.

It is not seen as true that large businesses in Saudi Arabia are mainly controlled by about twenty families, and that British businessmen become disgruntled with dealing with them, and give up. The Saudi market is actually very sophisticated. Every year, the level of performance in the market changes to a higher level of technique and performance. British businessmen must be made aware of this and keep abreas of what is going on. They should adapt to the market and give it what it demands.

4.7   Interviews with Saudi IT Importers

Arranging to interview IT importers in Saudi Arabia proved difficult. Many were not available for interview: most of the IT shops visited in Jeddah were managed by Filipinos, Egyptians or Indians who had no authority to speak on behalf of the owners. However, it proved possible to meet a good number of owners at the Jeddah Commtel and Computing Exhibition in April 1993. In particular, semi-structured interviews were carried out with Mr Khalid Al-Amoudi.

Interview with Mr Khalid Al-Amoudi

Al-Amoudi started by stating that he imported computers mainly from China, from a company called ASI Aquarius System Incorporated. They used to sell him whole computers but the new trend is to sell parts of the system, leaving the assembly to the Saudi company. Thus, he had to buy computer cases from a different company and assemble computers according to his customers' requirements. These customers fall into three groups.

The first group are the individuals who buy computers for their personal needs. It may be a person who owns a small business, a shop or a student at the university, etc. This group of clients seeks the lowest price. They are not concerned about the brand name. They look for certain specifications - RAM size, memory size - but most are not concerned with the question of compatibility: they may buy a computer that is 80% compatible or less, because their needs are not very sophisticated. Most of these people are not educated in using computers; they buy what they see so long as it seems to meet their needs.

The second category of customers includes the large public companies, such as Samarik, ARAMCO, etc. These purchase computers via tenders advertised in the papers or through special private tenders, and specify brand names and specification, RAM size, speed, size of hard disk, etc. Many of these companies, when they buy a computer, do not worry about the maintenance of the equipment or insuring it because they have their own technicians. They know how to operate the machines and require little assistance.

A third category comprises the Government organisations. They used to purchase computers with specified characteristics, but without mentioning the brand name. However, the trend recently is that the Government has started

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to specify a brand name - mainly IBM - along with the specification. Probably, they are doing this because of the low price that is now being asked for IBMs.

One problem with the market of today in Saudi Arabia is that there are importers who are not real tradesmen. The market is full of entrepreneurs - for example, a group of university students - who may form a company and import computers. They do not know how to deal in the market: they understand neither the financial aspects, nor the assistance required by customers. The second problem is that many customers are aware neither of the brand names, nor of the specifications. The third problem is that the customer has no desire to read the catalogue or the information which accompanies the product. When Mr Al-Amoudi sells a printer to a customer, it is boxed with a one-year warranty. Normally, the private sector or the individuals ask to try the printer first before they take it home. They do not simply accept the guarantee and also they are not willing to read how to operate the printer, but want somebody to show them how it works. The problem with customers like that is that a lot of time is spent in demonstrating and repackaging the equipment and printers, so the time available for selling is affected, and the employees' productivity falls. He cannot raise his prices to cover these demonstrations. He does not think that operating the computers and printers is difficult for people who have any experience at all, especially for those who are willing to read and follow the instructions. However, companies and manufacturers are not willing to provide translations. The reason is that compared with (say) the United States, the purchasing power in Saudi Arabia is not very great. If customers want any information about DOS, or. any computer programs, they can read about it in Arabic, but all the materials available in every computer shop have been translated locally.

A final problem is with the entrepreneurs in the market who buy small quantities, and whose prices fluctuate according to the prices of Hong Kong or other South East Asian countries. For example, Mr Al-Amoudi sells a megaboard for 450 Saudi riyals. Prices dropped because of foreign currency changes. The importers, who import from South East Asia in small quantities, lowered their prices to 375. Mr Al-Amoudi had stocked a quantity of motherboards which cost 430: lowering the price therefore meant that he made a loss.

4.8 IT Trade Shows

IT trade shows occur when a coalition of IT business firms get together to demonstrate and display IT products and services to potential customers. Trade shows are normally held at an industrial exhibition centre. Two typical trade shows will be discussed here - the CIM '92 Exhibition, held at the NEC, Birmingham, and the Commtel and Computing Exhibition in Jeddah, 1993.

IT trade shows and conventions are normally organised by trade associations and organisations concerned with the promotion of the IT industry. Leading IT firms and manufacturers who sell IT products and services rent space to display their products and services for inspection. This is an important form of sales promotion, and firms hope to generate sales, maintain relations with old customers, sell more to them, and meet new customers. Kotler (1) has stated that (85%) of attendees typically purchase one or more of the products displayed. Daniel (2) has added that 'corporations are holding exhibit staff and programmes accountable for quotas, goals and objectives'.

Successful IT Trade Shows

All types of trade shows need campaigning to get the right people to attend the exhibition. Normally, the participating firms and the organiser use a variety of approaches to stimulate good market results, e.g., financial reductions when purchasing hardware or software, or free software with the purchase of hardware.

IT Trade Shows and IT Exporters/Importers

Both the trade shows at Birmingham and Jeddah were utilised for promoting IT products and services. Their promotions mainly disseminate information to potential buyers, such as IT importers, etc. The advantage of IT trade shows over other sources of information is the bringing of all major IT products and services to one location. Thus, potential IT importers or buyers can examine products, compare prices, advantages and disadvantages of various IT products. This saves time involved in the search for suppliers or IT exporters.

The questionnaire responses from Saudi importers indicated that IT trade shows in Saudi Arabia and the Gulf States were ranked as the first most important information source, while overseas trade shows were ranked as second.

British IT exporters who export to Saudi Arabia and the Gulf States ranked overseas IT trade shows as their ninth information source and trade shows in Britain ranked sixth for IT export information.

1992 Computers in Manufacturing Show, National Exhibition Centre, Birmingham

There were about 160 exhibitors, covering most of the CIM '93. All major IT manufacturers in the UK were represented, since this was one of the main trade shows in the UK. The stands were arranged on one level only.

The products shown in this exhibition emphasised particularly software-management systems to improve management; engineering data systems to boost the efficiency of product life-cycle monitoring; factory and control systems; "knowledge-based scheduling'. There were various software program s reflecting the development of the single European market. Such software was designed for small to large businesses to handle, e.g., multiple currency and taxation requirements. There was also a stand offering free technical advice to visitors.

The CIM Conference, which ran in parallel, was also free. About 13 session conference programmes were organised during the three days. (It is claimed that the CIM conferences are the best attended in the UK.) This was said to be because the speakers present real-life problems and solutions, but the exhibition obviously also attracts people.

Commtel and Middle East Computing 93 Exhibitions

This exhibition, in Jeddah, Saudi Arabia, took place from 11-15 April, 1993 at Al-harithy's Trading Show. About 200 leading Saudi and international IT firms attended this trade show. The Saudi exhibitors included Al Alamiah Electronics Co., Binlanden Telecomms Co., Bugshan Information Systems Ltd., Jeraisy Group, Lotus Development Corporation, and so on. The show exhibited the latest developments in hardware and software, especially the Arabised

systems from IBM, MicroSoft and Alalmiah. A special offer from Al-harthy was an official catalogue containing exhibitors' profiles, Jeddah Computer Guide and product classification. The place was very crowded with visitors, to the extent that some complained they could not find the information they wanted. In terms of number of attendees, there were too few specialists available, and too little printed material. Various IT journals were, however, available, giving detailed news about specific computer companies and describing new Arabic software and new hardware. Their descriptions were carried in the form of advertising stories.

Many IT journals and newspapers were distributed free of charge at the Commtel 93. These IT journals and newspapers advertise new products and names of firms.

4.9   Interview with Mr R Newell, Director, British Overseas Trade Board, Nottingham

Mr Newell spent five years in Saudi Arabia - three years in Jeddah and then two years in Riyadh as the First Secretary in the Commercial Department of the British Embassy. One of the areas for which he was responsible was information technology. He had close dealings with companies and individuals whilst there, leaving Saudi at the end of 1987.

When the Embassies were based in Jeddah, the Commercial Department was very heavily involved in commercial work - making contacts with companies in the food and clothing sectors, and more generally in consumables and consumer goods. When the Embassies moved to Riyadh, they had much greater opportunity to meet people both the in the government and those who were working closely with the government, such as agents and fixers. The type

of work they were doing changed dramatically because they became much more closely involved in project work. A Consulate General remained in Jeddah, and carried on activities in the consumer sector. The Commercial Department in Riyadh became much more heavily concerned with the government in tendering for business, and particularly with businessmen who were concerned in working for the Princes and other senior people in the project field.

When Embassy officials were in Jeddah, they had to fly to Riyadh to spend a day there to meet a minister or a senior official. However, when they were permanently based in Riyadh, people started to come to them. For example, a Lebanese businessman who was working for one of the Princes called to say that his organisation had inside information on a big IT project which was coming up in six months' time. The Embassy staff then had to make their own enquiries, using their own contacts, to check if it was true. Their interest was, of course, in making sure that British companies obtained a good share of this business.

The British Overseas Trade Board

Mr Newell pointed out that the British Overseas Trade Board (BOTB) was not the only agency which provided assistance to British exporters. However, the BOTB has eight regional offices throughout England, (e.g., in Bristol, Birmingham, Newcastle, Nottingham), and they also have contacts and offices in Wales, in Northern Ireland and in Scotland. In the Nottingham office, there is a staff of some 18 people concerned with export work. The role of these is to assist and advise companies about their exports, with the intention either of increasing their exports, or of making their export activity more professional.

The Board get their information from databanks in this country and elsewhere. Some information is held on databanks locally; some comes from central databanks in London to which they are networked. The sort of topics covered include import tariffs, regulations, etc. Ultimately, information may come through the commercial departments of British Embassies, or from consulates general overseas. A sift is carried out in this country, and enquiries are made overseas only when there is no other way of answering them. The Board has offices in commercial departments in some 220 posts around the world, but it is expensive to keep a commercial department running in a country like Saudi Arabia.

Basic Background Data Provision

The British Overseas Trade Board can provide information on a country's economy, on the way of doing business in that county, whether a firm needs to have a joint venture approach or whether they are best advised to use a distributor or a commission agent. In other words, they will advise on what in their view is the best way of doing business in that country and also on the question of how one gets paid. In some countries, hard currency is a problem; in other countries, there are people in the market place who are not entirely reliable and one has to be careful how one does business and how one gets paid. So, the Board provides background on the overseas country, relying mainly on material collected in their databases. There are also a number of services available to British companies for which the Board charges.

Export Intelligence Services

The Export Intelligence Service is now delivered through the Board by a commercial company; information is received from embassies all around the

world who feed into the system. It might be, for example, that a company in Jeddah is looking for a British source of supply for a particular product. That information is sent through to the London office and is entered into the database. This holds a register of companies who have indicated an interest in that particular product. For example, they may have registered an interest in computer hardware and have also registered an interest in Saudi Arabia. The computer may indicate that 12 companies are interested in computer hardware and Saudi Arabia. The information then goes out directly to these 12 companies. Use of this facility is charged for nowadays, and maximum return is expected for selling this information. However, companies that are keen on doing business in the market place, and are doing it the right way, are likely to receive as much assistance as possible, regardless of payment.

Market Pointers and Feedback Information

BOTB staff also feed back project information and market pointers. For instance, if someone is going to install a new computer system, the Board may hear through the grapevine that they will be putting out a tender soon. Sometimes a minister will reveal something in conversation, or a businessman will say something. The information may, or may not be true, but it will be filtered back to British companies, particularly those known to be strong in the Middle East and in multi-systems with English and Arabic. It will be suggested that the firms send representatives to obtain as much information as possible. This information would be relayed to big companies, such as Logica, who might be in a position to tender for the business, to give them advance warning.

The Board also has a range of services which are sold to British companies. A company may want to expand their export sales and wish to talk to the Board about what to do. The Board would send one of their staff to talk to the

company to find out what they are doing at present, what they are selling and where they are doing business. For example, they may be selling in the USA and Europe. If they had a product which was thought to have good potential in the Middle East, the Board might well offer to make enquiries for them, maybe in Saudi Arabia, or in Dubai and other places in the Emirates. This may lead to the Board carrying out a full-scale market research exercise for the company concerned.

Such market research would be subsidised by the Department of Trade and Industry (DTI). The DTI would provide something like a thirty per cent grant towards the cost of employing a consultant with experience of the market place to carry out full-scale market research. They might go to one of the big consultancy companies, such as Peat Marwick, whom they would commission to do market research in Saudi Arabia for the products.

On occasions, if it is a product where the market research involves contact with the public, it can be difficult to carry out in Saudi Arabia, especially with a female audience. A number of market research companies have a team of ladies who can go into the stores and, without creating any embarrassment, talk to ladies about their preferences. They visit homes also.

Market Information Services Scheme
In this scheme, the Board asks staff in their commercial departments in Riyadh, Jeddah and the Eastern Province to provide information on the market for a particular product or service. This is not full market survey for the particular product, and it does not compete with the professional companies which carry out market research. But information, can be provided, for example, on statistics of imports and exports, to try to get a feel for the size of the market.

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Their people would advise whether the product is manufactured within Saudi Arabia or not, on tariffs, and on the state of the market. They would give a view, having spoken to some contacts in the market place, as to whether this particular product would sell in Saudi Arabia, and they would provide a list of contacts for the company in the Kingdom. These contacts might be potential customers, such as stores, they might be a list of potential distributors or agents, or they might be magazines advertising in the field. This sort of information normally takes 2-3 weeks to provide and costs the British company usually something in the region of £150. This is not a lot of money, and the information is specific to the market. It obviously does not cover the Board's costs. The charge is meant as a way of filtering out the serious enquirers from the sort of company, which used to come along before charges were made, asking for enquiries on a large number of countries, but making little use of the information that resulted.

The Export Representatives Schemes

The Board also has a rather more sophisticated package, which they call the export representatives scheme. This covers some of the same ground as the market information package, but it goes several steps further. Here, not only do their people in the market place report back on the size of the market, the potential for the market, etc., but they actually go out armed with either samples or literature from the companies concerned, and talk to commission agents, distributors, potential customers, etc., to obtain first-hand reaction. An example would be cups and saucers. Board staff would go out to a local store, show them the product, state that they are able to supply it in a particular size of container, that the cost is so much, the store would be able to retail it at so much, its quality level, whether it has this or that property, and would they be interested in selling it? The store may ask the representative to leave the

sample and say they will get back in a week when they have considered it. They will then contact the Board's people and say that it is very nice but is the wrong colour for the market, it needs to have flowers on it, or it needs to be brighter because they do not use white cups and saucers in Saudi Arabia. They might say that, if it was 10 SR a set cheaper, they could sell it - at the moment it is too expensive, it needs to be packaged in a certain way, etc. This information would be gathered from two or three different stores. The staff would then go to commission agents and ask them if they would be interested in selling the product on commission. The company may have laid down what sales they would be looking for. The Board would ask if the agents could sell that quantity and if it is a product which is of interest to them. They may not be interested, or might say they know there are comparable products in the market from Germany, America and France.

The Board can provide a company with a report of the market and information from people they have spoken to on its products, together with the names of other agents, or distributors, or companies who have actually expressed an interest in doing business with the company. They also advise on things like Saudi Arabian agency legislation, etc. The cost of this advice varies with the time it takes their staff to carry out the exercise. It can be as little as £200, or as much as £800, depending on the time, but is usually around £500.

The above are the main schemes. However, the Board also has schemes to assist British companies to visit overseas markets. Under the terms of GATT, (the General Agreement on Tariffs and Trade), the Board is not allowed to support individual companies. However, it can support groups of British companies to visit Saudi Arabia and organise trade missions. It can also support firms with money, contributing towards their travel costs and hotel bills. Trade missions may involve up to 20 people from different companies. The

Board tries to arrange publicity and contacts for them, introduces them to the Chamber of Commerce, and has a reception for them to introduce them to local businessmen. The companies then go out and research the market for themselves, make their own contacts, etc.

In addition to trade missions, the Board also subsidises groups of British companies at overseas trade fairs. This is a growing area of activity. For example, at the new Riyadh exhibition centre, the Board has supported groups of British participants at computer, food, hardware and engineering shows.

Chambers of Commerce

There are also other organisations which provide assistance for British exporters - for example, the British Chambers of Commerce. Some of the Chambers of Commerce will help companies set up an export department. They will advise them on markets, and will provide information that they have available, maybe through their Chamber of Commerce contacts, to help British companies. Around the country, a number of export clubs have been set up. Groups of companies get together and set up an information organisation or club where they talk about exports and help each other to export. There are hundreds of these clubs, usually locally based. There is, for instance, a Nottingham export association. They do not specialise in particular products; they are purely groups of companies in a region, or town, that get together to talk about the exporting problems they have, etc. There are also enterprise agencies around the country that can advise and help firms with their exports. Thus, there is a lot of help available within the UK for exporters.

Information about the market is readily available. Saudi Arabia is a very open market and if the product is a good product, if the quality is right, if it meets

local standards, if the price is right, there is no reason why it should not be sold.

Information Technology Market in Saudi Arabia

By the early 1980s, British IT equipment and software services were being very strongly promoted around the world. The UK share of the Saudi Arabian market was then minimal, because, traditionally, Saudi Arabia had been linked to the American IT market. The initial step was to visit all the major Saudi companies to find out what IT equipment they were using. Most offices, firms and banks were using IBM. There was a reasonable amount of Hewlett Packard material on the market, but mainframe equipment was either IBM or Digital. The only British company at this end of the market was ICL, which had only three installations in Saudi Arabia. They had an office in the country and co mpeted for Saudi Government business, but invariably lost out to IBM or, in some cases, Digital. They also lost out in specialist areas, because Seimens, for example, was very strong in Jeddah. It may be that their product was not always competitive in price, or they did not have the back-up support, or their salesmen were not good enough; but the main reason seems to have been because the people involved in the information technology sector within Saudi Arabia, at the mainframe end, when they thought of computers, thought of IBM, because everybody had an IBM.

IBM would also often sell extremely competitively, installing for virtually no cost to ensure they would get repeat business. Their market share was large enough to do that, and they could, and did, virtually exclude other people from the market place. In the middle range, IBM had probably something like (70%) of the market, followed by firms such as Hewlett Packard, and one or two others. IBM were also the market leaders at the microcomputer end of the

market desk-top machines and small networks were almost entirely IBM. The only IT area at that time where Britain had any impact at all was at the very low cost end - with computer games and similar items. By the latter part of the 1980s, computers were flooding in from Taiwan and, latterly, Korea. They were all IBM lookalikes and all ran IBM software.

Computers in Saudi Schools

The first country to install computers extensively in schools was Britain, and these computers used to run on a range of software. Some of the computers were Sinclair, some were Apple, some were Apricot. A major attempt was made to persuade the Saudi Ministry of Education to install British computers in Saudi Schools. The Saudi ministry agreed to invest money in computers in schools, but thought that, if they had computers in their schools, they should have IBM, and these, or compatibles, were purchased.

There is no way British hardware companies can compete with Taiwanese compatibles, basically because of cost. The market leaders in the hardware at the micro end are probably IBM compatibles from South East Asia, but, in the business field, it is still IBM.

British IT Competitiveness

The British have not been strong in hardware at the international level, in any case. Hardware companies, such as ICL, certainly have a large foreign shareholding, and are now working very closely with the Japanese. Indeed, ICL is now basically an Anglo-Japanese company. If the British have never been strong in hardware, they have proved strong in the software area. They have many software houses, most of them fairly small, developing innovative

software. An example is software for agriculture. The Board has just assisted a company to develop a major software package for the food-processing field. This is a manufacturing process which is now totally computerised to handle animal feedstuffs, where you need, when you are batch-feeding animals, to have precise inputs of certain types of vitamins. Britain is also strong in financial software. Companies like Peat Marwick, or Logica, are very strong in the banking field, both in street-corner banks, such as Barclays and Midland, foreign banks, and also in central banks, such as the Bank of England. Logica are particularly strong and active in this area in Saudi Arabia.

Competition in software in Saudi Arabia is very heavily orientated towards the USA, because American companies have been there for a long time. The problem for British firms is that it has become a highly competitive market; the Germans are very strong, whilst the Americans are exceptionally strong. The Americans have done a great deal of work in Saudi Arabia in the software area for defence, for example. The other point is that Saudi Arabia is a very expensive market in which to operate. Setting up a new operation is particularly expensive: if a firm already has a team of people there, it can cut its overheads quite considerably. So, if you are an American company, with 30 staff working in the Kingdom, with a speciality maybe in the defence sector, and you are bidding for a major software contract with Petromin, or with one of the Ministries, you have a considerable advantage.

Many of the bigger companies have already become markedly multinational in their recruitment patterns, and the Philippines, for example, have become a very good source of high quality computer technicians. Some companies are therefore staffing their projects in Saudi Arabia with Filipinos, who are cheap to employ, but very proficient. The British have been rather slow in coming to terms with this approach, because they have always had the feeling that, if you

buy British software, or sign a contract with a British software house, you expect a British technician, or a British software engineer, to do the work. However, when it comes to winning a project on the basis of price, a firm with such a belief is likely to miss out, because a company using Filipinos quotes a much cheaper price.

How British IT Exporters Inform Saudi Importers Through the BOTB System

Any British company in any field which wants to have its products publicised overseas can have them incorporated in the Board's publication, 'New Products from Britain', paying maybe £15-20 for the privilege of being included. This forms part of the Board's export services package which is run on behalf of the DTI by the Central Office of Information. What happens is that a company will select a market in which it wants to have its products publicised and then, through the Central Office of Information, the BOTB passes an article about the company's products or equipment to their people overseas. They, in turn, will use their best endeavours to place it either in trade papers, daily papers, or any publication that is available in the market. Further assistance may be obtained from an Embassy newsletter which goes to all the importers and commission agents and provides information on products and services available from Britain.

CHAPTER FIVE

THE ANALYSIS

The first four sections of this descriptive analysis will be structured and presented in a specific order. For example, the results on Saudi IT importers will be presented in the following sequence:

- The analysis of the information-seeking behaviour of small, medium and large-sized Saudi firms in terms of various information sources.

- The analysis of obstacles to the information-seeking behaviour of Saudi small, medium and large-sized firms.

- The analysis of predicting the information-seeking behaviour of Saudi firms in terms of various information sources and their obstacles.

- The results of testing the initial hypotheses.

5.1 ANALYSIS OF THE INFORMATION-SEEKING BEHAVIOUR OF SAUDI IT IMPORTERS

Small-Sized Saudi IT Importers

It seems that small Saudi IT firms like to have readily available information tailored to their needs from the information brokers and Government organisations, rather than doing the research themselves. This perhaps is due to the cost and time involved in doing market research. Moreover, small firms

do not have the capacity or the capability of medium or large firms either financially, or in terms of the number of employees. Seven of the possible information sources seem likely to be utilised infrequently, These sources are public libraries, special libraries, agent finders, local databases, international databases, Saudi Chambers of Commerce.

Medium-Sized Saudi IT Importers

It seems that medium-sized firms search a variety of sources of information in the IT export/import area with a tendency to prefer trade papers and trade shows. Medium-sized firms are likely to want to know what is going to come to the market soon, rather than seeking for new exporters. Part of their information-seeking behaviour is targeted toward seeking information which will help support the line of products that concerns them and the IT exporters they deal with.

Large-Sized Saudi IT Importers

One might think large firms have more ability to handle, and money to spend on obtaining information than other sized firms, and that they would therefore differ in terms of their information activities. It was surprising to find that large IT exporters actually act much as the others do.

Saudi Firms of all Sizes

It is not surprising to find that public libraries, special libraries, information brokers and agent finders are among the least utilised information sources. These results support statements made by Kolter and Vichas, mentioned in the second chapter, that libraries are considered as less important

information sources so far as marketing is concerned. Information brokers and agent finders are not very well recognised activities in Saudi Arabia. The least frequent sources sought for information among those utilised by the Saudis, are special contacts, often meaning special relations between a Saudi IT importer and someone who lives in the exporting countries. This form of communication is used infrequently, perhaps due to the linguistic and cultural obstacles.

It is also not surprising to find that trade shows in Saudi Arabia, overseas trade shows and trade papers are the three main sources of information. Trade papers will be discussed in detail in section 5.4. It seems that, for Saudi IT importers, these trade shows are good opportunities for information exchange. They help build relationships between the end-customers, importers and exporters. This idea of human interaction and information exchange as a fundamental of human information-seeking behaviour is presumably a function of trade shows.

ANALYSIS OF EXPORT/IMPORT INFORMATION OBSTACLES FOR SAUDI IT IMPORTERS

Small-Sized Saudi IT Importers

One of the major problems of small firms, as with all other Saudi IT importers, is obtaining information about potential exporters. This seems to be due to low or inefficient utilisation of information sources, such as finding special contacts in overseas countries, and utilising agent finders or information brokers, as well as foreign Chambers of Commerce. It should be noted that all the major obstacles shown in Chapter Four are related to each other. Small firms, like other IT export/import firms, are likely to seek information that can be used directly to produce practical consequences. Such information includes

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assessing their potential market in Saudi Arabia, and watching the influence of the world market on themselves. They need to know new ways of sales presentation for their existing line of products, and to compare their effectiveness in the market with others. Moreover, they have to think of low-cost ways to find all this information within their IT small firm constraints. It seems impossible for a firm of two or three employees to handle all this information while selling and servicing their customers.

Medium-Sized Saudi IT Importers

It seems that, when the size of the firm is increased, some of the information-seeking obstacles disappear. Medium-sized firms may have the capacity to employ translators. Thus, they have few linguistic problems. They may well be expanding, so their marketing department is at its full strength. It is also expected that since medium-sized firms have become established in the market they have passed through the small firm problems. Difficulties such as bank LC and payment have been resolved. They know how to deal with them. Moreover, they have established good credit with their exporters. Thus, the results showed only three information obstacles. Those concerned with obtaining information about foreign IT exporters may be related to foreign regulations. IT firms in Saudi Arabia cannot open as many branches as they want in the Gulf States. To have a licence to open a branch is not usually permitted for medium-sized firms, but large firms, such as the Alalimiah, or Al Jeraisy, might be able to obtain one. Thus it may be difficult for medium-sized Saudi firms to launch their own line of products and compete in Kuwait or in other Arab States. In addition, medium-sized firms may be doing so well in Saudi Arabia that they do not wish to generate more business elsewhere. Of course, they need information which will help them make their decisions, but government regulations may stand in the way of their expansion. After all, each

country in the region wants to protect its industries from foreign competition.

Large-Sized Saudi IT Importers

Large Saudi IT importing firms appear to be seeking most information about IT exporters. As has been described in the first chapter, large IT firms in Saudi Arabia are trying to provide a total solution, to computer purchasers' problems. Thus, they want to gather as many IT products as they can in their shops from various countries, and so are seeking IT exporters from Korea, Japan, China and so on. Some of these exporters do not have Arabic translators, or even good English, to deal with Saudi importers. Hence, marketing, making necessary contacts, and obtaining information about these IT exporters from various countries is a problem for the Saudis. Saudi government regulations, Bank LC and payment are not among their information obstacles, since large IT firms are already well informed about these. They do not utilise special contacts or overseas consultants and agent finders as sources of information, presumably because their own staff can fulfil these functions. They do use international databases more than the others.

Export/Import Information Obstacles for all Saudi IT Importers

Some British IT exporters' way of managing their business could appear to Saudi IT importers as an obstacle. Thus some innovative firms prefer to stay small and successful within Britain, rather than going abroad and having to expand. Perhaps also the Saudi regulation that a foreign business must have a Saudi partner to operate in Saudi Arabia is a deterrent. It is clear that this regulation is not acceptable to some British businessmen. The British who were seen during the IT trade shows in Britain, as will be explained later, would rather not do business in Saudi Arabia if they cannot take full control of it. Thus, they

see it as too risky for them to engage in an imposed partnership with a foreign businessman. Consequently, from the British IT exporters' point of view, it is the Saudi Arabian regulations which are to blame for restricting trade. It must be added that linguistic problems face some Saudi Arabian IT importers and UK exporters.

PREDICTING INFORMATION-SEEKING BEHAVIOUR FOR SAUDI IMPORTERS

Small-Sized Saudi IT Importers
Chambers of Commerce and government organisations are as useful sources of updating information for these firms as trade shows or trade papers. The latter sources of information may be relatively low in use because the information provided by them is available to everybody else, so it is less likely to give a competitive advantage. Information sources reported as having least possible use include public libraries, information brokers, agent finders and special contacts. This may be due partly to ignorance, partly to cost and partly to the insistence, particualrly of small firms, on secrecy.

Medium-Sized Saudi IT Importers
The least used sources of information are similar to those for small-sized firms, and the explanations are likely also to be similar.

Large-Sized Saudi IT Firms
Large firms are best placed to exploit foreign sources of information. Consequently, foreign Chambers of Commerce are important. The British

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Embassy in Saudi Arabia is one of the large Saudi IT importers' special contacts with UK IT exporters.

CONCLUSION ON PREDICTING SAUDI ARABIAN INFORMATION-SEEKING BEHAVIOUR

It is reasonable to visualise that potential customers and clients, after seeing trade shows and learning about firms and their products, should want to read more about them. Thus, reading trade papers seems often to be a follow-up of products seen in trade shows. Trade papers, as will be described later, give details of product specifications and prices, as well as trends in the market for various products. It is not surprising, therefore, to have a prediction of high use of trade papers. The prediction also sees a greater role for Chambers of Commerce in Saudi Arabia, with more use than the moderate current usage. It is sensible to foresee greater roles for foreign embassies in Saudi Arabia, especially while the USA, UK and other industrial countries are trying to develop the free trade market. Thus, foreign Chambers of Commerce in Saudi Arabia, as well as in other countries, may become the front line in advancing exporting, and be significant sources of information for importers and for individual customers.

CONCLUSIONS ON PREDICTING SAUDI ARABIAN EXPORT-IMPORT INFORMATION OBSTACLES

It is likely that Saudi IT importers will have problems in obtaining information about exporters, and in making the necessary contact with them in foreign countries. One of the contributors to this problem is the linguistic one. Marketing informaton is still a major obstacle, but not as high as the linguistic obstacle. Saudi IT importers' information-seeking behaviour has perhaps added

to this. Saudi IT importers' only infrequently seek information from information brokers, and through agent finders, who should, in principle, be capable of handling the language problem. The BOTB in the British Embassy in Jeddah should be the main contact with all IT exporters in the UK, but is not perhaps sufficiently used, or not utilised as it should be.

Testing the System/Cognitive Hypothesis

The system/cognitive hypothesis as described in Table 12 assumes there are no differences between the small, medium and large-sized IT importers, and/or export firms either in their information-seeking behaviour or in the obstacles to information-seeking that they face.

The results of testing the hypothesis for small and medium Saudi IT importers showed a significance in the way they seek export/import information. The direction of these differences is that the small firms use information brokers and special contacts, while the respondents from the medium-sized firms never consider these as sources of information. Small firms also use overseas consultants and government organisations more than medium-sized firms. However, medium-sized firms used three other sources more than small firms. These are trade papers, trade shows in Saudi Arabia and overseas trade shows.

The small and large-sized Saudi IT firms also prove to be different. The direction of the difference, as can be seen from the tables in Appendix B, and from the chart in the last chapter, is that the small firms tend to use public libraries, information brokers, agent finders and overseas consultants more than large-sized firms. However, large-sized firms use international databases and trade shows in Saudi Arabia more than small firms.

THE SYSTEM/COGNITIVE HYPOTHESIS TESTING RESULTS FOR THE SMALL, MEDIUM AND LARGE SAUDI IT IMPORTERS

TABLE 12

HYPOTHESIS DESCRIPTION	NAMES OF PAIRS OF FIRMS ENTERING THE TESTING	K.S. STATISTICS RESULTS	TABLED VALUE FOR LEVEL OF ACCEPTANCE .025	TWO-TAIL PROBABILITY OF K.S. RESULTS	RESULTS OF TESTING THE NULL HYPOTHESIS
There should be no difference in the information-seeking	Saudi importers Small-medium firms	1.5	.55	0.20	REJECT
behaviour among the small, medium and large sized firms within each	Saudi IT importers Small-large IT firms	1.13	.55	0.15	REJECT
one of the main groups investigated	Saudi IT importers Medium-large	1.32	.55	0.06	REJECT

K.S is Kolmogorov-Smirnov Two Sample Test

Saudi medium-sized and large firms are also different in their information-seeking behaviour. The source of the differences, and rejection of the null hypothesis for these two groups, comes from the greater use of four information sources by the medium-sized firms. These are public libraries, agent finders, local database and trade papers. The large-sized firms, in turn, used four information sources more than the medium-sized. These are information brokers, international databases, government organisations and special contacts.

Testing the Export/Import Hypothesis

The description of the hypothesis and the results of testing as shown in Table 13 relate to export/import information-seeking obstacles. The small and medium-sized Saudi IT export firms showed significant differences. The direction of these differences, as can be seen from the chart and Table D in Appendix B, is that the small firms have more obstacles relating to linguistic problems, marketing problems, Saudi government regulations, bank LC and payments. However, medium-sized firm face certain obstacles which give them greater difficulties than small firms. These are obtaining information about potential customers, and foreign government regulations.

The small-sized Saudi firms and the medium-sized firms are different in their information obstacles, the small firm having more obstacles. The small firms suffer three obstacles that large firms never complain about. These are Saudi government regulations, bank LC and payments. However, large firms experience more obstacles than smaller firms in terms of linguistic and marketing problems and foreign government regulations. The medium-sized firms and large-sized Saudi firms also differ. Large firms have linguistic and marketing obstacles, which medium-sized firms do not, because of their wider-ranging activities. Medium-sized firms have only three significant obstacles.

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EXPORT/IMPORT HYPOTHESES TESTING RESULTS FOR THE SMALL, MEDIUM AND LARGE SAUDI IT IMPORTERS

TABLE 13

HYPOTHESIS DESCRIPTION	TYPES OF PAIRS OF FIRMS ENTERING THE TESTING	K.S STATISTICS RESULTS	TABLED VALUE AT LEVEL OF ACCEPTANCE .025	TWO-TAIL PROBABILITY of K.S. RESULTS	RESULTS OF TESTING THE NULL HYPOTHESIS
There should be no differences among small, medium and	Saudi small and Saudi medium sized firms	1.75	.74	0.004	REJECT
large Saudi IT importers in terms of the export/import	Saudi small and Saudi large sized firms	2	.74	0.007	REJECT
obstacles affecting their information-seeking	Saudi medium and Saudi large-sized firms	.75	.74	0.627	REJECT*

K.S. is Kolmogorov-Smirnov Two Sample Test

* Explanation of how these rsults are significnat can be found in the testing analysis of this Table.

These are obtaining information about potential customers, foreign government regulations and linguistic problems.

5.2 ANALYSIS OF THE BRITISH IT EXPORTERS WHO EXPORT TO SAUDI ARABIA AND/OR THE GULF STATES

The analyses relate to the data gathered from British IT exporters to Saudi Arabia and/or the Gulf States. These analyses will be presented in the same format as before, beginning with the analysis of information-seeking behaviour and information-seeking obstacles of small, medium and large-sized British IT exporters. A prediction of the latter group's information-seeking and obstacles will also be discussed.

ANALYSIS OF THE INFORMATION-SEEKING BEHAVIOUR OF BRITISH IT EXPORTERS

Small-Sized British IT Exporters to Saudi Arabia and the Gulf States

The utilisation of the various information sources by the small British IT exporters may be related to size. It seems that they rely heavily on British government support. Their first source is BOTB, their second - British Chambers of Commerce, and their third is the Saudi Chamber of Commerce in the UK. This suggests that small British IT exporters seek free sources of information, but with high credibility. By way of contrast, agent finders and information brokers figure lowest on their list. These sources cost money and their credibility to small firms is not as strong as government sources of information. Correspondingly, their special contact with Saudi Arabia is the Saudi Chamber of Commerce in the UK.

The result showed very low utilisation of overseas trade shows, despite the encouragement offered to them in the UK from the BOTB or DTI. It is probably too risky at the small-sized firm stage to reach out to foreign countries when they are not established firmly at home.

Medium-Sized British IT Exporters

It is obvious that the groups of medium-sized firms utilised the BOTB for help and support. It appears that they have developed considerable feedback information channels, through the BOTB, through their distributors, and through their special contacts in Saudi Arabia and the Gulf States.

Medium-sized firms are able to appoint agents or distributors in a foreign country, who serve as information providers for their marketing. Moreover, they have special contacts, probably special customers, who act as advocates of the firm, and who like to see the firm competing in the market. This contrasts with small firms. The medium-sized firms still rely on the BOTB, and not on themselves, in searching for importers, or new markets. They do not have the capacity, or the capability, of large firms to rely only on their special contacts. (Special contacts for them are probably their agent, or marketing department, or marketing firms operating in Saudi Arabia or the Gulf States).

Large-Sized British IT Exporters

Large-sized IT exporters are able to rely on themselves and their distributors. The latter seem to provide major channels of information flow. Probably local distributors provide unique information related to the problems they have at hand. The BOTB is a channel for initiating new markets and is likely to refer customers in Saudi Arabia to large firms. It was perhaps a little surprising to

find that the large British IT exporters make little use of trade shows in the UK or overseas, or the Saudi Chamber of Commerce in the UK.

Comparison of the Information-Seeking Behaviour of British IT Exporters to Saudi Arabia and the Gulf States

Table E in Appendix B shows all the sources used by all British IT exporters to Saudi Arabia. Their prime information source is the British Overseas Trade Board. The BOTB uses special contacts to supply information about products needed which British firms may be able to supply competitively. The second prime source of information is local distributors, who provide a trustworthy information source for the large or medium-sized firm who can afford to use them. Thus, it is not surprising that this source is considered to be one of the best. Special contacts appear as the third main information source. The special contacts in Saudi Arabia and the Gulf States are typically developed over a period of years. A satisfied customer will bring other customers. Special contacts in Saudi Arabia are likely to channel information through personal communication, talking to people about the products and the firm.

There are a group of three sources of information which may be considered as of rather similar significance. These are trade papers. British Chambers of Commerce and British government organisations. Trade papers give wide background information to provide current awareness in IT trading. Chambers of Commerce and government organisations provide contacts with overseas markets. It was somewhat surprising to note that trade shows in Britain and Saudi Arabia are infrequently used. It seems that all the preferred sources are low-cost sources, compared with utilising trade shows, which requires moving hardware, software, personnel, paying for hotels, airline tickets and the equipment as well as hiring space at shows. Thus it can be said that the

tendency is to use all possible low cost sources of information.

ANALYSIS OF THE EXPORT/IMPORT INFORMATION OBSTACLES OF BRITISH IT EXPORTERS

Small-Sized British IT Exporters

The Saudi government regulations insisting that companies cannot operate in Saudi Arabia by themselves is sometimes an obstacle. There is the further problem with the Saudi regulation that, when an agent is given exclusive agency, it cannot be changed. Small British firms cannot do any marketing without going through a proper Saudi agency, and this they often cannot afford.

Medium-Sized British IT Exporters

Making necessary contacts with importers and persons who can authorise decisions about purchasing IT products is difficult. Thus marketing problems and obtaining information about potential customers are related problems. They both concern learning about, and extracting information from customers and competitors. Linguistic obstacles due to communicating in different languages, and the consequent need for translators are another problem which increases product costs. The money issue is a problem when exporters want to receive their money after shipping the products to importers using bank LC. Payment problems also arise when small firms in Saudi Arabia are interested in IT products from medium-size or small-sized export firms, but cannot pay cash.

Large British IT Exporters

There are obstacles in the way of contacting those who make decisions about export/imports, and the purchasing of IT products. It is surprising that large

firms who deal with Saudi Arabia still have difficulties relating to bank LC and payments. However, clearing a cheque coming from Saudi Arabia through the UK banking system takes longer than expecte - two to four weeks - which can pose cash flow problems when large sums of money are involved.

ANALYSIS OF PREDICTING INFORMATION-SEEKING BEHAVIOUR OF SMALL, MEDIUM AND LARGE-SIZED BRITISH IT EXPORTERS

It is expected that these three sizes of firm will utilise the BOTB as their prime source to find importers in Saudi Arabia and the Gulf. There is an attitude of trust to this source of information. The second main source expected to be used by British IT exporters is their local distributors. These may either be the actual distributors or the marketing department in their offices in Saudi Arabia.

CONCLUSION ON THE EXPECTED INFORMATION-SEEKING BEHAVIOUR OF ALL BRITISH IT EXPORTERS

It seems reasonable to suppose that IT trade papers will be utilised more to advertise and convey information about British IT products. British IT news may also receive better attention or coverage in the Saudi and Gulf States newspapers and magazines as a means of promoting these industries. From the current trends in marketing and from the work of the BOTB, trade shows in the UK or overseas should help increase the presence of the British IT exporters.

ANALYSIS OF PREDICTING INFORMATION-SEEKING OBSTACLES FOR SMALL, MEDIUM AND LARGE-SIZED BRITISH IT EXPORTERS

This prediction is similar for all the sizes of firm. The difference between them

may lie in the order of the three most usually expected obstacles - obtaining information, making necessary contacts and marketing. Depending on the circumstances, these may be permuted for different types of firm.

Testing the System/Cognitive Hypothesis for British IT Exporters

The objective of testing this hypothesis is to find if there is any difference in information-seeking behaviour between the groups. The results for all three tests show significant differences as in Table 14. The differences between the small-sized British firms and the large British firms look minimal in the table, but they are significant, as will be explained later. The results between the small and medium-sized firms are clearly significant. The differences can be seen in Table E in Appendix B, and by looking at the related charts. They indicate that small firms utilise some sources more than medium-sized firms and vice versa. For example, small-sized British firms use information from British Chambers of Commerce and also special lists more than medium-sized firms do (see Appendix B). Equally, small-sized Saudi firms use Saudi government information sources more than medium-sized Saudi firms do (see Appendix B). Small British firms used British Chambers of Commerce to an extent of 11.6% while medium-sized firms used them only to 4.3%. Small firms utilised Saudi government organisations to 8.7% while medium-sized firms had a figure of 4.3%. Small firms used special libraries to 2.9%, whilst none of the medium-sized firms mentioned any usage of them. Thus, the small firms utilised some sources more than medium-sized firms. However, British medium-sized firms utilised some sources rather more than small firms. There was a small difference in use of local databases and trade shows in Saudi Arabia - 4.3% for medium-sized firms and 2.9% for small firms. Medium-sized used local distributors and special contacts to the extent of 13.0%, while small firms used them to 8.7%.

The differences between the small and large-sized firms is significant. Although the differences look small they are actually important. The problem is that the distribution pattern of usage showed a certain symmetry in utilising different sources; this affected the K-S results to show low differences existing between

THE SYSTEM/COGNITIVE HYPOTHESIS TESTING RESULTS FOR THE SMALL, MEDIUM AND LARGE BRITISH IT EXPORTERS

TABLE 14

HYPOTHESIS DESCRIPTION	SIZES OF PAIRS OF FIRMS ENTERING THE TESTING	K.S STATISTICS RESULTS	TABLED VALUE AT LEVEL OF ACCEPTANCE .025	TWO-TAIL PROBABILITY of K.S. RESULTS	RESULTS OF TESTING THE NULL HYPOTHESIS
There should be no difference in the information seeking behaviour among the small, medium and large sizes of British IT exporters who export to Saudi Arabia and the Gulf States	Small and medium sized firms	1.71	0.50	0.005	REJECTED
	Small and large sized firms	0.51	0.50	0.95	REJECTED
	Medium and large-sized firms	1.71	0.50	0.005	REJECTED*

K-S = Kolmogov-Smirnov Two-Sample Test

the two sizes. The sources used more by small firms are as follows:

			Used by small firms	Used by large firms
	(	British Chamber of Commerce	(11.6%)	(6.1%)
	(	Saudi Chamber of Commerce	(10.1%)	(4.5%)
A	(	Trade shows in Britain	(7.2%)	(3.0%)
	(	Special libraries	(2.9%)	(0.0%)

This can be balanced against the following greater usages by large firms:

			Used by large firms	Used by small firms
	(	Local distributors	(15.2%)	(8.7%)
	(	International databases	(7.6%)	(1.4%)
	(	Saudi Chamber of Commerce	(6.1%)	(1.4%)
B	(	Agent finders	(1.5%)	(0.0%)
	(	Special contacts	(13.6%)	(8.7%)

Thus there are significant differences between the small and large-sized British firms as shown in the sources above (Tables A and B). The small British firms used the references in group A at least 50% more than the large firms. However, the large British firms typically used group B references over 50% more than small British firms. Although the K-S statistics are accurate and sensitive in indicating differences to the overall percentage has to be made in looking at sub-groups, as here.

Table E in Appendix B indicates the differences between medium and large-sized firms. Two information sources were used somewhat more by medium-sized firms. These are local databases - medium-sized firms (4.3%); large firms (1.5%). The British Overseas Trade Board was used 17.4% by medium-sized firms and 10.6% by large-sized firms. However, the large-sized firms used internal databases (7.6%), whereas the medium-sized used them not at all. Large firms used the Saudi Chamber of Commerce (6.1%), and again the medium-sized firms used them not at all. There are also differences of one or

two per cent in all the sources utilised.

Testing the Export/Import Information Obstacles of British IT Exporters to Saudi Arabia and the Gulf States

Table 15 shows export/import information obstacles. The objective of the this test is to see if there is any difference between the groups in terms of their information obstacles. The results do, indeed, suggest significant differences. These differences are best reviewed in Table F, Appendix B, and from the charts of relating to information-seeking obstacles of small British firms in Chapter Four. Obtaining information about potential customers is an obstacle to 28.2% of small firms, wheeas the smaller proportion of 18.8% of the medium sized firms find it an obstacle. About 7.7% of small British firms face information obstacles caused by British government regulations and bank LC, while none of the medium sized firms suffer from this problem. However, about 12.5% of this group of medium-sized British firms face linguistic problems, while only 2.6% of the small firms recognised this as an obstacle. About 18.8% of medium-sized firms have market problems, whilst 10.3% of the small firms find this an obstacle. Payment is a major obstacle for 12.5% of the medium-sized firms, but for only 5.1% of the small firms.

There are also significant differences between small firms and large firms, as shown in Table 15 and in the charts of information-seeking obstacles of small and large British firms. One slight difference is that 4.9% of large firms face linguistic problems, as compared with 2.6% of small firms. More importantly, 19.5% of large firms have marketing problems and the same percentage of large firms have problems with Saudi government regulations, while only 12.8% of small firms have this problem. The large firms have fewer bank LC problems (2.4%), while 7.7% of small firms face this obstacle.

TESTING HYPOTHESES CONCERNING THE EXPORT/IMPORT INFORMATION OBSTACLES FOR SMALL, MEDIUM AND LARGE BRITISH IT EXPORTERS

TABLE 15

HYPOTHESIS DESCRIPTION	SIZES OF PAIRS OF FIRMS ENTERING THE TESTING	K.S STATISTICS RESULTS	TABLED VALUE AT LEVEL OF ACCEPTANCE .025	TWO-TAIL PROBABILITY of K.S. RESULTS	RESULTS OF TESTING THE NULL HYPOTHESIS
There should be no difference among small, medium and large sized British 1 IT exporters in terms of export/import information seeking obstacles	Small and medium sized British 1 firms	1.25	0.74	0.087	REJECTED
	Small and large sized British 1 firms	0.75	0.74	0.62	REJECTED*
	Medium and large-sized British 1 firms	1	0.74	0.27	REJECTED

K-S = Kolmogorov-Smirnov Two Sample Test

British 1 = British IT exporters to Saudi Arabia and the Gulf States

*   Though the difference looks small here, this is a consequence of the way K-S statistics. As explained in the text, there is actually a significant difference.

The medium and large-sized British firms are also different in their experience of information-seeking obstacles. The medium-sized firms face linguistic and payment problems to the level of 12.5%. However, these obstacles only represent obstacles to 4.9% of large firms. Large firms find that Saudi government regulations can be information obstacles (19.5%) but this is of somewhat lesser importance to medium-sized firms (12.5%). About 2.4% of large firms have bank LC problems, while none of the medium-sized firms reported this as an obstacle.

5.3 ANALYSIS OF BRITISH IT EXPORTERS WHO EXPORT TO OTHER COUNTRIES

The analysis of this section will follow the same structure as the previous sections. The analysis of information-seeking behaviour, and export/import information obstacles for all three sizes of British IT firms in this group, will be presented first. Expectations regarding information-seeking behaviour and export/import information obstacles will follow.

ANALYSIS OF THE INFORMATION-SEEKING BEHAVIOUR OF BRITISH IT EXPORTERS TO OTHER COUNTRIES

Small British IT Exporters to Other Countries

For small British IT export firms. the emphases are on sources which give them wide exposure to what is going on in the IT market. Trade papers will provide information on advertising, new products, and promotions, so they can keep up to date with the larger participants in the IT market.

British government organisations were used by small firms because they obtain more advice and help from such sources. Their success is vital to the British

economy. Using government organisations as sources is essential because of their size constraints. Trade shows are another prime source of information, and places where the small firms can have more direct contact with others. Thus, they can provide information about themselves and their products, and the attitudes of IT customers can be formed through more direct interaction. Small firms also depend on the BOTB as a prime information source, which can give them access to foreign markets. They also use Chambers of Commerce and overseas trade shows which are needed to enable them achieve exposure to world markets. This information-seeking behaviour arises naturally when they are looking for new markets for their IT products. It is important to note that these firms are not yet exporting to Saudi Arabia or the Gulf States, but are looking for opportunities to do so.

Medium-Sized British IT Exporters to Other Countries

It seems that medium-sized British IT exporters have generally utilised all possible information sources in the list. They emphasise the British Overseas Trade Board more than small-sized firms. The BOTB can be seen as many sources in one, located in every British embassy in the world, including, for those who export to Saudi Arabia, the unit in the British Embassy concerned with exports to Saudi Arabia. Their first and second main information sources are British government information sources, trade papers and overseas trade shows.

Large-Sized British IT Exporters

Large firms have access to most of the reference materials required for their business via their own special libraries. Thus they do not use public libraries. Agent finders are used most by small firms, less by medium-sized, and not used

at all by larger firms. Because larger firms have overcome a number of the information problems that plague smaller firms, the remaining problems loom relatively larger for them.

ANALYSIS OF THE INFORMATION-SEEKING OBSTACLES OF BRITISH IT EXPORTERS TO OTHER COUNTRIES

Small-Sized British IT Exporters to Other Countries

Linguistic problems are perhaps one of the obstacles that deter them from the Saudi market. They are also deterred by the effort needed in such areas as marketing, making necessary contacts and obtaining information about customers.

Medium-Sized British IT Exporters to Other Countries

Their problems are similar to those of small firms, though perhaps tackled with a greater sophistication.

Large-Sized British IT Exporters to Other Countries

Marketing problems, making necessary contacts and obtaining information are the three problems which are also specified by large firms, whether British and Saudi. The difference is that they have better methods of solving them than smaller companies.

ANALYSIS OF THE EXPECTED INFORMATION-SEEKING BEHAVIOUR OF BRITISH IT EXPORTERS TO OTHER COUNTRIES

Trade shows are powerful sources of information where IT customers can

examine IT products and try them out without commitment to purchase. Public libraries, special libraries, international databases, agent finders, information brokers and local databases are expected to be utilised less than trade shows. The reason is that these latter sources do not provide firms with direct contact to the people they need. Their information provision is often rather basic, covering names of firms, places, regulations and so on. Sources of high interaction with potential customers, clients and advocates are probably wanted more than others. This is provided by trade shows and perhaps also by interacting with BOTB experts. At the same time, trade papers are a main source of information because they bring up-to-date news, advertising and news about new products coming to the market, as well as promotions.

The relevant predictions are contained in Table A, Appendix B. The charts in Chapter Four have more refined predictions which take into account the sizes of firms. Trade papers and overseas trade shows are predicted as the most likely source to be utilised. This is followed by trade shows in the UK, then foreign Chambers of Commerce. Special contacts are predicted to be used even though they have not been used by this group before.

ANALYSIS OF EXPECTED INFORMATION-SEEKING OBSTACLES TO BRITISH FIRMS WHO EXPORT TO OTHER COUNTRIES

Obstacles related to marketing, making necessary contacts and obtaining information about customers are all aspects of one problem. This is finding information for making contact with the right people and providing what they want. Saudi government regulations are a lesser, but still important obstacle. This arises because new firms want to do marketing and investigate the market themselves. They find themselves in difficulties with the Saudi government because they cannot go to the country and search themselves for their

marketing. The Saudi government does not issue a visa to enter the country for business, unless the person requesting it is invited by a Saudi business man or a friend. It is also logical for IT importers not to invite anyone unless they know him, or they already have an interest in his business. Moreover, some businessmen will not invite anyone for such purposes unless they know that they will be selected to be the agent for the firm invited. Thus, the finding is that the BOTB and British government organisations are the only way for any small or medium-sized British exporters to obtain help to enter the Saudi market.

TESTING THE SYSTEM/COGNITIVE HYPOTHESIS CONCERNING BRITISH IT EXPORTERS TO OTHER COUNTRIES

The system/cognitive hypotheses described in Table 16 are concerned with finding the differences in information-seeking behaviour between the various British IT exporters who export to countries other than Saudi Arabia. The analysis of this latter group can be compared with other British and Saudi groups. The table suggests significant differences in all the three tests. To analyse these differences and their direction, Table G in Appendix B can be used, as well as the charts in Chapter Four.

The hypothesis testing of small and medium-sized firms' information-seeking behaviour showed significant differences. They are, however, not large in percentage terms. Medium-sized firms utilised information brokers (3.7%) and local databases (3.7%), while small firms never used either. Special libraries and agent finders were each used by 3.7% of medium-sized firms, but by more small firms (7.1%). The BOTB was utilised by 14.8% of medium-sized firms and 9.5% of small firms.

TABLE 16

HYPOTHESIS DESCRIPTION	SIZES OF PAIRS OF FIRMS ENTERING THE TESTING	K.S STATISTICS RESULTS	TABLED VALUE AT LEVEL OF ACCEPTANCE .025	TWO-TAIL PROBABILITY of K.S. RESULTS	RESULTS OF TESTING THE NULL HYPOTHESIS
There should be no difference in the information seeking behaviour among the small, medium and large-sized British IT exporters to other countries	Small and medium sized firms	1.76	0.58	0.003	REJECTED
	Small and large sized firms	1.56	0.58	0.014	REJECTED
	Medium and large-sized firms	0.78	0.58	0.56	REJECTED

K-S = Kolmogorov-Smirnov Two-Sample Test

British 2 = British IT exporters to other countries

The small and large-sized firms are also different in their use of information sources. The major sources used differently can be seen in Table G, Appendix B. Public libraries are used by 9.5% of small firms, but large firms did not report any usage of public libraries. Small firms did not use information brokers, but large firms did (3.4%). Small firms used agent finder services (7.1%) but this source was never used by large firms. Finally, 3.4% of large firms used local databases, while none of the small firms used this source.

The tests also show that medium and large-sized firms are different in their information-seeking behaviour. These differences relate to the use by medium-sized firms of public libraries and their non-use by large firms.

It also relates to the use of agent finders by medium-sized firms (3.7%) and their non-use by large firms. A further difference lies in the use of overseas consultants by large firms (10.3%) and by medium-sized firms (3.7%).

TESTING THE EXPORT/IMPORT INFORMATION-SEEKING OBSTACLES OF BRITISH IT EXPORTERS TO OTHER COUNTRIES

Table 17 contains a description of the hypotheses relating to information-seeking obstacles which might deter some British exporters from exporting to Saudi Arabia. The purpose of the test is to find out if these firms differ in their experiences of various obstacles. The results of these tests were significant in that each one of the three groups differ in their experience of obstacles. The direction of these differences will be analysed below.

The small and medium-sized firms were different in their experience of all eight possible obstacles. This can be seen from Table H in the Appendix and the chart in Chapter Four. One difference is that medium-sized firms experience

TESTING HYPOTHESIS CONCERNING THE EXPORT/IMPORT INFORMATION-OBSTACLES FOR SMALL, MEDIUM AND LARGE BRITISH 2 IT EXPORTERS

TABLE 17

HYPOTHESIS DESCRIPTION	SIZES OF PAIRS OF FIRMS ENTERING THE TESTING	K.S STATISTICS RESULTS	TABLED VALUE AT LEVEL OF ACCEPTANCE .025	TWO-TAIL PROBABILITY of K.S. RESULTS	RESULTS OF TESTING THE NULL HYPOTHESIS
There should be no difference among small, medium and large sized British IT exporters to other countries in their export/import information obstacles	Small and medium sized firms	0.75	0.74	0.62	REJECT*
	Small and large sized firms	1.25	0.74	0.08	REJECT
	Medium and large-sized firms	1.25	0.74	0.08	REJECT

K-S =Kolmogorov-Smirnov Two-Sample Test

British 2 = British IT exporters to other countries

*   Discussion of how significant this result is can be found in the text.

slightly more linguistic problems (15.4%), than small firms (11.1%). Small firms have major problems in making necessary contacts (27.8%) but for medium-sized firms, the figure is only 15.4%. Some 7.7% of the medium-sized firms have problems caused by Saudi government regulations, but none of the small firms suffered from this. Again 5.6% of small firms suffer from bank LC problems, but none of medium-sized firms do.

Small and large firms are significantly different mainly in terms of four information-seeking obstacles. Marketing presents problems to 42.9% of the large firms, but to 27.8% of small firms. The linguistics problem which represents 11.1% of small firms' obstacles was not seen as an obstacle by the large firms. Other differences relate to bank LC and payments, which represent problems for small firms, but not for larger ones.

The medium and large-sized firms are also different in their export/import information obstacles. One difference is that 15.4% of medium-sized firms have a linguistic problem, while large firms have no problems in this area. Saudi government regulations and payment problems presented 7.7% of medium-sized firms with an obstacle, but were not mentioned by any of the large firms. Table H in Appendix B suggests that medium-sized firms tended to have fewer problems in marketing and making necessary contacts relatively than large IT exporters.

THE COMPARATIVE ANALYSIS OF TESTING THE SYSTEM/COGNITIVE HYPOTHESES FOR ALL THREE MAIN GROUPS

The purpose of this section is to see if there is any significant differences between the three main groups. The British 1, British 2 and Saudi IT importers of all sizes are the three main groups tested here. Table 18 describes the hypotheses and the significant results obtained from the testing. The charts presented in Chapter Four and the contingency Table A in Appendix B provide

data on the direction of the differences in Table 18.

The results of testing system/cognitive hypotheses showed a significant difference between British 1 and British 2 groups. The direction of the differences between the latter groups comes from the greater utilisation by British 2 of seven sources. The percentage differences can be seen from the charts presented in Chapter Four and Table A, Appendix B.

Some of these sources were used nearly 50% more by British 2 than by British 1. These are public libraries, special libraries, information brokers, agent finders, trade shows in UK, overseas trade shows and Saudi Chambers of Commerce. However, British 1 used four sources of information nearly 100% more than British 2. These are local databases, overseas consultants, government organisations and special contacts.

The British 1 and the Saudi IT importers were different in their information-seeking behaviour as can be seen from Table 18. In particular, the Saudi importers use four sources more than British 1. These sources are information brokers, agent finders, trade shows in Saudi Arabia and overseas trade shows. At the time time, the British IT exporters used three sources more than the Saudi importers. These are overseas consultants, foreign Chambers of Commerce and special contacts. Table A, Appendix B, provides a more detailed comparison.

The British IT exporters to other countries and those to Saudi Arabia were different in their information-seeking behaviour, and thus the null hypotheses were rejected, as can be seen in Table 18. The direction of these differences was that the British group used five sources more than Saudi. These sources, as can be seen from the charts in Chapter Four and Table 15, Appendix B, were public libraries, special libraries, agent finders, foreign Chambers of Commerce and Saudi Chamber of Commerce. Equally, the Saudi importers used six other

sources more than the British firms, as follows: local databases, trade shows in Saudi Arabia, overseas trade shows, overseas consultants, government organisations and special contacts.

COMPARATIVE ANALYSIS OF TESTING THE EXPORT/IMPORT HYPOTHESES CONCERNING INFORMATION OBSTACLES

The results shown on Table 19 indicate that the null hypothesis should be rejected. The two British groups were somewhat different in their information-seeking obstacles. British 2 experience two information obstacles, linguistic and marketing problems, to a greater extent than British 1. However, British 1, in turn, experience three information obstacles to a greater extent than British 2. These obstacles are Saudi government regulations, British government regulations and bank LC.

The British 1 and the Saudi groups were also different in their information-seeking behaviours. The reasons for rejecting the null hypothesis can be seen from Table A, Appendix B, and from charts in Chapter Four. The Saudi IT importers found three information obstacles more difficult than the British - linguistic problems, obtaining information about potential IT exporters and British government regulations. However, the British 1 experienced more difficulty than the Saudi group in making necessary contacts and Saudi government regulations.

**TESTING THE RESULTS OF THE SYSTEM/COGNITIVE HYPOTHESIS
FOR THE THREE MAIN GROUPS, BRITISH AND SAUDI ARABIAN**

TABLE 18

HYPOTHESIS DESCRIPTION	NAMES OF PAIRS OF GROUPS ENTERING THE TESTING	K.S STATISTICS RESULTS	TABLED VALUE AT LEVEL OF ACCEPTANCE .025	TWO-TAIL PROBABILITY of K.S. RESULTS	RESULTS OF TESTING THE NULL HYPOTHESIS
There should be no difference in the information-seeking behaviour toward various systems of information provision among the three groups under investigation	British 1 and British 2	0.57	0.55	0.90	REJECT*
	British 1 and Saudi	0.56	0.55	0.9	REJECT
	British 2 and Saudi	0.94	0.55	0.33	REJECT*

K-S = Kolmogorov-Smirnov Two-Sample Test

British 1 = British IT exporters to Saudi Arabia and Gulf States

British 2 = British IT exporters to other countries

*   Discussion of the extent to which this result is significant can be found in the text.

TESTING THE RESULTS OF THE EXPORT/IMPORT INFORMATION OBSTACLES FOR THE THREE MAIN GROUPS INVOLVED IN THIS RESEARCH, BRITISH 1, BRITISH 2 AND SAUDI ARABIAN

TABLE 19

HYPOTHESIS DESCRIPTION	NAMES OF PAIRS OF FIRMS ENTERING THE TESTING	K.S STATISTICS RESULTS	TABLED VALUE AT LEVEL OF ACCEPTANCE .025	TWO-TAIL PROBABILITY of K.S. RESULTS	RESULTS OF TESTING THE NULL HYPOTHESIS
There should be no difference among the three groups under investigation in their export/import information obstacles	British 1 and British 2	1	0.74	0.27	REJECTED
	British 1 and Saudi	1	0.74	0.27	REJECTED
	British 2 and Saudi	0.75	0.74	0.62	REJECTED*

K-S = Kolmogorov-Smirnov Two-Sample Test

British 1 = British IT exporters to Saudi and Gulf States

British 2 = British IT exporters to other countries

* Discussion of the extent to which this result is significant can be found in the text.

The British 2 and the Saudi IT importers also faced different export/import information obstacles. As shown in Table 19, the difference in terms of K-S statistics is small. However, when looking at the charts and Table B, Appendix B, some differences can be seen. The British 2 faced rather more information obstacles in the areas of linguistics and marketing. The Saudis saw more obstacles than the British in Saudi government regulations, British government regulations and bank LC.

Testing the Evaluation Hypothesis Relating to Information Sources

There were three tables in Chapter Four for external sources of information which presented the major sources evaluated in this research. Three variables were considered in that testing. These were effectiveness, efficiency and reliability. Seven major information sources were selected from the British IT exporters' lists - trade papers, trade shows, explicit/implicit databases for IT exporters, UK Chambers of Commerce, Saudi Chambers of Commerce, UK government organisations and DTI services to IT exports/imports. In addition six Saudi Arabian IT export sources were selected - IT trade papers, IT trade shows, explicit/implicit databases for IT exporter/importers, UK embassy sources in Jeddah and Riyadh, Saudi Chamber of Commerce and foreign government organisations, see Tables 20 and 21. The result of testing these in terms of the null hypothesis was as follows.

- K-S statistic = .547
- Two tail probability = 0.28
- The tabled value for this test = .82

The null hypothesis is therefore retained. There appears to be no significant difference between the British IT exporters and the Saudi IT importers in their

TABLE 20: BRITISH IT EXPORTERS EVALUATION OF THEIR MAJOR INFORMATION SOURCES

INFORMATION SOURCES OF BRITISH IT EXPORTERS	EFFECTIVE	EFFICIENT	RELIABLE	UP-TO-DATE	SUM OF PERCENTAGE	RANK
IT trade papers, journals and newspapers	46%	54%	46%	46%	194/400	3
IT trade shows	85%	85%	69%	n/A	270/300	1
Explicit/implicit database to IT exporter/importer	46%	46%	54%	54%	200/400	2
UK Chamber of Commerce	54%	46%	54%	38%	192/4500	4
Saudi Chamber of Commerce	71%	71%	71%	71%	28/400	7
UK Government organisation	46%	31%	31%	31%	139/400	6
DTI services to IT exports/imports	38%	38%	38%	38%	152/400	5

SAUDI IT IMPORTERS EVALUATION OF THEIR MAJOR INFORMATION SOURCES

IT EXPORT/IMPORT INFORMATION SOURCES	EFFECTIVE	EFFICIENT	RELIABLE	UP-TO-DATE	SUM OF PERCENTAGE	RANK
IT trade papers, journals and newspapers	87%	78%	65%	87%	317/400	4
IT trade shows	96%	96%	96%	N/A	288/300	1
Explicit/implicit database to IT exporter/importer	57%	43%	43%	39%	192/400	6
UK Embassy in Jeddah and Riyadh	87%	87%	96%	52%	322/4500	3
Saudi Chamber of Commerce	39%	39%	96%	39%	213/400	5
Foreign government organisation (foreign embassies	96%	96%	96%	52%	340/400	2

TABLE 21

RANK COMPARISON TABLE OF THE VARIOUS IT INFORMATION SOURCES EVALUATION

INFORMATION SOURCES OF BRITISH IT EXPORTERS	RANK	INFORMATION SOURCES OF SAUDI IT IMPORTERS	RANK
IT trade shows	1	IT trade shows	1
Explicit/implicit databases to IT exporters/importers	2	Foreign government organisations (foreign embassies)	2
IT trade papers, journals, etc.	3	IT trade papers	3
UK Chambers of Commerce	4	IT trade papers, journals and newspapers	4
DTI services to IT exports/imports	5	Saudi Chamber of Commerce	5
UK Government organisation	6	The firm's own internal database and outside database	6
Saudi Chamber of Commerce	7		

evaluation of systems of information provision. Nor do predictions suggest that a significant difference will open up in the immediate future.

5.4 ANALYSIS OF THE IT TRADE PAPERS

It is part of this research to investigate various information-seeking obstacles associated with the different types of IT export/import information provision. IT trade papers are one of the major information channels, and intended to provide news about IT products at the international level. They are read by non-native English speakers as well as English people. One of the obstacles associated with IT trade papers is the level of their readability. It can reasonably be expected that, if the material is difficult for a native English speaker to read, it will be still harder for a non-English speaker. Thus, the purpose of this section is to explore the major IT trade papers' readability level. The trade papers selected for this investigation came from two sources. These are (1) data in the responses to this research questionnaire, and (2) the material given out at the trade shows mentioned in Chapter Four. These IT trade papers are of two types. The first type specialises in IT hardware/software and related issues. The second type is a wider group of trade papers mentioned by IT exporters/importers in response to the questionnaire and interviews. The second type do not specialise in IT, but include it with other business. A list of these trade papers is given in Table 22. A quantitative statistical measure of the semantic aspects of the trade papers was performed, along with a qualitative analysis of coverage.

The Quantitative Analysis of Readability

Tests were performed on sixteen journals and newspapers. The analyses were based on an average of three samples from each journal and newspaper. The purpose was to check the semantic aspects to indicate how easy it was to understand the information conveyed by the papers. Two readability tests were used: the results of the analyses are presented in Table 9 of this section.

Explaining Variations in the Results of the Readability Tests

As indicated in Table 3, the readability tests on three samples from each of 16 trade papers concerning IT exporters/importers were tested using the FOG

Index and the Flesch Scale. Two tests were used for cross-comparison, since they had been devised for different purposes. In the FOG Index, grades 6-10 represented the range of easy reading. The grades 11 and 12 indicate fairly difficult reading. Above this, the reading level becomes increasingly difficult. These divisions have been labelled so as to allow comparison with the equivalent gradings on the Flesch scale (see Table 9).

The differences between the two tests occur in a number of ways. In the FOG test, for example, the counts do not include proper names, or verbs ending with -es or -ed (when adding -es or -ed makes them three syllables). In addition, a colon or smei-colon may replace a full stop. In the Flesch Scale, the analyst counts indiscriminately all the syllables in the passage, no matter what they are, and colons or semi-colons are ignored. A passage of some 100 words from UK Ltd., November, 1992, will be used to give some feel for the results of the two tests.

EXAMPLE OF FOG TEST AND FLESCH SCALE VARIATIONS

GIANT PUMPS FOR SAUDI OILFIELD

A series of giant UK water pumps for Saudi Aramco's Hawiyah project in Saudi Arabia by the Sulzer company will be among the largest oilfield injection pumps in the world. Designed to maintain the pressure within the oil-bearing reservoir so that the oil can be recovered - a critical role in extracting maximum resources from a field, as pressure, once lost, cannot be re-established - each of the five pumps ordered by the Aramco Overseas Company will deliver more than 2,500 cubic metres of water an hour at a discharge pressure of more than 200 bar.

The above passage, when tested on the Flesch Scale, gave this result:

Average words per sentence according to Flesch scale = 33

TABLE 22

Key: VD = very difficult;   D = difficult;   FD = fairly difficult; ST = standard;
    FE = fairly easy;   F = easy reading

TRADE PAPERS	FLESCH SCALE	FOG INDEX
1 Manufacturing Systems	VD 3.4	VD 13.26
2 Engineering Computers	VD 25.8	FD 11
3 Saudi Arabian Monitor	VD 28	FD 11
4 New Electronics	D 38.4	E 10
5 UK Ltd	FD 52	FD 11
6 CADD	FD 59.4	E 10
7 COMET	FD 59.4	FD 11.2
8 MicroScope	ST 62.6	E 10
9 Cad Desk	ST 63	E 10
10 The VAR	ST 64.75	E 9.9
11 Financial Times	ST 66	FD 11
12 Computer Shopper	ST 68	FD 11
13 Computer Weekly	FE 71.46	E 8.8
14 Computing	FE 71.46	E 8.8
15 The Saudi British Bank Business Profile Services	FE 76.8	E 9.6
16 The Economist	FE 78	E 9

Details of these papers will be found in Appendix D.

% Syllables = 171.

206.835 - (0.846 x 171) - (1.015 x 33)

The result for the Flesch scale = 95.66, indicating very easy reading

Average words per sentence according to FOG Index = 24.75

% of syllables = 8

The FOG Index = 8, also indicating easy reading.

Although the Flesch Scale was actually devised for magazines, the process of testing these readability tests suggested that the FOG Index seems to give a more stable measure and reasonable estimation of readability. Hence, in looking at Table 22, rather more weight should be attached to the FOG Index results.

The Results of the Readability Tests

The FOG Index indicates that 57% of the magazines and newspapers tested are fairly easy to read. By comparison, the Flesch Scale indicates that 19% are fairly easy to read, and 38% are standard reading. If fairly easy and standard reading are combined then the Flesch scale will have 57% in the range of fairly easy to read, similar to the FOG Index. Thus both scales can be seen to give nearly the same result for the ease of reading scale for this group of reading material.

The FOG Index indicated that about 38% of the items tested are fairly difficult to read. The Flesch Scale breaks this level into difficult and fairly difficult: by comparison, 25% of the IT trade papers according to Flesch Scale are difficult or fairly difficult. Finally, the FOG Index indicated that only 6% of the items tested are very difficult to read, whilst the Flesch Scale indicated that 19% very difficult to read.

It should be noted that the Saudi Arabian Monitor and UK Ltd., Comet, Financial Times and Computer Shopper are amongst the reading matter that is fairly difficult to understand, according to the FOG Index. These items are among the materials distributed in Saudi Arabia. If these are difficult according to an English reading level, then they must be even more difficult for those whose language is not English. It may be concluded that all the fairly difficult, difficult and very difficult to read material on both scales, which amounts to 44% of the total are likely to be extremely difficult for the IT importers in Saudi Arabia or elsewhere to read. Thus, the semantic aspects of the IT trade papers present an IT export obstacle. The style of the writing in Computing, Computer Weekly and the Saudi British Bank Business Profile Services seems to be an example of the easy writing and therefore, reading. All the latter mentioned trade papers scored very easy or standard in terms of level of reading.

Structured Analysis of the IT Trade Papers

This section describes a qualitative method to explore the overall coverage of these trade papers. The analysis should help reveal their overall function in satisfying particular needs. The results in Tables 23, 24 and 25 cover a set of journals analysed in different months. It is hoped that these will assist in understanding why IT exporters seek information from these sources and on what basis. The following subject descriptions are used as the basic units in terms of which subsequent analysis is carried out.

- IT marketing and consumer relevant issues. News of marketing, such as 'IBM and Company head down market'.

- Hardware and software. News about new hardware or software, e.g. news about Lotus or Apple deals and contracts.

- Management and consultant issues. Some magazines from time to time carry advice for the professional in the IT industries. Management consultancy publications also carry relevant items.

- Overseas IT news and related issues.

- IT retailers and suppliers, including offers from vendors and distributors, e.g. 'Olivetti has introduced a £50 on-site warranty'.

- IT event calendar. Some journals and newspapers provide calendars of events, such as trade show locations and time.

- Advertising can represent a source of information about products or services.

- As distinct from content, it is useful to know publication frequency - is it weekly or monthly?

TABLE 23
A COMPARISON OF SUBJECT COVERAGE OF IT MAGAZINES, NEWSPAPERS AND NEWSLETTERS (SAMPLE)

NAMES OF JOURNALS	RELATED NEWS TO IT EXPORT/ IMPORT	IT MARKETING & CONSUMER-RELEVANT ISSUES	HARDWARE AND SOFTWARE	MANAGEMENT AND CONSULTANT-RELEVANT ISSUES	OVERSEAS IT NEWS RELEVANT ISSUES	IT RESELLERS AND SUPPLIERS NEWS	PUBLICATION FREQUENCY	IT EVENT CALENDAR	% OF ADVERT-ISING
MicroScope (Newspaper)	Yes	Yes	Yes	No	Yes	Yes	Weekly	Yes	62%
The VAR (Mazagine)	Yes	Yes	Yes	Yes	No	Yes	Monthly	Yes	53%
New Electronics (Magazine)	No	No	Yes	No	No	No	Monthly	No	61%
Machinery (Magazine)	No	No	Yes	No	No	No	Monthly	No	
Management Consultancy (Magazine)	Yes	No	Yes	Yes	Yes	Yes	Monthly	Yes special consultancy	55%
Works Management	No	Yes	Few	Yes	No	No	Monthly	No	70%
Cad Desk	No	No	Yes	No	No	No	Monthly	No	52%
Computer Shopper (Magazine)	No	Yes	Yes	No	No	Yes	Monthly	Yes	95%

TABLE 24

A COMPARISON OF SUBJECT COVERAGE OF IT MAGAZINES AND NEWSPAPERS DISTRIBUTED AT THE IT TRADE SHOWS

NAMES OF JOURNALS	NEWS RELATED TO IT EXPORT/ IMPORT	IT MARKETING & CONSUMER-RELEVANT ISSUES	HARDWARE AND SOFTWARE	MANAGEMENT AND CONSULTANT-RELEVANT ISSUES	OVERSEAS IT NEWS RELEVANT ISSUES	PUBLISHED FREQUENCY	PUBLICATION FREQUENCY	IT EVENT CALENDAR	% OF ADVERT-ISING
Which Computer? (magazine)	No	Yes	Yes	Yes	No	Yes	Monthly	No	50%
Practical Computing (magazine)	Yes	Yes	Yes	No	No	Yes	Monthly	No	70%
What Personal Computer? (magazine)	No	Yes	Yes	No	No	No	Monthly	No	80%
PC Magazine	No	Yes	Yes	No	No	Yes	Monthly	No	70%
Byte (magazine)	No	Yes	Yes	Yes	No	Yes	Monthly	No	30%
Personal Computer (magazine)	No	Yes	Yes	Yes	No	Yes	Monthly	No	over 80%

TABLE 25

The Quantification of Results of the Qualitative Variables
In Tables 23 and 24

THE OVERALL SUBJECT COVERAGE OF THE IT TRADE PAPERS	THE PERCENTAGE OF IT TRADE PAPERS COVERING THESE ISSUES
1 Short news stories related to hardware and software	100%
2 IT marketing and consumer-related issues	71%
3 Advertisements	64%
4 IT retailers and suppliers news	64%
5 Management and consultant issues	43%
6 IT events calendars	29%
7 IT export/import news	29%
8 Overseas IT news	14%

The Results of the Analysis of IT Trade Papers

IT trade papers are particularly strong in certain IT subjects. These are mainly news of the following: hardware, software, IT retailers and suppliers; IT marketing. Advertising of IT products is also a major source of information. News of hardware/software appeared in every IT paper investigated, Advertising sometimes exceeds 80% of the space in some magazines. The issues of the first seven IT publications in Tables 10 and 11 were distributed at the CIM '92 exhibition. The rest were obtained from Commtel 93 in Jeddah, Saudi Arabia. Further issues of each of these magazines were obtained from Loughborough University Library, and from personal collections.

It should be noted that none of these IT trade papers was explicitly mentioned by the IT exporters/importers as their source of information. The reason appears to be that the questionnaires focused on how IT exporters find importers and vice versa. The main purpose of these publications is to provide information about products to businesses and end-users. Some of the papers were intended for IT professionals, such as consultants, others concentrated on electronics, machinery, or management consultancy.

All IT magazines and newspapers are very attractive in their colour advertisements and appeal to consumers. IT importers are involved in the selling of IT trade papers: they are provided through computer shops in Saudi Arabia. The shops sell them to stimulate the IT consumers' demands for their imported products and services.

The second type of trade papers investigated here are trade papers which are intended to appeal to all kinds of business, not just IT. These items are listed in Table 5A. They were investigated because they were mentioned by the IT exporters/importers as part of their information sources. The table notes 'yes' for the source when it possess the attributes described below, and 'no', when

the source lacks these attributes.

-       National company news. This means news about companies, including IT companies, in the same country as the publication.

-       International company news. This means coverage of stories and news about firms on an international basis, e.g. news of IBM, HP, or Apple.

-       Political news. For example, news that alerts businessmen to the stability of various countries.

-       Economic indicators - reports about the economy of a country. Is it declining or growing? If declining, why, and in what sort of businesses?

-       Financial news - economic and financial matters, jobs, demand and economic forecasts.

-       People news - who is in charge of IBM now, for example, and an analysis of what that means.

-       Technology news - new developments and patents, and news of new technology.

-       Economic analysis - reports about the national economies, e.g. German rate cuts and their effect on exports/imports.

-       Market statistics - reports on how firms are performing.

-       World commodities and world stock markets - certain trade papers specialise in this, e.g. the Wall Street Journal.

- Fund services - discuss sources of money.

The Results of the Analysis of these Trade Papers

These trade papers were characterised by the nature of their news coverage - news, national and international, about companies, people, economics and the financial situation of various countries, technology and currencies exchange news, and so on. IT exporters/importers need information about the major national/international IT firms and perhaps about smaller firms as well. Knowledge about what is going on in certain IT firms such as IBM, Apple, etc., has its effects on the IT market. The political news about the stability of different countries can have a major impact on IT export/import. IT exporters want to make sure that they deal with a stable country. Economic indicators may indicate price increases or decreases due to inflation. Thus, IT exporters utilise these journals to keep up-to-date on a variety of matters. Variation in the contents of these trade papers reflects the fact that different information needs are being supplied by different magazines and newspapers. Some IT exporters, as indicated in the contents of the survey questionnaire, advertise in IT trade papers, to increase their sales and market share. But even those who do not advertise, read this literature, see Tables 23, 24 and 25.

TABLE 26
TRADE PAPERS UTILISED BY

JOURNAL	NATIONAL COMPANIES NEWS	INTER-NATIONAL COMPANIES NEWS	INTER-NATIONAL BUSINESS NEWS	POLITICAL NEWS	ECONOMIC INDICATORS	FINANCE NEWS	PEOPLE NEWS	TECHNOLOGY NEWS	ECONOMIC NEWS	MARKET ANALYSIS	MARKET STATISTICS	CURRENCIES	WORLD COMMODITIES	FUND SERVICES REPORTS	WORLD STOCK MARKET
FINANCIAL TIMES (MAGAZINE)	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
THE ECONOMIST (MAGAZINE)	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	X	X
COMET (BULLETIN)	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
UK LTD (BRITISH) TRADE (MAGAZINE)	✓	✓	X	X	X	X	X	✓	X	X	X	X	X	X	X
BUSINESS WEEKLY	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	X	X
WALL STREET JOURNAL	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
NEED	✓	✓	✓	✓	✓	✓	X	✓	X	X	X	X	X	X	X

TABLE 27

The Quantification of Subject Coverage

THE SUBJECT COVERAGE AND ISSUES COVERED BY THE IT TRADE PAPERS INVESTIGATED	THE PERCENTAGE OF IT TRADE PAPERS COVERING THESE ISSUES
1 National company news	100%
2 International company news	100%
3 International business news	86%
4 Political news	86%
5 Economic indicators reports	71%
6 Financial news	71%
7 People news	100%
8 Technology news	71%
9 Various economic analyses	71%
10 Market statistics	71%
11 News of currency exchange	57%
	71%
12 World commodities news	29%
13 Fund services reports, etc.	29%
14 Stock market reports	

CHAPTER SIX

CONCLUSION

THE IMPLICATION OF THE RESULTS FOR SYSTEM/COGNITIVE THEORIES AND FOR EXPORT/IMPORT PRACTICES

6.1   INTRODUCTION

The hypotheses behind this research stemmed from a system/cognitive approach and led to a qualitative/quantative methodology to extract the necessary data for analysis.   The theoretical implications of the system/cognitive approaches will be discussed below, followed by the practical implications.   The systems approach was adopted in this research along with the cognitive approach.   The systems approach to user studies, as explained in Chapter Two, is concerned with individual information-seeking behaviour. The organisational systems approach adopted for this research may be seen as departure from that individual approach.   A discussion of the differences between the approaches is given in Chapter Two, but will be briefly mentioned here.

The system approaches discussed in Chapter Two looked at the individual from a situational perspective.   Paisley saw individual scientists/technologists as seeking information from a variety of information sources. Wilson's model saw the individual as functioning in the context of various sources of information.

He stressed that information exchange happens as a reciprocal action in social life and individual relations. Belkin saw the individual as seeking information from one particular system. The user in Belkin's model is doubtful about what he needs from the library. Thus an intermediary system is needed to help the individual find what he needs in the library. Belkin's views related to a cognitive approach more than a systems approach. Thus he focuses on the individual in a single system to clarify the cognitive needs during information-seeking behaviour. Kotler also viewed the individual customer as seeking information and making decisions when purchasing IT products. Kotler suggested that there is a similarity between individual behaviour and organisational behaviour. This analogy has been pursued here.

The research follows a systems approach in looking at IT exporter/importer firms' information-seeking behaviour. Three models were developed - an information-seeking behaviour model, a macro-level model, and a micro-behavioural analytical model. These viewed the IT exporter/importer firms as groups related by size and interest in seeking information from a variety of information sources. An important connection between individual information - seeking behaviour and organisational information-seeking behaviour is that obtaining the right information is vital for survival both to organisations and individuals. Individuals, however, may make a decision based on belief, faith or prejudices, but an organisation must decide on the basis of agreed organisational objectives. Organisations must seek information vital to their survival systematically. In some ways, this makes them easier to study and analyse than individuals. Thus, the systems approach can be used to diagnose and study the infrastructure of information channels used by a group of related organisations and their consequent information-seeking behaviour. This was the basis in the present research for the questions asked via questionnaires and interviews.

6.2   THE IMPLICATIONS OF THE SYSTEMS APPROACH

Effectively, the cognitive approach suggested by Belkin has been applied here in analogical form to organisations. Organisational information-seeking behaviour is tied to the goals and the objectives of the organisation. This gives a more stable view and diagnosis than looking at individual goals and objectives. In organisational information-seeking behaviour the various sources are almost always specialised to cover certain types of industrial information. Thus the information-seeking behaviour is almost always triggered by a need related to the goals and objectives of the organisation, and can be satisfied on the basis of three things:

- The reliability of the information sources;
- The up-to-date quality of the information sources answering the questions of the problem at hand;
- The cost and time effectiveness.

The idea that individuals are affected by various social systems within which they work can be said to apply to organisational information-seeking behaviour. However, while there is an exchange of information within the information infrastructure of related organisations, such as IT exporters/importers, it is not necessarily of the same type as with individuals. It is rather a competitive arena using information weapons for the purpose of recruiting new customers, or perhaps creating disloyal customers for competitor's products and services in order to recruit them for oneself. This happens through various of information flows, e.g. IT trade papers, IT trade shows.

The information channels investigated through the questionnaire survey and observation are all major possible explicit sources of information, and they form the infrastructure for IT export/import information in both Saudi Arabia and the

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UK. The possible organisational information-seeking paths are not necessarily the same as the type of searching implied in Wilson's or Belkin's models for individuals. The intermediaries introduced by Belkin are not always present in the business environment. Face-to-face discussions and the desire to eliminate the middle-man in order to reduce the cost of the product and compete often leads to a distrust of intermediaries. Thus designing a new commercial information channel to act as an intermediary to facilitate the IT trade between Saudi Arabia and the UK is unlikely to be successful. Thus information brokers and agent finders are not greatly used by IT firms, even if a need for their services does exist. It is noticeable that IT exporters/importers avoid intermediary information channels that operate on commission, but seek official sources, such as Chambers of Commerce and the BOTB.

The information-seeking obstacles found this research may be related to lack of, or weakness of, information services in the existing information infrastructure of IT export/import. The practical implications will be discussed later. The information infrastructures of the Saudi IT importers and the British IT exporters seem to resemble each other. This may indicate that related industries' information provision can resemble each other despite different cultural backgrounds.

6.3 THE THEORETICAL IMPLICATIONS OF THE COGNITIVE APPROACH

The cognitive approach to information-seeking behaviour was adopted for reasons stated in Chapter Two. One important point from Belkin's model is the suggestion that the components involved in a system have an image of the other interacting system components. The part of his suggestion which applies here refers to the user's cognitive state of mind. The users of a system of information provision must have a mental picture of the intermediary and the

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sources of information, and what to expect of them. In the present research, some information obstacles are probably caused by firms having the wrong image of some sources. This appeared when British IT exporters were expecting to find Saudi IT importers through certain channels of information, but the Saudis were expecting to find IT exporters via different channels. Thus, because they do not have the same image of the sources of information, they miss one another.

In the last chapter, it was noted that the British IT exporters who export to Saudi Arabia were using, as an important source of information, 'special contacts'. Special contacts in Saudi Arabia means somebody working in a bank, or in government organisation, etc. A special contact is normally not an official broker. The other sources that the British IT exporters use expecting to find IT importers are the Saudi and British Chambers of Commerce and the BOTB. The Saudi IT importers have a low regard for special contacts, and for many government sources of information. They view government sources of information as means of regulation and solving trade problems, but not to help them make money.

When the 'special contact' is not officially appointed as an agent or representative in Saudi Arabia, he will not be trusted. The Saudi Arabian IT importers look for exporters and products through IT trade shows and IT trade papers. They do not seem to expect the Chambers of Commerce to provide this sort of information. Saudi Chambers of Commerce are mainly concerned with regulation and settling trade disputes. They never act fo find a suitable IT product for Saudi IT importers: this is left to the efforts of the IT importers. It seems that the British approaches through officials in the BOTB, the Embassy and British Chambers of Commerce do not always match the expectations in Saudi Arabia.

Again, Saudi usage of the British Chambers of Commerce is limited, since they do not know how the system works in the UK. They will not expect to find any IT exporters through government sources. It should be added that the Saudi IT importers are very new to their trade. Many IT exporters from all over the world approach them at home through IT trade shows, and so on, and this is what they expect. British IT exporters do not always see Saudi IT trade shows as favourable channels for their information.

The linguistic problem is also of concern as an information-seeking obstacle. The British IT exporters tend to overestimate the English capability of Saudi businessman in general. Many Saudis who deal in imports do not speak English particularly well, but normally employ translators. Hence many of the English publications that go through various British channels to Saudi Arabia may not be effective. Readability testing in the last chapter showed that most of these materials need above-average reading ability even from English readers. Thus the communication may not trigger the attention of Saudi businessmen or their customers into requesting certain IT products. Effective communication involves messages exchanged between interacting people in the market, and this must involve meanings that can be fully understood. English language as a communication medium is not convenient for the majority of Saudi entrepreneurs.

At the same time, the atmosphere is welcoming for enterprise. There are many entrepreneurs in Saudi Arabia who are willing to take chances with IT imports. It seems that British IT exporters are underestimating the power of the investor and of many Saudi entrepreneurs to create large firms starting from zero background. There are many examples of success in the market, such as Bugshan. Most Saudi people talk about how to create business, and care for business, even if they are not directly involved.

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6.4   THE PRACTICAL IMPLICATIONS

Marketing IT products by British IT exporters to overseas has been explained previously as involving exporting knowledge as well as hardware.   The exporting/importing channels of information and the knowledge sources that IT exporters/importers use in order to function have been identified and evaluated, and the information-seeking behaviour towards these sources diagnosed. This identification, evaluation and diagnosis provides the practical implications of the research findings. These practical points are threefold for the three groups involved in the study. (These are the British 1 and British 2 IT exporters and the Saudi IT importers).   The first of the three practical points is the identification of various information sources that facilitate the IT export/import trade between Saudi Arabia and the UK.   The second point has been evaluating the various explicit information sources, and the obstacles involved in them. The third point is diagnosing the information-seeking behaviour of the three groups and predicting future use of various information sources. These practical points could perhaps lead to suggestions for improving information provision and modifying information-seeking behaviour in order to overcome the various obstacles to communication between Saudi Arabia and the UK. These practical points will be discussed below.

The Identification of IT Export/Import Information Provisions

The practical points discussed here, have been found to be applicable to all the three groups.   The sources, as has been explained in the results and the analysis chapter, are in two forms: implicit sources of information and explicit sources of information. Both of these forms can be accessed through channels as suggested by the research models. These channels may be local, national or international. Implicit sources may be one's own contacts, own agent, or own foreign representatives and so on. The explicit sources of information are either ones that the IT industries share with other industries, or sources

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exclusive to their industry. These sources include Chambers of Commerce, the BOTB, government organisations, public libraries, special libraries, information brokers, agent finders and non-specialised trade papers.

Industrial information provision, as for IT export/import, has been created to serve certain purposes and meet certain industrial needs. Industrial needs are always dictated by practical consequences, rather than by theoretical assumptions. To keep up to date with these developments, evaluation of the various information sources and provision becomes vital to improve the trade system and prepare the national industries to compete. These various information channels are front-line weapons for overseas competition. Without knowing what IT products are needed in overseas markets, the IT exporters cannot react. IT export/import information provision may enable IT exporters and IT importers to know what the need is and to act upon the message.

It is perhaps helpful to present two examples here, unfortunately neither from the UK. They illustrate how the sources and channels of information are very important in IT competition. The first example was reported in the literature about Dell Computers in the United States (1). In brief, this firm's revenue has risen by 1.7 billion simply by correcting their utilisation of information channels. They are in competition with IBM and Compaq and other pc firms. Dell undercut many p.c. makers in price, while providing product and services, via building up an information system that aided delivery of the IT products to the end-customers directly. The system idea was initiated in order to meet the IT customers' demands for leading-edge products and services with lower prices than Dell's competitors. The most important element in this strategy lay in eliminating middle-men and selling directly to the customer. They used their information system to understand customers' needs, so as to tailor their offering to match customers' demands. Thus they gained customer loyalty by delivery of the required product, together with low-cost services compared with their competitors. This

perhaps suggests that new interactions can be based on information systems designed to meet the end-users' requirements.

The second example is MicroSoft, which has built up its exports to Saudi Arabia very rapidly as explained in Chapter One. They appointed 35 agents to Saudi Arabia in 1993. Their agents are directly involved with MicroSoft, screening the market and determining needs. These two examples perhaps point out a new trend toward establishing information services. It is suggested that more firms may utilise their own implicit information services, rather than explicit, to reach their target markets. However, explicit information channels will still be required for small firms and probably medium-sized firms. Thus, evaluating the various explicit information systems is vital for the development of the small and medium-sized firms.

Evaluating the Various Information Sources

The practical implications of this research are concerned with determining answers to questions derived from the goal and objectives of the research. These questions are as follows:

- How do the IT export/import information provision systems work?
- What are the weaknesses and strengths of these systems?
- What is the suggested solution to these weaknesses, if any?

To answer these questions a theoretical perception was established to classify and describe the components of IT export/import information flows. This theoretical perception was built around three models in an attempt to identify the components for diagnosing the strengths and weaknesses of the system. These models are based on the assumption that the investigated IT exporter/importer firms are operating in an information system external and internal to themselves. These external and internal information systems can be seen as isomorphic.

An application of these models suggests that information obstacles and trade problems can arise in two ways. These are (1) the weaknesses of certain information channels and (2) the way IT exporters/importers use these sources of information. The problem in regard to the sources will be discussed below, then the problem related to information-seeking behaviour.

6.5 THE PROBLEM OF INFORMATION SOURCES

It can be said that when one of the existing information channels does not perform the functions that IT exporters/importers expect it to perform, obstacles will occur. Thus the appearance of information obstacles when evaluating information provision may reflect a lack of information provision, or, at least, a weakness of information provision. As has been noted previously, information-seeking obstacles are experienced by all sizes of firm, even though they vary slightly. The information and trade obstacles can be related directly and indirectly to information provision. The obstacles suffered most by all IT exporters/importers were three major ones - getting the necessary IT export/import information, finding the necessary contacts in Saudi Arabia or Britain, and marketing IT products or services.

Obstacles Related to Information Acquisition

The information-seeking component in any information channel is supposed to extract the data needed by the IT exporters/importers. From an information system perspective each information-seeking component in any given information provision system is governed by the system's goals. Thus each acquisition of information in the system relates to the collection of specific data from the environment. For example, the BOTB or Chambers of Commerce might set up agencies in Saudi Arabia to seek information on potential IT importers to Saudi Arabia. This would be an information-seeking component of an information system in its own right, and serve as information acquisition for the British IT firms. The British Overseas Trade Board, and the British embassies everywhere in the world, are part of the whole export/import system and they function as information-seeking components for themselves and for

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IT exporters/importers. This, as mentioned earlier, comes from their goals and objectives.

Obstacles may perhaps be related to the information-processing system. There are questions arising here. What is the information process and who is processing what? What is the objective of this processing? The processing component is a system set to take input from the acquisition component. What processing function does it perform in this system? It sorts IT news into different types: tenders; competitors; rising prices; who wants what products and services; filtering different news to meet needs; storing data for future needs or making it accessible to members of the agency.

This component is an implicit one. It is presumed to be part of every IT export/import firm as well. Each IT exporter/importer in this investigation has their own information-processing system. The BOTB and all DTI services, for example, carry out this function to help IT exporters/importers. If this component is not compatible with the acquisition function, or to its utilisation, then the system will not function to achieve what it is expected to do. If the DTI, or the BOTB, for example, do not store, sort their data, or filter different news and information for different exporters/importers, no one will find the right data. (While the BOTB considers itself one of the best sources of information for British firms, some respondents said it was useless). The main purpose of processing the data is to transmit the needed data to the management and the decision makers within the information channels.

The information obtained must serve someone's needs as requested. The processed data is therefore checked against established criteria and procedures. Sometime diagnoses are performed by specialist business experts, in order to achieve an external/internal understanding of what is going

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on in the market. As far as the results are concerned, this function may be weak, or these services are not functioning as well as they should. The BOTB interviews should be referred to in this respect.

Obstacles related to Communication Feedback

The agent who seeks information for the IT exporter/importer, after utilising the information to meet the needs, might send a fax, or telephone or perhaps carry out instructions. The communication system in all information provision in Britain and Saudi Arabia has its limitations. It is not always easy in every case for British IT exporters to absorb information from Saudi trade papers, or vice versa for Saudis. It was found from the results discussed in the last chapter that some firms suffer linguistic problems. One of the areas where this may have an impact is in problems of reading some trade papers. Again, it is expected that IT export/import agents acting to provide information will communicate with their company constantly to keep them up to date with IT events. This agent function is sometimes weak, or may not cover all aspects of trade and industries.

Information-seeking behaviour, information provision and information-seeking obstacles have been investigated. The analysis has revealed three major obstacles. These are:

-       obtaining information about potential customers
-       making necessary contacts
-       marketing problems.

The information-seeking component is the point where the data must be obtained. It is where the agent finders, information brokers, British Overseas Trade Board, and DTI services are supposed to function. The marketing

problem is related to all the mentioned systems of information provision. Systems analysis of various service activities, such as those in the British Embassy, the British Overseas Trade Board and others, should be carried out in future research in terms of their acquisition, processing and feedback system. However the existing data point to IT firms' poor utilisation of information provision. The results indicatedm for example, very poor utilisation of agent finders and information brokers. Almost all British and Saudi IT exporters showed very low utilisation of these two sources. Thus it can be said that part of the problem is related to the way IT firms seek their information. This might be due to information acquisition failure within IT firms, as well as being related to underdeveloped or ineffective information-seeking activities. Further research should be carried out to analyse the various systems supported by the governments. This could perhaps diagnose the weakest component and suggest solutions to problems related to each specific system.

As far as this research goes, the information-seeking component in each IT firm must be strengthened to be compatible with other information system components. Information provision, as by BOTB, Saudi information brokers and marketing agencies as well as agent finders in Saudi, might well be assisted to strengthen their information activities. Saudi IT importers need to be encouraged to use British information brokers, agent finders and the British Embassy services to help them find the right IT products and services in the UK.

RECOMMENDATIONS

The aim of these recommendations is to suggest means of alleviating the IT exporters/importers' obstacles. These information-seeking obstacles are discussed in Chapters four, Five and Six. These obstacles perhaps are related to difficulties in obtaining the necessary information, but do not suggest poverty

in information availability. The problems relate rather to the successful accessing of information and to disseminating timely information to IT exporters/importers. Recommendations regarding British IT exporters are naturally different from those for Saudi IT importers.

BRITISH IT EXPORTERS' OBSTACLES

British IT exporters suffer from problems in obtaining the necessary information for their marketing, and in getting the contacts required for their trade. The information is available, but is difficult to obtain from Saudi Arabia. This can be attributed directly to three obstacles: linguistics, government regulations and lack of services from the main British information providers. Suggestions to overcome these obstacles are laid out below.

OVERCOMING LINGUISTIC PROBLEMS

The first suggestion is to overcome linguistic problems by translating IT literature sent to Saudi Arabia or other Arab country, so that the messages sent through trade papers or other media can be understood by all the potential audience in Saudi Arabia. There are problems due to the lack of readability of existing IT trade papers. IT jargon sometimes confuses English readers and can also be difficult for foreigners. Translation will enable Saudi importers, especially small firms, to obtain the correct information. It would also be useful to translate some literature and IT news coming from Saudi Arabia and other Arabic countries into English. Thus, both sides can have a clear picture of what is going on.

OVERCOMING GOVERNMENT REGULATION

It is very hard for small or medium-sized British firms to obtain needed information from Saudi Arabia. These difficulties may relate to linguistics, or to constraints on money to be spent on information brokers or agent finders. Not

every firm is free to go to Saudi Arabia and collect marketing information. Thus, the best recommendation for small and medium-sized firms is to go through the BOTB services. These services provided by the BOTB or the DTI are the best possible resolution for these businesses. They can collect the needed information or reach the correct person while spending only the minimum amount of time and money. However, according to the interview with the BOTB, British businessmen do not use these services effectively.

OVERCOMING COGNITIVE PROCESS PROBLEMS

It seems that British IT exporters are inclined to think of Chambers of Commerce and all government information providers as the main sources of reliable information which will help them get in touch with Saudi IT importers. They apply the same concept to Saudi government sources, such as Saudi Chambers of Commerce. However, the system in the two countries works differently. It is not the objective of the Saudi Chambers of Commerce to find exporters for Saudis, or to find importers for the British. It is necessary to look for Saudi IT importers in the places where the Saudis look for British exporters. These are mainly IT trade shows and IT trade papers. However, the Saudi IT importers should also be educated about British services and what they can do for them. The British Embassy could perhaps publish instructions in Arabic on where IT importers can go for UK contacts, or how they can access sources of information from Saudi Arabia.

SAUDI IT IMPORTERS' OBSTACLES

The Saudi IT importers' main obstacles are the same as for British IT exporters. They have problems in obtaining necessary information for their imports, marketing and getting in touch with the right contacts as well as with linguistics.

OVERCOMING THE LINGUISTIC PROBLEM

The linguistic problem is related in part to computer jargon. Various attempts to translate computer jargon for Arabic/English dictionaries are in progress, but they are rather confusing to a novice. The small and medium-sized firms in Saudi Arabia are owned by non-computer specialists. Thus, to establish professional contact in English with them is not an easy task, and material provided for them in English may not be effective. These firms would be helped by employing specialists or Saudi professionals, such as university graduates or other experts, to help them filter and interpret world-wide market information. Without the help of the specialist who knows the IT market, the importers can be easily misled, and bad investments have already been experienced by some of them.

OVERCOMING OBSTACLES TO OBTAINING INFORMATION IN SAUDI ARABIA

Saudi IT importers should understand the various forms of information provision in the industrial countries, such as Britain (e.g. the British Chambers of Commerce, the BOTB, and the DTI services). It is somewhat discouraging to Saudis to visit the British Embassy in Jeddah, especially the Commercial Section of the Embassy, because the ambience is far too formal. (In compensation, there is a friendly atmosphere in the Section itself). However, it may be more effective if the Saudis find what they need outside the Embassy, perhaps at a Saudi marketing firm.

The Acquisition Unit of the Commercial Department of the British Embassy should be strengthened. Employing native Saudi Arabian professionals or Saudi Arabian information brokers is the best possible way to filter information needs. Most of the personnel in this Department are not specialists in the Saudi Arabian market, and they are not Saudi Arabian. A joint initiative with Saudi experts might allow the British Embassy to capitalise even more on the excellent information service provided from the UK.

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APPENDIX A

EXPORTING/IMPORTING TO SAUDI ARABIA AND THE GULF STATES

Please fill in brief answers alongside the questions or tick the box with the correct answer.

1. Does your business deal with Saudi Arabia or the Gulf States? Yes ☐ No ☐
   If your answer is 'No', *you have now finished the questionnaire. Please return in the attached envelope. Thank you.*

2. Is your business mainly with:

   Saudi Arabia ☐   Both with Saudi Arabia and the Gulf States ☐   Only with the Gulf States ☐

3. Does your business deal with any of the following aspects of information technology:

   Hardware ☐   Software ☐   Service ☐

4. Briefly indicate the nature of your business.

   ----

5. How many employees (approximately) do you have?   -------------

6. How would you rate the competitive position of your business in Saudi Arabia and the Gulf States?

   Excellent ☐   Very good ☐   Good ☐   Fair ☐   Poor ☐

7. Do you have any form of representation in Saudi Arabia or   Yes ☐ No ☐
   the Gulf States?   If yes, what form does it take?

   ----

8. Are there any major advantages in dealing with Saudi Arabia and the Gulf States as compared with other overseas markets?

   ----

9. Are there any major disadvantages in dealing with Saudi Arabia and the Gulf States as compared with other overseas markets?

   ----

10. Looking ahead a few years from now, do you think your trade with   Yes ☐ No ☐
    Saudi Arabia and the Gulf States will grow in volume?

11. Which of the following do you think present major obstacles when dealing with Saudi Arabia and the Gulf States:

    Linguistic problems ☐   Saudi Government regulations ☐   British Government regulations ☐

    Marketing problems ☐   Making necessary contacts ☐   Obtaining information about potential customers ☐

    Bank L.C ☐   Payments ☐   Other (please insert below)

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12. Do you advertise in Saudi Arabia and/or in the gulf States?   Yes ☐ No ☐
    If yes, in what way?

    ----

13. Has your business with Saudi Arabia and the Gulf States ever
    been significantly affected by lack of information?   Yes ☐ No ☐

14. Have you made use of any of the following sources in order to obtain information about
    Saudi Arabia and the Gulf States:

Public Libraries ☐	British Overseas Trade Board ☐	Agent Finder ☐
British Government organisation ☐	Saudi Government organisation ☐	Trade papers ☐
Trade shows in: (a) Britain ☐	(b) Saudi Arabia ☐	Special libraries ☐
Saudi Chamber of Commerce in UK ☐	British Chamber of Commerce ☐	Overseas consultants ☐
Local database ☐	International Database ☐	Information brokers ☐
Local Distributors ☐	Saudi Chamber of Commerce in Saudi Arabia ☐	Special Contacts in the Gulf ☐

15. What are your best sources of information when dealing with Saudi Arabia and the Gulf
    States?

    ----

16. Would you or a colleague be prepared to be interviewed for
    half an hour in order to explore some points further? (A copy   Yes ☐ No ☐
    of the topics to be discussed would be sent to you beforehand)
    If yes, please indicate the person to contact

    Name .... Tel. No. ....

17. If you would like to receive a summary of the results from this question-
    naire survey please tick the box: Yes ☐ No ☐

    Please insert your company name and address in the following space:

Thank you for completing this questionnaire. Please return it to me in the envelope
provided.

Sharaf H. Jifri
Department of Library and Information Studies
Loughborough University
Loughborough, Leics. LE11 3TU

Sharaf H Jifri,
Department of Library and Information Studies,
Loughborough University,
Loughborough,
Leics.,
LE11 3TU.

Dear Sir,

My name is Sharaf Jifri from Saudi Arabia. At present, I am a research student at Loughborough University in the Department of Library and Information Studies. My work involves seeking the views of British businessmen concerning exports to the Gulf States in general, and to Saudi Arabia in particular.

I am trying to look at your business needs and interests and the problems you encounter. I am especially concerned with the provision of information and whether what is available satisfies your needs. It is expected that the general results will be made use of, in due course, in Saudi Arabia, so leading to better information services both within Saudi Arabia and to overseas importers/exporters.

Thus, I would be very grateful if you would take a moment to answer the attached questionnaire concerning your business and return it to me in the enclosed, pre-paid envelope.

Data on individual respondents will, of course, be kept confidential. If you would like to receive a summary of the results of this preliminary survey, please tick the appropriate box in the attached questionnaire.

Thank you for your time and co-operation.

Yours sincerely,

Sharaf H Jifri,
Department of Library and Information Studies,
Loughborough University,
Loughborough,
Leics.,
LE11 3TU.

Dear Sirs,

You may remember that I sent you a questinnaire about three weeks ago. I do not seem to have had a reply from you. I know how easy it is to mislay such items, so I enclose a further copy.

It is expected that this investigation will have a part to play in improving Saudi/UK communication. I would therefore be most grateful if you could see your way to completing the questionnaire and returning it to me as soon as possible.

Yours sincerely,

sharaf H Jifri
Research Student

INFORMATION ON EXPORTING/IMPORTING

Please fill in brief answers alongside the questions or tick the box with the correct answer.

1. Does your business deal with any of the following aspects of information technology?
   Hardware   [ ]   Software [ ]   Service [ ]

2. Briefly indicate the nature of your business:
   ....
   ....
   ....

3. Have many employees (approximately) do you have? ....

4. Have you ever thought of dealing with Britain (UK)?   Yes   [ ]   No   [ ]

5. Have any of the following presented major obstacles when dealing with the countries you are dealing with now?

   Linguistic problems [ ]; Marketing problems [ ]; Making necessary contacts [ ]; Obtaining information about potential exporters [ ]; Your Government regulations [ ]; Foreign Government regulations {]; Bank LC [ ]; Payments [ ]; Others (please specify below)
   ....
   ....
   ....

6. Have you made use of any of the following sources in order to obtain information about importing from the countries you are dealing with?

   Public Libraries [ ]; Special Libraries [ ]; Information brokers [ ]; Agent Finder [ ]; Local database [ ]; International database [ ]; Trade papers [ ]; Trade shows in your country [ ]; Overseas Trade Shows [ ]; Overseas consultants [ ]; The Chambers of Commerce of the countries you are dealing with [ ]; Government organisations of the countries you are dealing with [ ]; Others, please specify: ....

7. What country (countries) do you import from?
   ....
   ....
   ....

8. Looking ahead a few years from now, do you think your trade with the countries you are dealing with now will grow in volume?

   Yes   [ ]   No   [ ]   If yes, what countries? ....

9. Has your business with any country you are dealing with ever been significantly affected by lack of information?

   Yes   [ ]   No   [ ] ·   If yes, what countries? ....

10. Could you please name a person to contact in case any points require clarification?

    Name: ....   Tel No: ....

11. If you would like to receive a summary of the results from this questionnaire survey please tick the box: [ ]

    Please insert your company name and address in the following space:
    ....
    ....
    ....

Thank you for completing this questionnaire. Please return it to me in the envelope provided.

Sharaf H. Jifri
Department of Library and Information Studies
Loughborough University
Loughborough, Leics LE11 3TU

Thank you for your response to the last questionnaire, and for giving me access to your knowledge and expertise.

As you remember, I requested an interview for half an hour in order to explore some points further. However, due to some constraints on time, and about respondents' agreement for interview, and the need to explore some points further as a consequence, a one-page questionnaire has been developed to replace the immediate need for an interview.

I would be very grateful if you would extend your help and co-operation and take a moment to answer the attached questionnaire concerning certain problems. If you would like to add additional information, or suggestions, please do so. I would be very grateful if every question could be addressed.

Data on individual respondents will, of course, be kept confidential. The results of this survey will be sent to you as soon as this study has been carried out.

Thank you for your time and co-operation.

Yours sincerely,

Sharaf H Jifri
Research Student

EXPORTING/IMPORTING TO SAUDI ARABIA
AND THE GULF STATES

INTERVIEW SCHEDULE

1. As you seek information for your typical business information needs, do you:

a)   Rely on in-house sources of information: Yes [ ]   No [ ]

   If yes, which main sources are used?

   ....
   ....
   ....

b)   Rely on outside sources of information: Yes [ ]   No [ ]

If yes, which services do you regard as the best for your export business in the UK and in Saudi Arabia? Which of these services are the most important for you?

   ....
   ....
   ....

2. How was contact first made with your present importer from Saudi Arabia/Gulf States?

   ....
   ....
   ....

3. How have you gone about finding importers for your products?

   ....
   ....
   ....

4. What sort of information do importers from Saudi Arabia mainly rely on in order to contact you?

Trade name   [ ]   Technical specification   [ ]

Others (please specify)

5. Do you monitor the importers reactions and needs?   Yes [ ]   No [ ]

If yes, in what ways?

   ....
   ....
   ....

Sharaf H. Jifri
Department of Library and Information Studies
Loughborough University
Loughborough Leics LE11 3TU

Alloy Computer Products,
Hurstleigh,
Coronation Road,
Ascot.

Dear Sir,

You may remember that your Company very kindly responded to a query from me some time ago concerning your export/import activities. Since then, I have made considerable progress in examining activities at the Saudi Arabian end, and would find it most helpful to compare this with the current UK position. I would therefore be very grateful if you could extend your help and co-operation by taking a moment to answer the attached very brief questions.

Data on individual responses will, of course, be kept confidential. A summary of the results of this investigation will be sent to you (as before), in the hope that you will find them useful in your business.

Yours sincerely,

Sharaf Jifri

INFORMATION ON EXPORTING/IMPORTING

Key words in this survey:

- Effective: Does the source of information produce the required information at the level you expected it to perform? Does it attract you to use it again and again?

- Efficient: Does the source of information provide you with accurate information within the required time with minimum cost and effort?

- Database: means any important file of information.

Please leave blank any questions that refer to information sources you do not use.

---

1. Would you please state the name of the trade papers that you currently use for your IT export/import information:

_____

_____

_____

_____

For your marketing information needs, were these trade papers:

Effective: Yes [ ] No [ ]   Efficient: Yes [ ] No [ ];

Reliable: Yes [ ] No [ ]   Up-to-date: Yes [ ] No [ ]

2. Which trade shows within the UK or overseas did you attend this year/last year?

_____

_____

_____

_____

For your marketing information needs, were these trade shows:

Effective: Yes [ ] No [ ]   Efficient: Yes [ ] No [ ];

Reliable: Yes [ ] No [ ]

3. What databases are you using now for your export/import and marketing information needs? Please indicate whether they are internal or external to your firm.

_____

_____

_____

_____

Are they:

Effective: Yes [ ] No [ ]   Efficient: Yes [ ] No [ ];

Reliable: Yes [ ] No [ ]   Up-to-date: Yes [ ] No [ ]

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4. Is the information you are getting from your local Chamber of Commerce?

    Effective: Yes [ ] No [ ]   Efficient: Yes [ ] No [ ];

    Reliable: Yes [ ] No [ ]   Up-to-date: Yes [ ] No [ ]

5. Is the information you are getting from Saudi or Gulf States Chambers of Commerce:

    Effective: Yes [ ] No [ ]   Efficient: Yes [ ] No [ ];

    Reliable: Yes [ ] No [ ]   Up-to-date: Yes [ ] No [ ]

6. Is the information that you are receiving from UK government organisations:

    Effective: Yes [ ] No [ ]   Efficient: Yes [ ] No [ ];

    Reliable: Yes [ ] No [ ]   Up-to-date: Yes [ ] No [ ]

7. From your experience in the export/import business, what major information needs of IT exporters/importers are not covered by available information sources?

    _____

    _____

    _____

    _____

8. How do you assess the DTI services provided for the IT export/import business:

    Effective: Yes [ ] No [ ]   Efficient: Yes [ ] No [ ];

    Reliable: Yes [ ] No [ ]   Up-to-date: Yes [ ] No [ ]

9. What trade organisations or associations do you find helpful?

    _____

    _____

    _____

    _____

10. How much of your information needs do you satisfy via discussion with colleagues etc?

    All [ ] 80% [ ]   60% [ ]   40% [ ]   20% [ ]   Little [ ]

11. When you export to Saudi Arabia or the Gulf States, do you adapt the product to meet their standards?   Yes [ ]   No [ ]

    Do British IT standards limit British IT exporters to overseas countries?
                            Yes [ ]   No [ ]

    Do you provide instructions, manuals etc, in Arabic, as well as English?
                            Yes [ ]   No [ ]

11. (continued

Do you think the European Common Market regulations will affect your IT export trade?
Yes [ ] No [ ]

If yes, in what way?

_____
_____
_____
_____

Thank you for completing this questionnaire.
Please return in the envelope provided to:

Sharaf H Jifri
Department of Information and Library Studies
Loughborough University
Loughborough
Leics LE11 3TU

Dear Sir,

Enclosed is a survey questionnaire written in Arabic with an English translation. The reason for sending both is to make it easier for those who only communicate in one of the above-mentioned languages.

At present, I am carrying out research at Loughborough University in the Department of Information and Library Studies. My work involves seeking the views of British businessmen concerning exports to the Gulf States, in general, and to Saudi Arabia, in particular.

I am trying to look at your business needs and interests, together with the problems you encounter. I am especially concerned with the provision of information and whether what is available satisfies your needs. It is expected that the general results will be made use of, in due course, in Saudi Arabia, so leading to better information services both within Saudi Arabia and to overseas importers/exporters.

Thus I would be very grateful if you would take a moment to answer the attached questionnaire concerning your business and return it to be me in the enclosed envelope.

Data on individual respondents will, of course, be kept confidential. If you would like to receive a summary of the results of this preliminary survey, please tick the appropriate box in the attached questionnaire.

Thank you for your time and co-operation.

Yours faithfully,

Sharaf J Jifri

Loughborough University

LOUGHBOROUGH, LEICESTERSHIRE, LE11 3TU
Telephone: 0509 263171   Telex: 34319

DEPARTMENT OF INFORMATION AND LIBRARY STUDIES
Head of Department: Professor John Feather

Direct Line: 0509 22
Fax: 0509 223053

بسم الله الرحمن الرحيم

سعادة رئيس مجلس الإدارة   حفظه الله

السلام عليكم ورحمة الله وبركاته

أرفق لسعادتكم طيه إستبيان مكتوب باللغة العربية وترجمته باللغة الإنكليزية .

أرجو التكرم بالإجابة على إحداهما فقط . والسبب في إرسال الترجمة الإنكليزية هو أن بعض المؤسسات تدار

من قبل أشخاص لا يجيدون اللغة العربية .

هذا الإستبيان جزء من بحث علمي يتطلب وجهات نظر رجال الأعمال فيما يتعلق بالتصدير والإستيراد لأجهزة

الحاسبات الألكترونية وملحقاتها .

نأمل من هذا البحث معرفة حاجاتكم ورغباتكم والمشاكل التي تواجهكم فيما يتعلق بحصولكم على المعلومات

اللازمة للقيام بمهماتكم التجارية . فمن المفترض أن تسهم نتائج هذا البحث عن رفع كفاءة خدمات المعلومات

لتجار أجهزة الحاسبات وملحقاتها في المملكة العربية السعودية ودول الخليج .

ساكون شاكراً لتجاوبكم وتفضلكم بمليء إحدى نُسخ هذا الإستبيان وإعادته إلينا مشكورين في الظرف المرفق .

جميع المعلومات الخاصة التي تصلنا منكم تعتبر ضمن الأمانات العلمية التي لا تفشى سرية محتوياتها .

إذا كنتم ترغبون في الحصول على صورة من نتائج هذا البحث فأرجو الإشارة إلى ذلك في الخانة المناسبة من

الإستبيان المرفق .

وتفضلوا بقبول فائق تحياتي، ودمتم في رعاية الله وحفظه .

شرف الجفري

جامعة لفبرة – بريطانيا .

الرجاء الإجابة على هذين السؤالين بكتابة نعم أو لا بين القوسين وإرسال هذه القسيمة مع الإستبيان .

هل ترغبون في الحصول على مجلات ونشرات مجانية عن بعض منتجات التكنولوجيا الأوروبية الحديثة. (   )

هل لديكم الإستعداد لإستقبال عيّنات صناعية مجانية لتقييمها وإرسال مرئياتكم عنها. (   )

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إستبيان حول إستيراد أجهزة الحاسبات وملحقاتها

الرجاء الإجابة عن هذه الأسئلة بإختصار إمّا بملء البيانات أو بإختيار عنوان الجواب المناسب .

١- من أي بلدان العالم تستورد مؤسستكم أجهزة الحاسبات وملحقاتها ؟ ....

....

٢- في أي مجالات الحاسبات تختص مؤسستكم .

( ) إستيراد البرامج   ( ) إستيراد الأجهزة   ( ) إستيراد الخدمات   ( ) كل ما سبق ذكره

( ) أشياء أخرى(الرجاء أوضح)...

٣- بإختصار ما هو إختصاص مؤسستكم ؟

....

....

٤- كم عدد العاملين في مؤسستكم؟ ....

٥- هل تعتقد بأن حجم الإستيراد من الشركات التي تتعامل معها سيزداد من أجهزة وبرامج وخدمات الحاسبات؟   ( ) نعم   ( ) لا

٦- أي هذه النقاط يمثل لكم عقبة في التعامل مع المؤسسات والشركات الأجنبية التي تتعامل معها ؟

( ) مشاكل اللغة   ( ) مشاكل قوانين الحكومة في البلد المصدر   ( ) عقبات القوانين في بلدكم

( ) مشاكل التسويق   ( ) عملية الإتصال بالأشخاص والمؤسسات ذوي العلاقة   ( ) المعاملات البنكية مع الدول التي

تتعامل معها   ( ) عملية الحصول على معلومات عن صناعات الحاسبات في العالم .   ( ) أشياء أخرى ... أذكرها موضحاً

إسم الدولة ؟

....

....

....

٧- هل سبق وتأثرت مؤسستكم بسبب نقص المعلومات المتوفرة عن الأسواق في البلدان التي تتعامل معها في مجال عملكم ؟   ( ) نعم   ( ) لا

٨- في سعيكم للحصول على معلومات عن الصناعات والبضائع الأجنبية هل إستخدمت أياً من الأشياء المذكورة أدناه (ضع علامة على كل ما إستخدمته)

( ) المكتبات العامة في بلدكم   ( ) المكتبات العامة في دولة أجنبية   ( ) الغرف التجارية في بلدكم

( ) الغرف التجارية في دولة أجنبية   ( ) المنشورات التجارية   ( ) المعارض التجارية في الخارج   ( ) المعارض التجارية في بلدكم

( ) المكتبات الخاصة   ( ) إستشاريون   ( ) باحثون تجاريون   ( ) دلالو معلومات   ( ) بنوك معلومات داخل بلدكم

( ) بنوك معلومات خارج بلدكم   ( ) إتصالات خاصة   ( ) الملحقيات   التجارية لبلدكم بالخارج

٩- ما هي أفضل مصادر المعلومات التي تستخدمها للبحث في التجارة مع البلدان التي تتعامل معها ؟

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١٠- في حالة الحاجة لمزيد من المعلومات إذا لم يكن لديكم مانع ، ما هو إسم الشخص الذي تتصل به ؟

الإسم: ....   التليفون: ....

١١- هل ترغب في الحصول على ملخص لنتائج هذا البحث   ( ) نعم   ( ) لا

إذا كان الجواب نعم فاكتب لنا الإسم والعنوان الذي نرسل إليه التقرير

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APPENDIX B

KEY TO TABLE VALUES

Key for table values: Value of Factor B

Value of factor A	Cell Value	Expected Value	Row Sum
	Chi-square	Total Percent	Row Sum Percent
	Column Percent	Row Percent	

	Column Sum		Sum Total
	Column Sum Percent		Sum Total Percent

Chi-square

Cell Value   Expected Value   Total Percent

Information Obstacles	British IT Exporters		Saudi Gulf Importers		Row Sum	
Linguistic Problem	4	4.7	4	3.3	8	Row Sum
	0.112	2.6%	0.163	2.6%		
	4.4%	50.0%	6.3%	50.0%	5.2%	Row Sum %
Col Sum Problem	91		63		154	Total
	59.1%		40.9%		100%	Sum

Column Percent   Column Sum   Column Sum Percent   Row Percent   Sum Total Percent

COMMON INFORMATION SOURCES TO ALL THREE GROUPS UNDER INVESTIGATION

CONTINGENCY TABLE (14 rows by 3 cols)

		C1 British IT exporters (1)		C2 Saudi IT importers		C3 British IT exporters (2)		Row Sum
Public libraries	1	2 .463 2.1%	3.2 0.6% 18.2%	3 .824 2.0%	5 0.9% 27.3%	6 3.87 7.5%	2.7 1.9% 54.5%	11 3.4%
Special libraries	2	2 1.07 2.1%	4.1 0.6% 14.3%	5 .311 3.4%	6.4 1.6% 35.7%	7 3.54 8.8%	3.5 2.2% 50.0%	14 4.4%
Information brokers	3	0 1.46 0.0%	1.5 0.0% 0.0%	3 .220 2.0%	2.3 0.9% 60.0%	2 .456 2.5%	1.2 0.6% 40.0%	5 1.6%
Agent finder	4	1 .770 1.1%	2.3 0.3% 12.5%	3 .120 2.0%	3.7 0.9% 37.5%	4 2.01 5.0%	2 1.2% 50.0%	8 2.5%
Local database	5	4 .067 4,3%	3.5 1.2% 33.3%	6 .046 4.1%	5.5 1.9% 50.0%	2 .328 2.5%	3 0.6% 16.7%	12 3.7%
International database	6	6 .030 6.4%	6.4 1.9% 27.3%	10 .001 6.8%	10.1 3.1% 45.5%	6 .049 7.5%	5.5 1.9% 27.3%	22 6.9%
Trade papers	7	13 .127 13.8%	14.3 4.0% 26.5%	24 .109 16.3%	22.4 7.5% 49.0%	12 .004 15.0%	12.2 3.7% 24.5%	49 15.3%
Trade shows in business countries	8	8 2.22 8.5%	13.5 2.5% 17.4%	28 2.28 19.0%	21.1 8.7% 60.9%	10 .187 12.5%	11.5 3.1% 21.7%	46 14.3%
Overseas trade shows	9	4 5.33 4.3%	12 1.2% 9.8%	27 3.60 18.4%	18.8 8.4% 65.9%	10 .005 12.5%	10.2 3.1% 24.4%	41 12.8%
Overseas consultant	10	10 3.53 10.6%	5.6 3.1% 52.6%	9 .010 6.1%	8.7 2.8% 47.4%	0 4.73 0.0%	4.7 0.0% 0.0%	19 5.9%
Foreign Chamber of Commerce	11	12 .565 12.8%	9.7 3.1% 36.4%	11 1.11 7.5%	15.1 3.4% 33.3%	10 .383 12.5%	8.2 3.1% 30.3%	33 10.3%
Government organisation	12	9 1.68 9.6%	5.9 2.8% 45.0%	11 .370 7.5%	9.2 3.4% 55.0%	0 4.98 0.0%	5 0.0% 0.0%	20 6.2%
Saudi Chamber of Commerce	13	5 .215 5.3%	6.1 1.6% 23.8%	5 2.21 3.4%	9.6 1.6% 23.8%	11 6.35 13.8%	5.2 3.4% 52.4%	21 6.5%
Special contacts	14	18 25.1 19.1%	5.9 5.6% 90.0%	2 5.59 1.4%	9.2 0.6% 10.0%	0 4.98 0.0%	5 0.0% 0.0%	20 6.2%
Col sum		94 29.3%		147 45.8%		80 24.9%		321 100%

C1	=	British IT exporters who export to Saudi Arabia and the Gulf States
C2	=	Saudi IT importers
C3	=	British IT exporters who export to other than the latter countries

TABLE B

CONTINGENCY TABLE (8 rows by 3 cols)
INFORMATION SEEKING AND IT EXPORT/IMPORT OBSTACLES

	C4 British IT exporters (1)		C5 British IT exporters (2)		C6 Saudi IT importers		Row Sum
1 Linguistic problem	5 .505 5.3%	6.9 2.8% 38.5%	4 .574 10.5%	2.7 2.2% 30.8%	4 .108 8.5%	3.4 2.2% 30.8%	13 7.2%
2 Marketing problem	15 .483 15.8%	17.9 8.3% 44.1%	12 3.24 31.6%	7.2 6.7% 35.3%	7 .397 14.9%	8.9 3.9% 20.6%	34 18.9%
3 Making necessary contact	25 .136 26.3%	23.2 13.9% 56.8%	9 .009 23.7%	9.3 5.0% 20.5%	10 .193 21.3%	11.5 5.6% 22.7%	44 24.4%
4 Obtaining information about potential customers	22 .129 23.2%	23.8 12.2% 48.9%	9 .026 23.7%	9.5 5.0% 20.0%	14 .431 29.8%	11.8 7.8% 31.1%	45 25.0%
5 Saudi Government regulations	15 3.18 15.8%	9.5 8.3% 83.3%	1 2.06 2.6%	3.8 0.6% 5.6%	2 1.55 4.3%	4.7 1.1% 11.1%	18 10.0%
6 British Government regulations	3 .354 3.2%	4.2 1.7% 37.5%	0 1.68 0.0%	1.7 0.0% 0.0%	5 4.05 10.6%	2.1 2.8% 62.5%	8 4.4%
7 Bank LC	4 .025 4.2%	3.7 2.2% 57.1%	1 .154 2.6%	1.5 0.6% 14.3%	2 .016 4.3%	1.8 1.1% 28.6%	7 3.9%
8 Payments	6 .007 6.3%	5.8 3.3% 54.5%	2 .045 5.3%	2.3 1.1% 18.2%	3 .006 6.4%	2.9 1.7% 27.3%	11 6.1%
Col Sum	95 52.8%		38 21.1%		47 26.1%		180 100%

C4 = Btitish IT exporters to Saudi and Gulf States (1)
C5 = British IT exporters who export to other than Saudi and Gulf States (2)
C6 = Saudi IT importers

TABLE C

CONTINGENCY TABLE (14 rows by 3 cols)
INFORMATION SOURCES OF SAUDI IT IMPORTERS

		C10	C11	C12	Row sum
1	Public libraries	1 .6 .253 0.7% 3.3% 33.3%	1 .6 .220 07% 3.2% 33.3%	1 1.8 .331 0.7% 1.1% 33.3%	3 2.0%
2	Special libraries	1 1 0.00 0.7% 3.3% 20.0%	1 1 .002 0.7% 3.2% 20.0%	3 2.9 .001 2.0% 3.4% 60.0%	5 3.4%
3	Information brokers	2 .6 3.18 1.4% 6.7% 66.7%	0 .6 .628 0.0% 0.0% 0.0%	1 1.8 .331 0.7% 1.1% 33.3%	3 2.0%
4	Agent finders	1 .6 .253 0.7% 3.3% 33.3%	1 .6 .220 0.7% 3.2% 33.3%	1 1.8 .331 0.7% 1.1% 33.3%	3 2.0%
5	Local database	1 1.2 .038 0.7% 3.3% 16.7%	2 1.3 .440 1.4% 6.5% 33.3%	3 3.5 .079 2.0% 3.4% 50.0%	6 4.1%
6	International database	1 2 .520 0.7% 3.3% 10.0%	1 2.1 .572 0.7% 3.2% 10.0%	8 5.9 .766 5.4% 9.2% 80.0%	10 6.8%
7	Trade papers	4 4.9 .154 2.7% 13.3% 16.7%	7 5 .774 4.7% 22.6% 29.2%	13 14.1 .087 8.8% 14.9% 54.2%	24 16.2%
8	Trade shows in Saudi	4 5.7 .495 2.7% 13.3% 14.3%	6 5.9 .003 4.1% 19.4% 21.4%	18 16.5 .144 12.2% 20.7% 64.3%	28 18.9%
9	Overseas trade shows	5 5.5 .041 3.4% 16.7% 18.5%	6 5.7 .021 4.1% 19.4% 22.2%	16 15.9 .001 10.8% 18.4% 59.3%	27 18.2%
10	Overseas consultants	3 1.8 .758 2.0% 10.0% 33.3%	2 1.9 .007 1.4% 6.5% 22.2%	4 5.3 .315 2.7% 4.6% 44.4%	9 6.1%
11	Foreign Chamber of Commerce	2 2.2 .024 1.4% 6.7% 18.2%	2 2.3 .040 1.4% 6.5% 18.2%	7 6.5 .044 4.7% 8.0% 63.6%	11 7.4%
12	Government organisation	3 2.2 .266 2.0% 10.0% 27.3%	1 2.3 .738 0.7% 3.2% 9.1%	7 6.5 .044 4.7% 8.0% 63.6%	11 7.4%
13	Saudi Chamber of Commerce	1 1 0.00 0.7% 3.3% 20.0%	1 1 .002 0.7% 3.2% 20.0%	3 2.9 .001 2.0% 3.4% 60.0%	5 3.4%
14	Special contacts	1 .6 .253 0.7% 3.3% 33.3%	0 .6 .628 0.0% 0.0% 0.0%	2 1.8 .032 1.4% 2.3% 66.7%	3 2.0%
	Col sum	30 20.3%	31 20.9%	87 58.8%	148 100%

C10, C11 and C12 are small, medium and large Saudi IT importers

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CONTINGENCY TABLE (8 rows by 3 cols)
INFORMATION SEEKING AND IT EXPORTING/IMPORTING OBSTACLES

	C22 Small IT Saudi importers		C23 Medium Saudi IT importers		C24 Large Saudi IT importers		Row sum
1 Linguistic problem	3 .013 9.1%	2.8 6.4% 75.0%	0 .511 0.0%	5 0.0% 00%	1 .150 12.5%	7 2.1% 25.0%	4 8.5%
2 Marketing problem	5 .001 15.2%	4.9 10.6% 71.4%	0 .894 0.0%	.9 0.0% 0.0%	2 .549 25.0%	1.2 4.3% 28.6%	7 14.9%
3 Making necessary contacts	7 0.00 21.2%	7 14.9% 70.0%	1 .060 16.7%	1.3 2.1% 10.0%	2 .052 25.0%	1.7 4.3% 20.0%	10 21.3%
4 Obtaining information about potential customers	9 .070 27.3%	9.8 19.1% 64.3%	3 .823 50.0%	1.8 6.4% 21.4%	2 .062 25.0%	2.4 4.3% 14.3%	14 29.8%
5 Saudi Government regulations	2 .253 6.1%	1.4 4.3% 100.0%	0 .255 0.0%	.3 0.0% 0.0%	0 .340 0.0%	.3 0.0% 0.0%	2 4.3%
6 Foreign Government regulations	2 .650 6.1%	3.5 4.3% 40.0%	2 2.90 33.3%	.6 4.3% 40.0%	1 .026 12.5%	.9 2.1% 20.0%	5 10.6%
7 Bank LC	2 .253 6.1%	1.4 4.3% 100.0%	0 .255 0.0%	.3 0.0% 0.0%	0 .340 0.0%	.3 0.0% 00%	2 4.3%
8 Payments	3 .379 9.1%	2.1 6.4% 100.0%	0 .383 0.0%	.4 0.0% 0.0%	0 .511 0.0%	.5 0.0% 0.0%	3 6.4%
	33 70.2%		6 12.8%		8 17.0%		47 100%

C22, C23 and C24 are small, medium and large sizes of Saudi IT importers

TABLE E

CONTINGENCY TABLE (17 rows 3 cols)
INFORMATION SOURCES OF BRITISH IT EXPORTERS

	C7 Small British IT exporters (1)		C8 Medium British IT exporters (1)		C9 Large British IT exporters (1)		Row Sum
1 British Government organisation	5 .081 7.2%	5.7 3.2% 38.5%	2 .006 8.7%	1.9 1.3% 15.4%	6 .060 9.1%	5.4 3.8% 46.2%	13 8.2%
2 Trade shows in Britain	5 .649 7.2%	3.5 3.2% 62.5%	1 .023 4.3%	1.2 0.6% 12.5%	2 .539 3.0%	3.3 1.3% 25.0%	8 5.1%
3 Saudi Chamber of commerce in UK	7 .59 10.1%	5.2 14.4% 58.3%	2 .037 8.7%	1.7 1.3% 16.7%	3 .808 4.5%	5 1.9% 25.0%	12 7.6%
4 Local database	2 .037 2.9%	1.7 1.3% 50.0%	1 .300 4.3%	.6 0.6% 25.0%	1 .269 1.5%	1.7 0.6% 25.0%	4 2.5%
5 Local Distributors	6 .636 8.7%	8.3 3.8% 31.6%	3 .020 13.0%	2.8 1.9% 15.8%	10 .536 15.2%	7.9 6.3% 52.6%	19 12.0%
6 British overseas trade board	9 .008 13.0%	8.7 5.7% 45.0%	4 .407 17.4%	2.9 2.5% 20.0%	7 .220 10.6%	8.4 4.4% 35.0%	20 12.7%
7 Saudi Government organisation	6 1.09 8.7%	3.9 3.8% 66.7%	1 .073 4.3%	1.3 0.6% 11.1%	2 .823 3.0%	3.8 1.3% 22.2%	9 5.7%
8 Trade shows in Saudi Arabia	2 .015 2.9%	2.2 1.3% 40.0%	1 .102 4.3%	.7 0.6% 20.0%	2 .004 3.0%	2.1 1.3% 40.0%	5 3.2%
9 British Chamber of Commerce	8 .950 11.6%	5.7 5.1% 61.5%	1 .421 4.3%	1.9 0.6% 7.7%	4 .377 6.1%	5.4 2.5% 30.8%	13 8.2%
10 International database	1 1.00 1.4%	2.6 0.6% 16.7%	0 .873 0.0%	.9 0.0% 0.0%	5 2.48 7.6%	2.5 3.2% 83.3%	6 3.8%
11 Saudi Chamber of Commerce	1 .642 1.4%	2.2 0.6% 20.0%	0 .728 0.0%	.7 0.0% 0.0%	4 1.74 6.1%	2.1 2.5% 80.0%	5 3.2%
12 Agent finder	0 .437 0.0%	.4 0.0% 0.0%	0 .146 0.0%	.1 0.0% 0.0%	1 .812 1.5%	.4 0.6% 100.0%	1 0.6%
13 Trade papers	5 .081 7.2%	5.7 3.2% 38.5%	2 .006 8.7%	1.9 1.3% 15.4%	6 .060 9.1%	5.4 3.8% 46.2%	13 8.2%
14 Special libraries	2 1.45 2.9%	.9 1.3% 100.0%	0 .291 0.0%	.3 0.0% 0.0%	0 .835 0.0%	.8 0.0% 0.0%	2 1.3%
15 Overseas consultant	4 .031 5.8%	4.4 2.5% 40.0%	2 .204 8.7%	1.5 1.3% 20.0%	4 .008 6.1%	4.2 2.5% 40.0%	10 6.3%
16 Information broker	0 0.00 0.0%	0 0.0% 0.0%	0 0.00 0.0%	0 0.00% 0.0%	0 0.00 0.0%	0 0.0% 0.0%	0 0.0%
17 Special contacts	6 .440 8.7%	7.9 3.8% 33.3%	3 .055 13.0%	2.6 1.9% 16.7%	9 .292 13.6%	7.5 5.7% 50.0%	18 11.4%
Col Sum	69 43.7%		23 14.6%		66 41.8%		158 100%

TABLE F

CONTINGENCY TABLE (8 rows by 3 cols)
INFORMATION-SEEKING AND IT EXPORT/IMPORT OBSTACLES

	C16 Small IT British exporters (1)		C17 Medium IT British exporters (1)		C18 Large IT British exporters (1)		Row sum
1 Linguistic problem	1 .524 2.6%	2 1.0% 20.0%	2 1.63 12.5%	.8 2.1% 40.0%	2 .009 4.9%	2.1 2.1% 40.0%	5 5.2%
2 Marketing problem	4 .719 10.3%	6.1 4.2% 26.7%	3 .100 18.8%	2.5 3.1% 20.0%	8 .396 19.5%	6.4 8.3% 53.3%	15 15.6%
3 Making necessary contacts	10 .002 25.6%	10.2 10.4% 40.0%	4 .007 25.0%	4.2 4.2% 16.0%	11 .010 26.8%	10.7 11.5% 44.0%	25 26.0%
4 Obtaining information about potential customers	11 .294 28.2%	9.3 11.5% 47.8%	3 .181 18.8%	3.8 3.1% 13.0%	9 .069 22.0%	9.8 9.4% 39.1%	23 24.0%
5 Saudi Government regulation	5 .196 12.8%	6.1 5.2% 33.3%	2 .100 12.5%	2.5 2.1% 13.3%	8 .396 19.5%	6.4 8.3% 53.3%	15 15.6%
6 British Government regulation	3 2.60 7.7%	1.2 3.1% 100.0%	0 .500 0.0%	.5 0.0% 0.0%	0 1.28 0.0%	1.3 0.0% 0.0%	3 3.1%
7 Bank LC	3 1.16 7.7%	1.6 3.1% 75.0%	0 .667 0.0%	.7 0.0% 0.0%	1 .294 2.4%	1.7 1.0% 25.0%	5 4.2%
8 Payments	2 .079 5.1%	2.4 2.1% 33.3%	2 1.00 12.5%	1 2.1% 33.3%	2 .123 4.9%	2.6 2.1% 33.3%	6 6.3%
Col sum	39 40.6%		16 16.7%		41 42.7%		96 100%

C16, C17 and C18 are small, medium and large sizes of British IT exporters who export to Saudi Arabia and the Gulf States

CONTINGENCY TABLE (13 rows by 3 cols)
INFORMATION SOURCES OF BRITISH IT EXPORTERS

	C13 Small British IT exporters (2)		C14 Medium British IT exporters (2)		C15 Large British IT exporters (2)		Row sum
1 Public libraries	4 .794 9.5%	2.6 4.1% 66.7%	2 .073 7.4%	1.7 2.0% 33.3%	0 1.77 0.0%	1.8 0.0% 0.0%	6 6.1%
2 Special libraries	3 .071 7.1%	2.6 3.1% 50.0%	1 .258 3.7%	1.7 1.0% 16.7%	2 .028 6.9%	1.8 2.0% 33.3%	6 6.1%
3 Information brokers	0 .857 0.0%	.9 0.0% 0.0%	1 .366 3.7%	.6 1.0% 50.0%	1 .281 3.4%	.6 1.0% 50.0%	2 2.0%
4 Agent finders	3 .964 7.1%	1.7 3.1% 75.0%	1 .009 3.7%	1.1 1.0% 25.0%	0 1.18 0.0%	1.2 0.0% 0.0%	4 4.1%
5 Local database	0 .857 0.0%	.9 0.0% 0.0%	1 .366 3.7%	.6 1.0% 50.0%	1 .281 3.4%	.6 1.0% 50.0%	2 2.0%
6 International database	2 .127 4.8%	2.6 2.0% 33.3%	2 .073 7.4%	1.7 2.0% 33.3%	2 .028 6.9%	1.8 2.0% 33.3%	6 6.1%
7 Trade papers	5 .004 11.9%	5.1 5.1% 41.7%	3 .028 11.1%	3.3 3.1% 25.0%	4 .057 13.8%	3.6 4.1% 33.3%	12 12.2%
8 Trade shows in Britain	5 .119 11.9%	4.3 5.1% 50.0%	2 .207 7.4%	2.8 2.0% 20.0%	3 .001 10.3%	3 3.1% 30.0%	10 10.2%
9 Overseas trade shows	4 .019 9.5%	4.3 4.1% 40.0%	3 .022 11.1%	2.8 3.1% 30.0%	3 .001 10.3%	3 3.1% 30.0%	10 10.2%
10 Overseas consultants	3 0.00 7.1%	3 3.1% 42.9%	1 .447 3.7%	1.9 1.0% 14.3%	3 .416 10.3%	2.1 3.1% 42.9%	7 7.1%
11 British overseas trade board	4 .254 9.5%	5.1 4.1% 33.3%	4 .146 14.8%	3.3 4.1% 33.3%	4 .057 13.8%	3.6 4.1% 33.3%	12 12.2%
12 British Chamber of Commerce	4 .019 9.5%	4.3 4.1% 40.0%	3 .022 11.1%	2.8 3.1% 30.0%	3 .001 10.3%	3 3.1% 30.0%	10 10.2%
13 British Government organisation	5 .017 11.9%	4.7 5.1% 45.5%	3 0.00 11.1%	3 3.1% 27.3%	3 .020 10.3%	3.3 3.1% 27.3%	11 11.2%
Col sum	42 42.9%		27 27.6%		29 29.6%		98 100%

C13, C14 and C15 are small, medium and large British IT exporters who export to other than Saudi Arabia and the Gulf States

TABLE H

CONTINGENCY TABLE (8 rows by 3 cols)
INFORMATION-SEEKING AND IT EXPORTING/IMPORTING OBSTACLES

	C19 Small IT British exporters (2)		C20 Medium IT British exporters (2)		C21 Large IT British exporters (2)		Row sum
1 Linguistic problem	2 .006 11.1%	1.9 5.3% 50.0%	2 .291 15.4%	1.4 5.3% 50.0%	0 .737 0.0%	.7 0.0% 0.0%	4 10.5%
2 Marketing problem	5 .082 27.8%	5.7 13.2% 41.7%	4 .003 30.8%	4.1 10.5% 33.3%	3 .282 42.9%	2.2 7.9% 25.0%	12 31.6%
3 Making necessary contacts	5 .127 27.89%	4.3 13.2% 55.6%	2 .378 15.4%	3.1 5.3% 22.2%	2 .071 28.6%	1.7 5.3% 22.2%	9 23.7%
4 Obtaining information about potential customers	4 .016 22.2%	4.3 10.5% 44.4%	3 .002 23.1%	3.1 7.9% 33.3%	2 .071 28.6%	1.7 5.3% 22.2%	9 23.7%
5 Saudi Government regulation	0 .474 0.0%	.5 0.0% 0.0%	1 1.26 7.7%	.3 2.6% 100.0%	0 .184 0.0%	.2 0.0% 0.0%	1 2.6%
6 British Government regulation	0 0.00 0.0%	0 0.0% 0.0%	0 0.00 0.0%	0 0.0% 0.0%	0 0.00 0.0%	0 0.0% 0.0%	0 0.0%
7 Bank LC	1 .585 5.6%	.5 2.6% 100.0%	0 .342 0.0%	.3 0.0% 0.0%	0 .184 0.0%	.2 0.0% 0.0%	1 2.6%
8 Payments	1 .003 5.6%	.9 2.6% 50.0%	1 .146 7.7%	.7 2.6% 50.0%	0 .368 0.0%	.4 0.0% 0.0%	2 5.3%
Col sum	18 47.4%		13 34.2%		7 18.4%		38 100%

C19, C20 and C21 are small, medium and large sizes of British IT exporters who export to other than Saudi Arabia and the Gulf States

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APPENDIX C

Example

To apply the FOG Index = (L + SY) x .4, where L - W- S

To nearly 100 word sentences from Manufacturing Systems, September, 1992, page 39.

As networks become more common and larger, <u>efficient</u> <u>management</u> becomes more <u>difficult</u>. Network <u>management</u> is an as yet little <u>understood</u> area of <u>networking</u>.

It is <u>increasingly obvious</u> that systems wh ich are <u>communicating</u> need <u>information</u> about the way different parts of that <u>communication</u> are being handled - how well, how fast and so on.

Managing <u>communications</u> provide <u>benefits</u> such as <u>performance</u> <u>optimisation</u>, <u>recovery</u>, and accounting.

A <u>communication</u> system will link a number of different types of <u>equipment</u>, gateways, routers and <u>manufacturing</u> devices such as <u>numerically</u> controlled machines, robots and so on. These must be <u>monitored</u> to pick up <u>communication</u> <u>inefficiencies</u>. The functions are referred to as <u>management</u> <u>information</u> services (<u>confusingly</u> known as MIS).

The number of words in the sentences is 109 words.

The number of sentences in this passage according to the FOG Index methodology are 10 sentences.

The percentage number of words are three syllables or more are 24.77% words.

To solve the FOG Index - (L + %SY) x .4

$$L = 109 = 10 = 109$$

FOG Index for this example is:

$$(10.9 + 24.77) \times .4 = 14.2$$

This grading is different from the average base grading for this magazine shown in the table. The result of the test shows that the readability test of this passage is a difficult one above the danger line of the FOG Index, as shown here.

READABILITY TEST USING FOG INDEX

FOG INDEX	READING LEVEL BY GRADE	TRADE PAPERS	FOG INDEX LEVEL
17 16 15 14 13 Danger line	College graduate College senior College junior College sophomore College freshman	Manufacturing system	13.23
Very 12 difficult 11 to read	High-school senior High-school junior	What personal computer	12.31
10 Easy 9 Reading 8 Range 7 6	High-school sophomore High-school freshman High-school eighth grade High-school seventh grade High-school sixth grade	New Electronics	10.39
		MicroScope Computer Shopper	9.94 9.49

FLESCH SCALE

SCORES LENGTHS	STYLE
90-100	Very easy
80-90	Easy
70-80	Fairly easy
60-70	Standard
50-60	Fairly difficult
30-50	Difficult
0-30	Very difficult

Wekesa (1992)

APPENDIX D

LIST OF SOURCES USED FOR THE READABILITY TEST

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Kingdom to Kingdom. *UK Ltd.* Riyadh, British Embassy, October, 1992, 2.

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Rudd, Roland. Lonrho makes Bock joint chief executive. *Financial Times*, 1993, 31 (8), 21.

Nakamoto, Michiyo and K. Louise. Canon to buy next hardware, *Financial Times*, 1993, 31 (8), 21.

Dell extends the hand of friendship to VARs. *The VAR*, 1992, 92 (19), 14.

Two new main dealers. *Cad Desk*, 1992, 2 (8), 12.

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Solids: working the way designers think. *Engineering Computers,* 1992, 11 (6), 24.

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Lettice, John. Cracking up, breaking down? *Microscope,* 1992, 11 (25), 8.

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Mainframe fights for survival. *Computer Weekly*, 10 Sept., 1992, 2.

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Windows prsents a better image. *What Personal Computer?*, (24), 1991, 15.

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Decisions, decisions. *The Economist* survey. 326 (7800), 1993, 23.

ASIA, South Korea's changing picture. *The Economist*, 326 (7800), 1993, 67.