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The Provision of Information to Industry: A Comparative Study of Saudi Arabia and UK

By

Mohammad Jafar Arif

A Doctoral Thesis

Submitted in partial fulfilment of the requirements

for the award of

Doctor of Philosophy

of the

Loughborough University of Technology

1994

Supervisor: Professor A. Jack Meadows

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Dedication

To my wife B. Abed

My children

My parents

Abstract

The main aim of this study is to investigate the provision and use of industrial information in Saudi Arabia, to compare it with corresponding patterns in the UK, and to examine what conclusions follow from this comparison for the information infrastructure in Saudi Arabia. To achieve this aim four main objectives have been established: (1) to determine what major information services are available to Saudi and British industry; (2) to examine the level of service and relevance of the information provided; (3) to investigate how aware industries are of information services and to what extent they use them; (4) to look for differences in the use of information services as a function of the type of firm concerned. The major focus of the work is on provision and use of this information in Saudi Arabia. It is not intended as a comprehensive overview of all business information in the UK.

The first stage of the methodology involved a questionnaire survey distributed to Saudi manufacturing firms in the building, chemical and metals industries. For the UK, the same industries were selected, and the size and distribution of the sample surveyed were chosen so as to parallel the Saudi sample. The second stage of the methodology involved a series of interviews carried out in both Saudi Arabia and the UK with the main information providers cited by the respondents.

The main findings of this study show that Saudi firms tap a greater number of government information sources than British firms do, but the latter use more non-government sources. This difference reflects the stronger emphasis on information provision by the government in Saudi Arabia, as compared with government provision in the UK.

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Chapter One

The Investigation in Perspective

1.1 Introduction

Saudi Arabia's economy has traditionally been primarily dependent on the oil industry. National policy in recent decades has aimed at diversifying this economic base, with due emphasis on other industries and agriculture. The new industrial sector that is now emerging is still small in international terms. In 1989 it consisted of somewhat over 2000 firms, most of which were small (Saudi Consulting House, 1990).

To achieve this national policy and speed up industrial development, the Saudi government offers attractive financial incentives to investors in the private sector. Investors are able to lease land at nominal prices in industrial areas, and are charged advantageous prices for their use of power and utilities. Loans are granted by the Saudi Industrial Development Fund and priority is given to national products when procurement is made for government institutions. The government also funds training grants, and customs protection is given to certain national products.

In order for Saudi industries to develop and challenge their national and international competitors effectively, they need more than these

financial incentives. The crucial need is for relevant information. Reid (1986) has emphasised that:

All businesses, regardless of their size and sphere of activity, require information in order to exist, to compete and to survive. In business planning and marketing, the need for factual and up-to-date information has never been greater and the consequences of ill-informed decision-making can be disastrous (p.51).

1.2 Statement of the Problem

The situation regarding information services provided by the government organisation in Saudi Arabia is similar to that in many developing countries. More specifically, information is lacking or inadequate, especially that related to the industrial sector. Therefore, the country is forced to import much of its information from overseas. For example, in 1982, Saudi Arabia spent 45 million British pounds on imported information, mainly from the UK and the USA (Curwen, 1986). According to Curwen's statistics, Saudi Arabia was the largest importer of information among all developing countries included in the study's list. To overcome this problem the Saudi government has concentrated on attracting foreign high-tech corporations to assist in transferring information technology to the country and to help in developing the industrial sector.

However, despite the fact that the Saudi government has involved itself in many efforts to increase the amount and quality of information available to its country's industrial sector, such studies as have been made suggest that the provision of information, particularly that from government organisations, is inadequate to satisfy its users' needs. Thus, according to a study conducted by Soufi & Mayer (1991) -

discussed in more detail in Chapter Three - most businessmen saw government-provided information as inadequate for their needs and mostly out-dated by the time it arrived.

However, as is shown by the fifth development plan (1990-1995), Saudi government planners have recognised that, in various fields, the quality of government information provision has not yet attained a level that compares favourably with the standards of developed countries. The Ministry of Planning (1990) stated that:

in many fields of data provision the quality of information produced by the government organisations was not yet up to the standards of accuracy and reliability required for rational and responsible analysis, planning and decision-making (p75).

The government has identified a number of factors which inhibit information flow. These are - gaps in information coverage, poor quality of information, discontinuity of data collection, timeliness of data, and accessibility of information (Ministry of Planning, 1990).

Alogla (1993), in his recent study discussed in more detail in Chapter Three, has pointed out that in recent years much research has been conducted by Saudi scholars into the issues facing Saudi manufacturing, but none has applied to information problems.

On the basis of these various comments, it seems probable that, currently, the government information provision to Saudi industry is inadequate and unable fully to satisfy users' demands. The present stage of industrialisation in Saudi Arabia requires that highly

sophisticated information about local and international markets should be available to help Saudi industry become more competitive. Gibb (1982) has pointed out that a community's future in a competitive world is conditioned by its capacity to innovate, and that innovation is impossible without satisfactory information.

1.3 Aims

As discussed above, the need for relevant information certainly has been recognised by the Saudi government, but the infrastructure for its acquisition, handling and dissemination is still in the process of development. The main aim of this present study is to investigate access to industrial information in Saudi Arabia, to compare it with corresponding access in the UK, and to examine what conclusions follow from this comparison for the information infrastructure in Saudi Arabia. To achieve this aim, four objectives have been established:

- To determine what major information sources are available to Saudi and British industry;
- To examine the level of services and relevance of the information provided;
- To investigate how aware industries are of information sources and to what extent they use them; and
- To look for differences in the use of information sources as a function of the type of firm concerned.

1.4 Significance of the Study

Developing the Saudi industrial information infrastructure must be based on empirical research. Since no study has been carried out to

investigate the national information provision to industry in Saudi Arabia before, the present study can play a major role in developing the Saudi industrial information infrastructure. It describes the government information provision to industry to reveal the gaps in the current situation. It also looks at the impact of the information use and needs of the various types and size of firms, which may play a role in the nature of the information provision. Finally, this study should help to define the problems that need to be addressed in a future development plan.

A major motivation for the study was the intention that the findings should be used as a guideline for planners, scholars and industrialists who are interested in the information provision to industry in Saudi Arabia. A greater awareness of the current situation could assist these people in making decisions associated with the development of an information infrastructure in Saudi Arabia.

1.5 Research Methods

Following an extensive review of the literature, which is reported in Chapter Three, the research went through two cycles of data collection and analysis. The first cycle collected data using a questionnaire distributed via the mail. The second cycle used evidence based on face-to-face interviews. The reasons for choosing these methods are discussed in Chapter Five.

The mail questionnaire was sent to firms both in Saudi Arabia and UK. As discussed in Chapter Four, firms were selected to be from one of the three following types of industry: building, metals, or chemical. The

interviews were carried out in both Saudi Arabia and the UK and involved the main information providers cited by the respondents.

1.6 Definition

As discussed in Chapter Three, there is no generally accepted definition of industrial information, but most authors, when defining industrial information, use the term 'business information'. In this study, industrial information is equated to business information and is defined as any external data related to the firm's environment. Access to such information enables decision-makers to gain better knowledge about their work environment.

The types of business information which are central to this study are grouped into three categories. These are:

- 1- Market information, which includes any data related to the market, such as market research reports, company information, export information, product information, supplier information, etc.
- 2- Technical information, which includes any data which affect the technical aspect of the products, such as standards, production information, etc.
- 3- Statistical information, which includes any data that are in statistical format.

1.7 Main Thrust of the Study

This study concentrates on the major government and non-government information sources and attempts to investigate their role in the

industrial information provision. Although, the study concentrates on three main types of industry, for which result can be generalised to other industries.

1.8 Presentation

The discussion is organised into nine chapters. This first chapter contains an overview of the problem, definitions and thrust. Chapter Two provides a background for this investigation by discussing the relevant main features of the Saudi development plans, industrial development in Saudi Arabia and the main types of Saudi industry. Chapter Three examines possible definitions of industrial information. The differences between internal and external information are discussed. Organisations providing information to industry in both Saudi Arabia and the UK are presented. Problems facing information services in developing countries and in Saudi Arabia are discussed. Finally, the information needs of small firms are considered in this chapter. Chapter Four concerns the statistical distribution of different types of Saudi firm. This provides a basis in terms of which the sample for this study has been selected. Emphasis is placed on the size of firms, type of firms, and organisational status of the firms. Chapter Five discusses the methodology used for collecting the data. The work was carried out in two stages. The first stage collected data from manufacturing firms in both Saudi Arabia and the UK using a mail questionnaire. The second stage collected data from government information sources in both countries using face-to-face interviews. Chapter Six analyses the results of the data collected from the questionnaire surveys for both Saudi Arabia and the UK. Chapter Seven analyses the data collected from the interview survey for both Saudi

Arabia and the UK. Chapter Eight examines the contents of the publications published by all the organisations interviewed in both Saudi Arabia and the UK. Chapter Nine discusses the results of the data collected from the questionnaire and interview surveys in both countries, as well as the results of the data analysis of the publications collected from both countries. Finally, the conclusions and recommendations are presented in Chapter Nine.

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Chapter Two

General Background

2.1 Introduction

The purpose of this chapter is to provide a general conceptual framework for the needs of this study. The first section of this chapter gives a brief general background about relevant aspects of Saudi Arabia. The second section discusses the main features of Saudi development plans and the main points relating to industry and industrialisation in the country. The third section discusses industrial development in Saudi Arabia, and the final section discusses the most important types of Saudi industry.

2.2 The Geographical Setting

The Kingdom of Saudi Arabia is located in Southwest Asia. The Kingdom occupies four-fifths of the Arabian Peninsula with an area of about 900,000 square miles or approximately 2,150,260 square kilometres (Middle East Research Institute, 1985). It is bounded on the east by the Arabian (Persian) Gulf, Qatar, the United Arab Emirates, and Oman; on the west by the Red Sea; on the north by Jordan, Iraq, and Kuwait; and on the south by the Yemen.

The climate of the country is characterised as hot and dry in the summer, but cold in winter. The temperature ranges from 140 F in the interior during the summer months to 30 F in the winter.

Rainfall is very small, there are no rivers or lakes in the country, consequently most of the kingdom's water comes from wells, desalinated sea water and treated urban water waste.

2.3 The Population

The result of the census conducted in 1992, showed that the total population of Saudi Arabia was 16.929 million, out of which 4.625 million were foreigners (Alogla, 1993).

2.4 The Government

Saudi Arabia has a monarchical government based on Islamic principles prescribed by the Qur'an, the Holy Book of Islam. The King, together with a council of Ministers, is the legislative and executive authority of the country. The council controls the government's annual budget, defence expenditures and policy as well as economic, regional and industrial policies and programmes in the country. The members of the council have the main function of offering advice to the King and of planning and co-ordinating the work of the many government agencies and ministries in the country.

2.5 Social Structure

Saudi Arabia is a highly traditional Islamic society. Most Saudis are Arab Sunni Muslims. Arabic is the official language of the people as well as the language of all government transactions.

2.6 Important Cities

Riyadh and Jeddah are the two most important cities in Saudi Arabia. Riyadh is the capital city, where all the Ministries, the main

government bodies, and the foreign embassies are located. The total population in 1992, was estimated at 1,500,000 to 2,000,000 (Arabic Institution for Cities Development, 1993). Riyadh is considered a very important trade centre for the Kingdom, because of its location in the centre of the Kingdom. By 1987, there were 686 manufacturing firms (or 33% of the total firms in Saudi Arabia) in Riyadh, representing a total investment of 12,232 million Saudi Riyal, and a total work force of 42,442 (Ministry of Industry and Electricity, 1987).

Jeddah is the second largest city in Saudi Arabia, with a total population of 1,500,000 (Jeddah Chamber of Commerce & Industry, 1991). Jeddah is the main entrance to the country for the world market. About 50% of the total imports of the country and 70% of food imports pass through its port. In 1987, there were 555 manufacturing firms (or about 27% of the total firms in Saudi Arabia) in Jeddah, representing a total investment of 11,421 million Saudi Riyal, and a total work force of 39,543 (Ministry of Industry and Electricity, 1987).

The above discussions indicate that most of the Saudi work force is in the government sector or the trade sector, where the number of people employed is still quite small in the industrial sector. This indicates that the industrial sector is still small in Saudi Arabia and this why the Saudi government is trying to expand its industrial capacity. Therefore, the importance of this study is to help the government with its industrial expansion.

However, the total work force in the industrial sector is 140,620 in Saudi Arabia (Ministry of Industry and Electricity, 1987). This indicates that 58.3% of the total work force in the industrial sector is in these two cities, Riyadh and Jeddah. Therefore, concentrating on them would represent a good sample.

2.7 Features of the Saudi Development Plans

2.7.1 Introduction

Development planning in Saudi Arabia began in 1958 mainly as a result of the crisis which occurred in 1955-57. This crisis was the consequence of government budgetary deficits caused by the inability of the national income to meet the increased expenditure of the government (El-Mallakh, 1982). The deficits resulted in large-scale government borrowing, inflation, balance of payments deficits and a fall in the rate of exchange of the Riyal. The average exchange rate in 1993 was £1 = 6.00 Riyal.

The need for establishing stability in the Saudi economy was clearly essential. In mid-1959, the *Economic Development Committee* was established to create the basis for economic development in Saudi Arabia. However, the committee occupied most of its time with specific cases, particularly those which concerned applications for customs duty exemption and other tariff matters (El-Mallakh, 1982). Thus it failed to fulfil its basic function related to planning. The committee was replaced by the *Supreme Planning Board*, which was created by a Royal Decree on the 4th January 1961 (El-Mallakh, 1982). Among other responsibilities, this board was responsible for planning economic development policy in co-operation with various

ministries. However, the Board gave little time to the function of planning and policy recommendation, so it, too, failed to achieve its primary goal. In 1965, this board was, in turn, replaced by the *Central Planning Organisation* (CPO) which was established by Royal Decree on the 19th of January 1965 (El-Mallakh, 1982). In August 1970, the CPO submitted to the King the First Development Plan.

2.7.2 The First Development Plan (1970/1975)

The general aims implicit in this development plan were: to sustain and preserve religious values, to safeguard the provision of national security, to raise the standard of living and the wealth and welfare of the people of Saudi Arabia, and to maintain economic and social stability along the path of development. Furthermore, to achieve these aims the plan adopted the following specific objectives:

- 1- to raise the rate of growth of gross domestic product (GDP);
- 2- to develop human resources so that different elements of society would be able to contribute more effectively to the growth of the economy and participate more fully in the process of development;
- 3- to diversify the economy and reduce dependence on oil by increasing the contribution of the other productive sectors to the gross domestic product.

In order to diversify the economy and reduce its dependence on oil, the government aimed at increasing the share of other productive

sectors, especially agriculture and industry, in the national product. To do so the government needed to rely heavily upon the private sector.

To encourage the private sector to increase its productivity and to participate as much as possible in the process of development, the government adopted the following policies, specifically with regard to information:

- information and technical assistance would be expanded to help the private sector improve its efficiency;
- market information would be improved and increased;
- the need to expand company information in the company registration systems was acknowledged; the database would be expanded and accompanied by more prompt dissemination of the information gathered;
- standard measures and specification and quality control would be enforced;
- the means for the supply of trained and skilled manpower would be improved.

The government also recognised the importance of comprehensive and reliable statistical data (in planning economic and social development) for planners, decision makers, managers, and appraisers. Hence, the government emphasised expanding and improving the quality of all existing statistical information and providing additional information not as yet available.

For the manufacturing sector, the government decided to issue a statement of National Industrial Policy for the encouragement of industrial production, as well as regulations for the protection and encouragement of national industries. The government also planned the establishment of an industrial bank. Above all, however, the government regarded the competitive market as the best means of assuring that entrepreneurs were guided into nationally beneficial activities.

2.7.3 The Second Development Plan (1975/1980)

On May 21, 1975, the Council of Ministers approved the Kingdom's Second Development Plan covering the period from 1975-1980. Unlike the period of the first development plan, both the production of oil and its price had risen in 1973, and foreign exchange and government revenue had increased as well. Consequently, financial constraint was not a serious consideration. However, the major objectives of the second plan remained the same as those of the first plan except for the additional government emphasis on developing the physical infrastructure to support achievement of those objectives.

The government's main objective in respect of the private sector was to facilitate and support the expected rapid economic growth by creating the conditions necessary for the quick and efficient completion of the infrastructure, and providing business services and supplies. To this end, two policies were adopted : that of maximum freedom from restriction within the operation of the private sector, except where conflict might arise with social or efficiency objectives;

and that of minimum public sector involvement, and this only when necessary to support private sector development.

In the manufacturing sector, government policies focused mainly on the development effort in the hydrocarbon-based industry and in other industries where the Kingdom had, and still has, a comparative economic advantage. The government bodies concerned with industrial development continued and developed policies for enhancing the participation of private enterprise within the guidelines of the Industrial Policy Statement of 1974. Among these policies was continuous reviewing of the improvement of dissemination of information relating to many aspects of the Kingdom's industrialisation.

2.7.4 The Third Development Plan (1980/1985)

At the beginning of the Third Plan, Saudi Arabia ranked as one of the world's foremost financial powers, with great international strength arising from monetary wealth and an economic role as the major oil exporter to the free world. Major physical constraints on development, while not completely eliminated, had been reduced significantly at the start of the Third Plan. Inflation had been controlled and, as a consequence, most, but not all, of the population was able to have a much higher standard of living at the beginning of the Third Plan than at the beginning of the Second. Although the long-term goals for development remained unchanged, the strategy for the Third Plan was noteworthy in the selection of new focal points, some of which considerably modified the trends and modes of

operation of the first two plans. The major objectives of the Third Development Plan were the following:

- structural change of the economy;
- encouragement of Saudis to increase their participation in the development process, thereby raising the overall level of social welfare;
- increased economic and administrative efficiency.

The structural change in the economy was to occur through policies directed at three main areas of economic activity: oil and gas production; the development of productive sectors of agriculture, industry and mining; and the development of all Saudi infrastructure, such as telecommunication, transportation and electricity.

Development of the production sectors was seen as vital in terms of the government's long-term objective of diversifying the economy. Government policy continued to be one of support to the private sector, which was seen as essential for undertaking the development of these areas. This support under the Third Plan was intended to provide information and establish the results of research, to provide an appropriate financial framework and incentives for investment, to take care of infrastructure needs, and to establish priority areas for investment.

2.7.5 The Fourth Development Plan (1985/1990)

The long-term objectives remained the same in the Fourth Development Plan as in the three previous plans. Moreover, the objectives of the Fourth Plan were formulated to ensure continuity with the strategy of the Third Plan. The major objectives of the Fourth Plan were to:

- continue structural change in the economy in order to diversify the economic base by reducing dependence on oil as the main source of national income, and by giving due emphasis to industry and agriculture;
- encourage the rapid development of the private sector as the principal mechanism for achieving economic diversification;
- improve the economic efficiency of the government sector;
- complete the infrastructural projects necessary to achieve long-term economic and social development goals;
- develop human resources.

The policies to be adopted by the government in respect of the private sector were to focus on: increasing the opportunities for the private sector to acquire, manage and operate projects currently undertaken by the government; encouraging the private sector to participate in financing development; encouraging the private sector to invest in new areas and establish more joint-stock companies; and finally ensuring that government policy concerning the private sector was appropriate to prevailing conditions.

With regard to information provision, the main policies that the government implemented were to continue to provide the private sector with better information and statistical data, as well as to identify new information needs and extend the provision of existing data.

In the manufacturing sector, the major policies were to encourage foreign investment and involvement in partnership with Saudi investors, and to continue to support and stimulate the future development of industrial infrastructure and support services.

2.7.6 The Fifth Development Plan (1990/1995)

Although the current Fifth Plan reaffirms the broad objectives established in the Fourth Plan, they are to be achieved with a substantially different set of development policy initiatives. After two decades of development planning, most of the long-term and short-term objectives have been almost completely achieved. The physical and institutional foundation of a modern economy has been established, a wide range of social services has been provided throughout the Kingdom, and the basis for a diversified, productive economy has been established in industry, agriculture, mining and financial services. The challenge now is to accelerate the process of economic diversification to achieve a more developed economy and society. In the past two decades, the private sector has played two major roles in the development - as a participant in development projects, and as a provider of services to government, consumers and businesses. With the new phase of development emerging and the need for economic diversification, the private sector is assuming a

more leading role in development for the future. The government is encouraging the private sector to play a bigger role in some areas where the government has thus far taken the lead, such as utilities, transportation, and some government services.

One of the major areas in the development opportunities identified by the government for the private sector is the need for specialised business, financial and economic information services. For example, in marketing, finance, accounting, management, business law, information technology, research and development, exporting, business strategy, and other important business functions. Technical knowledge in areas such as agro-technical, medicine, and engineering is also an important requirement.

In the manufacturing sector, the government objectives place emphasis on: maximising the domestic transformation of natural resources, particularly oil derivatives and petrochemicals, for which Saudi Arabia enjoys a comparative advantage; encouraging import substitution and export-oriented industries; and strengthening industrial co-operation among the Gulf countries and Arab and Islamic countries as well as with other foreign countries, in order to benefit from foreign technology and expertise.

To achieve these objectives the government has established, among other things, policies to: encourage Saudi industries to develop their own industrial research capabilities; to utilise technical services provided by international organisations; to provide export credit; and to improve the quality of statistical information and statistical

analysis, establish economic indicators, and conduct surveys in line with the need of the Kingdom's industrial sector.

Information

Recognising the importance of the information issue, the government has established and supported several information centres to facilitate investment and production decision-making. However, the government recognises that in many fields of data provision the quality of information produced is not yet up to the standards of accuracy and reliability required for rational and responsible analysis, planning and decision-making.

As a result, the government has identified a number of factors which inhibit information flow. These are:

- **Gaps in Information Coverage:** There are a number of fields and topics with significant demands for information which are not yet covered.
- **Quality of Information:** There is a need for quality improvement in various statistical fields.
- **Discontinuity of Data Collection:** Data collection surveys tend to occur on an irregular basis.
- **Timeliness of Data:** There is a need to reduce the time that elapses between the completion of data collection and the availability of the information to users.
- **Access to Information:** A significant proportion of the information produced by the government agencies cannot be considered as a public commodity.

2.8 Industrial Development

Prior to the unification of Saudi Arabia in 1932, and through the 1930s and 1940s, Saudi Arabia was extremely poor. Economic activity throughout the country was confined to primitive agriculture, grazing, and production of simple tools by craftsmen who lived in small towns concentrated around sources of water. Mikesell and Chenery (1949) described the economic conditions at that time as follows:

Economically Saudi Arabia is one of the most primitive countries in the world. A large part of the population consists of wandering tribes whose occupation is tending herds of camels on the oases; production and trade are carried on in much the same way as they were in medieval times (pp. 73-74).

Oil was discovered in commercial quantities in March, 1938, but World War Two interrupted the development of the petroleum industry. However, following the end of the War, the oil production increased rapidly and the total output rose more than threefold from 60 million barrels during 1946 to 200 million barrels during 1950 (Johany, 1982). From that time, industrial growth started to expand, albeit slowly, until the implementation of the 1962 reform programme, which allocated part of Saudi oil revenues to industrial development (Alogla, 1993). During the 1960s the government adopted several measures and established a number of organisations to encourage the private sector and foreign investors to participate in industrial development. These measures included the issuing of the *Regulation for the Protection and Encouragement of National Industries* in 1961, the *Foreign Capital Investment*

Regulation in 1964, and the *Company Law* in 1965. The government established a number of organisations to be responsible for industrial development, these include: the *General Petroleum and Minerals Organisation* (Petromin) in 1962, to undertake the responsibility of developing the petroleum and mineral industries and improving them on sound economic and commercial bases; the *Industrial Studies and Development Centre* in 1967, to develop and improve the national use of consultants in a manner that copes with the need for the economic development of Saudi Arabia and of government agencies, the institution of a private sector for consultation services, and the foundation of national consulting cadres in all fields to become an efficient alternative for foreign consulting activity. However, there were still some major barriers to industrial development. These included the absence of financial facilities necessary for the establishment of industrial projects, lack of raw materials, of a skilled labour force and of the necessary physical infrastructure (Hajjar, 1989). By the 1970s, industrial development had entered a new era and the basic structure of industry changed dramatically especially after the introduction of the *First Five-Year Development Plan* which used formal economic planning for the development of both the public and private sectors. The sharp increase in oil revenues in 1973 removed the financial constraints on industrial development. Moreover, in 1974, the government issued *Industry Development Policies and Incentives* which it used to solicit the participation of Saudi and foreign private entrepreneurs. During this period, the government established a number of organisations to support and enhance industrial development. The *Saudi Industrial Development Fund*, for example, was

established in 1974 to finance new industrial ventures. The *Royal Commission for Jubail and Yanbu*, was established in 1975, to plan, design, construct and operate infrastructural facilities for the heavy industries and for the new communities established at these two cities. The *Saudi Basic Industries Corporation* was established in 1976 to develop large-scale, hydrocarbon-based and energy-intensive industries, such as petrochemicals, fertilisers and iron and steel, that can effectively utilise the country's abundant, reliable supply of crude oil and associated natural gas as industrial fuel and raw materials.

Certain difficulties continued during this period. These included lack of reliable statistical data on current output, investment, employment and industrial capacity, a government administration inexperienced and unfamiliar with the characteristics and problems of industry, and the limited size of the market (Looney, 1982). During the 1980s, the government concentrated on expanding and developing the production sectors, especially the industrial sector, as a major means of diversifying the economy. The major problems facing industrialisation throughout this period were: shortage of skilled manpower associated with both management and the new industrial technologies; lack of the managerial and entrepreneurial skill required to cope with the increased scale of operation; lack of information - businessmen were frequently unaware of what others were doing in the industry and where markets for their produce could be found; and, finally, the problem of securing world markets for industrial output (Presley, 1989).

2.8.1 Industrial Objectives and Policies

The primary objective of the government programme of industrialisation is the eventual establishment of an industrial production base that will liberate the economy from its overwhelming dependence upon export of crude oil as the main source of income. The government strategy to achieve this objective is to encourage the private sector to take over industrial development. Thus the government will not intervene in the development of industry unless it is felt to be essential for the welfare of the people, or when the size of the investment required is beyond the capacity of the private sector. Moreover, the government role when intervening will be as a partner to the private sector and not as a competitor.

The government's specific industrial objectives, include:

- 1- Increasing the economy's capacity to produce at competitive costs as wide a range of products as possible for the local and overseas market;
- 2- Utilising the great advantages available from the low-cost energy, raw materials from hydrocarbon-related industry, minerals, agricultural, and fishery resources;
- 3- Expanding the Kingdom's access to international technology;
- 4- Encouraging the private sector to use its capacity in the manufacturing sector;
- 5- Developing a regionally balanced industrial sector;

- 6- Increasing the industrial sector's productivity by maximising factory production capacities;
- 7- Reducing the dependency on foreign manpower by developing indigenous workers' skills, through the development of technical and general education and on-the job training;
- 8- Promoting inter-linkage between industries.

To achieve these objectives and to maximise the economic and social benefits for Saudi nationals from industrial development, and in order to inform ministers, government departments and businessmen within and outside the Kingdom of the basic policy of the government regarding industrial development, the government issued eleven main principle policies as the *Statement of National Industrial Policy* in 1974 (see Appendix I). Among these policies were the recognition of the advantages of industrialisation and what it can bring to the country in terms of raising the standards of living, creating employment opportunities and increasing national income. The government recognised also the importance of information to industry and to those who are willing to contribute to industrial development. Thus the government was prepared to provide them with all necessarily information required for preparation, implementation and operation of industrial projects, as well as any other useful information. At the same time, the government would provide existing industries with technical and managerial services.

2.9 The Important Types of Industry

By the end of 1987, the total number of licensed factories was 2061, with a work force of 140,620, and representing a total investment of 94 billions (Saudi Riyal) (Ministry of Industry & Electricity, 1987).

Table 2.1 shows the development stages of the manufacturing industry during the period 1975 - 1987. In 1975 there were 460 firms, but by the end of 1987 there were 2061 firms, an increase of 348%. Three types dominate the manufacturing sector with 1415 firms or 69% of the total number. These types are: the metals industry, considered the largest, with 581 firms or 28% of the total, followed by the building industry with 532 firms or 26% of the total, and the chemical industry with 302 firms or 15% of the total number of manufacturing firms.

The first two types - the metals and building industries - grew rapidly during the mid 1970s and early 1980s. This was due to their heavy participation in the development of the physical infrastructure of the Kingdom.

Table 2.1

Number of Factories and Total Investment (by million Saudi Riyal), Classified by Activity and Years up to 1987

Years	Chemical		Building		Metals		Other		Total	
	No. of Factories	Total Investment	No. of Factories	Total Investment	No. of Factories	Total Investment	No. of Factories	Total Investment	No. of Factories	Total Investment
Up to 1975	60	1724	87	4758	152	2323	161	2723	460	11528
1976	76	1978	180	8069	180	2495	190	3500	626	16042
1977	99	2406	250	13299	237	3276	255	4847	841	23828
1978	128	2746	294	13942	275	3773	320	5899	987	26360
1979	148	3457	353	16062	315	7980	390	6703	1176	32294
1980	183	23422	405	17826	394	9287	440	7601	1392	58136
1981	231	44577	438	18685	463	9792	497	8694	1629	81748
1982	251	44905	464	18970	490	10324	536	9411	1741	83610
1983	273	50517	486	19374	527	10830	559	9676	1845	90397
1984	286	52082	501	19802	551	11128	591	10177	1929	93189
1985	294	52184	517	19919	562	11255	610	10645	1983	94003
1986	295	52188	525	19955	570	11287	627	10923	2017	94353
1987	302	52382	532	20033	581	11367	646	11023	2061	94805

(Source : Ministry of Industry and Electricity. Industrial statistical bulletin. 1987).

The three main types of industry represent 88.3% of the total capital investment in the manufacturing sector, or 83,782 million (Saudi Riyal). The chemical industry alone holds 55.2% of the overall capital invested in the manufacturing sector, followed by the building industry, 21.1% and the metals industry 12%. The high increase of capital investment in the chemical industry during the 1980s was

due to the government investment in the petrochemical industry. Moreover, these three types of industry employ 73% of the total work force in the manufacturing sector. The building industry employs 29% of the total work force, followed by the metals industry, 27% and the chemical industry, 17%.

From the above, we can conclude that these three types of industry not only dominate the industrial sector, but also the Saudi economy as a whole, since the Saudi government depends heavily on their contribution for diversifying the economy.

The other industries, which include the food industry, paper industry, wood industry, and textile industry, represent 31% of the total number of manufacturing firms in Saudi Arabia. These are mostly relatively basic industries. Hence, their information needs are likely to be more similar to that of the building industry, since it, too, is not a high-technology industry.

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Chapter Three

Study Background

3.1 Introduction

In order to develop a complete picture of industrial information and establish a framework for the study's research questions and methodology, a wide-ranging review of the literature was carried out, and is discussed below. This chapter will cover the following areas: (1) definition of business information, (2) differences between internal and external information, (3) organisations providing information in Saudi Arabia, (4) organisations providing information in the UK, (5) information services in developing countries, (6) information services in Saudi Arabia, and (7) information needs in small firms.

3.2 Industrial Information

There is no widely accepted definition of industrial information: authors tend to use the term '**business information**' to define industrial information. This assumes that business information is equal to industrial information, and, indeed, industrial information will be used in this study as synonymous with business information. However, the problem with this expression business information is that it can mean totally different things to different people. Thus, Allott (1981) believes that business information is

any data in whatsoever format, from whatsoever source, which enabled an information decision to be made on which action is taken by a firm (p. 30).

Capital Planning Information (1982) defined business information as

what the manager must have prior to making a decision, which may or may not lead to an action (p. 3).

Furthermore Capital Planning Information noted that business information could be either formal or informal. Vernon (1986) saw business information as

the published data, facts and statistics needed for decision-making in business organisations, private or public, as well as in government. It includes marketing information, financial, bank and company information, laws and tax regulations, economic, commercial and trade information, as well as information about the environment in which businesses and other organisations operate (p. 18).

Warr (1992) has defined business information as

any information that is required to further business aims. Having access to it can mean the difference between business success and failure (p. 22).

Using the above definitions as a basis, industrial information can be defined for this study as any external data related to the firm's environment: access to such data enables decision-makers to gain better knowledge about their work environment.

From the above we can conclude that information - regardless of its form, source or channel - is not only very important to the decision-maker in the firm, but also to the life cycle of the firm as a whole. All business requires information, externally and internally generated, in order to make the various decisions involved in its daily operation. Haygarth (1981) reported that most problems are solved and decisions are made by a combination of the available information and experience. She drew the following model which will be used as the basis for discussion in Chapter Five.

Figure 3.1
Decision Making

The present study will only focus on the external information generated by firms for the following reasons:

- This study is concerned with the provision and improvement of information services, and these are external rather than internal.

- Saudi firms are very secretive: it would be impossible to gain permission to monitor their internal information.
- The majority of Saudi firms are small firms: their internal information flow is almost entirely informal, whereas the main concern of the present project is with the provision of formal information sources.

3.3 Internal Information

Firms generate and use all sorts of information about their own internal workings: financial information, such as accounts, budgetary control, profit and loss, and financial-performance indicators; production control information and sales figures; stock control information of raw materials, work in progress and finished goods; labour turnover and absenteeism; research and development reports and many more. Kaye (1991) pointed out that most of this information is quantitative in nature, especially in the financial area, and many firms use computer systems for handling such information. These systems are commonly referred to as management information systems (MIS).

3.4 External Information

Every firm exists within a business environment, and in order to survive the firm must understand, respond to and even manipulate this environment. Firms need information about the market and where to distribute products in order to produce and sell the right products. They also need information about competitors; their pricing policies, new products and other activities in order to compete with them or even increase their share of the market.

Another need is for technical and patent information to develop and invent a new product. Finally, firms need all sorts of information - statistical, standard, economic, export and so on - to survive and compete in their own environment.

However, many firms appear to ignore external information, or fail to take full advantage of it. Wilson (1987) pointed out that external information is being ignored because managers are unaware of sources of information outside their firm, or outside their own circle of personal contacts. For the majority of them, information means internal information. Capital Planning Information (1982) has investigated the use of information by small firms in four areas: Oxfordshire, West Glamorgan, Lothian, and Tyne and Wear. Trott (1986) looked at the information needs of small firms in Suffolk, and Macnabb, Philip & Martin (1988) studied the information needs of the industrial, commercial and agricultural sectors of Northern Ireland. All these studies support Wilson and find that there is a lack of awareness of external sources of information among manufacturing firms. The Commission of the European Communities (1988) and Kaye (1991) have argued that most firms turn to external sources of information only in emergencies and seek to use them to solve crises rather than to implement long-term improvements. Kaye (1991) has added that internal information is often quantitative, highly structured and purposive; it contains little redundancy and is highly relevant to the firm's needs, whereas external information is often qualitative, unstructured, irrelevant to any specific user and difficult to handle. Information seekers in firms prefer to use internal informal sources, such as other employees and professional colleagues,

in-house memoranda, reports and so on: formal documentary sources - which are usually external - come lower down on their list.

Even though no study appears to measure the use of external information on a firm's performance, many authors, such as Cohen and Levinthal (1990), Mansfield (1988), and Johnston and Gibbons (1975), believe there is evidence to show that external information sources are an important factor for the firm's innovation. March and Simon (1958) have suggested that most innovations result from using outside sources rather than internal sources. This view is supported by much research on the source of innovations, such as Hamberg (1963), Myers and Marquis (1969), and von Hippel (1988).

The overall result of these various studies is to underline the need that a firm has for both external and internal information sources. However, unlike internal information, external information does not have a structure imposed by the user. The sources are an amorphous collection of organisations such as government departments, trade associations, chambers of commerce, professional and commercial services, and others. There is typically a multiplicity of sources, with no one place to find the solution to a problem. Dare (1984) argues that a firm can go to different sources for the same information, and get different responses. For example, if firm obtains trade figures from the government's business monitor series, from the trade association, from international organisations, or from market research firms, it may get quite different results. These occur because of the different methods used to collect and interpret data, as well as the differing times taken to collect the data.

3.5 Saudi Arabia Providers of Information

There are a number of Saudi organisations which provide information services to industry. These include both government organisations and semi-official organisations, such as the Chambers of Commerce. However, as compared with the UK, a number of potential providers of information are missing. For example, there are no well-established public libraries to service the industrial sector, as will be discussed later on in this chapter. Also there are no professional or commercial organisations providing information services to industry (Jeddah Chamber of Commerce and Industry, 1989).

3.5.1 Ministry of Industry and Electricity

The Ministry of Industry and Electricity, which is located in Riyadh, was founded in 1975. It is the main government body supervising and supporting the establishment and development of industrialisation in Saudi Arabia. The main objectives of the Ministry with regard to the industrial sector may be summarised as follows:

- 1- to achieve continuous industrial development in Saudi Arabia;
- 2- to create a suitable atmosphere for the protection and encouragement of domestic industries in a manner that fully achieves the targets of the Kingdom's projected industrial plan;
- 3- to create balanced Saudi economic advancement by enabling less developed regions of the Kingdom to attain sufficient industrial growth.

There are several departments serving industries in different fields, working under the Deputy Minister for Industrial Affairs. Two of them provide information services. These are:

- The Industrial Statistics Department, which provides statistical information about industrialisation in the Kingdom and the development of industries.
- The Export Department which provides information on production and the market internationally.

3.5.2 Saudi Arabia Standards Organisation (SASO)

The Saudi Arabian Standards Organisation, which is located in Riyadh, was established in 1972, and comes under the chairmanship of the Minister of Commerce. It is run by a Director General, as its Chief Executive Officer, and a Board of Directors. SASO is the only Saudi organisation responsible for all activities relating to standards and measurements.

The major objectives of SASO are: to develop standardised quality control specifications for both imported and locally produced goods, to introduce a system of 'quality marks' and 'conformity certificates'; and to enhance co-operation between the Gulf states as well as with Arab and other international organisations on matters relating to standards and specifications. It is a compulsory requirement that Saudi standards must be followed in Saudi Arabia. SASO is responsible for publishing and distributing standards information, and also for providing technical consultation to the private sector.

3.5.3 Chambers of Commerce and Industry

The situation in Saudi Arabia is no different from other countries. All these Chambers have similar objectives and functions as discussed later in this chapter. There are 19 Chambers of Commerce and Industry in the main cities of the Kingdom, as shown in Figure 3.2. The establishment and administration of such Chambers are regulated under a statute authorised by the Royal Decree No. M16, dated 1980 (see Appendix II). Each Chamber is a semi-official organisation, run by a board of directors of whom two-thirds are elected from the general assembly of the Chamber, while the other third is appointed by the Minister of Commerce with the agreement of the Minister of Industry and Electricity. As indicated in Figure 3.2, the most important Chambers are those in Jeddah, Riyadh and the Eastern Province.

The major functions of most Chambers are:

- to collect local information and disseminate statistical information concerning commerce and industry;
- to inform members of systems, rules and regulations relevant to their work;
- to provide information on new investment opportunities;
- to direct and advise members on the countries to/from which they import/export;
- to draw the attention of government authorities and other agencies to the problems facing the commercial and industrial sectors and their needs for official assistance;
- to organise exhibitions and attend conferences; and

to provide authentication of documents: this is a very important function, as all firms need to authenticate their documents at the Chamber before they can be submitted to official authorities.

Figure 3.2
Map to show the distribution of the Chambers in
Saudi Arabia

3.5.4 Saudi Export Development Centre

The centre, which is located in Riyadh, was established in 1986, and operates under the control of the Saudi Chambers of Commerce and Industry.

The major functions and objectives of the centre are: to collect information and study the main foreign markets; to evaluate the rules and regulations which affect export operations; to publish and distribute this information; to provide consulting services on foreign trade to Saudi exporters.

3.6 UK Providers of Information

Unlike Saudi Arabia, there are a large number of British organisations providing information to industry. These include government departments, representative organisations, such as Chambers of Commerce and Industry and Trade Associations, public and academic libraries and commercial organisations.

3.6.1 Government Departments

The government is the largest provider of information. It holds large amounts of data on such topics as statistics, legislation, company records and patents. Much of this information is useful to industry, and some of it is essential.

The Department of Trade and Industry (DTI), which is located in London, is, by its very nature, most closely associated with the needs of manufacturing firms. The main objective of the DTI is to create an environment in which industry can operate successfully (Hynes,

1988). The DTI provides a wide range of services through its departmental sections and its own publications. At a national level, it offers such schemes as the Enterprise Initiative and such schemes are encouraged at a local level through its regional offices.

The Enterprise Initiative was launched on 13 January, 1988, as a major aid to British business. It aims to provide the necessary tools that business needs to increase its competitiveness and achieve its potential. The Enterprise Initiative provides consultancy services in the areas of marketing, design, quality, manufacturing, business planning and finance (Department of Trade and Industry, 1989). In fact, it does not provide the consultancy services directly, but offers financial assistance covering half the cost for between 5 and 15 working days. The consultants come from within the private sector, but are directly accountable to the DTI at the regional level (Hynes, 1988).

The function of the regional offices will be looked at in detail in Chapter Nine, along with the Export Market Information Centre (EMIC).

The Business Statistics Office (BSO) of DTI in Newport, Gwent, is the major source of UK economic data. It operates as an enquiry service for UK statistics and has the status of a national reference library in its field. The BSO holds a complete set of all the Business Monitor titles, from the first issues in 1962. BSO also holds all current statistical periodicals produced by other government departments. In addition, it holds a collection of general and specialised trade

directories, and the annual reports of a selection of major companies.

Another industrially important DTI department is the Companies Registration Office (CRO). Companies can be traced through the CRO Directory and lists of current or dissolved companies are provided. Search facilities are available in London and Edinburgh and at the headquarters in Cardiff (Hynes, 1988).

3.6.2 Chambers of Commerce and Industry

These have generally similar functions and objectives to their counterparts in Saudi Arabia. Unlike the other representative organisations, Chambers of Commerce and Industry are essentially local, each one covering a regional or a sub-regional area. Their information services are geared to the particular needs of the business community that they serve. Forster (1983) investigated the role of Chambers of Commerce and Industry throughout the EC and reported that there are differences in the legal status as between the UK and most European chambers. In the UK, as in the Irish Republic and Belgium, Chambers of Commerce and Industry are private law bodies and membership is voluntary. In most other EC countries, the Chambers have full public law status, as in the Netherlands, or official government recognition and funding, as Italy, France, Spain and Germany, and membership is obligatory. The latter situation is closer to that in Saudi Arabia.

Forster added that despite the differences between the EC Chambers, all the Chambers have aims in common and to a varying extent activities that are similar. Their main objectives are to represent the

interests of their local business community to the authorities at local and national level, and also internationally where this is appropriate, to promote the local economy by creating the right environment for businesses, to promote trade and provide services in response to the needs of their members.

Hukins (1992) has pointed out that lobbying the government on matters affecting the economic and commercial environment of their district is one of the important services Chambers provide for their members. At the national level, the Chambers have a national organisation, such as the *Deutscher Industrie und Handelstag* (DIHT) - *the Association of German Chambers of Commerce and Industry* - in Germany and the *Association of British Chambers of Commerce* (ABCC) in the UK, which can collectively represent the views of local Chambers in national debates. Another service that plays an important part in the overall assistance provided the Chambers is their information and advice service. Most Chambers have a library or information centre specifically set up to deal with requests for assistance. The areas covered include product supply and information on companies, financial, legal and market information. The support of international trade has been a priority for Chambers of Commerce and Industry. Chambers provide information on international trade procedures and requirements, information on exports/imports, issue the certificate of origin and other export documents, and organise and sponsor overseas trade missions and trade fairs. Finally, most Chambers are involved in training courses, often providing in-house courses and seminars for businessmen on a wide range of topics, such as exporting, marketing.

White (1986) and Bennett (1991) have both investigated the role of Chambers in the UK and the type of services they provide (see Appendix III for a list of British Chambers of Commerce and Industry). Both studies show that the Chambers of Commerce and Industry in the UK have similar objectives and provide services to those elsewhere in Western Europe. These services can be categorised as follows.

Representation

UK Chambers play an important role in lobbying the government on all matters affecting the business environment in their areas. At the national level, ABCC, the national co-ordinating body for Chambers throughout the UK, represents to the government the view of local chambers and their members.

Publication

Many Chambers produce various types of publication, such as bulletins, newsletters, and magazines, covering a wide range of topics. One important publication of each Chamber is its own Chamber Directory, listing members both alphabetically and by product. Another important publication is the weekly *Business Briefing*, published by the ABCC, which provides a regular monitor of business statistics, regulations and other information obtained from government departments, such as DTI and the Central Statistical Office.

Information Services

The information services provided vary from one Chamber to another, depending on the size and number of staff; however, most Chambers offer a telephone enquiry service covering a wide range of topics, such as company information, marketing, technical, legislation and market research. For international trade, Chambers provide export information as well as information on overseas opportunities. Chambers have also been licensed by the Department of Trade and Industry to issue *Certificates of Origin* and other export documents. In addition, Chambers organise overseas trade missions and exhibitions, often with British Overseas Trade Board (BOTB) support.

There have been two relevant studies by Capital Planning Information (1982 & 1985) which should be mentioned here. The first examined the information needs of small manufacturing firms based on a survey of 200 small firms in four different areas. The second examined the information needs of retailing and service organisations. Both studies identified deficiencies in the Chambers' role as information provider. It was found that there was low membership among the firms interviewed, and a low level of participation among those which were members. Moreover, there was a high level of ignorance regarding the benefits of membership. Another study by White & Wilson (1988) describes research into information needs in industry. The use of external sources of information was investigated: they found that there was low use of Chambers as a source of information, as compared with other sources such as government bodies, trade associations and libraries.

Training

Most of the Chambers are heavily involved in the provision of training services, both government-sponsored and fee-earning. They provide half and whole-day courses on a variety of topics, such as export documentation, management skills, and the like.

3.6.3 Trade Associations

The main objective of the trade associations is to protect and represent the interests of their members and the industry as a whole to government, politicians, the media and the general public. Their prime function is to assist firms that are in membership.

White (1986) categorised the services provided by trade associations into three main areas:

Publications

A wide range of publications is produced by the trade associations. These include directories, statistical information, news magazines that contain news of the industry, technical reports, legislation, etc.

Information services

Most trade associations have a library or information unit to answer enquiries, either over the phone or by letter. Whether or not the association has a library or information unit, its staff individually act as information sources, usually in specialised areas such as marketing or industrial relations. Firms often approach these individuals to seek information, even where a library or information unit exists. Trade associations provide a wide range of information, including technical,

marketing, legislation, industrial relations, etc. However, the specialist nature of the trade associations is reflected by the more specialised nature of the enquiries, as compared with the more generalised type of enquiries made to other organisations, such as Chambers of Commerce.

Training

Many trade associations provide training courses and seminars on a wide range of topics of interest to their members.

3.6.4 Libraries

It has been a tradition of public libraries within the UK to provide technical and commercial information through their own collections (Simon & Abell, 1991). This emphasis on providing services to meet the information needs of industry and the business community as a whole has increased in recent years. One reason for this is that industry is prepared to pay for services (King, 1987). Another reason is the direct influence of technological change on the service and the ways in which it is provided (Hyde, 1989).

Most large public libraries have business information collections including trade journals, directories, business journals, company information publications, market research reports, standards and patents. Hyde (1988) surveyed the provision of business information from publicly-funded libraries and found that many libraries have offered online services for business information, but none at that time offered CD-ROM services. This is now changing. She found that market research reports were a major problem for the majority of the

libraries, they were too expensive to buy. Market research reports also present a difficulty to many business libraries, as they are difficult to identify, expensive to obtain and their information content can have a very limited life (Reid, 1986).

Educational institutions are another information provider to industry. In the UK there are two models for academic enterprise interaction. These are **HERTIS** and the **Science Parks**.

HERTIS is a college library network serving educational institutions and industry. The idea of using the library resources required for education to provide a good basis for services to industry has proved successful (Forster, 1984). The basic provision by **HERTIS** to its members covers document delivery, an in-depth enquiry service and an online service. The enquiry service deals with a wide variety of work, including technical data, market research and so on (Abell, 1987).

The idea of **Science Parks**, which came originally from the USA, is to improve the exploitation of academic, enterprise and research expertise (Orminski, 1991). **Science Parks** not only encourage high technology industry to interchange ideas and people with universities, but also with each other. Members of **Science Parks** can make use of university facilities, including library facilities; this typically covers borrowing, reserving items, suggestions on acquisitions, and quick reference enquiries (Cross, 1984).

3.6.5 Professional and Commercial Services

In the UK, there are a number of organisations and individuals who provide information services to the business community. According to Warr (1992), they can be divided into two categories: independent information brokers and fee-based services attached to an institution such as a public library, academic library or special library. The services most frequently offered by both categories are research, current awareness, consultancy, document delivery and online searching.

3.7 Information Services in Developing Countries

Information in developing countries has its own special problems. Socio-economic conditions are very important factors in these countries, as many of them are still struggling to overcome the continuing widespread poverty. Sarecevic (1979) and Davies (1985) stress that the information needs of developing countries are likely to be different from those in developed countries. The information needed to meet the problems of developing countries is often at a more basic level than that required by developed countries.

Today, developing countries encompass more than 130 nations, differing greatly in their cultural, social, economic and political structure, in levels of industrialisation and natural resources, in their sensitivities and priorities, and in their stage of development. Despite these differences, certain common problems in the provision of information services seem to exist in these countries, especially lack of physical resources, lack of education, shortage of skilled personnel, lack of communication and language barriers. Developing countries

are discussed here because Saudi Arabia can be seen as in some senses a developing country, and in some not. For example, it has suffered from a lack of skilled personnel, but not in recent years from a lack of physical resources.

3.7.1 Physical Resources

Most libraries and information centres in developing countries suffer from limited funds and consequent financial problems (Keren & Harmon, 1980; Thorpe, 1982; Kaniki, 1988). Related to these financial problems is the lack of other resources, which has been discussed by Eres (1980), Thorpe (1982) and Da (1988). Because of inadequate budgets and the high costs of information from developed countries, usually paid for in foreign currency, most libraries and information centres suffer from insufficient hard-copy collections and lack of easy access to many important books and journals. Rosenberg (1980) pointed out that lack of foreign exchange limits the use of foreign resources. Munn (1978) and Thorpel(984) see document delivery as a another critical problem facing information services in developing countries. A basic problem for libraries and information centres in developing countries, cited by Adimorah (1976), Eres (1980), Haider (1985) and Samaha (1985), is the lack, or, in some cases, the complete absence of bibliographic control of the country's own collections. This absence of bibliographic tools makes it very difficult to access existing resources both for purchasing and for actual use of materials. This absence of local bibliographic tools not only leads libraries to collect materials in ignorance of the holdings of other libraries or information centres, but it also means that some libraries and information centres and their users have no knowledge of the

existence of relevant publications.

3.7.2 Education and Use of Libraries and Information Centres

Problems relating to education and the use of libraries and information centres have been discussed by several authors. Dextre (1976) pointed out that because of limited resources, especially of journals, in most universities in developing countries, neither students nor staff get training in the use of the literature. Saracevic, Brage and Afolayan (1984) reported that one of the main problems in information science education in developing countries is the low level of recognition of the value of information, and thus the subsequent low use of, or demand for, information resources and services. Davies (1985) has noted that education systems in developing countries do not promote the use of information or libraries. People are not trained to be aware of the value of information, so that the demand for information services is low. Heitzman (1990) argued that because education levels are generally low, and facilities are poor for most users, the libraries and information centres that do exist continue to experience low levels of use.

3.7.3 Personnel

Many authors - such as Rosenberg (1980), Eres (1980), Thorpe (1982) and Davies (1985) - have noted the problems caused by the shortage of qualified library and information professionals in most developing countries. Adimorah (1977) and Nwagha (1983) have emphasized the importance of qualified professional personnel for effective information services. A number of authors - Enu (1973), Thorpe (1985) and Samaha (1985) - have noted the further problem caused

by lack of training for information professionals in most developing countries. Adimorah (1976) not only says that the lack of qualified personnel is due to the lack of training programmes in information science in the majority of existing library schools in developing countries, but adds that it is exacerbated by the absence of viable associations to help organise these courses. Eres (1980) and Davies (1985) noted that this problem is made difficult to solve by the low status given to information professionals in developing countries. Davies added that lower education standards are another factor that impedes the production of qualified personnel.

3.7.4 Communication

Communication problems also affect the provision of information services in developing countries. Lack of telephone services, poor quality of data transmission, and slow and unreliable postal systems have been described by Adimorah (1976), Eres (1980), Rosenberg (1980), Davies (1985), and Heitzman (1990) as major common problems facing developing countries. Rosenberg also emphasised the shortage of computer hardware and of the qualified personnel needed to run and maintain it is another problem facing developing countries.

3.7.5 Language Barrier

Thorpe (1984) sees linguistic problems as a very important factor inhibiting information transfer in developing countries. It affects use of the large databases situated in the developed countries, as well as making it difficult to meet the basic needs of users in developing countries. The language used on the systems and in the documents

contained in the databases is most often not the language of those who are operating the system, or using the information retrieved. Davies (1985) suggests that translating a document into an answer to a particular problem, or course of action, is a very necessary step. Without this, the information has no value to the customer.

3.7.6 Information needs

Manufacturing firms in developing countries need all sorts of information to be able to compete effectively in international markets. Chico (1984) has pointed out that most developing countries lack technical expertise and firms do not have the technical manpower capable of solving technological problems. This should mean that they require even more assistance from information centres and industrial extension services. Chico also added that firms in developing countries almost always suffer from serious information handicaps, especially in terms of accessing sources of information, whether local or foreign. Arosanyin (1984) has noted that access to information is in many cases very restricted; many who need information are either not educated in locating information, or they are not even aware of the existence of information resources. He comments that most of the information needed is technical, managerial or financial.

3.8 Information Services in Saudi Arabia

The oil revenues in the 1970s and 1980s helped the Saudi government to build a modern country and overcome most of the problems facing developing countries. In terms of physical infrastructure, Saudi Arabia has created the foundations for a modern

economy. This has resulted in the establishment of high quality transportation, telecommunications and utilities. There are now more than 32,000 kilometres of road network, eighteen new airports, and more than 163 shipping berths. There are more than 1,500,000 telephone lines and the electricity capacity had reached 14,570 megawatts by 1989 (Ministry of Planning, 1990). However, in the information field there is still a big gap which has to be looked at by the Saudi government.

Rehman (1991) examined the existing situation of library and information infrastructures in Arab countries and found that, from the 15 countries who responded, half of them had neither a national library, nor any national bibliographic service. Very few of these countries had any worthwhile bibliographic resources, such as union catalogues, union lists, and indexing or abstracting services. In Saudi Arabia, the most significant achievement in this field has been at King Abdulaziz City of Science and Technology (KACST), which has made the union list of periodical holdings of the university libraries and the library of the King Faisal Specialist Hospital available on-line via the telecommunication network of Gulfnet. KACST has also accomplished a great deal by establishing a computerised database of science and technology literature relating to Saudi Arabia, or produced by Saudi nationals. The same institution has developed non-bibliographic databases covering manpower resources and research in progress in the Kingdom.

None of the Arab Countries has established a co-operative consortium at a national level to pool resources for lending, shared cataloguing,

or co-operative acquisition purposes. Many of the Arab countries are, however, involved in networking at the national level. At the regional level, in the Gulf area a computer-to-computer communication network, Gulfnet, which is mainly used by Saudi organisations, became operational in 1986. Online database searching services from international vendors are being provided by a number of organisations in the Arab countries. In the application of information technology and automation activities, there has been noticeable development in two sub-regions of the Arab world: the Gulf area and North Africa.

Salem (1986) studied the information infrastructure in the Arab countries. He found that there are some common problems with regard to information technology among the Arab countries, including Saudi Arabia. These problems are: lack of technical and skilled manpower in the library, information and computer field, lack of basic tools to standardise information technology in both hardware and software, poor maintenance of equipment and lack of spare parts, and unusually high costs. Library and information education is still below the level required in schools and universities, there is an absence of information policies, a lack of co-operation and co-ordination, and a lack of scientific societies and unions which could help to promote and develop the information professions. Deemer (1992) pointed out that the climate, in which the main features are dust and high temperatures, is another problem facing Saudi Arabia in its use of information technology.

Sharif (1979) has studied education for librarianship in the Arab countries, and Ghabra (1988) has studied the status of librarianship in the Arab countries. Both report that fundamental problems shared by the Arab countries are: lack of national library planning, lack of library co-operation, difficulties of purchasing foreign materials, absence of library standards, absence of library legislation, lack of library literature, the traditional system of education, lack of library associations, illiteracy, and lack of library recognition. The situation in Saudi Arabia is not much different. Khurshid (1979) attributes the slow progress of libraries and information centres in Saudi Arabia to the lack of national planning, a shortage of qualified personnel, the absence of library legislation, a poorly developed book trade, a sub-standard national library, and the absence of a library association. Abbas (1986) agreed with Khurshid, and adds that, despite the country's generally favourable economic condition and wealth, libraries and information centres in Saudi Arabia face financial difficulties. Abbas regrets that to

... in spite of the country's considerable wealth, limited financial support for libraries ... resulted in a lack of co-ordination, in sub-standard resources, staff facilities, and in a general inadequacy of programs and services (p. 304).

Alogla (1993), in his recent study, has reported similarly on the above-mentioned problems that are facing Saudi Arabia. He notes that a range of problems affect information acquisition systems in Saudi industries, namely, lack of professionals in the information field, absence of internal bibliographic control, lack of co-operation between Saudi government agencies and industries, limited

industrial information in Saudi Arabia, absence of library and information associations, and absence of inter-library loan services or information exchange systems in Saudi Arabia.

Soufi and Mayer (1991) investigated the relationship between the government of Saudi Arabia and its private business sector. They found that most Saudi businessmen saw the government-provided information sources as inadequate for their needs, out-dated, unreliable. The statistical data were not well classified and did not cover everything on an item-by-item basis. Many Saudi businessmen called for an increased role for the Chambers of Commerce and Industry in disseminating information, because they thought the Chambers were better able to understand the needs of the manufacturing sector than the government bureaucracy could.

3.9 Information Needs of Small Firms

3.9.1 Importance of Small Firms

The importance of small firms to the economy has been recognised by many countries in the last two decades, in contrast to the 1950s and 1960s when size was seen as a prerequisite for being competitive in many industries. The small business plays a vital role in the economic growth of many countries through the creation of new businesses, new jobs and innovative products. In addition, big manufacturing firms depend heavily on smaller firms as subcontractors to build many of the parts that go into their finished products. The Confederation of British Industry (1981) has argued that, if small firms closed down tomorrow, most of the large firms would grind quickly and painfully to a halt.

would grind quickly and painfully to a halt.

3.9.2 Definitions

To have a good understanding of the information needs of the small firms, we should first define what we mean by a small firm. It is also important to have a clear view of the characteristics of the firms of all sizes and of their information - related problems.

Unfortunately, there is no universally accepted definition of a small firm, not least because the social and economic structure of each country differs. Consequently, the definition of a small firm in each country is likely to involve different criteria. Small firms can be defined on the basis of a range of quantitative parameters, such as number of employees, assets, turnover, profits, etc. However, information usage is more likely to be determined by the number of workers, rather than by the financial turnover or the cost of the products. This is a point that will be returned to later. For the moment, we will examine a definition of size based on number of employees. In fact, a definition based on the number of employees is often used for statistical purposes, although there is little agreement on the numerical limits. For example, Table 3.1 shows the accepted definitions of small and medium-sized firms (which are lumped together) in eight EU countries.

Table 3.1
Definitions of Small and Medium-Sized Firms
in Eight EU Countries *

Belgium	1 to 50	employers
Denmark	6 to 50	employers
German	1 to 499	employers
France	6 to 500	employers
Eire	1 to 50	employers
Italy	1 to 500	employers
Netherland	1 to 100	employers
UK	1 to 200	employers

* Confederation of British Industry. 1981, p. 10

Another approach which can be adopted in defining small firms is qualitative, via an identification of the main characteristics of small firms. In the United States, where a legal definition was required for the purposes of the Small Business Act (1953), the definition adopted by the Small Business Administration, (Michael, 1977) was as follows:

For the purposes of this Act, a small business concern shall be deemed to be one which is independently owned and operated and which is not dominant in its field of operation. In addition to the foregoing criteria the Administrator, in making a detailed definition, may use these criteria, among others: number of employees and dollar volume of business. Where the number of employees is used ... the maximum number of employees which a small business concern may have under the definition shall vary from industry to industry to the extent necessary to reflect differing characteristics of such industries and to take proper account of other relevant factors (p.44).

This definition emphasised three main characteristics of small firms, which are: independently owned, independently operated - and not dominant in its field of operation. In the UK, the Committee of Inquiry on Small Firms (Bolton, 1971) identified the same three characteristics in its report :

What we thought most appropriate to our Inquiry was a definition which emphasised those characteristics of small firms which might be expected to make their performance and their problems significantly different from those of larger firms. In the end we came to the conclusion that three main characteristics had to be taken into account. Firstly, in economic terms, a small firm is one that has a relatively small share of its market. Secondly, an essential characteristic of a small firm is that it is managed by its owners or part-owners in a personalised way, and not through the medium of a formalised management structure. Thirdly, it is also independent in the sense that it does not form part of a larger enterprise and that the owner-managers should be free from outside control in taking their principal decisions (p.1).

3.9.3 Characteristics of Small Firms

The main characteristics identified from the two definitions maintained above are:

- 1 A small firm has a relatively small share of its market. This means that a small firm has limited influence on the market and typically faces many competitors.
- 2 Small firms are managed in a personalised way by an individual owner or part-owner.
- 3 A small firm is independent and does not form part of a larger company.

The first factor is very important in terms of information needs for small firms. Small firms are in a competitive market, and many government organisations fear that lack of information is a serious problem for them. On the one hand, small firms are seen as not good at acquiring information, yet on the other, they have a particular need for it in order to become more competitive.

The latter two characteristics are related to the nature of the management, and this is also very important for information seeking, handling and needs. The Organisation for Economic Co-operation and Development (1971) has cited a Canadian report

by a Royal Commission and private investigation showing that 80 per cent of business failures - and this undoubtedly concerns the S.M.B.'s at least as much as other firms - can generally be attributed to lack of management capabilities or managerial experience(p.12).

A report by the Commission of the European Communities (1988) indicates that lack of managerial competence comes high in the list of reasons why businesses fail. Most of the writers on this topic - as discussed below - point out that most of the information problems of small firms are related to this management factor. In large manufacturing firms, there is a management team with each member specialising in a certain field. For example, there may be a marketing manager, a financial manager, and other managers reporting to the general manager. Small firms are prevented by the scale of their operations from employing a specialist in every function. Thus all the management decisions which have to be made rely on the experience and skills of one or two people, whose experience and skills

are necessarily limited. The manager of a small firm is responsible for all the different aspects of the business and is usually pressed for time. Maguire & Kench (1974) note that "*he cannot afford to wait for information*". Thus the problem of unavailability of information when it is needed particularly affects smaller firms (Williams, 1976). Consequently, small firms need access to readily applicable information over a wide range of subjects. Bolton (1971), Davies & Kelly (1972) and Derek & Chris (1987) have reported that most of the managers of small firms lack basic education as well as management skills. Bolton (1971), Li (1974), Capital Planning Information (1982), Kennington (1989) and Orminski (1991) have added that this lack of education and skills on the part of the managers will lead to a lack of appreciation of the value of information. This, in turn, will affect their information acquisition, and hinder their ability to define or understand their problems and, consequently, decide on their information needs. Another problem discussed by Bennett (1983) is the manager's attitude towards using information resources. He has remarked that:

Use of public libraries and positive attitudes towards such information sources tend to be conditioned by habit, and most managers have never been in the habit of using libraries (p. 19).

3.9.4 Information needs

From the foregoing discussion, it appears that the information problems and needs of small firms are mostly related to management problems. Small firms need a range of information to survive and grow, thus it is essential to convince managers of the need for external

information. Capital Planning Information (1982) studied the information provision for small manufacturing firms and identified the following types of information demanded by small firms from external sources (not in any special order): technical information, market information, financial information and management information. Trott and Martyn (1986) looked at the information needs of small firms in Suffolk and reported that technical information was the most needed type of information, followed by market and financial information. Similarly, Orminski (1991) investigated the business information needs of Science Park companies and found that technical information was the most needed information followed, by market and financial information. Methlie and Tverstol (1982) studied the behavioural aspects determining the demand for external information services by industrial companies in Norway. They reported that the highest demand for external information was for market information, then technical and financial information. Dhua (1990) reported that most of the information needed by small and medium-sized enterprises in China fell into the categories of technical, market and financial information.

In considering the categories of information to be used in this present study, we can conclude that technical, market and financial information are the most needed by small firms. This might be due to the following reasons. Small firms find it difficult to keep abreast of technological change, partly through lack of qualified staff and partly through failure to make use of published technical data. They may experience difficulties in purchasing technology from outside, or

obtaining it through research carried out within the firm, owing to the considerable financial resources required. Hence, there is a fundamental demand for technical information. The marketing function in small firms is very often underdeveloped and this gives them less chance to compete and to expand. Market research is another difficulty facing small firms due to financial problems and the skills required in carrying out their own studies. Moreover, small firms often see exporting as beyond their abilities and find it difficult to contact foreign businesses owing to limitations of size and number of staff. Hence, market information is also needed. Most small firms find it difficult to raise funds due to lack of knowledge of the appropriate sources of development finance and working capital. They are unskilled in presenting a financial case to potential investors and lenders as well as unaware of the advantages of different methods of raising capital. Consequently, they often require financial information.

The actual demands of firms for information are products of different interacting variables. Among these are the personal and educational attributes of the managers, the types of product and nature of the market, the nature of the organisation and its size. White & Wilson (1988) have noted that firms dealing with exports create different demands for external information from those that do not export. These demands can include information about packaging requirements, custom and excise tariffs, etc. Again, Orminski (1991) has pointed out that technology-driven firms are more interested in technical information than in other types. Roberts & Clifford (1986) reported that firms operating in well-established markets with

products for which there is a stable demand and with few immediate competitors show less interest in using market information. On the other hand, firms which operate in rapidly changing markets with new products and a number of aggressive competitors create different demands and needs for information.

Moreover, firms need different types of information depending on the current stage of the firm's development. As the small firm grows and the problems faced by manager change, the needs for information also change. Capital Planning Information (1982) found that the ideal information provider agency to help new firms is not necessarily the ideal agency for established firms.

This study concentrates on small firms because as the literature indicates here there are particular problems that are associated with small firms. Small firms are not good in acquiring information because lack of management capabilities and experience. Most managers of small firms lack of basic education as well as management skills, which lead to a lack of gratefulness of the value of information. Also, small firms are suffering from unavailability of information when it is needed, because they are prevented by the scale of their operation from employing a specialist in every function. It seems to be that most of the information problems of small firms are related to management factor.

However, in terms of medium and large firms, we expect that when we look at their information needs and use these problems will not prove so serious for them.

We can now conclude that small firms play a significant role in the economy, and they have particular information problems of their own. Because there are no previous studies of the information needs of Saudi manufacturing firms, one purpose of the present study is to find out whether the statements noted above about other countries also apply to Saudi Arabia or not.

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Chapter Four

The Industrial Scene in Saudi Arabia

4.1 Introduction

There has not previously been a detailed analysis of industrial statistics in Saudi Arabia of the sort required for the present study. So, before undertaking the actual research, it was necessary to carry out an investigation into the statistical distribution of firms in Saudi industry to provide the basis for selecting appropriate samples. Such a study encountered problems of definition, similar to those faced in defining what is meant by a 'small' firm.

As a basis, the contents of the *List of Licensed Factories in Production* and the *Industrial Statistical Bulletin* were analysed in detail to gain a clear picture of Saudi firms and their statistical distribution by size, type and organisational status. (These publications are discussed in more detail in Chapter Eight.)

4.2 Sample Selection

In selecting the sample, considerable attention had to be paid to the need to represent firms with differing characteristics, which might affect their information needs. The main variables seen as most applicable to, and appropriate for, the purpose investigating information usage were size of firm, type of industry, and

organisational status. The reasons for choosing these variables are discussed below. There are evidently a number of other possible variables which could be used, but which appear to be less applicable to the present study. For example, the geographical position of the firm is not important, because the industrial sectors of Saudi Arabia examined in this study are around the cities; so the type of geographical location is rather similar for each industry, and, correspondingly, is access to the main information sources. In fact, most of the industries in Saudi Arabia lie in the geographical areas which were chosen for this study anyway.

4.2.1 Size of Firms

It was decided to use size as a major variable, because it is clear that size can affect communication in organisations. According to Farace, Monge and Russell (1977), as size increases, communication within organisations becomes much more complicated and the information required by the organisation changes. This indicates that communication problems of small firms are likely to be different from those of large ones. Consequently, their information needs may well be different.

Unfortunately, there is no universally accepted definition for the size of firms (see Chapter Three). More particularly, there is no standard classification for the size of firms either in Saudi Arabia or internationally. It therefore proved necessary to define limits regarding size based on certain criteria. One definition of size could be based on financial variables, such as annual turnover, profits, capital invested, etc. However, this did not a useful classification for this study. Small

firms might have a big turnover because they produce expensive products, but the main factor that determines communication in organisations is number of employees, and not the cost of the products they produce. It was therefore decided to define size based on number of employees rather than other definitions, since number of employees should give a better measurement of communication and information flow than other classifications. Moreover, information on number of employees is easier to obtain, because it is usually considered by managers to be less confidential.

The contents of the *List of Licensed Factories in Production* (the 1987 issue was the latest available), published by the Ministry of Industry and Electricity, were analysed in order to discover how many firms there are, and to group them according to size. The total number of manufacturing firms was 2061 firms in 1987, according to the Ministry of Industry and Electricity in all its official publications and other government official publications. However, the total number of firms listed in the *List of Licensed Factories in Production* proved to be 1995 firms, which means that there were 65 firms missing. Of the 1995 firms listed, there were nine firms which had no information on number of workers. Thus, the actual figures used in the analysis were based on 1986 firms (See Appendix IV).

Three groups of firms were identified on the basis of (1) European definitions of size (see Chapter Three); the determined distribution of sizes of firms in Saudi Arabia. These were defined as:

Size	Small	Medium	Large
Nos. Employed	1 - 50	50 - 200	Over 200

On the basis of this definition (as shown in Table 4.1), 66% of the total firms in Saudi Arabia are small; 28% are medium-sized; 6% are large.

Table 4.1
Size of Firms

Size	Nos. of Firms	%
Small	1,317	66
Medium	553	28
Large	116	6
Total	1,986	100

4.2.2 Type of Product

It was decided to use type of industry as the second major variable, because certain industries, such as the chemical industry, require very large amounts of information and research. Wolman (1988) pointed out that there are well over 400,000 articles and about 100,000 patents published annually in this area, not including other written forms, such as reports, deposited documents, conference abstracts, proceedings, theses and books. In addition to requiring chemical information, Ash, Chubb, Ward, Welford and Willett (1985) have noted that the chemist requires and needs to understand information from other sciences to support his own chemical activity. Hence, the chemical industry is likely to have more information that it needs to examine than other industries do. Orminski (1991) has remarked that technology-driven

industry needs different information from other industries. It is clear from this discussion that different types of industry are likely to have different information needs, which will therefore affect their use of the information available.

The three largest product groupings in Saudi Arabia are Building (27% of all firms), Metals (26%) and Chemicals (15%) (Ministry of Industry and Electricity, 1987). Figures 4.1, 4.2, and 4.3 show the distribution of firms by size in each industrial sector. It was decided to select these three types (Building, Metals and Chemicals) not just because most Saudi firms fell into these three types; but also these three areas dominate the Saudi economy. For example, the Saudi Consulting House (1990) reported that these three groups account for nearly 90% of the capital investment in Saudi industry in recent years (see Chapter Two for more details).

Figure 4.1

Number of Firms by Size in The
Building industry in 1987

Figure 4.2

Number of Firms by Size in The
Metals Industry in 1987

Figure 4.3

Number of Firms by Size in The
Chemical Industry in 1987

4.3.3 Organisational Status

There are three basic categories in Saudi Arabia, which include 'Sole Proprietor', 'Saudi Partnership' and 'Foreign Partnership'. Since firms in these different categories may differ in their range of contacts inside and outside Saudi Arabia, they may well have differing access to information. It was therefore decided to use organisational status as a third variable. In addition, one of the main industrial policies of the Kingdom is to welcome the entry of foreign capital to the Kingdom where this engenders co-operation with Saudi businessmen in establishing industrial projects. Such co-operation is expected to help transfer technology, improve industrial management, and enhance the potential for international marketing. Foreign partnership firms may differ in their use and needs of information from the Saudi ones because of these differing objectives.

Figure 4.4

Foreign Partnership Firms by Industry
Sectors and Size in 1987

Figure 4.4, shows that 79% of the total foreign partnership firms in Saudi Arabia fall in the three main industries, building, metals, and chemical. The figure shows that there are numerically more foreign partnership firms in the metals industry than in the other two industries. However, comparing the proportion of the foreign partnership firms to the total number of firms in each industry sector reveals that 13% of the total firms in the building industry, 26% of the total firms in the metals industry and 30% of the total firms in the chemical industry were foreign partnership firms.

Because of the differences between Saudi Arabia and the UK in the legal structure of the firms, it was decided, for comparison purposes, to divide this category for the UK into two parts - either 'Independent

Company', or 'Parts of Larger Company'. Large companies that exist in more than one country, or operate at an international level, may well have a greater variety of contacts to access information than an independent company which operates at a national or local level. Since independent companies, in general, are owned by a sole trader or partnership, they correspond to a Sole Proprietor and Saudi Partnership in Saudi Arabia. Part of a Larger Company would then correspond to a Foreign Partnership, since both may have a more international perspective.

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Chapter Five

Research Methodology

5.1 Introduction

The literature review in an earlier chapter showed that both internal and external sources of information are important factors for a firm's development and success. However, authors like Wilson (1987) and Kaye (1991) have argued that external information sources are usually ignored by most firms. Many of the studies that were conducted in the UK during the 1980s investigated the information provision to industry - for example, Capital Planning Information (1982), Trott & Martyn (1986) - reported that there was a lack of awareness among firms of the external sources of information available. As external sources of information were used less efficiently than the internal sources, the methodology in this study has been aimed at examining the nature and use of external sources of information. The first section of this chapter discusses the research model adopted in this study. The second section discusses the nature of the sample. The third discusses the research methods which might be used, and explained why mail questionnaire and interview methods were selected as the major vehicle for data collection.

5.2 Research Model

A model can serve many purposes, but its primary purpose is to communicate something about what it models in order to generate a

better understanding of reality (Burt & Kinnucan, 1990). A model also makes it easier to break down the elements of any system to provide an effective framework for analysis and discussion. Two models have been developed here for these purposes. The first model was developed to show the organisational information system (see Figure 5.1). This model is divided into four main components. The first three components which cover the information sources, information services, and information channels represent the major components of the organisational information systems. The fourth component contains the major elements of the system development. The main idea of this model was to evaluate government information systems and determine what impact each element has on each component in the system. The second model that has been developed is based on both Wilson's and Haygarth's models (Wilson, 1981) and (Haygarth, 1981). This is shown in Figure 5.2. The main idea was to use it to examine the impact of different types of information-seeking behaviour on the use of the external information sources.

From these two models, the method and technique were derived for deciding on and improving appropriate questions to be asked, such as:

- What are the major sources of information that the government uses and to what extent does the government depend on such sources in providing their information?
- What are the main types of information provided by government information sources and how relevant is this information to the users' needs?

- In what form do the government information sources provide this information and what are the main services and facilities available to the users?
- What steps do the government information sources take to advertise, market and sell (where appropriate) their information services and to what extent does this publicity effect the users' awareness and use of government information sources?
- Do the government information sources communicate with their users and, if so, how do they communicate?
- What steps do the government information sources take to develop their information services?
- To what extent does the size and nature of a firm affect its use of government and non-government information services?

Figure 5.1
Organisational Information System

Figure 5.2
Manufacturing Firms
Information Seeking Model

5.3 Size of the Sample

Such previous investigations as have been made in Saudi Arabia have shown that there are major difficulties in obtaining information from Saudi manufacturing firms. The problem is that most Saudi firms are not yet accustomed to the idea of externally conducted surveys. Many small and medium-sized Saudi enterprises apparently fear that any release of information about their activities will benefit their competitors. Consequently, attempts to investigate Saudi firms have always encountered difficulties: no survey of the type proposed here has therefore been carried out in Saudi Arabia before. It was therefore decided that to achieve responses from some 100 firms would be an acceptable aim in order to obtain a reasonable basis for statistical discussion. This figure amounted to 7% of the total firms available in the three major industries (Building, Metals, and Chemical) in Saudi Arabia.

It was decided to study a geographically limited sample of the firms. This was made necessary by various Saudi limitations on postal surveys. For example, permission is needed from each local industrial administration in order to distribute questionnaires. To have obtained such permission for the whole of Saudi Arabia would have been very time-consuming and probably unacceptable to the Saudi authorities. Because of such restrictions, it was decided to concentrate attention on two cities -- Jeddah and Riyadh. In fact, this was not too great a limitation, since between them, these cities contain 46% (626 firms) of all Saudi firms concerned with building, metals, and chemicals. Hence, they provide an excellent cross-section of firms in these industries.

5.4 Methodology

There are various types of research methods which can be used to collect data, some of them overlapping, but which one is the most suitable for the present research? This depends on the research objectives and the type of data needed to be collected. In this section, a number of research strategies (see e.g. Galliers, 1985) will be discussed in terms of their applicability to the present work. The various categories are:

- Laboratory experiments
- Field experiments
- Case studies
- Futures research
- Action research.
- Longitudinal studies
- Phenomenological studies/hermeneutics
- Surveys

5.4.1 Laboratory Experiments

The major characteristic of the laboratory experiment is that the researcher has to create the condition where he can control the variables which he wants to manipulate, so that he can make measurements whilst holding other relevant factors constant. Since the present research is concerned with obtaining data in natural settings, where the variables are difficult to control, laboratory experiments are clearly inappropriate.

5.4.2 Field Experiments

A field experiment is a study of an event in its natural environment. Unlike laboratory experiments, field experiments have fewer controls over the variables. The main advantage of field experiments is the immediate and comprehensive feedback of information on the effectiveness of the experiment (Phillips, 1971). However, the main objective of this approach is to study reactions to change, and this is not feasible in the present instance.

5.4.3 Case studies

The case study approach is confined to one, or a few, detailed investigations. The major advantage of the case study approach is its ability to provide in-depth and comprehensive data about underlying processes. Its major drawback is the problem of generalising the findings from each study (Adams & Schvaneveldt, 1985). A case study approach has been used in the present study in a generalised form. In this instance, it has been a study of two countries. The level of service and relevance of the information provided in Saudi Arabia (a developing country) has been compared with the situation in the UK (a developed country). The survey approach was used as the major vehicle for data collection, as discussed below.

5.4.4 Futures Research

Futures research is the systematic exploration of what might come to be. Its primary purpose is to provide an early warning about problems that might lie ahead. Analysing and understanding future developments can increase the probability of avoiding problems. The major disadvantage of this approach is that validation criteria do not

exist (Amara, 1991). The aim of present approach is primarily to examine the existing situation. Though this entails, to some extent, foreseeing likely trends, a full-scale futures study did not seem appropriate.

5.4.5 Action research

Action research is characterised as a cyclical, multi-step process, which involves diagnosing a problem situation, planning action steps, and implementing and evaluating outcomes. The major advantage of action research is the recycling process, which allows the researcher to redefine the problem and the hypotheses, subsequently modifying and re-evaluating the research strategies if necessary (Peters & Robinson, 1984). The action research approach is most suitable for problem - solving situations (Brown & Tandon, 1983). This approach cannot be used in Saudi Arabia, because most firms in Saudi Arabia would certainly not co-operate in this kind of research.

5.4.6 Longitudinal Studies

Longitudinal studies are characterised as studies over time. There is no set time that a study must cover. Longitudinal studies are not restricted to particular individuals or groups of people, and can be used for any subject. The major advantage of the longitudinal study is the ability to maintain a considerable degree of consistency whilst acquiring longer-range information. The difficulty of following up any subject over an extended period of time is the main disadvantage of this approach, and the costs of collecting data can be high (Johnson, 1977). The main aim of this approach is to examine conditions relating to change over time. There was not enough time to use such an approach in this study, so it

was considered inappropriate. However, to a minor extent, the discussion of the impact of successive five-year plans in Saudi Arabia can be seen as the background for such a study.

5.4.7 Phenomenological Studies

Phenomenological studies are more concerned with the relationship between the reality which exists outside the human minds and the variety of thoughts and ideas about this reality (Spinelli, 1989). Since the aim of phenomenological studies is to analyse the individual experience, it was deemed inappropriate for the present purpose of examining particular industries.

5.4.8 Survey Approach

There are three major methods which can be used to elicit information from respondents: personal interviews, mail questionnaires, and telephone surveys. These methods can be subsumed under the concept of the survey approach. The relative strengths and weaknesses of these methods are discussed below.

- ✓ The main advantage of using the interview method is that it facilitates communication between the interviewer and the respondent, allowing the interviewer to explain and clarify his questions to elicit significantly more complete answers. The interview method can also provide detailed in-depth information. The main disadvantage of the interview method is that the interviewer may influence the respondent's answers. It may also be time-consuming, and costly, and requires skilled and experienced interviewers (Goldhor, 1972).

The mail questionnaire method is regarded as an impersonal survey method. Its main advantages are that larger samples can be used than for interviews and a statistically valid measurement can be developed. In addition, there is a reduction in biasing error, the cost is lower, and there is greater anonymity. Its major disadvantages are lack of control over who fills in the questionnaire, no opportunity for probing, and the generally low response rate (Nachmias & Nachmias, 1989). Various techniques can be used to try and overcome the problem of low response rate - for example, over-sampling, follow-up, length of questionnaire, and so on.

The telephone survey has mostly been used to obtain data quickly - much more quickly than with the other two methods - also, in some cases, it is cheaper to use, especially if it is used locally. On the other hand, the telephone survey method depends entirely on oral communication (Dillman, 1978). This latter point helped make the method inappropriate to use in the UK, since the problem of an interviewer speaking in a foreign language would make it difficult for both interviewer and respondent to understand each other easily. For Saudi Arabia it would be very costly to use overseas calls, and, even if used from within the country, the novelty of the approach would almost certainly lead to a low response rate.

The major advantage of the survey approach in general is that survey techniques can save time and money - especially with a large sample - as compared with the other methods, without sacrificing efficiency and accuracy in the research process (Busha & Harter, 1980).

One of the major disadvantages of the survey approach is that the important variables have to be known in advance. Thus it can only be used in well understood situations where the purpose, problem and objective is clear and well defined. To overcome this problem a pilot survey can be carried out to confirm the nature of the major variables and clarify any confusion.

In view of the research objectives, it was decided to use two survey methods for data collection, each separated into two stages. For the first stage, the mail questionnaire method was chosen as the most appropriate data collection method. This decision was made primarily on practical grounds, as the method would seem most likely to provide an acceptable sample of firms in both Saudi Arabia and the UK at a reasonable cost.

The second stage involved a series of interviews carried out in both Saudi Arabia and the UK with the main information providers cited by the respondents in the questionnaire survey. The decision to use the interview method was made on the basis that it is the most appropriate way of collecting comprehensive detailed information from a small number of organisations.

5.5 The Mail Questionnaire Method

To ensure the suitability and completion of the questionnaire, several steps were taken. The first stage in developing the questionnaire was to construct a prototype for internal discussion. In the light of this discussion, revisions were made to the questionnaire. The second stage in the questionnaire development then involved submitting the revised

draft to an outside panel of experts in library and information science. These experts were asked to read the questionnaire critically, to give their reactions and suggestions, to make notes, and when necessary to eliminate, add, or rewrite the questionnaire items (especially the Arabic version). As a result of this, a considerable improvement was made to the questionnaire contents and presentation.

The third stage consisted of a pilot test of this questionnaire, using a small sample of five subjects, who were randomly chosen from the relevant population in the Jeddah area in Saudi Arabia. In an effort to eliminate any unnecessary confusion or misunderstanding, feedback was obtained via a visit to all recipients. This pilot study helped to determine the questionnaire's suitability and clarify any confusion that might occur. Once all of the above processes were completed, both Arabic and English versions of the questionnaire were retyped and distributed in Saudi Arabia and the UK, respectively.

To overcome, so far as possible, the problem of low response rate, the study adopted Dillman's Total Design Method (TDM) for the development and use of a mail questionnaire (Dillman, 1978). According to Dillman, three steps must be taken to maximise the survey response:

- Minimise the cost of responding;
- Maximise the rewards for doing so;
- Establish trust that those rewards will be delivered.

Dillman, also offers advice on matters such as envelopes, the covering letter, mailing dates, and so on. However, in the absence of an accepted theory of mail questionnaire response some of Dillman's details are possibly unnecessary, as well as being difficult to use. Such detail as personalisation and reminder procedures, for example, are not always possible. Dillman, advises that both the envelope and covering letter should contain the name and address of the intended recipient. It proved difficult to obtain the Owner's or Managing Director's name in many cases: as a result the survey could not be fully personalised, and the envelopes and letters were addressed to the "Managing Director". Dillman also advised the use of three reminders or more, where the third reminder should be sent by registered mail to all non-respondents (the use of registered mail being to emphasise the importance of both the survey and the recipient). For this study, a third reminder was not used, since use of registered mail would have proved costly.

Nevertheless, most of Dillman's other recommendations were used. The following methods were applied in this study to increase the response rate:

- An individual, one-page, dated covering letter printed on headed paper with a signature was sent along with the questionnaire.
- Stamped, self-addressed envelopes giving a local address were provided.

- To maintain the confidentiality of respondents, questionnaires were identified by serial numbers. The numbering system was explained in the covering letters.
- It was explained in the covering letter that copies of the final report resulting from the research survey would be sent to firms upon request.
- Follow-up letters were sent to all non-respondents with a similar contents to the original mailing, including a questionnaire.
- In terms of reducing the effort for respondents, the package was kept as clear and simple as possible.

5.5.1 Questionnaire Content

The main objective of the questionnaire was to seek the users' (firms') point of view in terms of their awareness and use of external sources of information available to them, and to determine the adequacy of these sources for their industrial requirements. The intention was also to assess the type of information needed by firms and the utility of different types of information to them.

The questionnaire sent out in both Saudi Arabia and the UK was divided into four sections. The first section covered the type of firm, to be used as the basic variable in seeking differences in their use of information services. The second section looked at awareness and use of government-provided information, as well as the type of information being obtained and the utility of this information. The third section did the same for information provided by non-governmental organisations. The final section assessed the adequacy of the information sources for

the firm's industrial requirements. For Saudi Arabia, a question was added to examine whether firms thought there was a need to centralise the provision of information from government organisations. (The final questionnaire is shown in Appendix v and vi)

5.5.2 Saudi Arabia

As discussed earlier, the desired sample was intended to be 100 firms, but, because a low response rate from Saudi Arabian firms was expected, it was decided to approach as many firms as possible. Consequently, a total of 626 questionnaires were distributed by post: this comprised the total number of firms concerned with building, metals, and chemicals in both Jeddah and Riyadh.

Tables 5.1 and 5.2 below show the breakdown in terms of questionnaires distributed by both industrial sector and size of firm.

Table 5.1
Questionnaire Distributed by Industrial Sector

Industry	Total sent	Total in Industry	% of industry sampled
Building	183	524	35
Metals	286	526	54
Chemical	157	298	53
Total	626	1,347	46

Table 5.2
Questionnaire Distributed by Industrial Size

Size of Firm	Total sent	Total in the Three Industry	% of industry sampled
Small	315	879	36
Medium	253	384	66
Large	58	84	69
Total	626	1,347	46

The names and addresses of the manufacturing firms were drawn from three sources. The first is the *List of Licensed Factories in Production* (1987 Ed.), which is published by the Ministry of Industry and Electricity and covers all the manufacturing firms in Saudi Arabia. The second is the *Riyadh Factories Directory* (1988 Ed.), which is published by the Riyadh Chamber of Commerce and Industry and covers the Riyadh area. The third is the *Annual Trade and Industry Directory* (1991 Ed.), which is published by the Jeddah Chamber of Commerce and Industry and covers the Jeddah area.

The addresses of the manufacturing firms in the two directories published by the Chambers were reasonably up-to-date, since their information was taken from membership applications, which are updated annually. The addresses of the manufacturing firms in the Ministry list were taken from the application licences for establishing the firms, and were, therefore, out-of-date in some cases.

The investigation took place between 1st May, 1991, and 1st August, 1991. The first mailing of the questionnaires took place on 1st May, 1991. By 15th June, 1991, 50 replies had been received. A follow-up letter and a further questionnaire was distributed to non-respondents. By 1st August, 1991, another 34 replies had been received. Tables 5.3 and 5.4 indicate the number of responses received, in terms of industrial sector and size of firm, for questionnaires distributed in Saudi Arabia.

Table 5.3
Responses by Industrial Sector

Industry	Questionnaires dispatched	Questionnaires returned	% Response rate
Building	183	14	8
Metals	286	31	11
Chemical	157	39	25
Total	626	84	13

Table 5.4
Responses by Size of Firm

Industry	Questionnaires dispatched	Questionnaires returned	% Response rate
Small	315	34	9
Medium	253	29	11
Large	58	21	35

Eight returned questionnaires were incomplete, giving a usable response rate of 12%. In terms of willingness to respond, it should be noted that, the response rate from chemical industry was some three times that of the building industry and twice that of the metals industry. The response rate from large firms was some three times that of small and medium-sized firms. It seems to support the point made earlier that the chemical industry and large firms are more information-conscious. Though the desired target of about a hundred responses was not reached, the actual figure achieved was regarded as acceptable. It was clear from the follow-up that many Saudi firms would never be prepared to return a questionnaire.

A number of problems appeared during the data collection. One of the most difficult and time-consuming of these was associated with getting official permission to distribute the questionnaires.

5.5.3 UK

For the UK, the size and distribution of the sample surveyed was determined by the Saudi parameters. Altogether 600 questionnaires were sent out to British firms, with a distribution in terms of size and product generally similar to the pattern for Saudi Arabia (see Tables 5.5 and 5.6 below).

Table 5.5
Questionnaires Distributed by Industrial Sector

Industry	Saudi Arabia	UK
Building	183	193
Metals	286	226
Chemical	157	181
Total	626	600

Table 5.6
Questionnaires distributed by Size of Firm

Size of Firm	Saudi Arabia	UK
Small	315	305
Medium	253	235
Large	58	60
Total	626	600

The names and addresses of the manufacturing firms were drawn from Kompass (1991 Ed.), which covers all UK companies, whether in manufacturing or retailing. The problem of using Kompass was therefore to distinguish which companies were manufacturing companies and which were not. To do so, it was necessary to go through the coding system of Kompass. Another difficulty was the industrial classification system, which was slightly different from that of Saudi Arabia.

The first mailing of the questionnaire took place on 15th July, 1991. By 30th August, 1991, 100 replies had been received. A follow-up letter and a further questionnaire was distributed to non-respondents. By 15th October, 1991, another 43 replies had been received. Tables 5.7 and 5.8 below indicate the number of responses received in terms of industrial sector and size of firm for questionnaires distributed in UK.

Table 5.7
Responses by Industrial Sector

Industry	Questionnaires dispatched	Questionnaires returned	% Response rate
Building	193	47	24
Metals	226	47	21
Chemical	181	49	27
Total	600	143	24

Table 5.8
Responses by Size of Firm

Industry	Questionnaires dispatched	Questionnaires returned	% Response rate
Small	305	66	22
Medium	235	39	17
Large	60	38	63
Total	600	143	24

It should be noted that there was no big difference between the three types of industry in their response rate. However, the response rate for large firms was some three times that of small and medium-sized firms, which is similar to the result obtained in Saudi Arabia.

5.6 The Interview Method

The interviews were set up as a follow-up to the questionnaire in both Saudi Arabia and the UK in order to investigate further the information provision to industry. The main point of the questionnaire was to look at the awareness and use of both government-provided information and that from non-government organisations, as seen by the industrial user.

The interview was developed to cover information provision from the provider point of view. The main point of the interviews was to identify any gaps in this provision. The interview, therefore, concentrated on four elements. These were:

- The information content, which included questions 1, 8 and 9;
- The information services, which included questions 4, 7, 10, 11, 13, 14, and 15;
- The information channel, which included questions 2, 3, 6, and 12; and
- The information users, which was question 5.

See Appendix vii for a list of these questions.

The interviews carried out in both Saudi Arabia and the UK were with the main information providers cited by the respondents and those who were most relevant and useful to the study. The interviewees were the directors of information services, heads of department and senior staff.

5.6.1 Saudi Arabia

The interviews took place between 1st August, 1992, and 15th October, 1992. Altogether, ten people were interviewed from the following organisations. Two heads of departments of the Ministry of Industry & Electricity (Riyadh), these being the head of the Industrial Statistical Department and the head of the Export Department. (The two departments act as major information providers.) One interview with the director of the Information Services department of the Saudi Standards Organisation (Riyadh). One interview with the director of the Saudi Export Development Centre (Riyadh). Three interviews with the directors of the Information Services Department in three different Chambers of Commerce and Industry, these being - Jeddah Chamber of Commerce and Industry, Riyadh Chamber of Commerce and Industry, and the Eastern Province Chamber of Commerce and Industry. The reason for interviewing members of three different Chambers was to see if there were any differences in their range of activities. Finally, three interviews were conducted with the three Commercial Attachés of the British Embassy in Riyadh, Jeddah, and Eastern Province. The major problem noted during the interview process was the unwillingness of some interviewees to provide detailed information. This is another reflection of the secretiveness noted in the discussion of questionnaire returns.

5.6.2 UK

The interviews took place between 18th June, 1992, and 15th July, 1992. Altogether, three people were interviewed from the Department of Trade and Industry. Two were from the regional offices at Birmingham and Nottingham and the other was with the Country Desk Division (Saudi Desk).

5.7 Data Analysis

Data collected from the mail questionnaire were tabulated and coded. Open-ended questions were described, summarised and listed separately. For the mail questionnaire data, the Statistical Package for the Social Sciences (SPSS) program was used to organise the data and produce statistical measures, such as frequency and averages. The Chi-squared test was used, at the 0.5 level, to look for possible statistical significance. The data collected from the interview were also described, summarised and listed to create graphs and tables.

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Chapter Six

Data Analysis: Questionnaire Survey

6.1 Introduction

The purpose of this chapter is to analyse the results of the data collected from the questionnaire surveys conducted both in Saudi Arabia and the UK. The findings are grouped into three main sections. The first section deals with the data collected from Saudi Arabia. This section discusses the following: the government organisations industrial awareness and use of information from government organisations, the type of information obtained and the usefulness of this information. These data are then compared with industrial organisations awareness of information from non-governmental organisations, again assessed in terms of type of information obtained and its adequacy. Finally, this section discusses the use of government and non-government information sources in terms of industrial sector, size of firm and organisational status. The second section deals with the data collected from the UK. The structure of this section is the same as that of the previous section. The final section compares and discusses the results of the first two sections in terms of the same framework.

6.2 Saudi Arabia

In this section, the results of the data collected from the questionnaires distributed in Saudi Arabia will be analysed and discussed (see Appendix v for a copy of the questionnaire).

6.2.1 Government Organisation

Questions 4-5 asked the respondents if they were aware of any form of government information provision and of which organisations they were aware. Question 6 asked respondents how they became aware of these services. Question 7-8 asked the respondents if they used information provided by government sources and, if they did, which ones they used. Altogether, 87% of the respondents stated that they were aware of the services provided by government organisations, and 86% said they actually used these services. However, the percentage of awareness of the services and the percentage of using these services differed slightly from one organisation to another. A statistical test shows no significant differences between being aware of, and using information from government organisations.

Table 6.1
List of Government Organisations Aware of, and Used

Government Organisations	% Aware of	% Use of
Ministry of Industry & Electricity	83	72
Chambers of Commerce & Industry	59	55
Saudi Consulting House	33	27
Saudi Standards Organisation	27	27
Central Department of Statistics	27	24
KACST*	24	24
Saudi Industry Development Fund	18	16
Ministry of Trade	18	13

* King Abdulaziz City for Science & Technology

It should be noted that the Chambers of Commerce & Industry mean here the two chambers of Jeddah and Riyadh, where the questionnaires were distributed. The Chambers in Saudi Arabia are semi-official bodies.: firms need to authenticate their documents at the Chamber before they are submitted to most official authorities. There is no difference between the two chambers in their activities or importance (see the discussion in Chapter Three). As shown in Table 6.1, most of the government organisations achieved only low levels of recognition and use, except for the Ministry of Industry & Electricity and the Chambers of Commerce & Industry. These latter bodies had the highest level of customer awareness and use.

Figure 6.1

Number of Government Organisations Aware of, and Used

Figure 6.1, shows that 47% of the respondents were aware of three government organisations and another 42% used information from three government organisations. However, it was not the case that the three sources were identical in the two cases. Indeed, the Ministry of Industry & Electricity was the only common factor between those who chose three government organisations in terms both of awareness and use. (The other two organisations were scattered across the spectrum.) Nevertheless, the figures imply that, if firms are aware of information resources, they make use of them.

Table 6.2
Cause of Awareness

Type of Awareness	No. of Cases	%
Organisations' Publications	34	39
The Media	3	4
Direct Contact	25	29
Through Other Organisations	15	17
Experience	6	7
Other	3	4
Total	86	100

Table 6.2, shows that the majority of the respondents were aware of government information sources either through the 'Organisation's Publications' or by 'Direct Contact'. It is worth noting that the former may be passive, since the publications are often distributed, whereas the latter almost always requires action on the part of the firm.

However, the table also shows that the government organisations only have two active methods for publicising their services. These are: via the media, or the organisation's publications. The latter is considered to be the most important method used by the government organisations.

6.2.2 Types of Information Obtained

Question 9 asked respondents about the type of information they had obtained. For the purpose of analysis, these types of information were grouped into three categories (as discussed in Chapter One). These are:

(1) market information; (2) technical information; (3) statistical information. In these terms, technical information and market information seem to be about equally important (see Table 6.3).

Table 6.3
Information Obtained by Subject Categories

Subject	No. of Cases	%
Technical	54	43
Market	51	40
Statistics	21	17
Total	126	100

6.2.3 Usefulness of information

Questions 10 and 11 asked respondents about the usefulness of the information, whilst questions 12 and 13 asked respondents if they had difficulties obtaining this information. Of the 86% who actually used the services, 95% said that the information they obtained from the government organisations was useful, the remaining 5% said the information was not useful because it was 'out of date' or 'not enough'. In addition, 95% said they had encountered no difficulties using the services. The remaining 5% noted such difficulties as 'too complex administration procedures', 'not known who is in charge', and 'treat the information as confidential'.

6.2.4 Non-government Organisations

Questions 14-16 concerned non-government information provision. It was found that 43% of the respondents obtained information from non-

government organisations, as compared with the 86% who obtained information from government organisations.

A statistical test shows there is a significant difference at the 0.01 level ($X^2 = 10.4$ DF = 1) between using government sources and non-government sources. Information from government organisations is being used much more frequently than that from non-government organisations.

Table 6.4
List of Non-government Information Sources

Organisation	% Use Source
Consultants	88
International databases	36
Embassies	9
Suppliers	6

As shown in Table 6.4 consultants and international databases were the non-government sources most used by Saudi firms for obtaining information.

Figure 6.2

Number of Different Information Sources Used

Using G.S. = Using Government Sources

Using Non-g.S. = Using Non-government Sources

Figure 6.2 shows that the largest group (57% of the respondents) had used none of the non-government information sources; whereas, for government information, the largest group (42% of the firms) had used three sources. These figures underline the fact that there is a significant gap between the use of government information sources and non-government information sources.

Table 6.5
Information Obtained by Subject Categories

Subject	Government		Non-government	
	No.of Cases	%	No.of Cases	%
Technical	54	43	33	52
Market	51	40	30	48
Statistical	21	17	-	-
Total	126	100	63	100

Table 6.5 gives a breakdown of the information obtained from government and non-government information sources by subject categories. The types of information obtained from the non-government organisations are similar to the types obtained from the government organisations, though it seems that government organisations are the only providers of statistical information in Saudi Arabia. The table also makes it clear that technical and market information are the two types of information most needed by Saudi firms.

6.2.5 Adequacy of the Information

Questions 17 and 18 asked respondents about the adequacy of the information and what additional types of information they needed. Of the respondents, 59% agreed that the information provided by government organisations and non-government organisations was adequate to meet their needs. Most of the remaining 41%, who answered 'no', gave no explanation as to why the information was inadequate for their requirements. The few who gave an explanation

most commonly stated either that the 'information is not up to date', or 'there are not enough details'.

Finally, question 19 asked firms if they would prefer to see government information provision centralised. What is meant by centralisation here is that the government information should be provided by one type of organisation only (eg. the chambers). Altogether, 71% of the total respondents thought there was a need to centralise the government information provision. We now turn to analysing the use of government and non-government information sources in terms of industrial sector, size of firm and organisational status.

6.2.6 Industrial Sector

Figure 6.3

As shown in Figure 6.3, the building and chemical industries used the information provided by government organisations somewhat more than the metals industries, whilst the chemical industry used the non-government information sources more than the other two groups.

Table 6.6
Number of Different Information Sources Used by Firms

Number of Sources used	Building		Chemical		Metals	
	% Using	% Using	% Using	% Using	% Using	% Using
	G.O*	Non-g.O**	G.O	Non-g.O	G.O	Non-g.O
0	8	70	11	39	22	74
1	22	30	7	28	26	22
2	39	-	6	33	11	4
3	15	-	54	-	37	-
4	8	-	11	-	-	-
5	8	-	11	-	4	-

* G.O = Government Organisations

** Non-g.O = Non-government Organisations

Table 6.6 shows that the majority of the metals (74%) and the building (70%) industries made no use of non-government information sources. The table also suggests that the chemical industry used a wider range of government and non-government information sources than the building and metals industries.

Table 6.7
Number of Types of Information Obtained

Types of Information	Building		Chemical		Metals	
	%	%	%	%	%	%
	G.O	Non-g.O	G.O	Non-g.O	G.O	Non-g.O
0	8	70	11	39	22	74
1	32	30	25	17	41	26
2	30	-	14	44	19	-
3	30	-	50	-	18	-

Table 6.7 shows that the spread for the building industry seems to be rather more equally distributed than for the chemical and metals industries. Overall, the chemical industry appears to be more concerned with information gathering than the other two types of industry.

6.2.7 Size of Firms

Figure 6.4

Size of Firm and Use of Information Sources

As shown in Figure 6.4, large firms had the highest level of use of both government and non-government information sources. In turn, the medium-sized firms used government and non-government information sources rather more than the small firms.

Table 6.8

Number of Different Information Sources Used by Firms

Number of Sources used	Small		Medium		Large	
	% Using	% Using	% Using	% Using	% Using	% Using
	G.O	Non-g.O	G.O	Non-g.O	G.O	Non-g.O
0	24	69	11	63	5	30
1	25	28	22	26	10	25
2	17	3	15	11	5	45
3	28	-	33	-	70	-
4	3	-	15	-	-	-
5	3	-	4	-	10	-

Table 6.8 emphasises that large firms not only make the highest usage of both government and non-government information sources, but also that they use a greater variety of sources than the other two groups. Whilst 33% of medium-sized firms and 28% of the small firms used three government information sources, 70% of the large firms did so. In addition, 45% of the large firms used two non-government information sources, whereas 69% of the small firms and 63% of the medium-sized firms made no use of any of the non-government information sources.

Table 6.9
Number of Types of Information Obtained

Type of Information	Small		Medium		Large	
	%	%	%	%	%	%
	G.O	Non-g.O	G.O	Non-g.O	G.O	Non-g.O
0	24	69	11	63	5	30
1	39	21	33	22	20	20
2	24	10	15	15	15	50
3	13	-	41	-	60	-

Table 6.9 shows that large firms obtained more information than the other two groups, whether from government organisations or non-government organisations.

6.2.8 Organisational Status

Figure 6.5

As Figure 6.5 shows, the use of the government information sources is rather similar between the three types of firm. However, there appears to be a trend in the use of information from non-government sources, with Sole Proprietors making least use whilst Foreign Partnerships make the most use (with Saudi Partnerships occupying an intermediate position).

Table 6.10
Number of Different Information Sources Used by Firms

Number of Sources Used	Sole Proprietor		Saudi Partnership		Foreign Partnership	
	% Using	% Using	% Using	% Using	% Using	% Using
	G.O	Non-g.O	G.O	Non-g.O	G.O	Non-g.O
0	16	71	18	59	9	35
1	35	29	9	36	4	13
2	16	-	18	5	4	52
3	23	-	36	-	74	-
4	7	-	5	-	9	-
5	3	-	14	-	-	-

Table 6.10 suggests that foreign partnerships not only used non-government information sources more than the other two types, but also used a greater variety of sources. The table shows that the majority of the sole proprietors, (71%) and Saudi partnerships (59%) had not used any of the non-government information sources, whereas 65% of the foreign partnerships used one or more non-government information sources.

Table 6.11
Number of Types of Information Obtained

Type of information	Sole Proprietor		Saudi Partnership		Foreign Partnership	
	%	%	%	%	%	%
	G.O	Non-g.O	G.O	Non-g.O	G.O	Non-g.O
0	16	71	18	59	9	35
1	32	19	38	31	26	23
2	26	10	23	10	4	42
3	26	-	23	-	61	-

Table 6.11 shows that there is a wider spread of information gathering in the foreign partnership firms than in the other two types. The spread of information gathering was similar in sole proprietors and Saudi partnerships.

6.3 UK

In this section the results of the data collected from the questionnaires distributed in the UK will be analysed and discussed in the same manner as for the Saudi questionnaires. (See Appendix vi for a copy of the questionnaire.)

6.3.1 Government Organisations

Questions 4 and 5 asked firms if they were aware of government information sources and, if so, which ones. Question 6 asked how they became aware of these government sources. Questions 7 and 8 asked firms if they actually used government information sources and again, if so which ones. Altogether, 72% of the respondents stated that they were aware of the services provided by government organisations, and 68% said they actually used these services. The percentage of firms aware of the services and the percentage of those using these services differed slightly from one organisation to another. A statistical test shows no significant differences between being aware of government organisations and using them.

Table 6.12

List of Government Organisations Aware of, and Used

Government Organisations	% Aware of	% Used
Department of Trade and Industry	76	71
Department of Environment	19	19
British Overseas Trade Board	17	16
Central Statistical Office	16	16
Health and Safety Executive	12	10

As shown in Table 6.12, most of the government organisations achieved low levels of recognition and use; the sole exception was the Department of Trade and Industry (DTI).

Figure 6.6

Number of Government Organisations
Aware of, and Used

Figure 6.6 shows that 48% of the respondents were aware of one government organisation, and 78% of that 48% cite the Department of Trade and Industry. Moreover, 49% of the respondents used only one government organisation and 73% of that 49% used the Department of Trade and Industry.

6.3.2 Type of information obtained

Table 6.13
Information Obtained by Subject Categories

Subject	No. of Cases	%
Technical	37	30
Market	63	50
Statistics	25	20
Total	125	100

Question 9 asked firms about the type of information they obtained. For the purpose of comparison, these types of information were grouped into the same three categories as for the Saudi responses. These are: (1) market information; (2) technical information; (3) statistical information. In these terms, as shown in Table 6.13, UK firms tended to be relatively more interested in market information (50%) than the other two types of information.

6.3.3 Usefulness of Information

Table 6.14
Information Usefulness

Rate	No. of Cases	%
Poor	18	19
Moderate	37	38
Good	42	43
Total	97	100

Questions 10-13 asked firms if the information obtained from the government information sources was useful, and if they had any difficulties in obtaining this information. Table 6.14 shows that 79% of the firms who used government information sources found that the information provided was moderate or good in terms of usefulness. This suggests that the information provided by government organisations is found generally satisfactory by the firms.

However, 30% of the total respondents said that they had difficulties using the services. There were two main types of difficulties facing firms when using the government services. These were either 'Finding the Correct Person or Department' (44%), or 'Difficult to access' (28%). The remaining 28% did not comment on the cause of the difficulty.

6.3.4 Non-government Organisations

Questions 14-18 concentrate on non-government information sources. Altogether, 71% of the total respondents obtained information from non-government information sources, as compared with 68% who obtained information from government information sources. A statistical test shows no significant difference therefore between the use of government information sources and non-government information sources.

Table 6.15
List of Non-government Information Sources

Organisation	% Use Source
Associations	44
Consulting	38
Chamber of Commerce	28
Federations	13
British Standards Organ.	11
Libraries	5

Table 6.15 shows that Trade Associations and Consultants were the most important non-government sources used by British firms to obtain information. Chambers of Commerce were the third major non-government source used, whilst libraries come last with only 5% of firms using them.

Figure 6.7

Number of Different Information
Sources Used

As indicated earlier, there was no significant difference in terms of overall usage between government information sources and non-government information sources. However, there may be a slight indication that a wider spread of non-government information sources was used as compared with government information sources (see Figure 6.7).

Table 6.16
Information Obtained by Subject Categories

Subject	Government		Non-government	
	No. of Cases	%	No. of Cases	%
Technical	37	30	63	42
Market	63	50	77	51
Statistical	25	20	11	7
Total	125	100	151	100

Table 6.16 shows that market and technical information were the most frequent types of information obtained from both government and non-government organisations. However, a statistical test, shows that significant differences ($X = 6.8$ $DF = 1$) and ($X = 5.4$ $DF = 1$) exist between obtaining technical and statistical information from government and non-government organisations. While technical information was obtained more from the non-government organisations, statistical information was obtained more from the government organisations.

6.3.5 Adequacy of the Information

Finally, questions 19 and 20 asked firms about the adequacy of the information obtained, and what additional types of information they needed. Altogether, 48% of the respondents agreed that the information provided by both the government organisations and non-government organisations was adequate to meet their needs. Most of the remaining 52%, who answered 'no', did not state why. Those who

gave an explanation most commonly stated either that 'there are not enough details', or that the information was 'misleading'.

In the following section, the use of government and non-government information sources will be analysed in term of industrial sector, size of firm and organisational status.

6.3.6 Industrial Sector

Figure 6.8

Industrial Sector and Use of Information Sources

As shown in Figure 6.8, there was approximately equally balanced usage of government and non-government information sources in the different industries.

Table 6.17
Number of Different Information Sources Used by Firms

Number of Organisation	Building		Chemical		Metals	
	% Using	% Using	% Using	% Using	% Using	% Using
	G.O	Non-g.O	G.O	Non-g.O	G.O	Non-g.O
0	31	35	30	28	36	25
1	57	47	45	33	45	48
2	8	16	14	26	17	23
3	4	2	11	13	2	4

Table 6.17 shows that chemical industry used a relatively greater variety of government and non-government information sources than the building and metals industries. The building and metals industries seem to have similar distributions.

Table 6.18
Number of Types of Information Obtained

Type of Information	Building		Chemical		Metals	
	%	%	%	%	%	%
	G.O	Non-g.O	G.O	Non-g.O	G.O	Non-g.O
0	31	35	30	28	36	25
1	52	56	36	35	41	47
2	15	6	22	26	21	17
3	2	3	12	11	2	11

Table 6.18 suggests that there is a wider distribution of information gathering in the chemical industries than the building and metals industries. In comparison with the building industries, metals industries gathered a slightly wider spread of information, especially from the non-government sources.

6.3.7 Size of Firms

Figure 6.9 shows that large firms used both government and non-government information sources more than medium-sized or small firms. In turn, medium-sized firms used both government and non-government information sources more than the small firms.

Table 6.19
Number of Different Information Sources Used by Firms

Number of Sources Used	Small		Medium		Large	
	% Using	% Using	% Using	% Using	% Using	% Using
	G.O	Non-g.O	G.O	Non-g.O	G.O	Non-g.O
0	44	42	36	31	8	5
1	44	32	51	43	55	58
2	9	24	10	21	24	29
3	3	2	3	5	13	8

Table 6.19 shows that large firms have used a wider variety of government and non-government information sources than the small and medium-sized firms. The small and medium-sized firms had similar distributions.

Table 6.20
Number of Types of Information Obtained

Type of Information	Small		Medium		Large	
	%	%	%	%	%	%
	G.O	Non-g.O	G.O	Non-g.O	G.O	Non-g.O
0	44	42	36	31	8	5
1	42	49	33	34	53	45
2	12	6	26	20	26	32
3	2	3	5	15	13	18

Table 6.20 shows that large firms obtained more information than the other two groups, whether from government information sources or from non-government information sources. In turn, the medium-sized firms obtained more information than the small firms.

6.3.8 Organisational Status

Figure 6.10

Figure 6.10 shows that firms which were part of larger organisations used government and non-government information sources more than independent firms.

Table 6.21
Number of Different Information Sources Used by Firms

Number of Sources Used	Independent Company		Part of Larger One	
	% Using G.O	% Using Non-g.O	% Using G.O	% Using Non-g.O
0	38	39	22	12
1	43	36	51	53
2	15	23	20	27
3	4	2	7	8

Table 6.21 shows that firms which were parts of larger companies not only used government and non-government information sources more than independent firms, but also used a wide range of information sources.

Table 6.22
Number of Types of Information Obtained

Type of Information	Independent Company		Part of Larger One	
	% Using G.O	% Using Non-g.O	% Using G.O	% Using Non-g.O
0	38	39	22	12
1	46	40	52	57
2	13	15	16	19
3	3	6	10	12

Table 6.22 shows that firms which were part of larger organisations obtained more information from both government and non-government information sources.

6.4 Comparison of Saudi Arabia and UK

In this section, the results of data collected from Saudi Arabia and the UK will be compared in terms of awareness and use of both government and non-government information sources.

There are some differences in the type and number of government and non-government information sources between Saudi Arabia and the UK. The reason seems to be due, in part, to the different affiliations of some of the bodies involved. For example, standards information is provided by a government organisation in Saudi Arabia, but by a non-governmental organisation in the UK. However, there does appear to be a significant difference between the two countries: 87% of the respondents in Saudi Arabia stated that they were aware of government information sources, and 86% said they actually used these sources, whereas, in the UK, the smaller fraction of 72% of the respondents said that they were aware of government information sources, and similarly only 68% used these sources.

Table 6.23

Number of Government Organisations Aware of and Used

Number of Sources Used	% Aware of		% Used	
	Saudi	UK	Saudi	UK
0	13	28	14	32
1	14	48	19	49
2	8	18	13	13
3	47	6	42	6
4	8	-	7	-
5	10	-	5	-

Table 6.23 suggests that Saudi Arabian firms are more aware of, and make greater use of government information sources than the UK firms. However, the responses in both Saudi Arabia and the UK suggest that, for both countries once a firm becomes aware of an information source, it tends to use it. Another similarity is that all of the government information sources in both Saudi Arabia and the UK received a low level of awareness and use, except for the Ministry of Industry in each country. Nevertheless, a majority of the firms in both countries make use of a range of information sources.

Table 6.24
Number of Different Information Sources Used by Firms

Number of Sources used	% Using Government Sources		% Using Non-government Sources	
	Saudi	UK	Saudi	UK
0	14	32	57	29
1	19	49	26	42
2	13	13	17	25
3	42	6	-	4
4	7	-	-	-
5	5	-	-	-

As shown in Table 6.24, use of multiple sources is common in both Saudi Arabia and the UK. However, Saudi firms tap a greater number of government information sources than British firms, but the latter use more non-governmental sources. A statistical test shows there is a significant difference ($X = 6.0$ $DF = 1$) between Saudi Arabian firms

and British firms in the use of non-government information sources, with British firms using more non-government sources than Saudi firms.

Table 6.25
Type of Information Obtained

Type of Information	% Government Organisations		% Non-government Organisations	
	Saudi	UK	Saudi	UK
Technical	43	30	52	42
Market	40	50	48	51
Statistics	17	20	-	7

Table 6.25 shows that British firms tended to be relatively more interested in market information, whereas Saudi firms were more interested in technical information.

In terms of information usefulness and difficulties in using the services, 95% of the Saudi respondents reported both that the information obtained from government sources was useful and that they had encountered no major difficulty in acquiring it. The corresponding figures for British respondents were 81% and 70%. The latter result indicates a significantly higher level of problems perceived by British than by Saudi firms. Finally, 59% of the total Saudi respondents said that the information provided by both government and non-government information sources was adequate to meet their needs, whereas only 48% of the British firms said so.

The use of government and non-government information sources will now be analysed in terms of the previous distinctions made concerning industrial sector, size of firm and organisational status.

Table 6.26
Industrial Sector and Use of Information Sources

Industry	% Use of Government Information Sources		% Use of Non-government Information Sources	
	Saudi	UK	Saudi	UK
Building	92	69	30	65
Chemical	89	70	61	72
Metals	78	64	26	75

As shown in Table 6.26, in Saudi Arabia, the building and chemical industries used the government information sources somewhat more than the metals industry, whilst the chemical industry used the non-government information sources more than the other two groups. In the UK, it seems that all three industries are approximately equally balanced in their usage of government and non-government information sources. However, it appears that the chemical industries in Saudi Arabia and the UK not only gathered more information than the building and metals industries, but also used a wider variety of information sources than the other two groups.

Table 6.27
Size of Firm and Use of Information Sources

Size of Firm	% Use of Government Information Sources		% Use of Non-government Information Sources	
	Saudi	UK	Saudi	UK
Small	76	56	31	58
Medium	89	64	37	69
Large	95	92	70	95

As shown in Table 6.27, in both Saudi Arabia and the UK, large firms used the government and non-government information sources more than the small and medium-sized firms. Similarly, in both countries the medium-sized firms used government and non-government information sources more than the small firms. The results also indicate that large firms in both Saudi Arabia and the UK not only obtained more information than small and medium-sized firms from both government and non-government information sources, but also that they used a wider variety of sources than the other two groups.

Since the definition of organisational status was different between the two countries, a direct comparison was not possible. However, in terms of information usage, some similarity might be looked for between Saudi firms involving foreign partnership and British firms which are part of larger organisations (often with strong international associations). In this connection, it may be noted that Saudi Arabian firms based on foreign partnership were much more likely to use a wide range of information sources and to be more information-

conscious than the other two categories. Similarly, UK firms which were part of larger organisations not only used government and non-government information sources more than independent firms, they also used a wider variety of sources and obtained more information.

Chapter Seven

Data Analysis: Interview Survey

7.1 Introduction

In this chapter the results of the data collected from the interviews conducted in both Saudi Arabia and the UK will be analysed. The findings will be grouped into two main sections. The first section will deal with data collected from Saudi Arabia relating primarily to such matters as information content, information channels, information services and information users. The second section will deal with the data collected from the UK, and will cover the same range of topics.

7.2 Saudi Arabia

For the purpose of analysis, the government organisations interviewed will be put together into three main groups. The first group includes the three Chambers of Commerce & Industry in Riyadh, Jeddah and the Eastern Province. This group is included in this government information section because the chambers in Saudi Arabia are semi-official government organisations (see Chapter Three for more details). The second group includes the main government organisations - namely, the Industrial Statistical Department and the Export Department of the Ministry of Industry & Electricity, the Saudi Standards Organisation and the Saudi Export Development Centre. The

third group includes the three British Commercial Attachés in Riyadh, Jeddah and the Eastern Province.

It should be noted that the third group are not Saudi government organisations, so its members may have different goals and objectives from the Saudi sources. It is included here to show how information is exchanged between the two countries and what other information sources are available to Saudi firms.

7.2.1 Information Content

As discussed in Chapter One, the types of information have been grouped into three categories: (1) market information; (2) technical information; (3) statistical information. In these terms, as shown in Figure 7.1, group one provided a wider range of information than group two and group three. In turn, group two provided a greater variety of information than group three. The figure shows that market information is the only type of information provided by all three groups.

This result reflects the nature of the organisations in group one. All the organisations in this group provide market, technical and statistical information because they are required to monitor all aspects of industry. In contrast, all the organisations in group two are specialised in their concerns, and the type of information provided is limited to their organisational activities. Thus, the Saudi Standards Organisation provides technical information, whereas the Industrial Statistical Department provides statistical information only, and the Export Department and the Saudi Export Development Centre are primarily concerned with market information. (In addition to market information, the Saudi Export Development Centre also provides some statistical information.) Group three is concerned almost entirely with UK/Saudi marketing matters.

It should be added that the market and statistical information provided by both the Export Department and the Saudi Export Development Centre relate to foreign markets. The market information provided in Saudi Arabia by group three relates to the British market only. In

addition, group three provides market and statistical information about the Saudi market to British firms.

In terms of the commonest type of enquiry received, Figure 7.2 shows that market information is the most common type of enquiry across the board. Because group two covers different types of organisation, it received a wider spread of enquiries than the other groups. However, all the organisations in group one and group three said that market information is the commonest type of enquiry they received. In group two, the Saudi Export Development Centre and the Export Department said that market information is the commonest type of enquiry they received. The Saudi Standards Organisation said technical information is the commonest type of enquiry they received and the Industrial

Statistical Department said statistical information is the commonest type of enquiry for them. This suggests the users are selecting the right organisations for their information - seeking activities. In comparing Figures 7.1 and 7.2, it is apparent that the commonest types of enquiry received in groups two and three are similar to the types of information provided.

Figure 7.3 shows that, in group one, enquiries about technical information were the most difficult to satisfy. In group two, enquiries about statistical information proved to be the most difficult to satisfy. In addition, group two faced more difficulties satisfying firms' needs than group one. By way of contrast, group three had no major difficulties in providing satisfactory responses to firms. The Industrial Statistical Department said that the most difficult enquiry to satisfy is

for statistical data relating to financial information, even for the simplest category (such as balance sheets). The Export Department said that market information on particular foreign markets (such as East European countries) is the most difficult enquiry to satisfy. The Saudi Export Development Centre said that enquiries relating to statistical data on imports from some developing countries and some East European countries are the most difficult to satisfy. The Saudi Standards Organisation said that technical information on some foreign standards are most difficult to satisfy.

Though the organisations in group three experienced no difficulties in satisfying Saudi firms' enquiries, they had difficulties in satisfying enquiries from British firms about the Saudi market (more especially in terms of statistical information). The Commercial Attaché in the Eastern Province commented:

The problem that we have is the way they bring out the statistics, it is very hard to pick up or to answer some specific questions. If you go to the statistics [on road vehicles] it does not tell you how many pick-ups, it does not tell you how many town cars. There are no details. Take the problem of furniture; it just says furniture. Is it office furniture? Is it domestic furniture? It is not broken down in such a way that it is easy or the information can be used easily...

Figure 7.4

As shown in Figure 7.4, market information was the most common type of information provided as well as the most common type of information required by the Saudi firms and the organisations had no difficulties in satisfying this need. The technical information was provided less and required less than the market information, but proved to be the most difficult to satisfy.

7.2.2 Information Channels

As shown in Table 7.1, all the organisations provide their information to the users either in traditional hard copy form, or as computer printout. In the latter case, the information is stored in a computer system as a database to be used by the staff only. They retrieve the information and print the relevant parts out, passing on the printout to

the users. The system is not available on-line to users. This applies to all the organisations in group one and group three. In group two the organisations provide their information only in hard copy (except for the Saudi Standards Organisation, which provide its information in computerised printout form as well).

In terms of the information services facilities provided, Table 7.1 shows that enquiry service facilities are provided more often than self-research facilities. For use of the enquiry service facilities, enquiries can be received and answered via **phone, fax or mail**. Self-research facilities imply in each case a library where the users can do their own searching. All the organisations in group one provide both enquiry and self-research facilities. Group two and group three provide enquiry service facilities only, except for the Saudi Standards Organisation which provides self-research facilities as well.

Table 7.1 shows that group one used more channels to communicate with their users than the other groups. The **phone, fax and mail** channels were used by all organisations more than regular communication via the users' membership channel. The users' membership channel refers to communication with users where they receive the organisation's publications, including a regular newsletter keeping them up-to-date with any new information that the organisation has. All the organisations in group one used both channels, but the organisations in group two and group three used the phone, fax, and mail channels only (except for the Saudi Standards Organisation which also used the users' membership channel).

Table 7.1
Channels of Information vs Organisations

Organisations	Form of Information		Service Facilities		Customer Communication		Advertise Information Service		
	Documentary	Computerised	Enquiry Service	Self-research	Membership Users	Phone, Fax, Mail	Organisation Publications	Newspapers	Exhibitions
Chamber of Riyadh	YES	YES	YES	YES	YES	YES	YES	YES	YES
Chamber of Jeddah	YES	YES	YES	YES	YES	YES	YES	YES	YES
Chamber of Eastern Province	YES	YES	YES	YES	YES	YES	YES	YES	YES
Saudi Export Development Centre	YES	NO	YES	NO	NO	YES	NO	YES	NO
Saudi Standards Organisation	YES	YES	YES	YES	YES	YES	YES	YES	YES
Export Department	YES	NO	YES	NO	NO	YES	NO	NO	NO
Industrial Statistical Depart.	YES	NO	YES	NO	NO	YES	YES	NO	NO
British Commercial Attach Riyadh	YES	YES	YES	NO	NO	YES	YES	NO	NO
British Commercial Attach Jeddah	YES	YES	YES	NO	NO	YES	NO	NO	NO
British Commercial Attach Eastern Pro.	YES	YES	YES	NO	NO	YES	NO	NO	NO
Total	10	7	10	4	4	10	6	5	4

As shown in the final three columns of Table 7.1, there were three main channels used by the organisations to publicise their services. Most of the organisations used their own publications as the main publicity channel. Group one used more channels to publicise their services than the other groups: all the organisations in group one used all the three possible channels to publicise their services. In group two, the Saudi Standards Organisation was the only organisation which used all three channels to publicise its services. The Saudi Export Development Centre used newspapers as its only publicity channel, whilst the Industrial Statistical Department used only its own publications for this purpose. Finally in this group, the Export Department had not made use of any channel to publicise its services. In group three, the only channel used for publicity was their own publications, and this had been used by the main office in Riyadh only.

7.2.3 Information Services

Figure 7.5

By 'in-house sources' in this study is meant all the data produced by the organisation, as well as any data held by the organisation, or that it can access (such as databases). In these terms, Figure 7.5, shows that all the organisations used the data they had compiled themselves as their main source of information. The figure shows that group one used a wider variety of in-house sources of information than the other groups. In addition to the data they produce, all the organisations in group one hold government publications, and can access international data bases. They also depend on their own library collection as another major in-house source of information. In group two, all the organisations depend only on the data they produce themselves as their main in-house

source of information (though the Saudi Standards Organisation also depends on its library collection). In group three, all the organisations used their own data and Saudi government publications as their main in-house sources of information.

Figure 7.6

As shown in Figure 7.6, group one used external sources of information to satisfy their users' needs more than the other two groups. Most of the organisations in this group used Saudi chambers and international organisations as their main external sources of information. All the organisations in group one also used some of the government organisations (such as the Saudi Standards Organisation and the Industrial Statistical Department) as external sources of information. In group two, the Saudi Export Development Centre and the Export

Department used each other, as well as international organisations, as an external source of information. The Saudi Export Development Centre used foreign chambers as an external source, whilst the Saudi Standards Organisation used international organisations as its main external source. The Industrial Statistical Department made no use of any external information source. In group three, all the British Commercial Attachés used the Saudi chambers as their main external information sources. Their main office in Riyadh used Saudi government organisations as another important external source of information.

As shown in Table 7.2, group one interacted with government and non-government information sources more than groups two and three. Group two interacted with non-government information sources more than group three.

All the organisations in group one interact with each other as well as with the Saudi Standards Organisation and the Industrial Statistical Department from group two. In addition, all the organisations in group one interact with non-government information sources. The table shows that, in group two, there is a lack of interaction between the organisations (except between the Saudi Export Development Centre and the Export Department). There is also a lack of interaction between the organisations in group two and most of the non-government information sources. All the organisations in group three interact with the Saudi chambers, but there is a lack of interaction between this group and the Saudi government information sources (except between the main office of the British Commercial Attaché in

Table 7.2
Organisations Interaction with Government and Non-government Information Sources

Organisations	Government Information Sources					Non-government Information Sources		
	Saudi Chambers	Saudi Export Development Centre	Saudi Standards Organisation	Export Department	Industrial Statistical Department	International Organisation	British Chambers	Arabian British Chamber
Chamber of Riyadh	YES	NO	YES	NO	YES	YES	YES	YES
Chamber of Jeddah	YES	NO	YES	NO	YES	YES	YES	YES
Chamber of Eastern Province	YES	NO	YES	NO	YES	YES	YES	YES
Saudi Export Development Centre	NO	-	NO	YES	NO	YES	NO	YES
Saudi Standards Organisation	YES	NO	-	NO	NO	YES	NO	NO
Export Department	NO	YES	NO	-	NO	YES	NO	NO
Industrial Statistical Depart.	YES	NO	NO	NO	-	NO	NO	NO
British Commercial Attach Riyadh	YES	NO	NO	NO	YES	NO	NO	NO
British Commercial Attach Jeddah	YES	NO	NO	NO	NO	NO	NO	NO
British Commercial Attach Eastern Pro.	YES	NO	NO	NO	NO	NO	NO	NO
Total	8	1	3	1	4	6	3	4

Riyadh and the Industrial Statistical Department). Equally, there is a lack of interaction between group three and non-government information services.

In terms of evaluating the efficiency and effectiveness of the services they provide, none of the organisations in group one or group two made any attempt to evaluate their services. The exception was the Chamber in Jeddah, which used two types of method to evaluate its service. The first method used was to distribute a user's evaluation form. This was an evaluation form sent to the users along with the information enquiry form, which asked the users about the quality of the service and their comments. The second method was by analysing the handling of information enquiry forms to provide an indicator of the quality and success of the service. In group three, the service provided was evaluated by the Department of Trade and Industry (DTI) in UK.

In terms of improving staff information management skills, all the organisations in group one and group two provided local training programmes for their staff. In addition to the local training programmes, the Chamber in Jeddah in group one, and the Saudi Standards Organisation and the Industrial Statistical Department in group two, send some of their staff abroad for further training. In group three, all the staff had been trained by the DTI in UK.

Finally, interviewees were asked what changes they thought would occur in the information services they provide in the future. All the organisations in group one and group two thought that computerising

the services and making it available to the users on-line would be the main change to their services in the near future. Group three respondents thought that a move to a more fee-based service (rather than a free service) would be the main change in the future. This is, of course, in keeping with general government policy in the UK.

7.2.4 Information Users

All the organisations in group one said that their main target audience consisted of all types of businessmen. In group two, the Saudi Standards Organisation and the Industrial Statistical Department also said that they targeted all types of businessmen. The Saudi Export Development Centre and the Export Department said that Saudi exporters, more specifically, were their main target audience. Group three respondents said that British exporters and Saudi businessmen were their main target audience.

7.3 UK

To see what types of information were available to British exporters relating to Saudi Arabia, interviews were conducted with members of the DTI, as the main British government department responsible for export information. The first investigation related to central provision via the Saudi Desk in London. The other two were concerned with regional provision via the DTI offices in Nottingham and Birmingham.

7.3.1 Information Content

Table 7.3
Type of Information Provided

Organisations	Market Information	Statistical Information
Saudi Desk	YES	YES
Regional Office Nottingham	YES	YES
Regional Office Birmingham	YES	YES
Total	3	3

As shown in Table 7.3, all the organisations provided both market and statistical information, but none of them provided technical information.

In terms of the commonest type of enquiry received, all of the interviewees agreed that market information was the most common

type. In terms of the most difficult type of enquiry to satisfy, the two regional offices in Nottingham and Birmingham said it was market information, whereas the Saudi Desk found statistical information to be the most difficult enquiry to satisfy.

As shown in Figure 7.7, market information was the commonest type of enquiry received by all the organisations. However, comparing the ratio of the type of enquiry received to the difficulty of satisfying the enquiry, it seems that statistical information was relatively the most difficult type of request to satisfy.

7.3.2 Information Channels

Table 7.4
Channels of Information vs Organisations

Organisation	Form of Information		Service Facilities	Customer Communication		Advertising Services
	Documentary	Computerised	Enquiry Service	Phone, Fax, Mail	Membership users	Organisation Publications
Saudi Desk	YES	YES	YES	YES	NO	NO
Regional Office Nottingham	YES	YES	YES	YES	YES	YES
Regional Office Birmingham	YES	YES	YES	YES	YES	YES
Total	3	3	3	3	2	2

As shown in Table 7.4, all the organisations provided their information in both traditional hard copy and computer printout form. For computer printout, the information is stored in a computer system as a database to be used by the staff only. They retrieve the information and provide the printout to users in the same way as in Saudi Arabia.

In terms of the service facilities provided, there was only an enquiry service (no self-search facilities) for all the organisations. Enquiries could be received and answered by **phone, fax or mail** (see Table 7.4). In addition to phone, fax, and mail, the two regional offices in Nottingham and Birmingham employed a users' membership channel

as another method of communication with their users. As in Saudi Arabia, a users' membership channel means that users receive the organisation's publications, including a regular newsletter which keeps them up-to-date with regard to any new information that the organisation has.

As shown in Table 7.4, the Saudi Desk did not publicise its service. The only method used by the two regional offices in Nottingham and Birmingham to publicise their services was via their own publications.

7.3.3 Information Services

All the organisations said that their main internal source of information was the data that they themselves had compiled. Their main external source of information was the British embassy in Saudi Arabia. In terms of interaction, all these government organisations interact with each other, as well as with the British embassy, but none of them interact with the providers of non-government information sources.

The two regional offices used private consultants to evaluate their services. The private consultants undertook a monthly survey of about 150-200 companies that had been in touch with each of the regional offices to measure the quality and level of satisfaction with the services. The consultants provide the offices with performance indicators to show how good the services are. The Saudi Desk in London depended only on the informal comments of its users to evaluate its service.

In terms of improving staff skills, the two regional offices in Nottingham and Birmingham both provided local training programmes

for their staff. The Saudi Desk, on the contrary, provides no training programmes for its staff.

The final question in the interviews concerned what changes might occur in the information services provided in the future. The Saudi Desk thought that more information technology would be used and that this would influence the ability of the service to respond in the future. The two regional offices in Nottingham and Birmingham envisaged the introduction of more fee-based services in the future.

7.3.4 Information users

All the organisations said that British exporters were the main target audience.

Chapter Eight

Evaluation of Publications

8.1 Introduction

The previous chapters have shown that organisational publications are a major source both of information and of publicity. In this chapter, the contents of the publications produced by all organisations interviewed both in Saudi Arabia and the UK will be analysed. The aim will be, firstly, to find out what was available and what was missing from the information available to Saudi firms. Secondly, there will be an investigation of what types of information about Saudi Arabia are not available to British exporters. Finally, an attempt will be made to find out what information was available in terms of the three industries covered in this study.

All the publications produced by the Saudi organisations interviewed were collected as part of the interview survey. There was no problem collecting these publications - all of them were available and easy to obtain - the problem was rather that most of the publications were out of date. This seems to be due to the fact that data collection by Saudi government organisations occurs on an irregular basis, and there is typically a long period between the completion of data collection and the availability of the information to users (Ministry of Planning, 1990). The government organisations are clearly prepared to publish information, but the potential uses of this information and the needs of

users do not seem to be their main concern (Soufi & Mayer, 1991). This lack of up-to-date information may well affect industrial development in Saudi Arabia.

To obtain a general picture of what type of materials about Saudi Arabia were available to the British exporters, the publications produced by the British organisations interviewed were also collected. In addition, visits were paid to the Export Market Information Centre and the British Standards Organisation, as discussed later in this chapter.

This chapter is divided into three sections. The first section analyses the publications produced by the organisations interviewed in Saudi Arabia. The second section analyses the publications produced by the organisations interviewed in the UK. Finally, there is a general evaluation of all these publications.

8.2 Saudi Arabia

8.2.1 Industrial Statistical Department

The main publications produced by the Department are:

- List of Licensed Factories in Production
- Industrial Statistical Bulletin.

The List of Licensed Factories in Production is a collection of two types of quarterly list added together every year to become one list, classified in accordance with the manual of industrial activities. It is published irregularly, showing the status of licensed industrial

plants, mentioning any modifications made, and deleting cancelled licenses.

The first quarterly list contains individual information on each licensed industrial plant. The data are derived from the Ministerial Resolutions that led to the issue of the license. This quarterly list contains the following information:

- Name and address of the industrial plant
- The industrial activity
- The annual production and the licensed capacity
- Paid and total capital
- Number of employees
- Number and date of licence
- Proportion of foreign capital investment and its nationality.

It should be noted that although this quarterly list contains the above information, when the two lists are combined to produce the **List of Licensed Factories in Production**, certain information from this list is omitted (in particular, the annual production and licensed capacity and the paid and total capital).

The second quarterly list contains information regarding authorised modifications made by each industrial plant, and includes any expansion, omission, change of location, capital, title, name of the plant and the like.

The Industrial Statistical Bulletin is a publication containing tables and charts which show the number of licensed factories in each industrial activity. It includes capitalisation, number of employees, foreign capital investment participating in Saudi industry and the proportion of national funds in each industry and for each area of the Kingdom. The bulletin also shows the value of the raw materials, machinery and spare parts imported for the licensed factories, which are exempt from custom duties, and the share of each industry in such exemptions as compared with previous years. The Industrial Statistical Bulletin is supposed to be published annually, but, so far, it has been published on an irregular basis.

As shown in Figure 8.1, a comparison of the data in the two publications indicated that there were some differences in terms of the total number of firms and their distribution by industrial sectors. These differences were due to the fact that some firms were missing from the List of Licensed Factories in Production. In addition to these differences, both publications have been published irregularly (every three to four years), which means that the data in them is out of date.

Figure 8.1

Number of Firms in Each Industry
Sector up to 1987

L.L.F.P = List of Licensed Factories in Production
I.S.B = Industrial Statistical Bulletin

Regardless of the reliability of the publications, a significant amount of information can be obtained from both publications, since they are the only publications available covering the whole industry in Saudi Arabia. The information that can be derived includes : number of firms, as shown in Figure 8.1; capital investment in each industrial (sector from the Industrial Statistical Bulletin) as shown in Figure 8.2; distribution of firms by size, based on number of employees (from the List of Licensed Factories in Production) as shown in Figure 8.3. It is also possible to derive size distributions of firms by industry sector and the number of foreign partnership firms and their distributions by size and industry sector, as discussed in Chapter four.

Figure 8.2

Total Investment (In million Saudi Riyal) by Industry Sectors up to 1987

Figure 8.3

Number of Firms by Size Up to 1987

8.2.2 Export Department

The Export Department is a new Department at the Ministry of Industry and Electricity. Its main responsibilities are: to make proposals regarding export policies; to study the trade and economic agreements between Saudi Arabia and foreign countries; to study and analyse the lists of goods attached to these agreements and to add to, or cancel from , these lists. The Department is also responsible for studying the demands and needs of foreign markets. Finally, the Department is responsible for studying internal barriers to exporting and finding ways of circumventing them.

The information relating to these activities was not published in any form. However, it was provided in documentary form to Saudi exporters on an enquiry only basis.

8.2.3 Saudi Export Development Centre

The main publications published by the Centre are:

- Market Research Report
- Saudi Export Directory

The Market Research Report provides data on the status of individual foreign markets. The reports contain comprehensive information on all matters related to products and services, such as questions of supply and demand, price-structures, marketing channels, general commercial and export/import regulations, and tariffs and custom schedules. Also included in the reports are estimates of prospective export demands and requirements. The major drawback of

these reports is that they are currently limited to a few Arabic countries (such as Egypt, the Gulf countries and Syria).

The Saudi Export Directory, the first edition of which was published in 1992, is a new venture in Saudi Arabia. It is divided into two main sections. The first section contains relevant information about Saudi Arabia in general, and the export trade in particular. It contains such information as what credit programmes are available to Saudi exporters, customs taxes and duties, and the destinations of the Kingdom's exports. The directory shows that more than 70% of the goods exported go to the Gulf States, followed in order by Asian and West European markets. The directory also records that, in 1988, the value of private sector exports was 3.1 billion Saudi Riyal. Of these, over 2.1 billion Saudi Riyal (or 67% of the total value of private sector exports) involved the Building, Metals and Chemical industries.

The second section is divided into two parts. The first part contains a classified list of commodities and an alphabetical list of firms. The classified list is made up of the following sub-groups:

- Animal and agricultural products
- Food and beverages
- Metal products
- Plastic and chemical products
- Leather and textiles
- Furniture
- Paper products
- Building materials

- Engineering and electrical equipment
- Miscellaneous

The second part contains the names and addresses of firms classified under these sub-groups. From this second section, the number of exporting firms and their geographical distribution can be obtained. In fact, an analysis indicates that the number of exporting firms in Saudi Arabia, at the time the data were collected, was 392 firms, or 19% of the total firms in Saudi Arabia. Of these, 216 were in the three main industries - building, metals and chemical. This represents 15% of the total firms in these three industries, or, more importantly, 55% of the total exporting firms. The 176 exporting firms in the other industries represent 27% of the total firms in these industries (and 45% of the total exporting firms). In terms of the value of Saudi private sector exports, the building, metals and chemical industries were even more important, accounting for 67% of the total. Figures 8.4 and 8.5 show the number of exporting firms in the three industries discussed in this study and their geographical distribution.

Figure 8.4

Number of Export Firms by Industry Sector

Figure 8.5

Geographical Distribution of Export Firms by Industrial Sectors

8.2.4 Saudi Standards Organisation

The general policy of the Saudi Standards Organisation is determined by the Board of Directors under the chairmanship of H.E. the Minister of Commerce. The Board includes representatives from the major sectors concerned with standards, such as Agriculture, Industry, Commerce, Health, Municipal & Rural Affairs, and Public Works and Housing. It also includes representatives of entrepreneurs in both the commerce and the industry sectors. The Director General of the Saudi Standards Organisation is responsible for executing the Board's directives and superintending the progress of work through the administrative and technical departments operating under his supervision.

The General Department for Planning and Development is concerned with the preparation of both annual plans and five - year plans, as well as the assessment of their execution. The part of the General Department concerned with evaluation participates in the preparation of the annual and five - year plans, follows up their progress and proposes whatever amendments might be needed to produce the desired outcome. It also follows up the implementation of resolutions made by the Board of Directors. The Standards part of the General Department is the main body concerned with the preparation of draft standards selected according to the annual plans approved. These standards cover a variety of various fields, more especially, measurement and calibration, spinning and weaving, food and agricultural products, electrical and electronic products, construction and building materials, mechanical and metals products, and chemicals and petroleum. The Laboratory section of the General Department is

concerned with carrying out tests and conducting the research studies needed to support the implementation of draft Saudi standards as regards the testing methods to be used in the prevailing circumstances in Saudi Arabia. The Public Relations section is responsible for publicity to increase awareness of standardisation awareness. It uses all branches of the media (Radio, TV and Press) as well as exhibitions, symposia, committees, etc.

One of the main responsibilities of the Saudi Standards Organisation is to publish Saudi standards in whatever way seems most appropriate. The main publications produced by the Saudi Standards Organisations are:

- Catalogue of Saudi Standards
- List of Saudi Standards 'By subject'

The Catalogue of Saudi Standards is the main publication, and contains all Saudi standards. It is divided into five parts. The first part gives a brief introduction to the Saudi Standards Organisation, the technical terms used in the catalogue, and information on how to use the catalogue. The second part lists all the Saudi standards in numerical serial order. The third part lists the subjects and areas of the standards in alphabetical order, with the numbers of the corresponding standard(s) shown against each relevant subject. The fourth part compares Gulf standards with their corresponding Saudi standards. The final part compares international standards with their corresponding Saudi standards. The serial number of the Saudi standard(s) corresponding to the Gulf and/or International standard(s) is also used

in part two of the catalogue to provide more detailed information on such standard(s).

The Saudi Standards Organisation also publishes lists of Saudi standards by subject categories. These include the following:

- Saudi Standards for Calibration Measurement.
- Saudi Standards for Spinning and Weaving.
- Saudi Standards for Food and Agricultural Products.
- Saudi Standards for Electric and Electronic Products.
- Saudi Standards for Mechanical and Metals Products.
- Saudi Standards for Construction and Building Material.
- Saudi Standards for Chemical and Petroleum Products.

Up to 1990, 578 standards had been defined by the Saudi Standards Organisation (as shown in Figure 8.6).

Figure 8.6

Saudi Standards by Subject Categories

As shown in Figure 8.6, the number of standards covering the metals products was similar to the number covering chemical products. Building products were less well covered compared with the other two types. However, it is true overall that there are very few Saudi standards covering these three sectors, as compared with the large number of products which are included within these three sectors. Moreover, most of these standards cover basic things, such as items related to testing methods and industrial safety and health regulations. Thus, it seems that the import/export of the products in the three sectors examined here has not, as yet, been greatly affected by the Saudi standards system.

8.2.5 Saudi Chambers of Commerce & Industry

The main publications produced by the three chambers interviewed are the manufacturing directories covering the firms located in their areas. The data are derived from the users' membership application forms, which are up-dated yearly. All the directories contain the following information:

- Name and address of the firms
- The industrial activity
- The licensed capacity
- Paid and total capital
- Number of workmen
- Number and date of license

However, comparing the information in these directories with the List of Licensed Factories in Production, which is published by the Industrial Statistical Department, shows some differences between the directories and the list. An analysis suggests that these differences may have resulted from the fact that the information in the directories was more up to date than that in the List.

One problem with these directories is that they are limited to a particular geographical area. Figures 8.7, 8.8 and 8.9 show the size distribution of the three main industries in the three main geographical areas of Saudi Arabia.

Figure 8.7

Size Distribution by Industrial
Sectors in Riyadh Area

Figure 8.8

Size Distribution by Industrial
Sectors in Jeddah Area

Figure 8.9

Size Distribution by Industrial
Sectors in Eastern Province

In terms of the market research reports published by the chambers, the present investigation found that not all the chambers were equally active in this field. There were various market research reports produced by the three main chambers covering different types of products (mostly in the food industry). These reports mainly covered the geographical area where the Chamber is located. These reports were interchanged between the Chambers.

In terms of the three industries discussed in this study, two of the reports dealt with topics in the chemical industry sector. One related to the petrochemical industry, and the other to the plastic industry. In the metals sector, there was only one relevant study, which dealt with basic products, such as kitchen utensils, nails, screws, bolts, etc. All of these reports, both in the chemical and metals industries, examine the

investment opportunity available to Saudi businessman in these sectors and what types of products they should invest in. The reports also give detailed data on how much a country imports of these products in terms of value and quantity, and how much is produced locally. In the building industry, there was only one study, and this covered cement products. It discussed in detail the importance of the cement industry in Saudi Arabia , the number of firms, total annual production and the main problems facing the cement industry in Saudi Arabia.

8.2.6 British Commercial Attachés

The main office of the British Commercial Attaché in Riyadh produces the following publications:

- Directory of British Companies with Resident Representatives in Saudi Arabia.
- UK LTD Magazine.

The directory contains the names and addresses of both the British exporters and of their representatives in Saudi Arabia. It is organised in alphabetical order by activities, and has two indexes - one for the British companies and the other for their Saudi representatives - both of which list the companies and their representatives in alphabetical order.

In terms of the three industry sectors investigated in this study, Figure 8.10 shows the number of British firms in each sector which has representatives in Saudi Arabia.

Figure 8.10

**British Firms Which Have
Representatives by Industrial Sectors**

Most of these representatives were located in Riyadh or Jeddah, as shown in Table 8.1.

Table 8.1

**Distribution of the British firms by Industrial Sector
and Geographical Area**

	Riyadh	Jeddah	Eastern Province
Building	6	10	4
Metals	13	2	2
Chemical	4	2	2

The UK LTD Magazine is a monthly magazine containing information about new British products and services and UK firms looking for local

agents. It gives advance notice of UK trade fairs, exhibitions and trade missions visiting Saudi Arabia. About 3,000 copies are published monthly and are distributed free. It is usually 16 pages in length, and is mostly in English (except for a few pages printed in Arabic). A copy of the front page of one the UK LTD issues has been included for illustration (see Appendix viii).

The content of 12 issues of UK LTD, published during 1991-1992, has been analysed in terms of the range of subjects appearing in these issues, and also for their readability. Table 8.2 shows the relative coverage of the three types of industry investigated in this study according to topic.

Table 8.2
Coverage of the Three Types of Industry
According to Topic

Subjects	Building %	Metals %	Chemical %	Other %
British Trade Missions In Saudi	23	22	7	48
British Exhibitions In Saudi	-	-	-	100
What is New From Britain	-	8	27	65
Wanted Agent	-	17	4	79
Other	11	-	22	67

In order to assess the readability of the magazine, the Flesch Reading Ease (RE) formula was applied to eight different articles randomly chosen from the twelve issues. The Flesch Reading Ease formula is:

$$RE = 207 - 0.84 WL - 1.015 SL$$

Where RE = reading ease, WL = word length (number of syllables per 100 words), SL = sentence length, and 207 is a constant that converts the scores to a Flesch scale of '100' (very easy) to '0' (very difficult) (Tekfi, 1987). According to Farr, Jenkins & Paterson (1951), the Flesch scale can be divided as follow:

Score	Style
90 - 100	Very easy
80 - 89	Easy
70 - 79	Fairly easy
60 - 69	Standard
51 - 59	Fairly difficult
30 - 50	Difficult
0 - 29	Very difficult

On this Flesch scale, all the articles examined from the magazine were either difficult or very difficult to read. The actual scores were: 43.2, 42.4, 41.6, 41.5, 36.4, 32.1, 27.9, and 18.8. This suggests that UK LTD is quite complex to read. Since the magazine is intended to be distributed to Saudi businessmen, for whom English is a second language, this

implies that the level of writing may well be too difficult for the target audience.

8.3 UK

The Overseas Trade Services (OTS) of the DTI is the main government body responsible for the promotion of export opportunities and for assistance to British firms in the exploitation of these opportunities. Consequently, OTS provides a wide range of services for British exporters. To help them find out about these services, the OTS published five main booklets. These are:

- Guide to Export Services
- UK Export Information Services
- Specific Export Help
- Overseas Promotion
- Export Publications Catalogue

The Guide to Export Services explains in detail the practical help, advice and support available to British exporters at each stage of their export business. These stages are: ready to export, doing groundwork, contacting the market, and doing business. The guide emphasises that contacting the nearest Regional Office (a list of Regional Offices is provided) is the first step that should be taken for all British exporters. The export staff at the Regional Office will be able to explain how the DTI services can meet a firm's particular needs, and how they can help a firm get started, or overcome problems that may arise.

The Export Information Services booklet describes the help available from the DTI and its local offices to enable the British exporters to select the export markets which appear to offer the most potential for their product or services. The services available to British exporters described in this booklet include the following: the Export Market Information Centre (EMIC), which is a 'self research' library facility in the main DTI building in London with a wide range of export market information (such as foreign statistics, directories, development plans, market research reports); the export publications produced by the DTI and how they can be obtained; export intelligence on selling opportunities and market information, such as tariff changes, forthcoming projects, and aid and loan agreements; finally, specialist market knowledge to provide information on specific markets (on a request basis).

As part of the present research project, a visit was paid to EMIC to find out how easy EMIC is to use, and what sort of information it holds about Saudi Arabia.

EMIC uses the Customs Co-operation Council Nomenclature (CCCN) and the United Nations Standard International Trade Classification (SITC) for its trade classification scheme applied to all its materials. Its introductory material includes 'Trade Statistics: A Guide to Use' which contains information on how to find trade statistics in EMIC, plus information on the trained staff who can help the users in their work.

In terms of Saudi Arabia, EMIC holds most of the publications published by Saudi organisations which relate to the Saudi market, plus

the publications produced by the DTI about Saudi Arabia. The following publications from Saudi organisations were available at EMIC:

- **The Statistical Indicator:** an annual pocket book, published by the Central Department of Statistics (CDS), providing statistical tables on different subjects. EMIC holds several issues covering the years 1979, 1980, 1981, 1985 and 1988.
- **Foreign Trade Statistics:** an annual publication produced by the CDS, covering all the Saudi Arabian imports statistical data for both the government and non-government movement of merchandise into and out of the Kingdom (whether or not a commercial transaction is involved). EMIC holds all the issues from 1979 to 1990.
- **Statistical Year Book:** an annual publication produce by the CDS, providing statistical tables on the industrial development in Saudi Arabia. EMIC holds issues from 1979 to 1990.
- **Statistical Summary:** an annual publication produced by the Saudi Monetary Agency, reviewing major economic developments in Saudi Arabia. EMIC holds issues for the years 1977, 1979, 1982, 1983 and 1986.
- **Industrial Statistical Bulletin:** published by the Ministry of Industry and Electricity. EMIC holds 1979 and 1981 issues only.
- **Petroleum Statistical Bulletin:** published by the Ministry of Petroleum and Mineral Resources. EMIC holds issues covering the years 1978, 1980 and 1983.

- **Directories:** EMIC holds most of the directories published by the Saudi Chambers of Commerce and Industry as well as directories published by other Saudi organisations (such as the Telephone Directory).
- **Development Plans:** EMIC holds all the Saudi Development Plans, including the current one from 1990 - 1995.

The Specific Export Help booklet describes the range of services available from the DTI and from commercial staff at Diplomatic Service Posts overseas. It describes how British exporters can obtain more specific information about the prospects for their products in the overseas markets they have identified.

The Overseas Promotion booklet describes the range of promotional help available, including trade fairs, outward and inward missions, store promotions and overseas seminars.

The Export Publications Catalogue gives details of export-related publications written jointly by the commercial staff of the Foreign and Commonwealth Office based overseas and DTI export staff, working together as Overseas Trade Services. The publications are listed for each country in the following order: Hints to Exporters Visiting..., Country Profiles, Setting up in Business in..., General Reports, Sector Reports, Sector Summaries. It should be noted that the Sector Reports are only available to DTI Service Card holders.

For Saudi Arabia, the following special publications are available:

- Hints to Exporters Visiting Saudi Arabia
- Baby Products - Sector Report
- Fire and Safety Equipment - Sector Report
- Food and Drink Processing Equipment - Sector Reports
- Oil and Gas Industry - Sector Report
- Saudi Arabia Oil Company (Saudi Arabia) - Sector Report
- Sports and Leisure - Sector Report

The idea of these reports is to give the British exporters in-depth information about the sectors they cover. For example, the sector report on the Saudi Arabia Oil Company gives the British exporters the following detailed information about this sector. The report starts with a general background and history of the company and its main functions. The report then concentrates on purchasing procedures and company methods : it gives general advice to British exporters on how to take advantage of these methods. Such advice includes:

- Potential British suppliers of products, equipment and services need to bear in mind that, to do business with Saudi Aramco, their company or companies must be registered on the Saudi Aramco approved list.
- It is strongly recommended that all companies wishing to supply material to Saudi Aramco should establish a local Saudi agency relationship or representation.

- Saudi Aramco normally only purchases materials from financially and technically qualified sources. Registration of products, and financial and technical qualifications are processed by the purchasing office covering the geographical area of the manufacturer.

All these publications can be purchased from the DTI directly, or from one of its Regional Offices. They are also available for consultation at the Export Market Information Centre. In addition to the publications published by the DTI, the Export Market Information Centre also holds most of the publications produced by the Saudi organisations which relate to the Saudi market.

As regards Saudi standards, the British Standards Organisation holds all the Saudi Standards published by the Saudi Standards Organisations, both in Arabic and English. The British Standards Organisation also holds the Gulf standards which apply to Saudi Arabia. Both new Saudi and Gulf standards publications are available from the British Standards Organisation. It should be noted that there is a close relationship between the British Standards Organisation and the Saudi Standards Organisation, since most of the Saudi Standards staff were trained at the British Standards Organisation.

8.4 General Evaluation

Available information has been discussed in terms of three areas: market information, technical information, and statistical information. In terms of the published information available to Saudi firms, it seems that the Saudi Chambers of Commerce and Industry are the only organisations publishing market information about the Saudi market. Other organisations, such as the Export Department, the Saudi Export Development Centre and the British Commercial Attaché publish and provide market information about foreign countries. However, the market information published by the Chambers is limited so far to some products, mainly related to the food industry. In addition, this information is limited to the geographical area where the chambers are located, and does not cover the whole of Saudi Arabia. Most of these reports are, unfortunately, out of date. This implies that there is a gap in the provision of market information about the Saudi market.

In terms of technical information, the Saudi Standards Organisation obviously provides technical information about Saudi standards. Though the Saudi chambers do not publish technical information, they do provide technical information through their libraries' collections and through the use of international databases. However, there appears to be a real need for more technical information related to the problems of the Saudi industries.

Both the Industrial Statistical Department and the Saudi Chambers publish statistical information concerning Saudi firms. Each chamber publishes statistical information covering either the firms located in its area, or its membership firms only. The Industrial Statistical

Department is the only organisation whose published statistical information covers all the manufacturing firms in Saudi Arabia. As discussed earlier, the information published by the Industrial Statistical Department appears to be inadequate, unreliable, and out of date. Thus there is a need for more reliable statistical information in Saudi Arabia.

In summary, most of the publications produce by the Saudi organisations are available to users and easy to obtain. The major problem of these publications is that they are out of date, unreliable, insufficient, limited and published irregularly.

For British exporters, most of the information about the Saudi market is available through the DTI Regional Offices, the Saudi Desk and the DTI library 'Export Market Information Centre', which holds all the statistical information and other related materials published by the Saudi organisations, plus the publications from the DTI about the Saudi market. For Saudi standards, the British Standards Organisation holds all the publications produced by the Saudi Standards Organisation.

Thus, most of the publications produced by Saudi organisations relating to the Saudi market are available to British exporters, along with the publications produced by the DTI about Saudi Arabia. British exporters can get any additional information about Saudi Arabia not available in the UK via the British Commercial Attaché in the country.

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Chapter Nine

Discussion and Conclusion

9.1 Introduction

In this chapter, the results of both the questionnaire and interview surveys conducted in Saudi Arabia and the UK are discussed in the light of the original objectives of the study. Three main sections are included in this chapter. The first covers the interview discussion for both Saudi Arabia and the UK. The second covers the questionnaire discussion for both Saudi Arabia and the UK, as well as a comparison between the two countries. The final section is a general conclusion to the whole work, and is followed by recommendations.

9.2 Saudi Arabia Interview

9.2.1 Sources of Information

In-house Sources

In-house information sources were divided into four types: data produced by the organisation; materials of other organisations held by the organisation; access to international databases; library collections.

Group One: Chambers of Commerce and Industry

All the three chambers of commerce and industry depend on all these sources as their main in-house information sources.

The data produced by the Chambers themselves which related to market and statistical information were considered to be part of the main core of the Chambers in-house information sources. These data are available to users in hard copy format only, but, for the staff of the Chambers, are available both in hard copy and as an electronic database.

The market information produced by the Chambers is based on studies made by the Chambers' staff. Each Chamber produced market information covering its own area and various industrial sectors. However, in terms of the three types of industries discussed in this study, there were only one or two reports covering products of concern to each industry. It can be concluded that, though the market information produced by the Chambers is the only market information available about the Saudi market, it is limited in geographical coverage and does not look in detail at all the industrial sectors in Saudi Arabia. This means that there is a lack of market information about the Saudi market as a whole.

In terms of statistical information, all three Chambers produced statistical information covering all firms located in their areas, this includes the three types of industries discussed in this study. It appears that the statistical information produced by the Chambers is more accurate and up-to-date than the statistical data produced by the Industrial Statistical Department, since the data are derived from the user membership application forms, which are up-dated annually. The problem remains that this information is limited by geographical area.

The Chambers also hold the statistical information published by the Industrial Statistical Department, as well as the Saudi standards published by the Saudi Standards Organisation as in-house information sources. Though this information can also be obtained from the above two organisations directly, its availability locally enhances the usefulness of the Chambers as sources of information.

Access to international databases (such as Dialog for technical information and Dun & Bradstreet for market information) is the second major in-house source of information on which the Chambers depend heavily, especially for technical information. This service is available only to the Chambers' staff.

The Chambers also depend on their libraries' collections as another significant in-house source of information. These libraries act as business libraries, and hold materials, such as books, journals, directories, etc., which are, for the most part, relevant to business requirements.

Group Two: Other Government Organisations

All the organisations in this group for the most part produce their own data, and rely on this information as their main in-house source of information. The exception is the Saudi Standards Organisation which also depends on its library collection as a major in-house source of information. (In addition to Saudi standards, the library holds materials related to foreign standards. Most of these materials are in hard copy format, or microfiche, but a few are on CD-ROM, eg. United States standards, British standards and German standards).

The statistical information produced by the Industrial Statistical Department is the only data available that covers the whole industry in Saudi Arabia. The problem with these data is that they are unreliable, due to the following two reasons. First, the data are out of date because they are derived from the original Ministerial resolution that issued the licence, and this is not even published on a regular basis. Second, there is much missing data in the publications produced by the Department. It can be concluded that there are significant deficiencies in the provision of statistical information about Saudi industry, and a corresponding need to improve it.

The Export Department and the Saudi Export Development Centre produce market information related to the foreign market. The information produced by both is based on data collected by foreign private organisations, such as market research organisations, since neither of them have in-house information sources. However, the Export Department is more active as a maker of export policy than as an information provider. This leaves the Saudi Export Development Centre as the main provider of export information.

The Saudi Standards Organisation depends on the Saudi standards it has produced as its main in-house information source (apart from the library collections). However, Figure 8.6 indicates that not too many Saudi standards have yet been established, especially in the three industries discussed in this study. Consequently, it appears that Saudi standards do not yet have a major impact on imports/exports, and their importance as information sources is consequently limited.

Group Three: British Commercial Attachés

The British Commercial Attachés depend on the data which they produce, which cover the Saudi market, as well as on the publications published by the Saudi government organisations - such as the Industrial Statistical Department and the Saudi Standards Organisation - as their main in-house information sources.

It should be noted that the data produced by the British Commercial Attachés cover mostly the areas where the Commercial Attachés are located, more especially Riyadh, Jeddah and Eastern Province. However, 83.2% of the Saudi industry is located in these three areas, and 83.3% of the three industries discussed in this study are also located in these areas.

Table 9.1
In-house Sources of Information

Organisations	Own Data	Government Publications	International Databases	Library Collections
Chambers of Commerce & Indu.	YES	YES	YES	YES
Industrial Statistical Department	YES	NO	NO	NO
Export Department	YES	NO	NO	NO
Saudi Export Development Cent.	YES	NO	NO	NO
Saudi Standards Organisation	YES	NO	NO	YES
British Commercial Attachés	YES	YES	NO	NO

As shown in Table 9.1, it can be concluded that all the organisations depend on the data they produce as their main in-house source of

information. Nevertheless, these data are often unreliable because they are either inaccurate, or not up-to-date, or do not cover the whole industry, or are limited to a particular geographical area. The conclusion must be that there is an overall lack of information on Saudi firms as whole.

Outside sources

In terms of tapping external information sources, group one, which includes the three Chambers, both used each other as external sources of information, and used other government information sources, more than the other groups. This was due to the fact, that on the one hand, the Chambers provide more types of information than the other groups. On the other hand, the Chambers already hold materials published by the other government organisations (such as the statistical information published by the Industrial Statistical Département and the Saudi standards published by the Saudi Standards Organisation), so they use these sources to up-date their own information.

None of the organisations in group two, which includes all the other government information sources, used any other government information source as an external source. This seems to be due to the fact that all the organisations in this group see themselves primarily as information producers. The exception was that the Saudi Export Development Centre and the Export Department used each other as an external source. This was because both of them have similar objectives and activities.

Group three, which includes the three British Commercial Attachés, used only the Industrial Statistical Department and the Saudi Standards Organisations as external sources of information.

Figure 9.1 indicates that there is some interaction between the Saudi government organisations, especially between those which have similar objectives and activities. However, the overall picture suggests a need for more interaction between the government organisations as a whole . It is clear from the questionnaire results that Saudi firms see these organisations as providing information, not just generating it. Improving the interactions between the government information sources would help to improve the services provided by improving the coverage and currency of the data available.

In terms of using non-government information sources as external sources, the results of this study show that all such sources used by government organisations were foreign in origin (such as international organisations or foreign chambers). Table 6.4 underlines this fact: it shows that all the non-government information sources used by Saudi firms were similarly foreign sources (such as foreign consultants and international databases). It can be concluded that there is a lack of major non-government information sources in Saudi Arabia. By comparison with their use in the UK, it appears that there is a need to establish non-government information sources in Saudi Arabia to help support the existing government information sources. Establishing non-government information sources would help in filling the information gaps noted in the present study, especially for technical and market information. Moreover, the results of this study show that

Figure 9.1

Government Information Sources Interactions

the information services provided by the Saudi government information sources are not customised in any way, eg. for size or type of firm. Non-government information services could help by targeting information at special groups of firms, such as small and medium-sized enterprises which are just starting up.

9.2.2 Information Services

Types of Information

As explained in Chapter One, the types of information discussed in the present study have been grouped into three topics: (1) market information; (2) technical information; (3) statistical information. In these terms, there are, apart from the Chambers of Commerce and Industry, no general sources of information, each government source being concerned with its own particular field. This wider brief of the chambers seems to be due to the fact that membership of the chambers is compulsory. Consequently, firms in membership come from all industrial and business sectors. It is clear from the interviews that these firms are desirous of gaining maximum advantage from their subscriptions. As a result, the chambers find themselves under pressure to provide information services across the board.

Most of the organisations provide market information of one sort or another, and there was near unanimity that the greatest volume of enquiries concerned market information (apart from the Saudi Standards Organisation, which predominantly provides technical information, and the Industrial Statistical Department, which provides statistical information). In terms of satisfying the firms' needs, technical information was considered the most difficult to identify and

provide. This suggests there is a gap in the provision of technical information because, though the demand is smaller than for market information, there is no organisation with the prime target of providing technical information (other than standards).

Forms of Information

All the organisations provided their information in hard copy form, although some of them - such as the Chambers and the Saudi Standards Organisation - provide their information as computer print-out. However, all the organisations interviewed envisage that computerising their services, and making them available to users on-line through a network communication, will be the main change in the near future. In the light of experience in the UK, it can be expected that networking will introduce some changes in firms' attitude to information, though initially the impact may be minor.

Service Facilities

In terms of the information service facilities available, all the organisations provide enquiry services via phone, fax or mail, although few of them provide self-research service facilities. It can be concluded that all the organisations at present rely on highly qualified staff to provide an adequate information service. Again judging by activities in the UK, the introduction of more self-research could lead to a more cost-effective information service.

9.2.3 Information Channels

Publicity for Services

The results of this study show that there are three methods used by the government organisations to publicise their services. These include the organisation's own publications, media and exhibitions. It was found that 39% of the respondents were aware of the government information services through the organisation's publications and 4% through the media. (None of the respondents were aware of the government information services through their involvement in exhibitions). This ineffectiveness of media publicity may well be due to a different attitude to the media as compared with (say) the UK. It appears that business men in Saudi Arabia do not expect the media to draw their attention to relevant information sources, and take little notice therefore of media announcements. Unless this attitude can be changed, it can be concluded that the organisation's own publications are likely to be the most effective method for government organisations to use in publicising their services.

Overall, the amount of publicity given to government information services seems to be less in Saudi Arabia than in the UK. This lack of publicity may lead to less general awareness of government information sources among Saudi firms. Table 6.1 underlines this fact, and shows that most of the government information sources were little known about, except for the Ministry of Industry & Electricity and the Chambers of Commerce and Industry. In both these latter cases, firms needed to be involved with the organisations concerned for official or legal reasons.

Customer Communications

All the organisations used phone, fax and mail channels to communicate with their users. A few Chambers and the Saudi Standards Organisation - used membership publications as another channel to communicate with their users. This latter method seems more effective, since the members seem to scan the organisation's publications and, more especially, the regular newsletter that keeps the users up-to-date.

9.2.4 System Development

Staff Training

The results of this study show that all the providers of government information lay on local training programmes for their staff to improve their skills. In addition to these local training programmes, some organisations - such as the Jeddah Chamber, the Saudi Standards Organisation and the Industrial Statistical Department - send their staff abroad (mainly to USA and UK) for advanced training programmes. It will be noted that the latter two bodies handle specialised information, which requires special training.

Service Evaluation

There was a lack of service evaluation. None of the providers of government information used any method to evaluate their services. (The one exception was the Chamber in Jeddah). It can be hypothesized that this lack of evaluation of services may be a factor in restricting their scope and outreach. It will be noted that the Chamber at Jeddah is particularly forward-looking, and may provide a model for future developments.

9.3 UK Interview

9.3.1 Sources of Information

In-house Sources

As explained in Chapter Six, the DTI is the main British government organisation responsible for export information. All of its branches use a network database system called ***Overseas Contacts Services*** as their main in-house information source. The Overseas Contacts Services is a database which has been compiled internally within the DTI; it contains lists of companies overseas, importers, agents, wholesalers and distributors, and covers the world including Saudi Arabia. The system contains detailed information about companies, such as type of company, name, address, telephone number and activities. The system is not accessible to the users of the branches, nor is it available on-line. Users who want their own on-line access must go to the Export Market Information Centre, located in London, which is the main DTI library concerned with export information.

The database obviously does not include everybody who is involved in importing, because the system relies only on the information that is being fed into it by the British embassies world-wide. It does not transfer information from trade directories into the database. This implies two things . On the one hand, the information being fed into the system is generally accurate and up-to-date because it is based on field work done by the commercial officers of the British embassies. On the other hand, the information being fed to the system does not reflect the totality of opportunities that exist in the country which should be passed on to the British companies. This is because the information is limited to the geographical area where the embassy and

its branches are located, and is also restricted by the number of commercial officers and the amount of time they can put into their activities. The representative at the Eastern Province Branch highlighted this:

For one, two or three of us to cover the Eastern Province does not reflect the number of opportunities that exist in the Province. We need a big office to really cover each and every opportunity that we should pass on to British companies.

The DTI system is updated on a rolling basis. Each time an amendment is received from the British embassies, the new information is added and old information deleted. The systems keep information up to two years old, but then remove it, even if no updated information on the topic has been received.

Other Sources

In addition to the above information, all the three DTI branches interviewed provide other information, on an enquiry basis, related to the foreign market. The other main source used by the three branches was the Export Information Centre, which is the main DTI export library. The Centre is a reference and 'self-research' library facility in the main DTI building in London, which gives direct access to much of the export information held by the DTI. The information sources available in the Centre include an extensive collection of foreign statistics covering a wide range of topics, a large collection of foreign trade directories, development plans issued by many countries, and a significant, though small collection of mail order catalogues. It also holds all the publications about the foreign market written jointly by the commercial staff of the Foreign and Commonwealth Office based

overseas and DTI export staff, working together as the Overseas Trade Services 'Diplomatic Service Post'.

9.3.2 Information Services

Types of Information

The only information provided by these three branches is market and statistical information, both related to foreign markets. Most of the information provided is on an enquiry basis and relies extensively on fee-based services.

Forms of Information

All the branches provide their information in hard copy and as computer print-out. However, one of the chargeable services (Export Intelligence) can be accessed on-line.

Service Facilities

All the three branches provide an enquiry service which includes access by phone, fax and mail. On-line service facilities, such as Export Intelligence, are available through database hosts such as Trade Network International (Export Network) and the Financial Times (Profile Information).

9.3.3 Information Channels

Service Publicity

The Saudi Desk did not publicise its service. The two Regional offices of Nottingham and Birmingham used their publications as the only method to publicise their services. Table 5.17 shows that the Overseas Trade Services (formerly the 'British Overseas Trade Board') attracted

only a low level of awareness and use. This suggests that there is a lack of publicity, and, consequently, a lack of awareness and use of these DTI services.

Customer Communication

All the branches use phone, fax and mail channels to communicate with their users. In addition, the two Regional offices use the publications which are sent to their members as another channel of communication.

9.3.4 System Development

Staff Training

In terms of improving the staff skills, the two Regional offices provide local training programmes for their staff. The Saudi Desk provided no training programmes for its staff.

Service Evaluation

The two Regional Offices use a private company to evaluate their services. The private company undertakes a monthly survey of about 150-200 companies that have been in touch with the regional office to measure the quality and level of satisfaction there may be with its services. The Saudi Desk did not evaluate its services. It may be that, in terms of training and evaluation, the Saudi Desk could with advantage follow the example of the Regional Offices.

9.4 Saudi Arabia Questionnaire

9.4.1 Government Organisations

The results of this study show that most of the government information sources received a low level of awareness and use, except for the Ministry of Industry and Electricity and the Chambers of Commerce and Industry (see Table 6.1). This is certainly due to the nature of the relationship between the Ministry of Industry & Electricity and all the industries in Saudi Arabia. It is, after all, this Ministry which grants licences to industries, provides land in the industrial cities, information about industrial protection and encouragement, etc. In addition, all firms with a capital investment of over one million (Saudi Riyal) must have an industrial licence issued by the Ministry. Hence, virtually all firms except the smallest must have some contact with the Ministry of Industry & Electricity. The Chambers of Commerce and Industry play a similar pivotal role. Firms need to authenticate their documents at the Chambers before they are submitted to official authorities. Membership of the Chambers is compulsory and, consequently, firms wish to take advantage of their subscriptions. Figure 6.1 indicates a difference between awareness and use of government information sources. The Ministry of Industry and Electricity was the only common factor between those who chose three government information sources in terms of (1) awareness, and (2) use. All the evidence suggests that there is a lack of awareness and use of most government information sources among Saudi firms. However, this can be stated in a more positive way: once a Saudi firm becomes aware of new information sources, it tends to use them.

9.4.2 Non-government Organisations

It was found that Saudi firms use government information sources significantly more than non-government information sources (see Figure 6.2). The obvious reason for this is the current lack of non-government information sources in Saudi Arabia. Table 6.4 underlines this fact, showing that all the non-government information sources used by Saudi firms are foreign sources. The Saudi government's interest in developing private enterprise might well help here in the future. However, the responses show that the types of information obtained from non-government information sources are, at present, similar to the types of information obtained from the government information sources. In both cases, market and technical information are equally important to Saudi firms. Overall, 59% of the respondents agreed that information provided by both government and non-government information sources was adequate to meet their needs. The very high proportion of 95% of the respondents reported both that the information obtained from government sources was useful, and that they had encountered no major difficulty in acquiring it. It can, perhaps, be concluded that the current information provision in Saudi Arabia may be sufficient in terms of number and range of providers for the existing demands of industry. A comparison with the situation in the UK suggests that some development may be needed in the future, and this may be where new non-government information services will have a part to play.

9.4.3 Industrial Sectors

As discussed in Chapter Four, differences between industrial sectors was one of the major factors examined in this study. In terms of the

three industries (building, metals and chemical) examined in this study, the results show some differences in their information use. It was found that the Chemical industry tends to be more information-conscious than the other two types of industry. Tables 6.6 and 6.7 show that the Chemical industry not only used more government and non-government information sources, but also gathered more information than the other two industries. It may be concluded that the industrial sector concerned does affect information use.

9.4.4 Size of Firms

Size of firms is another factor which has been discussed in Chapter Four and examined in this study. The results show that large firms used the government and non-government information sources more than the small and medium-sized firms. Tables 6.8 and 6.9 also show that large firms used a greater variety of sources, as well as obtaining more information, than the other two groups. It can be concluded that the size of the firm is an important factor, which may affect the firm's information use.

9.4.5 Organisational Status

As discussed in Chapter Four, organisational status was another factor which was examined in this study. The results suggest that firms based on foreign partnerships were more likely to use government and non-government information sources than other firms. Tables 6.10 and 6.11 show that foreign partnership firms used a wider range of sources, as well as obtaining more types of information, than the other firms. It can be concluded that organisational status may affect information use.

9.5 UK Questionnaire

9.5.1 Government Organisations

The results of this study show that most government information sources were accorded a low level of awareness and use, except for the Department of Trade and Industry (DTI) (see Table 6.12). Figure 6.6 shows that 48% of the respondents were only aware of one government information source, and that 49% used only one government information source. The DTI was cited by more than 70% of those who were aware of, and used a government source. This is almost certainly because the DTI is the main department responsible for the government's relations with industry. Its responsibilities include technology and innovation, overseas trade and export promotion, competition policy and consumer affairs, company legislation and the Patent Office. It can be concluded that there is a lack of awareness and use of government information sources other than the DTI among British firms. As with Saudi firms, the results suggest that, once a firm becomes aware of an information source, it tends to use it.

9.5.2 Non-government Organisations

It was found that there were no significant differences between the use of government information sources and non-government information sources, though the results indicate that non-government information sources were used slightly more than the government sources. This might stem from the wide range of non-government information sources available to British firms (as discussed in Chapter Three). However, despite this wide variety, the results indicate that most of these sources were ignored or under-utilised.

The responses show that market and technical information were the most frequent types of information obtained from both government and non-government information sources. The results in Table 6.16 indicate that technical information was obtained significantly more often from the non-government sources, while statistical information was obtained significantly more often from the government sources. However, less than half of the respondents agreed that the information provided by both government and non-government information sources was adequate to meet their needs. In addition, 79% of the respondents reported that the information obtained from government information sources was useful, and 70% experience no major difficulty in acquiring it. These figures suggest that current information provision in the UK may not be sufficient for the existing demands of industry.

9.5.3 Industrial Sectors

In terms of the three industrial sectors examined here, the results of this study show that there are some differences between them in their information use. It was found, as shown in Table 6.17, that the Chemical industry used a relatively greater variety of government and non-government information sources than the Building and Metals industries. Table 6.18 shows also that the Chemical industry obtained more information than the other two industries. It can be concluded that the industrial sector affects information use.

9.5.4 Size of Firms

In terms of size of firms, the results of this study show that large firms used government and non-government information sources more than small and medium-sized firms. Tables 6.19 and 6.20 show that large

firms used a greater variety of sources and obtained more information than the other two groups. It can be concluded that the size of firms affects their information use.

9.5.5 Organisational Status

As discussed in Chapter Four, organisational status in the UK was divided into two groups. These were 'Independent Company' and 'Part of a Larger Company'. In these terms, the results of this study suggest that firms which are part of a larger company used government and non-government information sources more than the other group. Tables 6.21 and 6.22, show that the such firms also used a wider variety of sources and obtained more types of information than the other type of firm. It can be concluded that organisational status may affect information use.

9.6 Comparison of Saudi Arabia and UK

In both Saudi Arabia and UK, there is a lack of awareness and use of government information sources. Nevertheless, the responses in both Saudi Arabia and the UK suggest that, once a firm becomes aware of an information source, it tends to use it. This may imply that existing information sources are being under-utilised. However, in both countries, the prime source of industrial information by far is the Ministry concerned with industry. Chambers of Commerce and Industry are another major source of industrial information in Saudi Arabia, mainly because of their semi-official status (in contrast with the UK). Use of multiple sources of information is common in both countries. Saudi firms tap a greater number of government information sources than British firms do, but the latter use more non-government information sources. This difference obviously reflects the stronger emphasis on information provision by the government in Saudi Arabia, as compared with independent or industry-based provision in the UK.

The responses indicate that Saudi firms seem to encounter fewer problems than British firms in obtaining their information. This seems to be due to the greater difficulty of identifying the appropriate information provider in the UK. However, it also appears that, in a country such as the UK, there is a greater usage of information and higher expectations regarding the services provided.

The results of this study suggest that current information provision in Saudi Arabia may be sufficient in terms of number and range of providers for the existing demands of industry. However, judging by

current information demands in the UK, this provision will need to evolve as industrial activity develops.

In terms of the three industrial sectors examined here, the results of this study show that the Chemical industry (in both countries) is more information-conscious than the other two types. As discussed in Chapter Four this can be related to the fact that the Chemical industry has more information needs and is more information-conscious than the other industries. It can certainly be proposed that the type of industry may affect the information use regardless of country. Likewise, large firms (in both countries) are more information-conscious than the small and medium-sized firms. As discussed in Chapter Four, there are grounds for supposing that large firms have different information needs from those of small or medium-sized firms. Again, the results suggest that the size of firms may affect information use regardless of country. Finally, the organisational status of the firm may affect its use of information. As discussed in Chapter Four, international firms may have a wider variety of contacts to access information than local firms. The results of this study highlight this, and show that both foreign partnership firms in Saudi Arabia and firms which are part of a larger company in the UK are more information-conscious than the other firms.

9.7 Conclusion

The previous discussions and the results of this study have shown that there is a certain lack of awareness and use of industrial information provision in Saudi Arabia. The same is true, but to a lesser extent, in the UK. In addition to this lack of awareness and use, Saudi Arabian industrial information provision suffers from a number of problems.

9.7.1 First, there is a lack of available information. This is because most of the information produced by the Saudi organisations is out-of-date, inaccurate, limited by geographical area, or does not cover the whole industrial sector. On the positive side, the results suggest that the information produced by the Saudi organisations tends to complement each other, rather than overlap.

Second, there is a lack of interaction between the government information sources. This lack of interaction may affect the development of industrial information provision in the country in the future.

Third, there is a lack of major non-government information sources in the country. This lack may create a gap in industrial information provision in Saudi Arabia in the future.

Fourth, there is a lack of publicity, which affects the use of the government information provision.

Finally, there is a lack of service evaluation. Almost none of the government information sources uses any method to evaluate their services, which may again affect the development of these services in the future.

The above mentioned problems need to be considered by the Saudi government if the information infrastructure in Saudi Arabia is to be improved. This point is taken up in the recommendations below.

9.7.2 The results of this study lead to the conclusion that there are differences between firms in their use of information which depend on certain characteristics of the firm, such as size, type and organisational status. As can be seen from the results, small firms both in Saudi Arabia and the UK are less information-conscious and less able to acquire information than larger firms. In the UK, the government has tried to overcome this problem by establishing special bodies to deal with small firms and their information needs. There are also several private enterprises set up especially to help small firms. It may be that the Saudi government should examine these activities (which have shown that assisting small firms is not necessarily a simple problem).

9.7.3 The results of this study show that, in both countries, the Chemical industry is more information-conscious than the other types of industry. This underlines the point that different types of industry have different information needs. In the UK,

the Trade Associations play a major role in helping to provide information to each type of industry. The Saudi government might consider the value of establishing such organisations in Saudi Arabia to help in providing information.

- 9.7.4 Finally, the results of this study show that foreign partnership firms in Saudi Arabia are more information-conscious than the other firms. This result suggests that the consistent Saudi industrial policy to encourage the private sector to co-operate with foreign investors was right in information terms.

9.8 Recommendations

- 9.8.1 Lack of publicity for existing government information sources causes a lack of awareness and use of such sources. The Saudi government information providers should therefore find new methods to publicise their services: for example, by providing liaison officers to establish communication contacts with industrial firms.
- 9.8.2 There is a need for Saudi government information providers to establish methods of evaluating the information services they provide: particularly in the areas of user needs, user satisfaction and performance measurement criteria.
- 9.8.3 The lack of non-government information sources creates a gap in the existing information provision in Saudi Arabia. To assist in developing non-government information sources, the Saudi

government needs to establish policies to encourage the private sector in setting up new information sources.

9.8.4 To overcome the lack of information availability to Saudi firms the following should be considered:

a. Develop some kind of interaction between Saudi universities and industry which would help provide technical information related to Saudi requirements. A model for interaction such as the Science Parks (Phillips, 1994) or HERTIS could be adopted.

b. Establish trade associations which would help provide more integrated technical, market and statistical information.

9.8.5 Because Chambers of Commerce and Industry are the main industrial information sources in Saudi Arabia, and there are 19 Chambers already existing in the country, Chambers can play a significant role in the industrial information provision in Saudi Arabia. If all the government industrial information could be provided through the Chambers, this would satisfy the requirement found here that most Saudi firms prefer to deal with one source of information.

9.8.6 The type of industry, size of firm and organisational status are major variables affecting information use. In future planning for government or non-government information sources concerned with industrial information provision, these variables should be considered: more especially, assistance

should be given to the numerous small firms that experience information problems.

9.8.7 This study represents research conducted within the period 1990-94. As a developing country, Saudi Arabia has the opportunity within its National Development Plan to propose a national information policy which can establish an infrastructure for the effective provision of industrial information for the next century using network technology in a global context.

Reference

Phillips, J. (1994). *Information services to science parks: the cooperative approach at Belasis Hall Technology Park*. Library and Information Research Report No. 90. British Library.

Appendices

Appendix I

National Statement of Saudi Industrial Policy

Article 1. The Government aims at encouraging and expanding manufacturing industries and industries based on agriculture. This is because the outputs of these fields will contribute to the national income and create working opportunities that will lead to a rise of the living standard for society and individuals. Moreover, the Government will harvest benefits due to the diversification of the economic base of the country. For this latter reason, the government will adopt plans that will result in other advantages, in addition to the increase of national income, such as alleviating the impact of economic disturbances on the economy of the Kingdom, and creating many opportunities for technical work which will absorb the qualifications and the developed technical capabilities of the Saudi people.

Article 2. The principle of free competition prevailing between commercial and industrial institutions is the foundation of the economic activity in the Kingdom. The awareness of the Government of this fact makes it believe that, to realise the objective of industrial development, it will have to give, at some time, these private institutions full freedom to shoulder the responsibility of carrying out industrial projects. To serve this purpose, the Government will offer any support and aid required in all the phases of carrying out industrial projects by private establishments

and by businessmen who wish to acquire generous profits and are prepared to accept the consequences of success or failure. Government support includes providing help for the establishment of industrial projects, financing them or participating in their management if, in terms of volume or type of technology, they are beyond the capacity of the private sector alone.

Article 3. The Government considers that competition is in the interest of consumers as the best path for motivating private industrial establishments to select projects that realise profits and absorb the purchasing capacity of the market. this will be done by selecting projects that are suitable for the needs of the market, and are characterised by their low costs of production. This will lead to the fixing of the prices of products within fair and reasonable limits for both producer and consumer. The Government will not allow harmful foreign competition, such as the dumping.

Article 4. To ensure that businessmen willing to contribute to the industrial development are acquainted with all the figures and data required for the selection, implementation, operation and management feasible industrial projects with complete success, the Government will from time to time, publish information about projects for which investment is possible, as well as any other useful information in this respect. At the same time, the

government will support technical and managerial services to existing industrial establishments.

Article 5. As the Government wishes to encourage businessmen to invest in projects that are beneficial to national economy, it is prepared to offer different financial and other incentives to all industrial sectors in a manner that makes all projects which are good in concept and execution realise reasonable revenues and profits for their owners. The Government shall offer these incentives at the same time to all projects in the industrial sector in accordance with the basis laid down here and as quickly as possible. These incentives include the following:

- (A) Offering loans and capital participation on the basis of easy terms.
- (B) Assisting businessmen in forming industrial companies together with further assistance in their subsequent organisation.
- (C) Assistance in the selection of industrial projects, the preparation of economic feasibility studies and the evaluation thereof.
- (D) Offering financial and technical aid for operating factories.
- (E) Exemption of machinery, equipment and raw materials from customs duties.
- (F) Exemption of shares of foreign partners in projects, and capital from taxes imposed on company profits,

as provided in the regulations of foreign capital investment.

- (G) Giving preference to national products in Government purchases.
- (H) Imposing Customs tariffs on competing foreign products so as to protect local products.
- (I) Granting lots of lands in the industrial zones for erecting factories thereon.
- (J) Providing the necessary support to train Saudi workers therein.
- (K) Rendering assistance in exporting national products.

Article 6. The government has decided to apply the principle of industrial licensing for projects where the invested capital, or the number of works, or the volume of their productive capacity goes beyond certain limits. The authorities concerned shall not refuse granting such licenses except in cases deemed to be related to the highest interest of the country, or to the national economy.

Article 7. With respect to industrial projects of great magnitude that cannot be undertaken by the private sector alone, Government policy aims at sponsoring and establishing such projects, giving the private sector the opportunity of contributing to them according to its potential. In this case, as well as in case where the Government undertakes the financing of capital required by the private industrial projects, Government policy is to sell its shares in these projects to the public at the appropriate time, as long as

that is deemed to serve the public interest. The policy excludes from these cases industrial projects that relate to the national security of the country. In cases where it becomes imperative for the Government to take over the management of one of the projects because of the businessmen's inability to manage the same, the Government shall return the management of its affairs to those businessmen as soon as possible. Thus, the long-range target of Government industrial policy is to make the Government a partner of the producers in the private sector, not a competitor.

Article 8. The Government will exert its utmost efforts to avoid resorting to the imposition of quantitative restrictions, or fixing prices, as a means of implementing its industrial policy. Neither will it attempt to impose any kind of restriction except in the cases where the competitive approach is proven to have failed. This is applicable to commodities which have, by their nature, monopolistic characteristics.

Article 9. To the extent that it does not contradict with existing regulations, the Government recognises the right of the private sector, operating in the industrial field, to select, invest and manage economic resources including the manpower working in the field. This is intended to enhance the level of industrial productive efficiency to the maximum possible limit.

Article 10. The Government welcomes the entry of foreign capital and the advent of foreign experience to the industrial sector of the Kingdom. It extends an invitation to co-operate with Saudi businessmen in establishing industrial development projects. This is an acknowledgement on the part of the Government of what can be realised through such a co-operation in terms of advantages to the industrial development in the Kingdom, particularly in the fields of industrial management, technical capabilities and the potential for international marketing that accompanies foreign capital invested in local industries. For this reason, the Government would like to confirm its eagerness to avoid imposing any restrictions on the movement of fund transfers to, or from, the Kingdom. It confirms likewise its obligation to abide by its policy, as derived from the principle of Sharia, regarding the respect of individual ownership.

Article 11. The Government shall provide all public utilities and the infrastructure which is a requisite to the development of economically feasible industries. As the Government realises the importance of comprehensive development and the necessity to achieve the expected industrial progress, it will exert all its potential to develop all economic sectors of the Kingdom in a manner that provides the producers with sufficient and suitable local resources, and also in a way that raises the level of purchasing power of the consumers. All the foregoing shall

be within the framework of an expanding national economy.

Appendix II

Royal Decree No. M/6

Forming the Chambers of Commerce and Industry

- Article 1. The Chamber of Commerce and Industry is a non-profit entity representing, within its jurisdiction, the commercial and industrial interests of the authorities and seeking to preserve and develop them.
- Article 2. The Chamber of Commerce and Industry shall have its own individual organisation and its chairman shall represent it in the legislature and elsewhere.
- Article 3. Chambers of Commerce and Industry are established by the Minister of Commerce's Resolution in agreement with the Minister of Industry and Electricity which defines the base of the Chamber and its functions and the minimum number of listed members. The number should be no less than thirty members (individuals or institutions) involved in commerce or industry and listed in the commercial register. The Chamber is allowed to establish branch offices in its area of concern after obtaining the approval of the Minister of Commerce.
- Article 4. Any merchant or manufacturer listed in the Commercial Register has to ask to be listed as a member in the Chamber where his main base is located. Being a member

in more than one Chamber is possible if branches exist. Membership is invalidated if the Commercial Register is cancelled or if annual membership dues are not paid even after a member has been notified. Re-enrolment is allowed once the obstacles are removed.

Article 5. Chambers of Commerce and Industry specialise in the following matters:

- (A) to collect and publish all information and statistics relevant to commerce and industry.
- (B) to prepare studies and research relevant to commerce and industry.
- (C) to supply government agencies with data and information relevant to commerce and industry.
- (D) to submit proposals regarding protection of national trade and industry from foreign competition.
- (E) to guide merchants and industrialists to the most important countries and areas to import from, or export to, and to provide guidance to develop commerce and industry.
- (F) to pinpoint and discuss problems facing merchants and industrialists in order to present them to the specialised governmental agencies.
- (G) to solve commercial and industrial disputes by arbitration if the parties concerned agree to refer disputes to the Chamber.

- (H) to direct members to new investment opportunities in commerce and industry in co-ordination with the specialised government agencies.
- (I) to encourage merchants and industrialists to make use of local and foreign expertise and also to encourage investment in joint ventures which participate in expanding development.

Article 6. Chambers of Commerce and Industry are allowed, with the agreement of the Minister of Commerce, to establish exhibitions, markets, technical training centres and all that contributes to the advancement and development of commerce and industry.

Article 7. Chambers of Commerce and Industry can, with the approval of the Minister of Commerce, participate in conferences relevant to their activities, and also organise the sending and receiving of commercial and industrial delegations.

Article 8. Chambers of Commerce and Industry are entitled to issue and legalise certificates and documents specified by the Minister of Commerce, in a directive from him, against a fee specified by the Minister of Commerce.

Article 9. In order to achieve its objectives, a Chamber of Commerce and Industry may do the following:

- (A) publish magazines and periodicals that serve commerce or industry.
- (B) communicate with other Chambers or with governmental agencies to obtain data and information relevant to commerce and industry.
- (C) on the basis of specialised committees formed from its own members or from outside to prepare studies and research that enhance the development of commerce and industry.
- (D) own and construct properties to achieve its goals.

Article 10. Chambers of Commerce and Industry are not allowed as entities to participate by themselves or through others in commercial or industrial ventures.

APPENDIX III

List of UK Chambers of Commerce & Industry

(Bedford) Luton, Bedford Chamber
of Commerce

(Glanford) Scunthorpe, Glanford
Cham Comm

(Berkshire) Newbury & W Berkshire
Chamber of Commerce & Industry

(Gillingham) Medway & Gillingham
Cham Comm

(Berkshire) Reading & Cent
Berkshire Cham Comm

(Greenock) Cham Comm & Mfrs
Greenock

(Buckinghamshire) Thames-Chiltern
Cham Comm

(Gwent) Newport & Gwent Cham
Comm

(Buckinghamshire) Thames &
Chiltern Cham Comm

(Hampshire) South E Hampshire
Cham Comm

(Calderdale) Bradford Cham Comm

(Harrow) Greater Harrow Cham
Comm

(Colchester) North & Mid Essex
Cham Comm

(Hereford) Three Counties Cham
Comm & Ind

(Dagenham) Barking & Dagenham
Cham Comm

(Hove) Brighton & Hove Cham
Comm

(Derbyshire) Derby & Derbyshire
Cham Comm

(Immingham) Grimsby & Immingham
Cham Comm

(Derbyshire) N Derbyshire Cham
Comm

(Lancashire) Cent & W Lancashire
Cham Comm & Ind

(Gainsborough) Scunthorpe,
Glanford Cham Comm

(Liverpool) Merseyside
Cham Comm

(Norfolk) Norwich & Norfolk Cham
Comm & Ind

(Wakefield) Kirklees & Wakefield
Cham Comm & Ind

(Norfolk) West Norfolk
Cham Comm

(Worcester) Three Counties
Cham Comm

(Oldham) Metropolitan Borough
Oldham Cham Tr

Aberdeen Cham Comm

(Scotland) Cent Scotland Cham
Comm

Aldershot & District Cham Comm

(Sheffield) City of Sheffield & Dist
Cham Trade

Altrincham & District Cham Comm

(Southend) South Essex Cham
Comm

Ashford (Kent) Cham Comm & Ind

(Staffordshire) N Staffordshire Cham
Comm & Ind

Athlone Cham Comm [IRL]

(Suffolk) Ipswich & Suffolk Cham
Comm

Ayr Cham Comm

(Sussex) Fedn Sussex Inds & Cham
Comm

Ballina Cham Comm

(Swansea) West Wales Cham
Comm

Bantry Cham Comm

(Tayside) Dundee & Tayside Cham
Comm & Ind

Barking & Dagenham Cham Comm

(Tunbridge Wells) R Tunbridge
Wells Cham Comm

Barnsley Cham Comm & Ind

Bolton Cham Comm & Ind

Bath Cham Comm

Bolton Cham Tr

Birmingham Chan Ind & Comm

Bournemouth Cham Tr

Birmingham Cham Tr

Bradford Cham Comm

Blackburn & District Cham Tr

Bray & District Cham Comm [IRL]

Camden Cham Comm

Bridgwater Inc Cham Comm

Cardiff Cham Comm & Ind

Brighton & Hove Cham Comm & Tr

Carlisle Cham Comm

Bristol Cham Comm & Ind

Carlow Cham Comm [IRL]

Bromley Borough Cham Comm

Cent Scotland Cham Comm

Burnley District Cham Tr

Cham Comm & Mfrs Greenock

Burton upon Trent & District
Cham Comm & Ind

Chester & District Cham Tr

Bury & District Cham Comm

Chester & N Wales Cham Comm

Caithness Cham Comm

Clacton & District Cham Tr & Comm

Cambridge Cham Comm & Ind

Clonmel Cham Comm [IRL]

Croydon Cham Comm & Ind

Cobh & Harbour Cham Comm

Derby & Derbyshire Cham Comm

Cork Cham Comm [IRL]

Doncaster Cham Comm

Coventry Cham Comm & Ind

Dorset Cham Comm & Ind

Exeter & District Cham Comm

Dover Cham Comm

Exmouth Cham Tr & Comm

Drogheda Cham Comm [IRL]

Fife Cham Comm & Ind

Dublin Cham Comm [IRL]

Galway Cham Comm [IRL]

Dudley Cham Ind & Comm

Glasgow Cham Comm & Mfrs

Dun Laoghaire Cham Comm [IRL]

Gloucestershire Cham Comm

Dundalk Cham Comm [IRL]

Goole & District Cham Comm

Dundee & Tayside Cham Comm &
Ind

Grantham Cham Comm

E Kilbride Cham Comm

Great Yarmouth Cham Comm

E Lancs Cham Comm

Grimsby & Immingham Cham Comm

Eastbourne & District Cham Comm

Guernsey Cham Comm

Edinburgh Cham Comm &
Manufacturers

Guildford & District Cham Comm

Hertfordshire Cham Comm & Ind

Leicestershire Cham Comm & Ind

Hull Inc Cham Comm & Shipping

Leith Cham Comm

Hythe Cham Comm

Limerick Cham Comm [IRL]

Inverness & District Cham Comm

Lincoln Inc Cham Comm

Ipswich & Suffolk Cham Comm

Lisburn Cham Comm

Isle of Man Cham Comm

London Cham Comm & Ind

Isle of Wight Cham Comm

Lowestoft Cham Comm

Jersey Cham Comm & Ind Inc

Luton, Bedford Cham Comm & Ind

Kendal & District Inc Cham Comm

Maidstone Cham Comm & Ind

Kidderminster & District Cham Comm

Manchester Cham Comm & Ind

Kirklees & Wakefield Cham Comm
& Ind

Manchester Cham Tr

Kirkwall Cham Comm

Mansfield & District Cham Tr &
Comm

Lancaster & District Cham Comm

Margate Cham Comm

Leeds Cham Comm & Ind

Medway & Gillingham Cham Comm

Leeds & District Cham Tr

Merseyside Cham Comm & Ind

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N Staffordshire Cham Comm & Ind

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Comm

Newark Cham Comm

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Comm & Tr

Redditch & District Cham Ind &
Comm

Newport & Gwent Cham Comm

Rochdale Cham Comm & Ind

Northamptonshire Cham Comm & Ind

Rugby & District Cham Comm

Norwich & Norfolk Cham Comm &
Ind

St Albans Cham Comm

Nottinghamshire Cham Comm &
Ind

Scunthorpe, Glanford & Gainsborough
Cham Comm & Ind

Oldham Cham Comm & Ind

Sheffield Cham Comm & Ind

Oxford Cham Comm & Ind

Shetland Cham Comm

Paisley Cham Comm & Ind

Shropshire Cham Ind & Comm

Perthshire Cham Comm

Sligo Cham Comm [IRL]

South E Hampshire Cham Comm

Tyne & Wear Cham Comm, Tr &
Ind

Southampton Cham Comm & Ind

Walsall Cham Comm & Ind

Southampton Cham Comm & Ind

Warrington Cham Comm & Ind

Southport & District Cham Tr,
Comm & Ind

Waterford Cham Comm [IRL]

Stockport Cham Comm & Ind

Watford Cham Comm & Ind

Stornoway Cham Comm

Westminster Cham Comm

Swindon Cham Comm & Ind

Wexford Cham Comm [IRL]

Teesside & District Cham Comm

Wigan & District Cham Tr

Telford Cham Trade

Wirral Cham Comm & Ind

Thames-Chiltern Cham Comm

Worthing Cham Tr & Comm

Thanet Cham Comm

York & N Yorkshire Cham Comm

Tipperary Town Cham Comm [IRL]

Torquay Cham Tr & Comm

Tralee Cham Comm [IRL]

Twickenham & District Cham Comm

Appendix IV

**Chart Prepared to Show the Size Distribution of Saudi Manufacturing Firms Based on
Number of Workers & Type of Product**

Size	Food	Textiles	Wood	Paper	Chemical	Building	Metals	Other	Total
1-50	236	24	40	85	184	352	343	53	1317
51-100	47	17	18	22	63	92	118	14	391
101-200	27	5	6	11	29	40	42	2	162
201-300	8	3	---	3	6	16	10	---	46
301-500	9	1	2	---	8	10	8	1	39
Over 500	2	---	1	1	8	14	5	---	31
Total	329	50	67	122	298	524	526	70	1986

Appendix V

Questionnaire

MANUFACTURING BACKGROUND

1. Type of Product:

Chemical	[]
Building	[]
Metals	[]
Other (please specify)	[]

2. Type of Business:

Sole Proprietor	[]
Saudi Partnership	[]
Foreign Partnership	[]

3. Number of Employees:

GOVERNMENT INFORMATION SERVICES

4. Are you aware of any information services relevant to your activities provided by government organisations?

Yes [] No []

5. If yes, which organisations?

6. If you have become aware of these only recently, what brought them to your attention?

7. Have you used any of these services actually to obtain relevant information?

Yes []

No []

8. If yes, which of the organisations?

9. What type of information did you obtain from each of these?

10. Did you find these information useful?

Yes []

No []

11. If 'Not' what was wrong with it from your viewpoint?

12. Do you have any difficulties in obtaining information from government organisations?

Yes []

No []

13. If yes, could you explain these difficulties?

NON-GOVERNMENT INFORMATION SERVICES

14. Have you used any non-government organisations or services to obtain information?

Yes []

No []

15. If yes, which organisations?

16. What type of information did you obtain?

GENERAL

17. Are the information services provided by both government and non-government organisations adequate to meet **ALL** of your external information needs?

Yes []

No []

18. If not, what additional types of information do you need?

19. Do you believe it is better to merge all the information services provided by the government in one centre?

Yes []

No []

If you would like to receive a summary of the results of this study, please tick the box.

[]

Thank you very much for spending your valuable time in completing this questionnaire. I would be grateful if you could return to me in the envelope provided at your earliest convenience.

M. Arif
Department of Information and Library Studies,
Loughborough University of Technology,
Loughborough, Leic.,
LE11.

Appendix VI

Questionnaire

MANUFACTURING BACKGROUND

1. Type of Product:

Chemical	[]
Building	[]
Metals	[]
Other (please specify)	[]

2. Type of Business:

Sole Proprietor	[]
Saudi Partnership	[]
Foreign Partnership	[]

3. Number of Employees:

GOVERNMENT INFORMATION SERVICES

4. Are you aware of any information services relevant to your activities provided by government organisations?

Yes	[]	No	[]

5. If yes, which organisations?

6. If you have become aware of these only recently, what brought them to your attention?

7. Have you used any of these services actually to obtain relevant information?

Yes []

No []

8. If yes, which of the organisations?

9. What type of information did you obtain from each of these?

10. How would you rate the overall quality of information you obtained in terms of usefulness?

Good []

Moderate []

Poor []

11. If 'Poor' what was wrong with it from your viewpoint?

12. Do you have any difficulties in obtaining information from government organisations?

Yes []

No []

13. If yes, could you explain these difficulties?

NON-GOVERNMENT INFORMATION SERVICES

14. Have you used any non-government organisations or services to obtain information?

Yes []

No []

15. If yes, which organisations?

16. What type of information did you obtain?

17. How would you rate the overall quality of the information you obtained in terms of usefulness?

Good []

Moderate []

Poor []

18. If 'Poor' what is wrong with it from your viewpoint?

GENERAL

19. Are the information services provided by both government and non-government organisations adequate to meet **ALL** of your external information needs?

Yes []

No []

20. If not, what additional types of information do you need?

If you would like to receive a summary of the results of this study, please tick the box.

[]

Thank you very much for spending your valuable time in completing this questionnaire. I would be grateful if you could return to me in the envelope provided at your earliest convenience.

M. Arif
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Appendix VII

Interview Questions

1. What kind of information do you provide?
2. In what form do you provide this information?
3. What services facilities are available to the users?
4. What are your main sources of information?
5. Do you find it necessary to use outside sources to satisfy your users needs?
6. What are the commonest types of enquiry received?
7. What types of enquiry do you find it most difficult to satisfy?
8. Who are your main target audiences?
9. How do you and your customers typically communicate?
10. Do you interact in any way with other government or state provided information services?
11. Do you interact in any way with other non-government provided information services?
12. What steps do you take to advertise, market and sell (where appropriate) your information services?
13. Do you provide any training programmes for your staff and users?
14. How do you evaluate the relevance, quality and success of your services?
15. What changes do you think will occur in the information services you provide in the future?

Appendix VIII

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