ENVIRONMENTAL SCANNING ACTIVITIES OF PRIVATE FIRMS : THE CASE OF SAUDI ARABIA

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A Thesis Submitted for the Degree of PhD
at the
University of St Andrews

2004

Environmental Scanning Activities of Private Firms: The Case of Saudi Arabia

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PhD in Management Studies
February, 2004

ProQuest Number: 10166131

ProQuest 10166131

Abstract

Environmental scanning is an essential activity for organisation's success undertaken by top executives to allow them to be effective in steering the organisation within a changing environment. Organisations exist in an increasingly turbulent world. Organisations which want to succeed in the ever-changing business environment need to adopt suitable management tools that can identify emerging issues that may have the capacity to impact on their business. Environmental scanning is such a technique, often used within a suite of tools as part of a strategic planning process; it can be an important source of information for firms which operate in rapidly changing environments.

The aim of this study is to investigate environmental scanning activities in the Saudi private sector. In recent years, changes in the domestic and global environment have created very different economic challenges. A number of factors have promoted these changes; political uncertainty, economic decline, youth explosion, the rapid increase in unemployment among Saudi youth and Islamic extremism highlight some of the challenges that the country now faces which ultimately might impact on Saudi business.

Most of the previous research on environmental scanning has been carried out in a Western context, and no empirical research exists on the scanning activities of Arab executives in general and Saudis in particular. This research aimed to address this gap in the literature by investigating environmental scanning activities in Saudi private firms. In particular the study looks at (1) executives' perception of their business environment: (2) the frequency of, and level of interest in, executives' scanning: (3) the information sources used to investigate what is happening in the business environment: (4) the decisions which dependent on scanning activities: (5) the methods used by Saudi firms to scan their environment. The research adopted a triangulation methodology using both a mail survey questionnaire and personal interview. A total of 500 surveys were sent to executives of the Saudi top 500 firms; 162 were returned. However, only 150 usable questionnaires were included for data analysis.

The study revealed that Saudi executives in general believe that their businesses . operate in a highly turbulent environment where competition, economic and legal factors are perceived as the most strategically uncertain. Surprisingly, political factors produced a low level of perceived strategic uncertainty. The study pointed out that the executives in this sample tend to scan for a large number of issues in their environment. In particular, they conduct the greatest amount of scanning in the competition, economic and legal areas. In addition, the study indicated that the executives in the sample increase scanning frequency in response to increased perception of environmental uncertainty in the macro-environment more than in the micro-environment.

The findings from this study also show that personal sources are used more frequently than impersonal sources in scanning by executives in this study. Among the five most used sources for scanning, four are personal sources (customers: subordinate managers: subordinate staff: business/ professional associates).

I

I, Mohammed Alshagawi, hereby certify that this thesis, which is approximately 95000 words in length, has been written by me, that it is the record of work carried out by me and that it has not been submitted in any previous application for a higher degree.

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Dedication

This thesis is dedicated to my father Nasser and my mother Muneera. I owe everything I have accomplished to them. I have been blessed with their constant love and benefited from their insight and support throughout my life. They nurtured in me the desire for lifelong learning. My mother, whose love, endless prayers and tears have sustained me while I was far away, sketched out the first steps of knowledge for me and gave colour and life to the future with her warmth and boundless love. My father, through his penetrating vision and beautiful stories, has illuminated all aspects of my life.

1 Chapter One: Introduction

1.1 Introduction

The environment within which an organisation operates plays an essential role in that organisation's success and growth and can create both threats and opportunities in a very competitive arena. Many changes have impacted on the business environment and changed that environment in unpredictable directions. These include: environment turbulence: the effects of increased competition as a result of globalisation of business: advancement in technologies: new lifestyles and customers priorities: instantaneous communications: travel at the speed of sound: political realignments: changing demographics: technological transformations in both products and production: corporate alliances and flattening. All these changes have a major impact on a firm's vision, mission and strategy, objectives and its performance (Analoui and Karami, 2002; Elenkov, 1997a; Hambrick, 1982; Ngamkroeckjoti and Johri, 2000). Consequently, understanding the global, political, technological and socio-cultural segments of the business environment is critical to organisations' success. Organisations that wish to succeed and survive in the ever-changing business environment need to adopt suitable management tools that can identify emerging issues that may have the capacity to impact on their businesses. Environmental scanning is such a technique, often used within a suite of tools as part of a strategic planning process.

Firms value information as a key asset contributing to their sustainability in a competitive environment. Information is needed concerning customers, competitors, new technologies, political developments, the economy and social trends (Daft et al., 1988). Environmental scanning becomes even more critical to

the organisational success, the more turbulent the environment becomes and the greater the rate of acceleration of environmental change. Thus, organisations scan the environment in order to understand external forces of change so that they may develop effective responses that secure or improve their position in the future (Gable and Topol, 1987). In addition, scanning helps an organisation to adapt to changing external circumstances (Hambrick, 1982b), avoid surprises, identify threats and opportunities, gain competitive advantage, and improve long- and short-term planning (Sutton, 1988), and to identify early signals of potential changes in the external environment and detect changes that are already under way (Elenkov, 1997b). However, organisations that do not pay attention to a wide range of signals are unlikely to prosper because they will have missed vital information about markets, customers, competitors, economic and political factors and the like (Slaughter, 1999).

Environmental scanning refers to the acquisition and use of information about events, trends, and relationships in an organisation's external environment, the knowledge of which would assist management in planning the organisation's future course of action (Aguilar, 1967; Choo, 2000).

Recognition of the significance of the external environment originated largely from the open systems theory developed in the 1960s, predominantly by Katz and Kahn. This theory argues that organisations are open systems dependent on interaction with their environments and that changes in the external environment often determine the future, if not survival, of the organisation.

"Organisations are not closed systems, sealed off from their environments, but are open to and dependent on flows of personnel and resources from outside." (Scott, 1987, p.22). This critical dependency between an organisation and its environment

requires the organisation to be constantly alert to changes and shifts in its external relationship (Choo, 1998).

1.2 Rationale of the Study

Although several studies have discussed and analysed scanning activities and behaviour in business organisations in the West, particularly in the UK and the US, little has been conducted to examine this topic in developing countries. Given the potential influence on business life of the rapidly changing and unique characteristics of the political, economic and social spheres in Saudi Arabia, the country provides a fertile setting for a study such as this. The Saudi Arabian economy is primarily driven by oil production. Revenues from oil comprise about three-quarters of the national income, making the country highly vulnerable to world price fluctuations. Sitting on immense reserve of oils makes the country the single largest world producer and exporter. During the oil boom of the 1970s, Saudi Arabia was freed from domestic economic pressure and was able to conduct highly autonomous economic policies. The private sector was pacified by and dependent upon state handouts. However, this scenario describes the Saudi of the 1970s and 1980s rather than the Saudi of the new millennium. In recent years, changes in the domestic and global environment have created very different economic challenges. A number of factors have promoted these changes; political uncertainty, economic decline, youth population explosion, the rapid increase in unemployment among Saudi youth and Islamic extremism highlight some of the challenges that the country now faces which ultimately might impact on Saudi business. As a result, Saudi Arabia is striving to diversify its economy away from oil and to implement a structural reform that gives the private sector a leading role in promoting economic development. In the seventh development plan (2000-2004)

the focus is on ways to further encourage the private sector to take up a more active role. In this context, the government will continue to give the private sector the opportunity to implement much of the government's economic and social policies on condition that this will result in real cost benefits, better company performance and employment opportunities for Saudi citizens (Ministry of Planning, 2000). However, at the same time as being given this additional responsibility, the Saudi private sector finds that the Saudi business world, as has been noted above, has become more complex and uncertain than ever before. Under such conditions, environmental scanning can provide an important source of information. Yasai-Ardrekani and Nystrom (1996) suggest that during a period of turbulent change a company requires wider scanning scope, more frequent scanning of factors and greater top management scanning responsibility to respond to environmental changes. Emerging social, political and economic issues require firms to make sense of a turbulent and complex world. They need to be in a position to anticipate these issues and respond to them in a proactive, effective manner. According to Hamel and Prahalad (1994) "failure to anticipate and participate of the future impoverishes both firms and nations" (p.29). Scanning the environment to gain information about events and trends is critically important for firms competing in highly volatile environments (Goll, 1997). Moreover, in order to achieve strategic competitiveness when dealing with any situation, firms must be aware of and understand the implications of the realities of different aspects of the external environment. Efficient contextual planning in uncertain times depends on obtaining accurate and continuous intelligence about changes in the external environment. Strategic use of information and knowledge can enhance Saudi executives' ability to make better decisions. This in turn will help the private sector to compete effectively both in local and global markets and to take on the leading role proposed

by the government in the country's development plans and in the country's attempt to minimise its dependence balance on oil.

The need for understanding the environment can thus be clearly demonstrated. Saudi executives in the private sector need to realise that if their firms are to survive in this dynamic and uncertain environment, they need to develop effective environmental scanning practices. Moreover, scanning helps develop the skills required to identify opportunities and threats existing in their business environment. This study therefore hoped to provide a body of knowledge which will assist Saudi CEOs and those individuals who are responsible for scanning in understanding better their external environment in order to develop effective responses.

1.3   The Significance of the Study

The significance of the present study has several aspects. Environmental scanning has been discussed and studied in the West by many researchers from many perspectives (Aguilar, 1967; Auster and Choo, 1993; Boyd and Fulk, 1996; Culnan, 1983; Daft et al., 1988; Garg et al., 2003; Jain, 1984; Xu et al., 2003). Most of the studies, by inference, have been conducted in Western situations by Western researchers with Western values and mindsets. In the main, the results of these studies have been accepted, rejected, discussed, built upon and applied without realisation that there has been an underlying assumption that what is said, thought, researched, proved and practised in Western situations will transfer to other, non-Western environments. However, culture influences perceptions of environmental factors (Miller, 1993; Schneider and De Meyer, 1991) and subsequent strategy formulation (Schneider, 1989). Moreover, Weir (1994) argues that Arab management is a unique phenomenon which derives from intellectual and organisational traditions very different to those of America, Japan and Europe. This

suggests that it is therefore inappropriate to apply generalisations derived from Western research to management systems and practices in developing countries. Hence, past studies require reassessment in another context. Developing countries, in general, and Saudi Arabia, in particular, have different cultures and social structures from the West.

Little research, however, has focused on scanning practices in developing countries (Ebrahimi, 2000; Elenkov, 1997b; Sawyerr et al., 2000). These authors have also noted that we still know little about how firms in developing countries, and above all their CEOs, gather, select, interpret and analyse external information. More importantly, studies of strategic management in Saudi Arabia have not been given much attention (Al-kathiri and Al-awadh, 1998; Almalik, 1989). Most contemporary writing about Saudi Arabia has focused on political and religious concepts, with little emphasis and even less empirical study of its managerial context. As a result, little is known about how Saudi executives investigate their environments.

In describing the management and planning practices in developing countries the literature identified several factors which differentiate the environment of these countries from that of Western countries. Such factors include the lack of an adequate information technology infrastructure, the absence of systematic data depositories, the limited utilisation of planning and the highly unstable economic and political environment (Anastos et al., 1980; Elenkov, 1997b; Sawyerr, 1993).

One aim of the present study is to examine whether the research on scanning practices yields similar results in Saudi as in Western countries. Furthermore, the research presented here may serve as the catalyst for other researchers to examine other Arab countries to determine whether the results are peculiar only to Saudi or whether they are common to other Arab countries.

This study is the first of its kind, at least to the best knowledge of the researcher, to examine the relationship between firms and their environments in a Saudi setting. The findings are expected to contribute to the enhancement of strategic management and management practices in Saudi. It will also contribute to the management literature of Arab countries.

It is crucial that managers are aware of what information they require, how to acquire it and how to maximise the use of it in order to survive and prosper in today's information-intensive environment. Consequently, the investigation and analysis of environmental scanning practices will help to provide Saudi executives with a better understanding of how to collect strategic information and scan the business environment.

1.4 Study Objectives and Research Questions

The main objective of the present study is to investigate scanning activities and define environmental scanning practices as they existed in the Saudi Arabian private sector. It will describe the collection of strategic information in terms of the degree of importance of environmental factors as seen by the CEOs, the amount of scanning conducted by CEOs, the sources of information used and the barriers to scanning in Saudi Arabia. In particular, the study looks at (1) executives' perception of their business environment; (2) the frequency of, and level of interest in, executives' scanning; (3) the information sources used to investigate what is happening in the business environment; (4) the decisions which depend on scanning activities and (5) the methods used by Saudi firms to scan their environment.

The study will also try to achieve the following:

□   To investigate the relationship between the Saudi executives' perception of environmental uncertainty and their scanning behaviour.

❑   To contribute to, and fill a gap in, the literature on environmental scanning in developing countries and in the Arab world.

❑   To compare the scanning practices of Saudi executives with those of their counterparts in other developing countries and in Western countries by relating the results of the study to those of pervious studies.

In order to achieve these objectives, this study seeks to answer the following questions:

1. Which areas of the business environment are seen as important and uncertain by Saudi firms?

2. How frequently do Saudi firms scan different factors in their business environment?

3. What level of interest do they have in scanning various events and trends occurring in their environment?

4. How do the Saudi firms scan their environment for information? :

4-1. how do they exchange environmental information?;

4-2. where is the environmental information stored?;

4-3. what types of techniques are used to analyse external information?;

4-4. who is responsible for scanning activities? and

4-5. when do they scan their business environment?

5. What information · sources do Saudi firms use to find out about what is happening in their business environment?

6. What types of decisions depend on the firms' scanning activities?

1.5 Overview of the Thesis

This thesis is presented in nine chapters. The present chapter serves as an introduction to the study, elaborating on the importance of environmental scanning to the success and survival of firms, detailing the objectives of the research and its significance. It also includes research questions.

Chapter 2 presents an extensive review of the literature that is relevant to environmental scanning practices.

Chapter 3 provides background information on Saudi Arabia. It comprises an up-to-date report on the sociocultural, political, religious and economic environment in Saudi Arabia.

Chapter 4 describes the research methodology employed in this study, which includes research design, data collection procedures, questionnaire development and data-preparation procedures. Also, it describes the justifications for choosing the research specified approach.

Analysis of the survey data and its findings are presented in Chapter 5.

The main propositions of the study are tested in Chapter 6

Chapter 7 deals with the data collected from the personal interview. The views and attitudes of the interview respondents are summarised.

Chapter 8 is the main discussion chapter. It offers an extensive discussion of the empirical results of the empirical chapters. It also compares the results of this study with those from earlier studies.

Summary and highlights of the research findings are presented in Chapter 9. The implications and recommendations for the concerned parties are also discussed, concluding with the limitations of the study and some suggestions for further research.

Figure 1-1Overview of Chapters
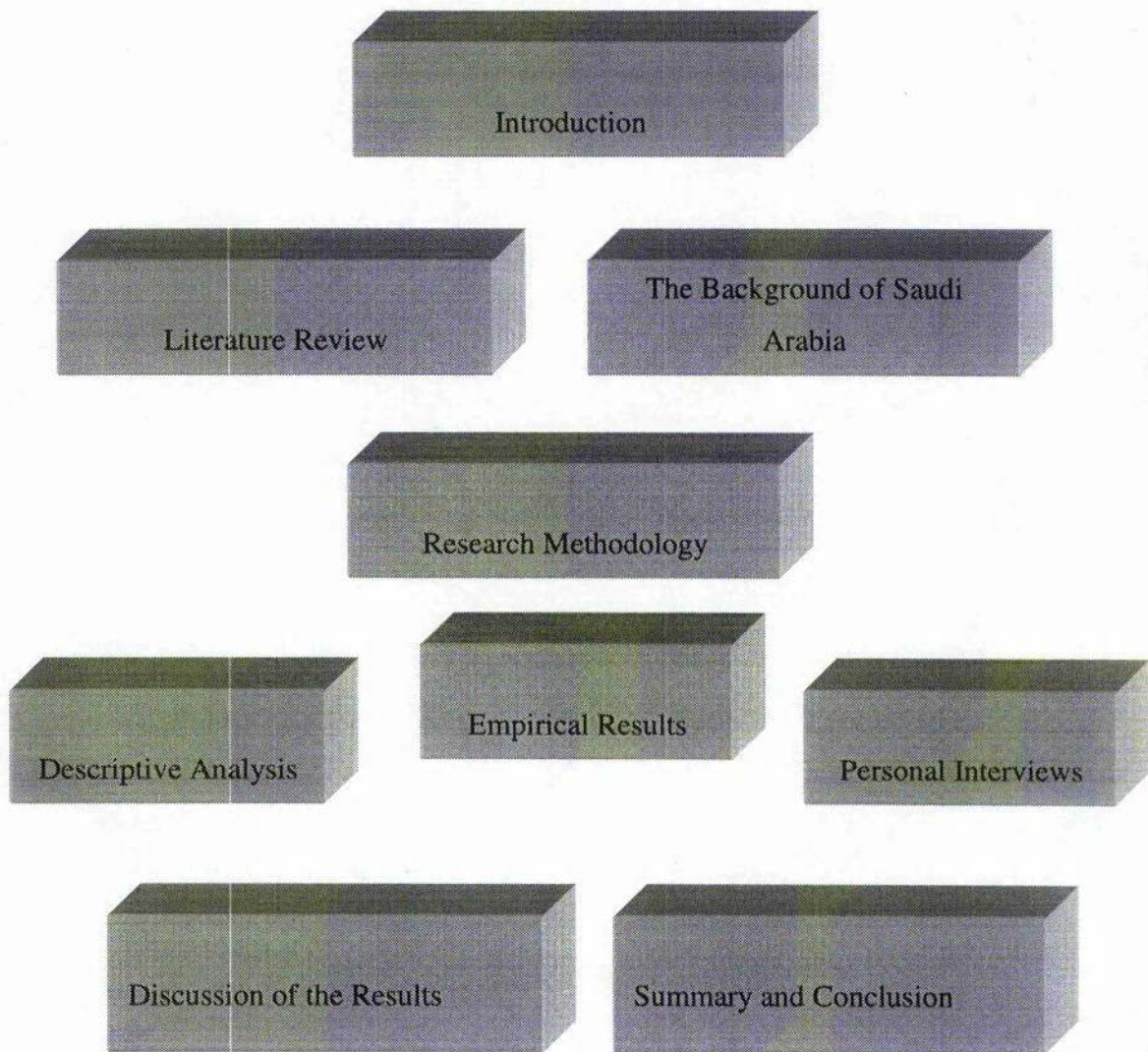
2 Chapter Two: Review of Literature

2.1 Introduction

The external environment affects all organisations. According to open system theory, if an organisation is to survive, it must take its environment into account. Many organisations scan or monitor their external environment. This process of collecting and analysing environmental information has been termed environmental scanning. The main objective of this chapter is to provide a general overview of the research on several aspects of environmental scanning. We will start with a discussion of the contingency theory as the root of strategy research. Then we will review the concept of "fit", the central theme in contingency theory. In the third section we will examine the concept and the purposes of environmental scanning. Environmental scanning comprises various elements such as scanning behaviour (the amount of scanning)[1], the sources of the information used, the environmental factors scanned and the effect of perceived environmental uncertainty on scanning. We will highlight selected research on these dimensions. Strategy researchers largely agree that developing an effective formal scanning system is a necessary tool to conduct the scanning effectively (Analoui, 2000; Hambrick, 1982; Yasai-Ardekani and Nystrom, 1996). For that reason it is important to consider closely several factors relating to formal versus informal scanning in organisations. This will be followed by a review of the relationship between scanning and performance. Finally, we will discuss two variables thought to influence environmental scanning: 1) The organisational characteristics such as corporate strategy, structure, age and

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[1] The two terms, scanning behaviour and amount of scanning are used interchangeably in this research.

size; 2) The executives' characteristics such as their functional specialisation and hierarchical level.

2.2 Contingency Theory

Contingency theory has its roots in systems theory. Its primary conceptual issue is based on the assumption that all organisations are open systems and survive through the continuous and successful interaction with the external environment. Within general systems theory, organisations are classified as either closed or open systems. A closed system is entirely isolated from its environment; an open system interacts with its environment and is dependent upon it. The open system approach represents the adaptation of work carried out in biology and in physical sciences and reflects the evolution from an industrial society, based on the production and distribution of goods, to an information society based on the production and distribution of information (Kahalas, 1976). It emphasises flexibility, focuses on the external environment and values expansion and change (Quinn et al., 1990). Katz and Kahn (1966) contend that "we cannot understand a system without a constant study of the forces that impinge upon it" (p. 27). They describe the interaction between an organisation and its environment as a cycle of input, throughput and output. Inputs into the organisation include information about the environment and about the organisation's relationship to it. In an open system, "changed inputs from the environment are one of the most important sources of organisational change" (Katz and Kahn, 1966, p. 451). Though they do not specifically describe the process of environmental analysis, they recognise the need for a mechanism to monitor, reduce and interpret the informational input. The open system approach signifies the need for organisations to have an external focus. In this system, people are not controlled but inspired and motivation is the key to

challenged and committed workers where a common vision and shared values are important. The climate is characterised by innovation and flexibility and effectiveness is measured in terms of adaptability and external support. The manager in this model assumes an innovator and broker role using power and influence in the organisation (Quinn et al., 1990). The open system approach was an attempt to adapt to the increasing rate of technological change and changing societal values and the need to know how to manage this change in a world that was quickly growing and acquiring knowledge. It was recognised that managers were faced with more complex and unpredictable environments where decision-making was rapid and erratic. Consequently, contingency theories emerged to influence the open system approach (Quinn et al., 1990).

The contingency theory has been widely accepted in management discipline since the early 60s. The emergence of the theory was the result of criticisms of the classical theories that advocated "one best way" of organising and managing organisations. Contingency theory recognises that no one approach to management applies to all situations and environments due to the diversity of organisations. The basic theme of the contingency theory is that organisations have to deal with different situations in different ways. There is no single best way of management, applicable to all situations. The appropriate management style and organisational structure depend on the environmental context of the organisation concerned. Contingency theory therefore attempts to explain the way organisations function under different conditions of the external environment. In other words, the conclusion of this theory is that the external environment within which an organisation chooses to function, determines the internal structure and the overall procedures of specific organisation. As a result, different organisational structures are needed in order to successfully face different organisational functions within

different external environments (Kourteli, 2000; Lawrence and Lorsch, 1967; Burns and Stalker 1961).

Research efforts such as those conducted by Burns and Stalker (1967), Lawrence and Lorsch (1967) and Leifer and Huber (1977) generally concluded that in a stable competitive environment a relatively simple and mechanical organisation is enough for success. But in a rapidly changing and unpredictable environment, success requires an organisation to be flexible, dynamic and have the ability to renew itself and the capacity to innovate. Among the earlier efforts on the subject was that by Burns and Stalker (1961). They investigated the relationship between internal management practices and the external environmental factors of 20 industrial organisations in the United Kingdom to discover its affect on economic performance. They classified environments as stable or unstable. Stable environments are relatively placid and do not change very much. Organisations in stable environments are called "Mechanistic". The Mechanistic system was appropriate for organisations that operated under stable conditions. These' organisations employed routine and well understood technology. Tasks and duties of employees were clearly defined by heads of departments. Communication within such organisations was designed vertically, and its content tended to be instructions from superiors. Unstable environments, on the other hand, are more volatile and prone to rapid and major changes. Organisations in unstable environments are called "Organic". The Organic system was more suitable for organisations that worked under an unstable, changing environment. The system enabled the organisations concerned to adapt to environmental changes. It did not pay much attention to rules and procedures. To cope with the changes, the organisations used lateral communication, which resembled consultation rather than vertical command, and hence the span of supervisory control was much wider than in the mechanistic

model. Burns and Stalker concluded that each system is appropriate under its own specific conditions. Neither system was superior to the other under all situations.

Around the same time, Woodward (1965) emphasised the technology employed by the firm as a key contingent variable. She analysed the influence of technology on the organisational structure of about 100 industrial firms in the UK and classified the organisations into three groups; these are small batch and unit production (e.g. the custom-tailoring industry), large batch and mass production (e.g. standard gasoline engines industry), and process and continuous production (e.g. chemicals industry). Woodward pointed out that successful organisations in different industries with different technologies were characterised by different organisational structures. For example, she discovered that successful organisations engaged in small batch and unit production had wider spans of supervisory control and fewer levels of hierarchy than did successful organisations with process and continuous production. This indicates that a bureaucratic-mechanistic system is appropriate for organisations operating in stable conditions such as the chemical industry, while the organic system is suitable for organisations working under dynamic conditions, such as the custom-tailoring industry.

Chandler (1962) further highlighted the influence of environment on organisations. Studying how firms responded to major discontinuities in their environments, he concluded that the success and the survival of an organisation depends upon its ability to align its behaviour with environmental conditions. Throughout his study, Chandler pointed out that different strategies and environments required different organisational structures. Centralised organisation, for example, seemed to be only appropriate for firms operating in a relatively unchanging environment. However, when the environment changed rapidly, this structure did not enable the management to respond to the environmental changes quickly, and hence could not

facilitate effective realisation of the opportunities available. In such an environment, firms that employed a decentralised structure ended up with better performance.

Lawrence and Lorsch (1967) and Thompson (1967) further forged and refined the theoretical foundation of the contingency perspective. Lawrence and Lorsch (1967) identified two important concepts:

a)   differentiation, the extent to which the organisation is broken down into subunits or departments;

b)   integration, the extent to which subunits created through differentiation must coordinate their activities and functions.

They develop an open systems theory of how organisations and organisational subunits adapt to best meet the demands of their environment. They studied the state of differentiation and integration in organisational systems in the plastic, food, and plastic container industries. These industries consecutively represented the high, medium, and low rate of growth, technology and market changes. They found that successful firms in each industry had a different degree of differentiation. The degree of differentiation in the plastic industry tended to be higher than in the food industry. The lowest degree of the differentiation was found in the plastic container industry, since it had the most stable environment. The successful firms in the three industries also attained a higher degree of integration than the less successful ones. The study revealed that the more differentiated an organisation, the more difficult it is to achieve such integration. Furthermore, successful firms in each industry employed different modes of integration, consistent with their environments. The plastic container industry, for example, used hierarchy to resolve the conflict. In those industries operating under less stable conditions, however, conflicts were resolved well by appointing skilled personnel or project teams. This classical study

of Lawrence and Lorsch refined the contingency theory by demonstrating that different markets and technological environments require different kinds of organisations, and that subunits or functional departments within an organisation might be managed in different ways, due to variations resulting from their sub-environments. The primary weakness in their work is that it focuses overwhelmingly on only one organisational integration mechanism, namely the use of integrators to resolve the interdepartmental conflict (Choo, 2000).

In addition, Thompson (1967) forged the foundation of the theory by integrating and expanding the previous studies. He categorised the two modalities considered by previous works as "closed system", which sought uncertainty by considering only few variables controllable and correlated with goal attainment, and "open system", which included uncertainty by acknowledging the interdependency of the organisations to their environments for survival. Using Parson's (1960) three distinct levels of organisational responsibility and control (technical, managerial, and institutional), he integrated the two systems to develop what he considered a newer tradition. He believed that a technical function should operate under certainty to achieve the desired outcomes by reducing the number of variables operating on it. The institutional level, on the other hand, dealt largely with environmental elements uncontrollable by the organisations. It was best served by open management to acknowledge the influence of environmental factors and to face up to the inevitable resultant uncertainty. Thompson (1967) suggested that the managerial level should mediate these two extreme levels by resolving some irregularities coming from external environments, and pushing the technical core for modifications as environments changed. In his newer tradition, therefore, Thompson conceived of complex organisations as open systems faced with uncertainty that were, at the same time, subject to a rational criterion for certain

needs. As did Lawrence and Lorsch (1967), he considered technology and environment as the major sources of uncertainty. He further argued that differences in those dimensions resulted in different structures, strategies, and decision processes.

Emery and Trist (1965) described their work as an extension of systems theory. They argued that "a main problem in the study of organisational change is that the environmental contexts in which organisations exist are themselves changing, at an increasing rate, and towards increasing complexity" (p. 21). They proposed classifying the external environment according to four types of environment or "causal textures":

1. placid, randomised environment which is stable;

2. placid, clustered environment in which the survival of the organisation becomes critically linked with what it knows of its environment and in which strategy emerges;

3. disturbed-reactive environment in which organisations must make and meet competitive challenges;

4. turbulent environment in which external forces place greater pressure on the organisation, factors in the environment change rapidly, there is a great increase in relevant uncertainty and organisations must recognise their interconnectedness with other organisations. They perceived the four types as a series of steps each of which increases the influence on the organisation of the external environment.

Expanding on the work of Emery and Trist, Ansoff (1965) defined the environmental turbulence as "changeability in an environment characterised by the degree of novelty of challenges and the speed with which they develop" (p. 486). Like Emery and Trist, he conceives of environmental turbulence as a series of

levels, but his classification system has five steps: stable, reactive, anticipatory, exploratory and creative.

Based on the above study and some others, Kast and Rosenzweig (1973) defined the contingency theory as a mid range theory between two extreme views, which state, on the one hand, that universal principles of organisation and management exist or, on the other, that each organisation is unique and each situation must be analysed separately. The theory views an organisation as a system composed of sub-systems and delineated by identifiable boundaries from its external environment. It underlines the multivariate nature of organisation and attempts to understand how organisations operate under varying conditions and specific circumstances. Kast and Rosenzweig further emphasised that ultimately the theory is directed toward suggesting organisational designs and managerial practices most appropriate for specific situations.

Since then, the contingency theory has become popular in management research. Galbraith (1973) asserted that this popularity could be attributed partly to the assumptions that there was no one best way to manage an organisation and that any one way of organising is not equally effective under all conditions. Criticisms and suggestions from some writers, such as Miller (1981), Schoonhoven (1981), and Tosi and Slocum (1984) further enhanced the theory in terms of the conceptualisation of variables and the specificity in the relationships among them.

2.3   The Concept of Organisation – Environment Fit

One of the most important issues examined by scholars in strategic management is the dynamic nature of fit between the environment and the organisation (Romanelli and Tushman, 1988). Environmental scanning is important in maintaining correspondence between the environment and the firm, and leads to improved

performance (Daft et al., 1988). Moreover, the fit between organisation and its environment is the central theme of contingency studies (Venkatraman and Prescott, 1990). Porter (1990) believes that the environments as well as the organisation's own capabilities are subject to change. He suggests further that it is the task of organisational strategy to maintain the fit between organisation and its environment. However, in early contingency studies the concept of fit was understood and discussed implicitly. They postulated the organisation – environment relationship using phrases such as: congruent with, matched with, or contingent upon (Venkatraman and Prescott, 1990). Aldrich (1979) was one theorist who explicitly states and popularises this concept. He proposed that organisational forms must either fit their environmental niches or fail. He developed what he called "population ecology" or the natural selection model. Through this model, he endeavoured to explain changes in organisational forms by focusing on the nature and distribution of resources in an organisation's environment. He defined organisational forms as specific configurations of goals, boundaries, and activities, and classified distribution resources into six dimensions: capacity, homogeneity-heterogeneity, stability-instability, concentration-dispersion, domain consensus-dissensus and degree of turbulence. Various combinations of these dimensions and other constraints created environmental niches for organisations. Organisational forms were managed in order to exploit the environmental resources within a niche. Aldrich highlighted that the process of organisational change meant organisations were moving toward a better fit with the environment. He examined this movement (organisational change) under three stages: variation, selection, and retention. The general principle was that variation generates new material from which environmental selection was made, while retention mechanisms preserved the selected form. Moreover, Aldrich (1979) pointed out the importance of

environmental selection relative to intra-organisational factors as a critical difference between his model and the more traditional view. He acknowledged the possibility of exercising strategic choices, but he argued that at least three environmental conditions limit the decision-makers in realising the choices. First, organisations could not exploit many opportunities due to economic and legal barriers. Secondly, individual organisations did not have enough power to influence the environment. Thirdly, the distortions of the decision-makers' perceptions of the environment limited the possible range of truly strategic choices. These limitations severely constrained the decision-makers' ability to change either their environmental niches or their organisational forms. Finally, he concluded that the natural selection model was a general one, which may be applied to any situation where the three stages are present. When the three conditions were met, an evolution of better fit to the selective system became inevitable. He emphasised that a better fit did not mean that there is only one fit. Selection was a matter of relative superiority over other forms.

Unlike Aldrich (1979) who analysed the concept of fit at the macro/industry level and downplayed the manager's role in choosing strategies to attain organisational fit, Chakravarthy (1982) explored the concept at the micro level and believes that the latitude for experimentation available to managers determined the ability of organisations to achieve a fit. He argued that constant pressure on short-term performance could make the managers overlook strategic goals. In addition, the extent of financial risk allowable for managers could determine whether or not they can be proactive in anticipating the environmental changes. The greater the risk allowable for managers, the more proactive strategies could be explored, and vice versa. Chakravarthy (1982) also revealed that information-processing ability of organisations and their material resources such as input material, finance and

technology also determined the adaptive abilities of organisations. Organisations that had high adaptive abilities may prefer to take proactive strategies, while low adaptive organisations were more likely to choose defensive strategies.

The noteworthy point about the above-outlined studies is that there was a dispute among scholars about the influence of environment on organisations, particularly concerning matters related to the strategic role of managers in their efforts to adapt their organisations to the environment (Astley and Van de Ven, 1983). Some authors believed that environments determined the organisational life and constrained the managers to exercise their strategic choices (e.g. Aldrich, 1979). Others however, believed that managers might still have the capacity to exercise their power and enact their strategic choices to handle the organisation in line with its environments (e.g. Chakravarthy, 1982).

In an effort to resolve the dispute, Hrebiniak and Joyce (1985) claimed that the environment and the managerial choice were not mutually exclusive. The two factors interacted with one another, and could be the independent variables in the process of fit. Combining these two factors, Hrebiniak and Joyce (1985) have proposed a framework based on the strategy field's fundamental dimensions of strategic choice and environmental determinism. The matrix, shown in Figure 2.1, produces four quadrants representing four determinism-choice combinations. First, managers might confront themselves with a combination of low strategic choices and high environmental determinism. Organisations under such conditions must fit or were selected out by the environment: this included companies operating in perfectly and imperfectly competitive industries. Secondly, they might face a combination of high strategic choices and high environmental determinism. Under these conditions, many external forces affected and constrain decision-making; nevertheless, the organisations concerned benefit from the availability of choice. In

direct contrast to the first, managers might have to deal with high strategic choice and low environmental determinism. Like the school of strategic choice, organisations working under these conditions could deliberately define and enact policies and strategies, and otherwise influence their particular environmental domain. The lack of environmental constraints made it easier for them to introduce innovations and engage in proactive behaviour. Finally, they might be faced with a low level in both strategic choice and environmental determinism. These conditions indicated that the organisations couldn't capitalise on even a benign and munificent environment, due to lack of innovation, proactive behaviour, internal capabilities, or inappropriate competencies.

Figure 2-1 Hrebiniak and Joyce Framework

	Low ← Environmental Determinisms → High	
High	Quadrant III	Quadrant II
Low	Quadrant IV	Quadrant I

Strategic Choice (vertical axis, High to Low)
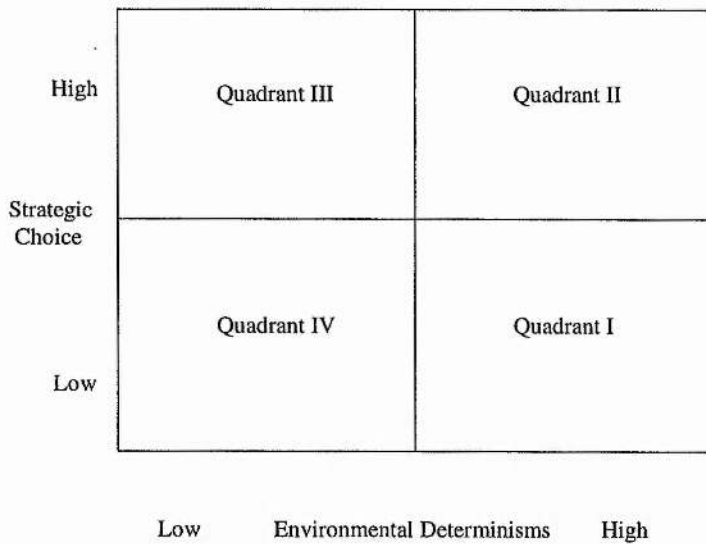
Source: Hrebiniak and Joyce (1985).

Hrebiniak and Joyce (1985) emphasised that the process of adaptation is dynamic. The position of an organisation might shift as a result of strategic choices or external environmental changes. By organisational control over scarce resources,

managers were still able to exercise their strategic choices, although the nature and impact of the actions would vary according to organisation-environment context. This view supported the concept of fit proposed by Miles and Snow (1984): a concept based on the actual process of fit. Miles and Snow (1984) defined "fit" as "a process as well as a state - a dynamic search that sought to align the organisation with its environment and to arrange resources internally in support of that alignment" (p. 11). They considered the basic alignment as strategy and termed the internal arrangement as organisational structure and management process. Their framework consisted of four main possibilities - minimal, tight, early, and fragile fits.

Based on a previous study of Snow and Hrebiniak (1980), they concluded that organisations operating in a competitive environment called for minimal fit to survive. They found only organisations classified as Defenders, Prospectors, and Analysers operated their strategy effectively, since they met the requirement of minimal fit, while organisations grouped as Reactors were generally ineffective, because their strategies were poorly articulated, unsuitable to the environment, or misaligned with organisational structure and management systems. Unless these organisations were protected by government regulations, they had to adjust their behaviour or fail. In addition, unlike the minimal fit, which did not guarantee an excellent performance, organisations achieving tight fit could achieve outstanding performance. Referring to the works of Drucker (1969) and Peters and Waterman (1983) who studied many successful companies in the U.S., Miles and Snow (1984) concluded that excellent performances of these companies are the result of the achievement of tight fit both externally with the environment and internally among strategy, structure and management process. In these conditions the strategy, structure, and process were well understood by all members at all level of the

organisation. Every member from front office to top managers clearly comprehended their roles and responsibilities in the attainment of the ultimate goals of the organisation.

However, the tight fit was not straightforward and easy to achieve. It involved complex and long processes. It was usually preceded by an early fit that was the discovery and articulation of a new organisational form. Miles and Snow (1984) asserted that not all inventions could provide organisations with competitive advantages over a considerable period of time. Some innovations, such as patenting a particular product or technology, novel product design, or developing new distribution channels could only offer organisations temporary competitive advantages, because sooner or later, competitors could imitate or improve upon the innovation, which made the advantages disappear. Success in inventing a new organisational form, on the other hand, could enable an organisation to hold the competitive advantage in the longer term. Competitors would have some difficulties, or at least would take a long time to copy the new form completely.

As any environment is dynamic and always changing, it is always possible for the degree of organisation – environment fit to weaken. Miles and Snow (1984) emphasised that organisations must adjust their strategies, structures, or processes in response to environmental changes. However, some organisations might be unable or unwilling to adjust themselves to extreme environmental jolts. In such conditions, the deterioration of fit could actually lead to a misfit. Miles and Snow further stated that the external business environment was not the only cause of declining fit, but that an organisations' internal processes could instigate the decline. For example, the failure of managers to follow deliberate changes in strategies with appropriate structural and managerial adjustments could produce misfit. This could happen when the managers did not comprehend the strengths and

limitations of alternate organisational forms. They might develop voluntary changes in internal structure and management process without considering their effects on strategy and market responsiveness in the long run. Similarly, managers who did not fully understand the alternative forms might regularly make minor changes to accommodate demands for which the systems were not designed. However, as this happens over time, the changes might gradually unravel the entire system. These phenomena indicate that the organisation's fit may be quite fragile in relation to changes in the external environment and to unintended internal unravelling.

2.4 The External Environment

Organisations scan their business environment either consciously or unconsciously. There is an almost unlimited amount of environmental information or as Hambrick (1979), described it an "information avalanche". Managers cannot access and understand all of the environmental information affecting their environment because they may not have the cognitive capacity for such an information load. That would suggest that the concern of the manager will be directed towards the parts of the problem which are possible to solve, and not to the problem as a whole. (Cyrert and March, 1992; Hambrick, 1981). As a result, firms would direct their activities toward environmental information they perceive as important and that they believe might have an impact on their strategies (Farh et al., 1984). The point is that bounded rationality and the breadth of the external environment limit managers' ability to scan the whole environment (Garg et al., 2003). Bounded rationality stems from characterising that the executives as having limited understanding of their environments (Hambrick, 1979). Executives therefore should selectively pay attention to key criteria in making strategic decisions (Simon, 1997). Even with this

selectivity, however, efforts to monitor the external environment can take as much as one quarter of executives' time (Hambrick, 1981). Furthermore, several environmental events and issues may not be noticed by organisations nor considered important enough to require a response (Pfeffer and Salancik, 1978). Hambrick (1982) argued that executives can only act on those phenomena to which their attention is drawn

Before we go any further and in order to understand what information managers seek and why, it is very important to clarify and understand what the term 'environment' means. Duncan (1972) has written a very simple definition, which has been used widely. He has stated that: "Environment is thought of as the totality of physical and social factors that are taken into consideration in the decision-making behaviour of individuals in the organisation." (p.314) Andrews (1991) has presented another definition. He conceived of the environment "as that pattern of all external conditions and influences that affect its life and development." (p.47)

As we described earlier, analysing the whole environment is an impossible task because of its complexity. Therefore we need to identify the environmental factors that make up the external environment. The literature has identified two broad environmental segments to facilitate the study of environmental scanning behaviour, since every factor may have a distinct influence on decision-making (Fahey and Narayanan, 1986; Jauch and Glueck, 1988; McKiernan, 2003). (See Figure 2.2). It also has been indicated that these areas create different levels of strategic uncertainty for executives with customer, competitor, and economic factors having the highest levels of uncertainty (Daft et al., 1988).

An organisation's environment can be divided into two layers: the microenvironment involves factors in which there is direct impact on the organisation. Such factors include customers, competitors, suppliers, the threat of

new entrants and product substitute. The microenvironment includes all aspects of the environment that are relevant to organisational goal setting and goal achievement (Elenkov, 1997b; Sawyerr et al., 2000; Thompson, 1967; Worthington and Britton, 1997). The macro-environment on the other hand, includes factors that indirectly affect organisations. For example, political, economic, socio-cultural, technological, legal and governmental aspects. These factors affect a wide variety of businesses and can derive not only from local and national sources but also from international developments (Worthington and Britton, 1997).

Figure 2-2 Environmental Factors
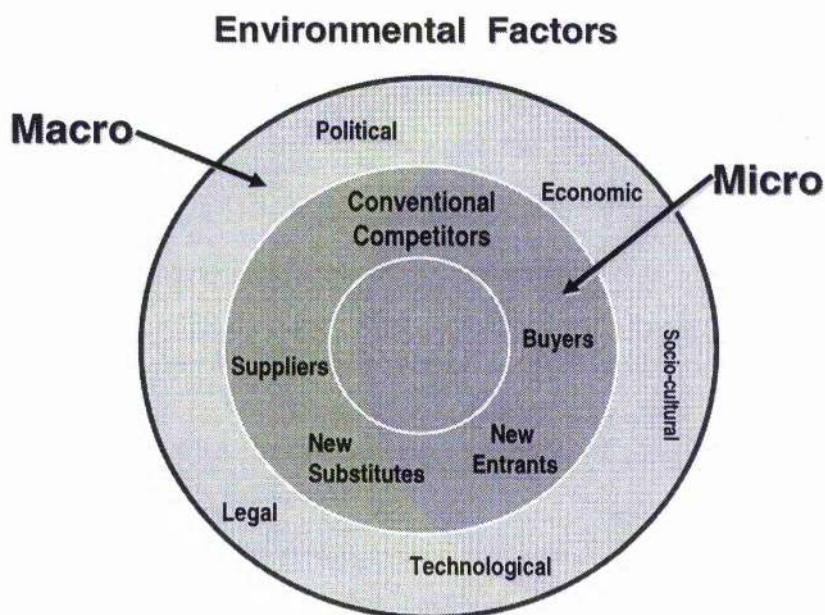
Source: Mckiernan 2003, lecture notes, base on http://www.st-andrews.ac.uk/~mn1001/lectures/IE/MN1001_files/frame.htm

The strategic management literature has offered three different dimensions to view the environment. The first dimension *-the objective environment-* suggests that an organisation is embedded within an external environment which exists independently from the organisation (Aldrich 1979; Chandler 1962; Child 1972;

Emery and Trist 1965; Thompson 1967). These authors assume that the organisation and the environment are real, material and separate. Top managers search for opportunities and threats in the environment (Smircich and Stubbart, 1985). Therefore, they must conduct an environmental analysis by scanning the objective, existing environment for opportunities and threats. According to Smircich and Stubbart (1985) the objective environment view emphasises recognition of what already exists. The second dimension is known as *the perceived environment*, which also considers the environment to be external, real, and material. However, the perceived environment arises where an objective environment is subject to varying interpretations which may or may not be correct (Pitkethly, 2003). The challenge therefore for strategists is to minimise the gap between their flawed perceptions and the objective environment (Smircich and Stubbart 1985). Finally, Smircich and Stubbart (1985) have gone beyond the usual debate between the objective and subjective environment, and have suggested that environments are, in fact, 'enacted' by strategists. *The enacted environment* model sees the world as an ambiguous field of experience. According to these authors, "In an enacted world . . . there are no threats or opportunities out there in an environment, just material and symbolic records of actions". In addition, strategists are seen, not as perceiving the environment, but of making the environment. Smircich and Stubbart see three prerequisites for strategists dealing with an enacted environment, namely:

1. Abandoning the perception that organisation should adapt to their environments;

2. Rethinking constraints, threats and opportunities;

3. Thinking differently about the role of strategic managers.

They make the point that interpretive perspective defines a strategist's task as "an imaginative one, a creative one, an art. In the chaotic world, a continuous stream of

ecological changes and discontinuities must be sifted through and interpreted" (p. 730). According to Pitkethly (2003) in this view

> "...the idea that firms should adapt to their environment is potentially erroneous, since the firms themselves create the environment. Instead, considering the environment involves creating original and distinctive environments and metaphors as much as distinctive competences or strategies" (p. 228).

2.5 What is Environmental Scanning?

To better understand organisations, it is useful to see them as open systems. In accordance with open system theory, organisational survival and growth depend on an organisation's ability to adapt to its environment. In other words, decision-making, behaviour, and progress should not be appraised in isolation from the environmental forces which impinge upon the organisations (Thompson, 1990). The open system approach emphasises the environment as "the ultimate source of materials, energy and information, all of which are vital to the continuance of the system" (Scott, 1987, p.91). Daft and Weick (1984) considered that an organisation's function, as an open system, is to seek information about the external environment and develop processes to identify trends, events, competitors, markets and technological development that ensure their survival. The model of the organisation as an open system is a particular focus for research in the organisation-environment relationship (Hambrick, 1979).

In modern environments, organisations face external factors that change dramatically in every area outside the boundary of the organisation, such as government regulation, economic conditions, competition, technology, markets and political and socio-cultural developments. Hence, competitive advantage in the modern business context can only be created with a sophisticated understanding of

these changes and developments. The environmental conditions facing firms in the global economy today differ from those firms previously faced. Technological changes and the explosion of information-gathering and processing capabilities demand more timely and effective competitive actions and responses (Fombrun, 1992). The rapid sociological changes occurring in many countries affect labour practices and the nature of products demanded by increasingly diverse consumers. Governmental policies and laws affect where and how firms choose to compete (Ricks and Squeo, 1999). Some examples of the environmental factors that need to be monitored by organisations are illustrated in table 2-1.

Table 2-1 The External Environemnt

Environmental Factors	Example
Government regulation	Changes in tax law, special tariffs
Socio-cultural	Demographics, ethnic mix, gender roles
Economic condition	Interest rate, unemployment trends, gross domestic product, World Trade Organisation (WTO) policies
Competition	New services offered by competitors, attempts at differentiating products
Technology	Integrating new technology
Market	Market potential, clients' need and preferences

Organisations' abilities to compete and survive can depend on monitoring and adapting to environmental changes (Boyd and Fulk, 1996). Therefore, the need for environmental information with regard to the major opportunities and threats are likely to arise (Drucker, 1995). Choo (1996) states that, "The critical dependencies between an organisation and its environment requires the organisation to be constantly alert of changes and shifts in its external relationships." (p. 328)

Organisations scan the environment to gain knowledge about changes in the relevant environmental forces through the information-collection practices of executives. This process of learning and tracking events and trends in the external environment – or environmental scanning- is defined in various ways. The earliest studies of environmental scanning have considered scanning as the process of gathering information for effective strategic formulation (Aguilar, 1967; Culnan, 1983; Fahey and King, 1977; Kefalas and Schoderbek, 1973). Subramanian et al., (1993) defined scanning as "the process by which an organisation collects environmental information, that it then utilises in its strategic management process" (p. 272). Other researchers extend the definition of environmental scanning to include aspects of learning and searching for external information For example, in putting more emphasis on the learning dimension Hambrick (1979) defines environmental scanning as "the process by which executives in organisations learn of events and trends outside the organisation" (p.15).

Another perspective on environmental scanning emphasises an organisational interpretation factor where information from the environment is given meaning by the decision-maker (Daft and Weick, 1984). They proposed that the learning process as reflected in Figure 2-3 comprises three stages.

Figure 2-3 Stages of Learning Process
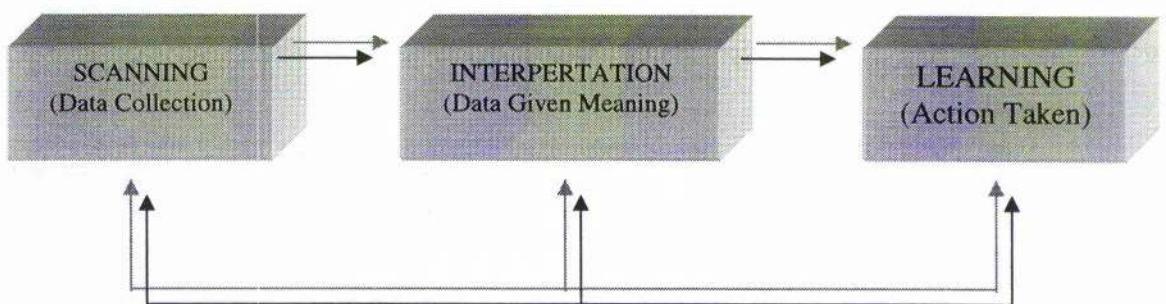
Source: Daft and Weick (1984) P. 286

The distinction between information collection and meaning arises from the fact that information-gathering alone does not ensure better understanding of the environmental changes. For example, an increased involvement of women in the Saudi labour force may only have an influence on large food chains if executives or decision-makers attribute meaning to this particular trend and the impact it may have on the firm's activities (e.g. more demand for frozen food). Choo (2000) on the other hand, investigated environmental scanning from the point view of the organisational learning. His study aimed at building the intelligent organisation, a so-called learning organisation, which is adept at creating, acquiring, organising, sharing and applying knowledge. He argued that scanning is essential for the learning organisation since the most valuable resource of the organisation is its information that is processed into knowledge and new knowledge is the starting point of learning. Managers, therefore, need to use information not only for decision-making and making sense of changes and developments in their external environment but also to generate new knowledge which can be applied to design new products and services, enhance existing offerings and improve organisational processes (Choo, 1998). Choo (2000) proposed a framework for information management with three perspectives:

❑ Information needs: The focus of scanning in business organisations is on market-related factors of the environment,

❑ Information seeking: A wide range of sources is used, but personal sources are preferred and

❑ Information use: Scanning information is used to drive strategic planning and organisational learning.

However, it was Aguilar's (1967) landmark study which defined the process of scanning as "scanning for information about events and relationships in a company's outside environment, the knowledge of which would assist top

management in its task of charting the company's course of action" (p.1). Hence scanning is learning about events and trends outside the firm in order to form relationships between them. The crucial importance of scanning stems from integrating this information into the organisation's decision-process to adapt to the environment. Scanning is also recognised as the first step in the process of linking strategy and environment (Aguilar, 1967; Daft et al., 1988; Hambrick, 1982). According to Aguilar (1967), although not all of the information from scanning will have an impact on making a strategic decision. Yet any piece of such information could influence the decision-making process. Scanning includes both looking at information and looking for information. It involves not only searching for a particular set of information but also being exposed to information that could impact the company (Auster and Choo, 1994). Aguilar (1967) has characterised four modes of scanning in the scanning process to explain how managers may look at and search for information from their external environment: 1) in "undirected viewing" there is no goal or specific purpose in mind where the individual is exposed to information. Moreover, the individual is not fully aware of what issues might be raised. Huge amounts of information are scanned using a variety of sources. However, most of the information is quickly dropped from attention. Undirected viewing alerts the individual that some changes have happened and that there is something to be learnt. 2) In "conditioned viewing" the search for information is directed toward specific identified areas of information, and it provides a signal warning that more scanning should be achieved. There must be an evaluation and assessments of the significance of the information that is encountered. 3) "Informal search" is an unstructured activity, yet the individual actively looks for specific information to improve the knowledge of a specific issue. 4) "Formal search" means that there would be a deliberate effort in order to obtain

specific information or information relevant to a specific issue. The search is structured and formal.

Another way of looking at scanning was described by Fahey and King (1977). Whilst Aguilar's approach is largely theoretical, Fahey and King's account of how firms scan their environment is firmly grounded in empirical data. Fahey and King (1977) studied the nature and the process of scanning in twelve large U.S. firms. From their data they developed a scanning framework and conceptualised scanning as falling into one of three models: Irregular, Regular, and Continuous. Each model represents a different level of formality and sophistication. The focus of the irregular model is ad hoc and driven by specific events that are generally short-term reactions to a crisis. The system focuses on the past and/or unexpected current events. In the regular model, scanning is guided by the need for environmental information in a comprehensive and systematic method. Whatever issues are considered very important to the organisation will be reviewed on a regular basis. The continuous model is structured and formal to monitor various environmental issues. This model is integrated into strategic planning systems. Table 2-2 presents a complete description of this scanning model framework.

Table 2-2 Scanning Models

	Irregular	Regular	Continuous
Media of scanning activity	Ad hoc studies	Periodically updated studies	Structured data collection and processing systems
Scope of scanning	Specific events	Selected events	Broad range of environmental systems
Motivation for activity	Crisis initiated	Decision and issue oriented	Planning process oriented
Temporal nature of activity	Reactive	Proactive	Proactive
Time frame for decision impact	Current and near-term future	Near-term	Long-term
Organisational makeup	Various staff agencies	Various staff agencies	Environmental scanning unit

Source: Fahey and King (1977) p. 63

2.6 The Purpose of Environmental Scanning

It is widely accepted within the strategic management literature that those organisations, which scan and interact with their external environment effectively, will achieve better success than those who do not (Boyd and Fulk, 1996; Elenkov, 1997a; Hambrick, 1982; Olsen et al., 1994; Pfeffer and Salancik, 1978). Organisations scan environments in order to adapt their strategies thus avoiding surprises, gaining competitive advantage, identifying threats and opportunities and improving their general positions (Ansoff and McDonnell, 1990; Hambrick, 1982, Sutton, 1988). Scanning is used to identify trends affecting the organisational mission, which is essential for developing an overall positioning strategy (Bourgeois, 1980).

Choo, (1999) pointed out that environmental scanning will offer organisations better understanding of external forces in order to maintain or improve their place in the future. Scanning could produce awareness of environmental conditions and knowledge about the organisation's strengths and weaknesses (Yasai-Ardekani and

Nystrom, 1996). However, they make it very clear that organisations should first have an effective scanning system to put together such awareness and knowledge. The increasing rate of competition, environmental uncertainty, and globalisation indicates that firms should scan their environment broadly and regularly. Environmental scanning will provide:

c) Useful information for decision-making in response to perceived variability where changes in the environment create a large number of potential outcomes, thus decreasing confidence in predictions (Boyd and Fulk, 1996);

d) the identification of new product-market opportunities (Bourgeois, 1980);

e) the identification of surprises or strategic issues which may have a significant impact on the organisation and requires action on the part of an organisation (Fahey and Narayanan, 1986);

f) furnish executives with the data they need to make an interpretation of their environment (Smirich and Stubbart, 1985); and help reduce uncertainties in the external environment (Cyrert and March, 1992).

Other reasons for seeking information about organisations' external environment have been identified in Mintzberg's (1973) study of managerial activities. He has shown that the manager's job as a monitor enables him to be aware of external events and trends. The manager searches for information from different sources "in order to detect changes, to identify problems and opportunities, to build knowledge about his milieu".

Responses to a survey of Fortune 500 firms that were asked to identify the major payoffs of the firm's environmental analysis indicated seven types of payoffs:

☐ Increased general awareness of environmental changes.

☐ Better strategic planning and decision-making.

☐ Greater success in governmental issues.

☐ Ability to conduct higher quality industry and market analysis.

- ☐   Better performance in foreign countries.
- ☐   Better energy planning.
- ☐   Improvement in diversification and resource allocation (Diffenbach, 1983).

Many studies suggested that the strategic use of environmental scanning would enhance the firm's financial performance and productivity (Daft et al., 1988; De Woot et al., 1977; Elenkov, 1997a; Newgren et al., 1984). However, care should be taken in drawing any concrete conclusion from these studies, since performance enhancement could also attributable to other factors.

In summary, the relationship between an organisation and its environment is one of the major areas of concern in strategic management and organisation theory. In fact, organisations increasingly invest much of their resources in understanding changes, taking place in a highly uncertain business environment, that could shape their future and influence their success or survival. Despite the accumulated researches that has shown how essential environmental scanning is for an organisation's success, very few firms use a structured, formal, systematic approach to scan their environments (Fahey and King, 1977; Jain, 1984; Keegan, 1974; Subramanian et al., 1993).

We can conclude here that studies have shown that several factors drive organisations to exploit environmental scanning. These factors include the desire to gain fast and accurate information about the environment in order to increase their ability to adapt to the requirements of the environment.

2.7 Perceived Environmental Uncertainty

There is general agreement among researchers that the environment is a major source of uncertainty for executives or managers who are in charge of scanning. Uncertainty is the difference between the amount of environmental information available and the information required (Galbraith, 1973). In other words, it is a lack

of information about future events, so that alternatives and their outcomes are unpredictable. Duncan (1972) proposed that environmental uncertainty can be defined by three components: 1) the lack of information regarding the environmental factors associated with a given decision-making situation; 2) not knowing the outcome of a specific decision in terms of how much the organisation would lose if the decision were incorrect and 3) individual inability to assign probabilities to the outcome of these decisions. According to Koberg (1978) decision-makers will encounter uncertainty when they perceive unpredictable changes in their environment. Based on the early findings of organisational researchers (Emery and Trist, 1965; Luce and Raiffa, 1957; Thompson, 1967), Duncan (1972) attempted to describe perceived uncertainty in two dimensions. 1) Complexity: "the simple-complex dimension" refers to the number of environmental factors that are considered valuable to the organisation, and the degree of interdependence among these factors. Complexity is linked, according to Boyd and Fulk (1996), to the ability of executives to predict the effects of different environmental issues on the firm. 2) Dynamism: "the static-dynamic dimension" refers to the extent to which these factors are changing over time, thus making prediction difficult for the decision-maker. He concluded that total uncertainty would increase when decision-makers face complex and dynamic environments. Figure 2-4 shows the degree of difficulty firms may encounter.

Figure 2-4 Environmental States
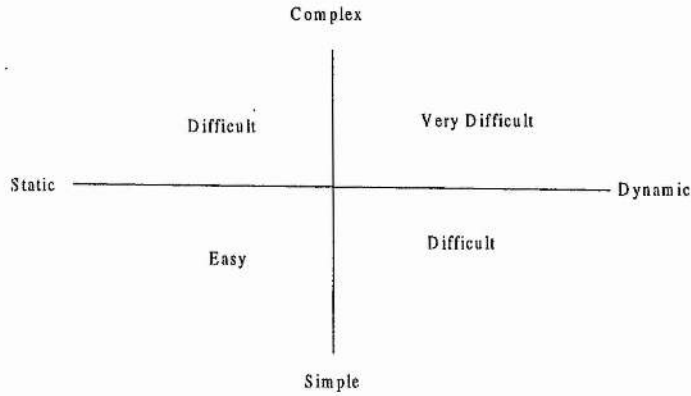
Executives facing a complex but static environment need less effort to understand the environment and the degree of environmental scanning activities needed is limited to a few and specific environmental elements. In addition, in complex and dynamic environments, executives find environmental factors very difficult to understand. Scanning in this case will be extensive. However, the literature suggests that executives invest less effort in scanning the environment because the external information becomes less useful when the environment is complex and dynamic (Boyd and Fulk, 1996). A static and simple context will create a stable environment where trends and events outside the firm can be defined and their impact understood. Finally, in dynamic but simple environments scanning activities increase but with little need for additional analysis.

External events as perceived by executives play a very important role in scanning behaviour. Following Duncan's concept, Daft et al., (1988) introduced the concept of perceived strategic uncertainty. They argued that the two dimensions that have been provided by Duncan do not lead to scanning unless environmental events or factors are perceived to be important to organisational performance. Perceived

strategic uncertainty is measured by a combination of uncertainty and importance (see figure 2-5). They conclude that chief executives increase scanning activity when they perceive the environment as strategically uncertain.

Figure 2-5 Environmental State and Importance of Environmental Events

High importance

1. Known   2. Unknown

Low Uncertainty ——————————————————— High Uncertainty

3   4

Low Importance
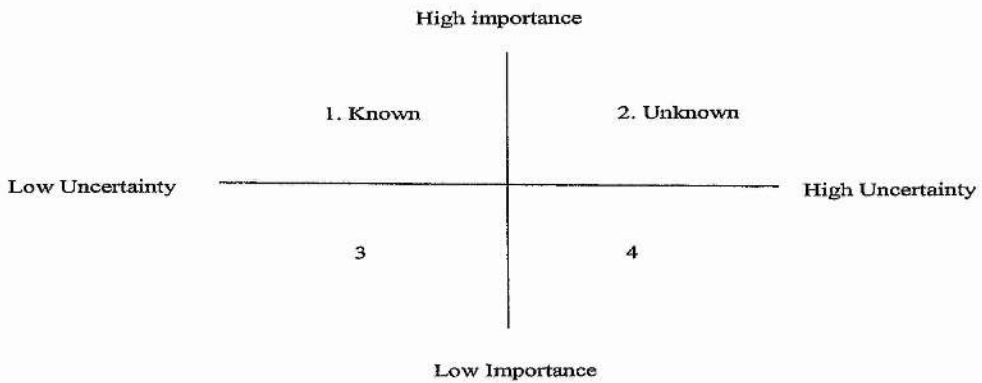
In some contexts environmental events can be perceived as very important, whilst the environment itself is regarded as stable or certain (see 1.). However, despite certainty, executives will invest substantial effort to scan the issues. With regard to the importance factor, it has been found that the perceived importance of environmental events by itself will lead to extensive scanning (Boyd and Fulk, 1996; Daft et al., 1988). On the other hand, when environmental events or trends are highly uncertain, whilst being perceived as important to firms' performance, active information- seeking is predicted (see 2). A scenario planning to formulate a description of two or more future issues could be useful in this situation for uncertainty reduction. If the environment is perceived as uncertain and the issues it raises as unimportant, executives need little effort to search for environmental information since problems and issues can be predicted in advance. It should be noted in this case that firms need to be ready for unexpected events (see 3). Finally, in a situation in which the environmental events are highly uncertain but with little

or no implications for the firm's performance, scanning activities will be a low priority for executives (see 4).

2.8 Environmental Analysis Techniques

The literature in strategic management has identified several analytical techniques to help decision-makers examine the changing business environment in an attempt to identify the most important trends, assess the probability of those trends actually occurring and determine the likely impact on the organisation if the trends occur. The following sections will provide a brief overview of some of these techniques:

2.8.1 The Porter Five Forces Model

The competitive business environment is a complex system of interactions. Porter (1980) developed a framework for analysing the external environment through an examination of the competitive nature of the industry. He identifies the need to consider those factors both internal and external to the firm. The former comprises such things as the strengths and weaknesses of the firm and the culture or values of management. The external factors consist of opportunities and threats and the expectations of various external stakeholders. According to Porter (1980, 1990) there are five key influences within a firm's external environment:

1. Intensity of rivalry among competitors;

2. threat of new entrants;

3. bargaining power of suppliers;

4. bargaining power of buyers; and

5. threat of substitute products or services (see Figure 2.6).

Figure 2-6 Porter's Five Forces

Threat of new entrants

Bargaining power of suppliers

Degree of rivalry among competitors

Bargaining power of buyers

Threat of substitute products or services
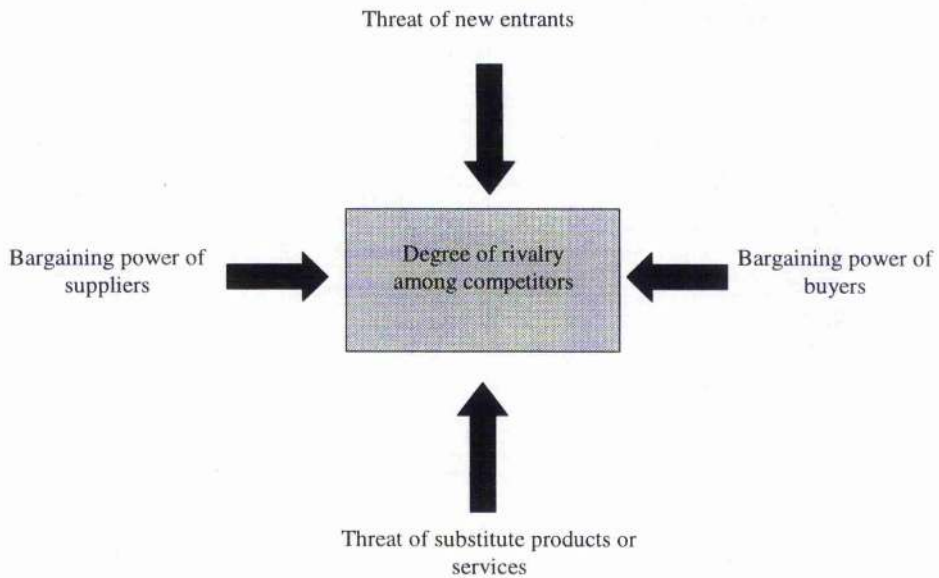
Source: Porter (1980), p.4

Since the model of the Five Forces was developed it has become an important tool for analysing an organisation's industry structure in strategic processes. However, it has some major limitations in today's market environment. Its main weakness results from the historical context in which it was developed. In the early eighties, cyclical growth characterised the global economy. Thus, primary corporate objectives consisted of profitability and survival. A major prerequisite for achieving these objectives has been optimisation of strategy in relation to the external environment. At that time, development in most industries was fairly stable and predictable, compared with the 21st century dynamics (Downes and Mui, 1998). In addition, Mintzberg (1990a) pointed out that the ideas of Porter suffer from a narrow strategic and analytic focus. He primarily addresses the economic influences affecting the firm and fails to appreciate the social and political context in which it operates. Finally, Porter's view of industry structure is primarily static

as opposed to dynamic. This static framework failed to take full account of competitive interactions among firms by relegating competition to a mediating variable that links industry structure with profitability. The Five Forces analysis offers little insight into firms' choices of whether to compete or cooperate, of sequential competitive moves, and of the role of threats, promises and commitments (Grant, 1998; Pitkethly, 2003). Despite all the criticisms, Porter's Five Forces model remains perhaps the most influential model in the field of strategic management.

2.8.2 SWOT Analysis

A key element of strategic option formulation is the matching of organisational strengths and weaknesses with opportunities and threats which exist in the business environment. SWOT analysis is widely recognised in the strategic management literature as a systematic way of achieving this end. It is a technique specifically designed to help identify suitable business strategies for an organisation to follow. The decision rule used is to choose a strategy that capitalises on the firm's strengths, fixes its weaknesses, exploits its opportunities, and defends or neutralises threats (Barney, 2002). According to Andrews (1991) SWOT analysis is a tool for auditing an organisation and its environment. In the SWOT model, strategy needs to match the firm's internal resources and distinctive competencies with environmental opportunities and threats, so as to better meet overall goals and objectives.

However, SWOT is unsuited to the more diverse and turbulent markets, which characterise today's world (Hill and Westbrook, 1997). They added that although SWOT analysis is still useful, it can no longer serve as a primary model to guide strategic choice. Mintzberg (1994) also suggests that SWOT is seldom effective

because it is rooted in an organisation's current perceptions. Nevertheless, SWOT is still advocated as a powerful planning tool in all types of business activity.

2.8.3 PEST Analysis

The acronym PEST, also sometimes called STEP, STEEP or PESTLE analysis, is a tool used to explore the macro-environmental factors: Political, Economic, Social and Technological; the second E stands for Ecological and Environmental aspects in STEEP and PESTLE, while the L in PESTLE stands for Legal. Such factors are beyond the firm's control and sometimes present themselves as threats. PEST is a useful environmental analysis technique, in terms of providing a readily understandable framework of broad dimensions under which homogeneous groups of variables or drivers can be classified (Burt et al., 2003). Yet, these authors outlined that the main problem with PEST, is that

> "...there is no exploration leading to understanding of the dynamic relationships and interactions between the variables. Changes in one of the variables, at one level in the environment, will invariably impact other variables and have domino-like ramifications across the other taxonomic headings. For example, global economic developments will impact the other three variables of the PEST framework to a greater or lesser degree, all of which will subsequently effect developments in both the contextual and task environments over time" (p. 13)

2.8.4 Scenario Planning

Scenarios are constructed stories about the future. Each scenario or story offers a distinct, plausible world. It is important to note that the purpose of scenario planning is not to predict the future; but rather, to have purposeful stories about how the contextual environment could unfold (Burt et al., 2003). Scenarios can be viewed "as postcards that describe business conditions surrounding the organisation in the future and sent back to you by a future analyst so that you can read them now" (MacKay and McKiernan, 2002, p. 3). Scenarios are not concerned with

getting the future 'right', rather they aim at challenging current paradigms of thinking and broadcast a series of stories in which attention is directed to aspects that would have been otherwise overlooked (Shoemaker, 1995). This technique, which often includes 'best case, 'worst case', 'most likely case' predictions, can help decision-making prepare for the inevitable major changes on the far horizon.

Scenario planning differs significantly from traditional approaches of strategic planning, which have been characterised by Van der Heijden (1996), as they rely on rational, linear forecasting and, therefore, are not able to take account of that which is uncertain and unpredictable. One critical component of scenario planning is that it is a tool for inspiring organisational learning. Van der Heijden (1996) sees the scenario planner as the person (or group of people) involved in promoting and facilitating the learning process. He introduced the idea of strategic conversation as part of the context of scenario planning. This has been defined as the general process by which people influence each other and longer term patterns in institutional action and behaviour. This is the sum-total of all exchanges, formal and informal, taking place between members of the organisation concerning aspects of the position of the organisation in its external environment, and how this can be changed from the inside out. However, because of limited expertise, scenario planning is unavailable to many organisations, and the intensity of involvement, attention to details and the scope of the methodology have made scenario planning an activity in which only the most financially secure firms can participate (Wack, 1985).

To summarise, we have described some of the analytical techniques that firms can utilise to examine the changing business environment in order to identify emerging issues that may have potential implications for their business. These techniques seem to be helpful tool for managers making strategic decisions in today's highly

uncertain, turbulent business environments. Although the future will always be uncertain and unpredictable, it can be imagined and managed by using the appropriate techniques. Managers, however, need a framework for dealing with the various kinds the external factors that change dramatically in every area out with the boundary of the organisation. These techniques can serve as such a conceptual framework for managers. They can be extremely useful when carefully chosen in the light of the situation and when properly used (Hussey, 1997). These analytical tools perform an essential support role within the strategic management process (Dyson, 1990). They can be a powerful tool that contributes to creative thinking, strategy formulation, contingency planning, and risk assessment (Orndoff, 2002). They perform a number of different functions, sometimes simultaneously (Langley, 1991; Day, 1986). These include information generation, providing a structure for analysis, encouraging communication of ideas, assisting with coordination and control, and also symbolic purposes (Clark, 1997). Further, they may also aid the presentation of complex issues, and may be seen as valuable communication devices, on top of the role of analysis (Hussey, 1997). Scenario planning, for example, can be thought of as a vehicle for envisioning where the world could go so that we can learn in time to do something different (Schwartz, 1998). Scenarios can also generate a distinctive kind of knowledge and promote organisational learning; they provide a process for enhancing decision makers' understanding of how to prepare for and manage change; they increase the comprehension and acceptance of uncertainty by engaging all concerned in creative thinking; and they demonstrate to "stakeholders" in an organisation how they and it could thrive in future environments that may be strikingly different from the present (Ratcliffe, 2000). It is important to note however that tools and techniques do not make strategy but that they can serve a useful purpose in presenting information in different ways so that

new insights can be gained (Hussey, 1997). Hussey (2001) warns that there are many things that can go wrong in the analytical process. These include:

1) Failure to understand that analysis may be influenced by behavioural considerations;

2) Failure to undertake the right analysis;

3) Problems with tools or techniques and

4) Misuse of a tool or technique, or otherwise corrupting the methods used.

He reminds us that techniques are often used in a way that confirms prejudices, and imprisons the organisation: they should be used to help free thinking, not to constrain it (Hussey, 1999)

So, despite their potential values as important tools for executives, these techniques are not without their limitations. Most of these environmental analysis techniques that have been developed are based on the assumption of an environment which is 'out there' and can be analysed objectively and rationally, thus allowing strategists to identify threats or opportunities inherent in the environment. This perspective views that the environment is real and material. According to Smircich and Stubbart (1985), environmental analysis under the latter assumption involves finding things that already somewhere waiting to be found. On the other hand, they propose an enacted environment approach, which views strategist's task as an imaginative one, a creative one, an art (Smircich and Stubbart, 1985). In addition, they suggest that trends are complex functions of multilateral behaviour, making prediction of future outcomes problematic. Hence, many of these techniques, in particular, Porter's Five Forces, SWOT and PEST, cannot accurately make sense of rapidly changing environments as they are describing the environment in the present. Critiques also point out that some of these tools were developed at a time when environmental patterns and trends were relatively stable and internally

consistent and the intentions of those using the tools had to do with developing precise and accurate forecasts of those trends. New economic laws have emerged and other drivers started to transform markets. As we enter the 21st century, firms find themselves facing a very complex and uncertain world. Nevertheless, that does not mean that these techniques have become invalid. We need to apply them with the knowledge of their limitations in mind and to use them as a part of a larger framework of management tools, techniques and theories. It is also important to note too that, tools and techniques are not an end in themselves. Only when they are used to help in what is mentioned above do analytical tools offer real value. Moreover, they require continuous improvement to accommodate the turbulent nature of the business environment.

2.9 Perceived Environmental Uncertainty of Environmental Factors

Environmental scanning involves discovering and monitoring important events and issues outside the organisation and evaluating their likely impact on corporate decisions (Farh et al., 1984; Hambrick, 1982; Preble et al., 1988). We discussed earlier that individuals in organisations do not have the capacity and the time to search all factors in the micro and macro environments. According to Garg et al., (2003) "executives must selectively allocate their attention: their time is scarce; myriad external and internal data are available to them and these data typically present complex, hard-to-interpret phenomena" (p.725).

Researchers have examined whether the microenvironment or the macro-environment is seen as more important to the organisation, and which has more impact on scanning activities, as assessed by how much resources are allocated for collecting environmental information from each element (Sawyerr et al., 2000). The degree of importance of key variables in either the micro- or macro-

environment in a company can aid executives in directing the firm's resources (e.g. time, money) toward those important variables.

In early studies on scanning, Aguilar (1967) and Kefalas and Schoderbek (1973) found that market information was considered more important than other environmental elements. Aguilar (1967) divided the business environment into five areas according to managers' concerns: market, technical, broad issues, acquisition leads, and other issues. He found that market information was the most important factor accounting for 58 per cent of all responses, followed by technical information accounting for only 18 per cent. Substantial support for Aguilar's findings is provided by Kefalas and Schoderbek's (1973) study. They investigated 40 executives from two industries: farm equipment and meatpacking. The study showed that the market factor received the greatest scanning attention by executives of all functional specialties.

Further research has also revealed similar results, which indicates the importance of the different elements that compose the micro-environment. According to Johnson and Kuehn (1987), managers put most effort into obtaining market-related information. On the other hand, information from the macro-environment, particularly the government sector, received less attention by the respondents. This may be due to the nature of the sample. Of 168 managers and owners who participated in the study, 132 were in small firms. Many small firms cannot afford to employ specialised environmental scanning staff similar to the staff in large firms. Also, they have limited ability t

o influence the environment (Smeltzer et al., 1988; Yasai-Ardekani and Nystrom, 1996). The results of these studies suggest that market-oriented information is the focus of executives in their search for environmental information.

Daft et al., (1988) and Auster and Choo (1993) also investigated the level of importance of the micro and macro environments with respect to perceived environmental uncertainty. They provided support for the finding that elements in the microenvironment are more important, uncertain, and strategic to firms. Daft et al., (1988) interviewed 50 CEOs using the concept of perceived strategic uncertainty. They proposed that complexity and dynamism alone are not enough to measure the perceived environmental uncertainty of CEOs. In addition, they suggested that the importance of external events or trends in each different environmental factor will impact on scanning practices. The study concluded that customer, economic, and competitor factors create more strategic uncertainty than the technological, regulatory, and sociocultural sectors. They noted that the economic factor ranked second in terms of perceived uncertainty and that it was part of the macro-environment. The overall results, however, did not reveal significant differences between the strategic importance of the micro and macro environment. Auster and Choo (1994) found that three factors in the microenvironment (technological, customers, and competitors) were perceived as more strategically uncertain than the three sectors constituting the macro-environment (regulatory, economics, and socio-cultural). Table 2-3 shows a comparison of the findings of Daft et al., (1988) and those of Auster and Choo,(1993) regarding the rating of environmental factors with respect to the degree of perceived strategic uncertainty.

Table 2-3 Rating of Environmental factors – Comparison of Daft et al. And Auster and Choo

Environmental Factors	Daft et al., (1988) study rank	Auster and Choo (1993) study rank
Customer	1	1
Technological	2	4
Competition	3	3
Regulatory	4	5
Economic	5	2
Sociocultural	6	6

Source: Auster and Choo (1993) P. 197; Daft et al., (1988) P.132.

Both groups of executives considered customer and competitive information as the most important factors. However, there are interesting and fairly sharp differences between the two groups with regard to the other factors. One significant difference lies in the score for technological information. Executives in Auster and Choo (1993) seemed to consider technological elements their prime source of environmental uncertainty, while those elements ranked very low for executives in the Daft et al., (1988) study. One possible explanation according to Auster and Choo (1993) is that "the 'high-tech' character of the telecommunications industry, in which technological innovation proceeds at a rapid pace, and in which technological advancements can radically alter products and services that constitute the market, helps to explain why chief executives in this industry perceive the technological environmental factor to have the highest strategic uncertainty" (p. 229). More recently, McGee and Sawyerr (2003) and Xu et al., (2003) found that factors in the micro-environment create more strategic uncertainty than those of the macro-environment. Subramanian et al., (1993) identified economic and technological factors as the most important environmental factors in large U.S.

companies. The reason why market- related factors were not considered as having a significant impact on scanning activities may be due to the classification of the external environment used in this study. They only included factors that were part of the macro-environment environment. The time at which the survey was carried out, according to Subramanian et al., (1993) may have been the reason behind economic conditions being rated as the most important environmental factor. During this period there were increasing rates of layoffs and plant closures. On the other hand, two reasons may contribute to the technological environment being identified as the second most important factor by respondents. First, at that time the technological factor had experienced a great deal of dynamism where the world was exposed to the myriad applications of computers. Secondly, manufacturing firms or firms in the service sector where technology is one of the most essential factors of success made a large part of the sample.

Despite the fact that factors in the microenvironment are seen as more uncertain and important for organisations than factors in the macro-environment, the literature also provides evidence that organisations scan their macro-environment for information, and that factors within that environment create uncertainty for executives. Executives' focus on the microenvironment environment raises serious questions. On a day-to-day basis firms are closely associated with elements of the micro-environment environment (e.g. customers, suppliers). Therefore, the components of the micro-environment environment ought to be known and predictable to a certain extent. Surprises and unpredictabilities ought to derive from aspects of the macro-environment since executives have no control over them. This implies that some, if not all factors in the macro-environment are critical to the firm's activities and, thus, it is important to enlarge the focus of executives' scanning to include the complete range of regulatory, political, economic and social

issues in their scanning practices. In line with this argument Lenz and Engledow (1986) suggested that the firm's environment "should be subject to wide-angle scanning by a corps of analysts that goes beyond factors in and around current product line thrust" (p.70). There are two reasons that may explain executives' focus on the microenvironment. First, it may be easier to scan and understand the microenvironment since firms are in direct contact with it. Secondly, executives are probably driven by immediate or short-term goals over long-term ones. Given the importance of long-term issues associated with the macro-environment, there is a risk that firms may miss opportunities and /or fail to identify threats by ignoring significant elements of their environment.

It is important to recognise that some empirical evidence suggests that the industry, or institutional setting, have an impact on the scanning of various sectors. Hambrick (1982) surveyed the relationship between scanning activities, strategy, and executives' role in three industries: higher education, health care, and life insurance. He noticed that "organisations within an industry generally conduct very similar environmental scanning, regardless of strategy". For example, defenders and prospectors in higher education institutions seek to scan the environmental sectors in the same way.

Companies in the global environment (multinational firms) considered elements in the macro-environment to have more impact on organisational operations. O'Connel and Zimmermann (1979) compared practices of scanning the international environment in a survey of 50 U.S. and 50 European executives. Executives rated economic and technological sectors as having the most impact on today's and future strategic decisions. Executives also scanned for information from political, ecological, and socio-cultural sectors. Similar results were found in the Preble et al., (1988) study, which focused on 95 multinational firms that

operated in at least three foreign countries. Ninety per cent of the respondent firms rated the economic environment as high in importance, while sixty-three per cent considered competition as more important. The study showed that while the economic environmental domain was rated as high in importance by most of the respondents, competitive, political, legal, and technological factors respectively were also considered key by one-half of the executives.

Several reasons may lead firms operating in an international environment to scan with wider range. The conditions in global markets vary among countries. The nuances of competition are complex and the changes in climates are subtle and rapid (Ohame, 1989). Managers in an international arena face fundamental differences between the ways in which companies are managed in every country. These differences include cultural factors, and variations in laws and regulations (Chan, 1994; Ohame, 1989). In fact, multinational companies face more challenges. These include new demands by host country governments and publics, fluctuating currencies, as well as political revolutions and expropriation by host countries. In light of the above discussion, we suggest that firms operating in a global environment need to design their scanning practices in accordance with the context and demand of the international business environment.

Since the above-mentioned findings refer to scanning practices in the context of developed countries and multinational firms, they may not necessarily be applicable in developing countries, or some of them may have less weight. Scanning research that focused on developing countries provided some support for the importance of factors in the macro-environment. However, there were mixed patterns of results emphasising the importance of both the macro- and micro environment. Sawyerr (1993) examined the scanning activities of 100 CEOs in the Nigerian manufacturing sector. In spite of ranking customer/market factors first in creating the highest level

of uncertainty, she found that economic and political/legal elements ranked second and third. Elenkov (1997) concluded that managers in Bulgaria perceived the political /legal environment as the most strategically uncertain factor. These results can be explained if the nature of the general environment in developing countries is taken into account. Considered the most important element of the external environment, the political environment of developing countries is highly unstable and therefore executives in these countries will face higher levels of uncertainty in the political arena (Elenkov, 1997b; Sawyerr, 1993).

2.10 Environmental Uncertainty and Amount of Scanning

As the environment becomes more turbulent, firms have had to increase their ability to scan the environment to gather information that can be used to anticipate or respond to environmental changes (Keegan, 1983; McKee et al., 1989). Firms put a great amount of efforts into their environmental scanning activities in terms of 1) the amount of time involved, 2) resources such as people and budget and 3) the scanning frequency. Executives may gather large or small amounts of data from various factors in the environment (Daft et al., 1988; Hambrick, 1982). Managers in a dynamic industry spend more time on scanning than those in a stable industry (Keegan, 1983; Nishi et al., 1982). As complexity and rate of change in the environment increase, the amount of uncertainty perceived by senior managers also increases. According to Daft et al., (1988) strategic uncertainty caused by business environment complexity and turbulence leads to increased demand for strategic information. They proposed that strategic uncertainty predicts the amount of scanning. They found that chief executives scan for a greater amount of information about uncertain factors. Auster and Choo (1993) provided support for the assertion that scanning frequency across environmental factors will increase

with a higher level of perceived strategic uncertainty. They questioned 115 CEO's in two Canadian industries (publishing and telecommunication). They examined the relations between perceived uncertainty in six environmental elements and the amount of scanning. The results showed that CEOs scan those factors with higher levels of uncertainty more than they scan other factors.

From this discussion we can put forward the following proposition about the perceived environmental uncertainty and the scanning behaviour:

Proposition 1: Higher level of perceived environmental uncertainty across environmental factors will be associated with higher level of scanning frequency.

Proposition 2: The greater the degree of perceived environmental uncertainty across environmental factors, the higher the degree of executives' interest in that factor.

One of the key variables in which Hambrick (1982) was interested was the influence of strategy on the frequency of scanning. He concluded that the amount of scanning was not exclusively affected by organisational strategy. For example, executives within the same industry who endorse different strategies collect the same amount of information.

Sawyerr (1993) and Elenkov (1997) replicated the Daft et al., study by investigating the relationship between perceived strategic uncertainty and scanning frequency in developing countries. Nigerian managers responded to the increased level of uncertainty by scanning four environmental elements more frequently- economic, technological, socio-cultural and competitor/industry (Sawyerr, 1993). On the other hand, Elenkov, (1997) found that there was no positive relationship between perceived uncertainty and the amount of scanning. Although managers in developing countries considered the political/legal factor as highly uncertain, they might not scan it more frequently. This can be explained by the fact that

organisations in developing countries often cannot influence the government rules and regulations that have an impact on their operations. Also, the political environment in those countries is characterised by instability and a lot of uncertainty (Elenkov, 1997b; Sawyerr, 1993). In addition, organisations will invest less effort in scanning if they perceive the environment to be very complex and less analysable (Boyd and Fulk, 1996).

In summary, scanning frequency will increase when organisations perceive a higher level of uncertainty across environmental factors and when they operate in dynamic and turbulent environments. There are conflicting results between environmental scanning studies concerned with the Western environment and those focusing on developing countries. The difference between those studies lies in the unique situational characteristics of the political/legal environment in developing countries. Some studies have suggested that there are several elements that differentiate the business environment in developing countries from those of the West. These elements include unstable economic and political environments and the absence of the political and social infrastructures necessary for carrying out environmental scanning activities (Adegbite, 1986; Anastos et al., 1980; Flores, 1972).

2.11 Information Sources

Today information is a cornerstone of every aspect of the business environment. More importantly, information is "the glue that holds together the structure of all businesses...supplier relationships, brand identity, process coordination, customer loyalty, all depend on various kinds of information" (Evans and Wurster, 1997). We live in the information age (Carter, 1996) where there is a large amount of information available and ready to be used (Subramanian et al., 1993).

Managers access a variety of information sources in order to scan their environments. Based on the work of a number of authors, sources of information have been classified into two types, external and internal sources, and further subdivided into personal and impersonal sources. Some examples of external sources are customers, suppliers, bankers, and newspapers. Internal sources include subordinates, peers, and internal reports (Aguilar, 1967; Auster and Choo, 1994; Keegan, 1974). External sources are those that come originally from outside the company, and internal sources come from within the organisation (Keegan, 1974). Impersonal sources involve communicating information to a broad range, or through formalised group activities which pertain to written documentation such as newspapers and magazines or internal reports (Aguilar, 1967; Daft and Weick, 1984). On the other hand, personal sources involve personal contacts with other individuals. Table 2-4 illustrates examples of information sources used in environmental scanning.

Table 2-4 Information Sources Used in Environmental Scanning

External personal sources	External impersonal sources
Customers	Newspapers, periodicals
Competitors	Government publications
Business/professional associates	Broadcast media (radio, TV)
Government officials	industry, trade associations
Internal personal sources	Internal impersonal sources
Superiors, board members	Internal memoranda, circulars
Subordinates, managers	Internal reports, studies
Subordinate staff	Company library
	Electronic information services

Source: Auster and Choo, (1993), p. 195

When trying to determine how executives obtain information from various sources in empirical studies, it is difficult to draw clear-cut conclusions because of the lack of overlap in the results and because of the many differences between these studies in terms of sample content and the context of the firms' environment. A review of some of the environmental scanning research with regard to information sources will be presented next.

The literature has emphasised the importance of personal sources over impersonal sources. In early scanning studies, Aguilar (1967) and Keegan (1974) found that personal sources exceeded the importance of impersonal ones. In Mintzberg's (1973) study which introduced the concept of top managers as information processing systems, he suggested that managers "demonstrate very strong attraction to the verbal media" such as phone calls, unscheduled meetings, scheduled meetings, and tours, which all involve face-to-face contact or, in other words, personal sources of information. Evidence that supports this conclusion is provided by Smeltzer et al., (1988) in their study of the scanning practices of small businesses in two major American cities. The results revealed the significant value of personal sources. Family and friends were the most important personal sources in obtaining external information. El Sawy (1985) provided a similar conclusion about the utilisation of personal sources over impersonal by CEOs in their task to collect strategic information. On the basis of perceived uncertainty, executives use both personal and impersonal sources as a result of higher levels of uncertainty (Auster and Choo, 1993; Daft et al., 1988). Choo, (1993) suggests that using personal sources allow executives to come face-to-face with people to better understand unclear situations and interpret the ambiguity that is associated with environmental information.

Studies in developing countries, however, provide mixed results. Executives in Elenkov's (1997b) study were found to rely heavily on personal sources of information whenever there was a high level of uncertainty in the business environment. On the other hand, Sawyerr (1993) reached a different conclusion. She observed that increased uncertainty in the micro-environment was associated with utilisation of impersonal sources. Such findings however should be interpreted carefully because information from impersonal sources is not given the same priority in developing countries as it is in developed countries. Given the fact that the macro-environment in developing countries creates higher levels of strategic uncertainty, one could expect more reliance on information from personal sources. The reason is that it is difficult to obtain useful and timely information with regard to the general environment from impersonal sources in developing countries. For instance, the Saudi Arabian Monetary Agency (SAMA)[2] annual report for the year 2000 relied on old statistics than on up-to-date information (Al-Fwzan, 2001).

From this discussion we can put forward the following proposition about the use of personal sources in environmental scanning:

Proposition 3: Personal sources will be used more frequently than impersonal sources.

Along similar lines, several authors pointed out that developing countries suffer from a lack of information which may make executives unable to assess the dynamic business environment (Alarfaj, 1996; Malek and Alshoaibi, 1998)

One important implication of utilising the impersonal sources is that information used for long-run planning is usually obtained from impersonal sources such as

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[2] SAMA is the central bank of Saudi Arabia.

government publications, general and trade journals, and reports from academic institutions (Ghoshal and Kim, 1986).

Two major factors influence selection among various sources of information - sources accessibility and source quality. The outcomes of empirical studies are, as will be presented later, inconsistent. Users choose sources according to how easy they are to use and access rather than on how much information they provide (Rosenberg, 1967). Accessibility was defined as "the degree to which one can attain meaningful contact with the channel; how easy it is to approach, obtain or contact the channel without giving consideration to the reliability and quality of the information expected" (Allen, 1977, p. 118). A study carried out by Gerstberger and Allen (1968) showed that channel accessibility is the most important determinant of use. Along similar lines, O'Reilly (1982) noted that users cited source accessibility as the reason for selection from among different information sources. In essence, then, cost and quality of information play a major role in users' decisions of source selection (Hardy, 1982).

Managers, in an ideal situation, would choose sources that provide them with the highest quality of information (O'Reilly, 1982). The main dimensions of source quality are reliability, accuracy, relevancy, and timeliness (Zmud, 1978). However, Culnan (1983) examined the relationship between perceived accessibility, perceived task complexity, and the individual's decision to use a particular information source for obtaining external information. The information acquisition process was not entirely a function of perceived source accessibility. Complexity of an individual's task influences the use of information sources that are perceived as less accessible. A recent research study by Auster and Choo (1993) arrived at a similar conclusion. Using the concept of perceived environmental uncertainty, they showed that the quality of an information source is a more important factor in explaining the

source's use than either perceived source accessibility or perceived environmental uncertainty. Firms' success or failure could depend on executives' strategic decisions. Thus, executives want to base their decision upon external environment sources that they believe to be relevant and reliable, rather than on information sources that are simply accessible (Auster and Choo, 1993).

In addition, examining the use of external versus internal sources of information in scanning research shows inconsistent results. Early studies reported that managers rely more on external sources to gather strategic information from the business environment (Keegan, 1974). When managers perceive the external environment as less analysable, their focus will then be towards external sources in order to obtain environmental information gained from personal sources (Daft and Weick, 1984).

Multinational firms, however, utilised internal sources more than the external ones to obtain external data. Internal sources used by MNCs include home office staff, top management staff, international executives from headquarter, and regional managers (O'Connel and Zimmermann, 1979; Preble et al., 1988). Preble et al., (1988) suggested that multinational firms do not have the capabilities to access information in foreign countries in comparison to their homeland. Hence, they utilised "in-house personnel on a full-time basis to scan the environment and as a consequence, internal data collection has increased." Others, however, found that managers utilised both external and internal information sources as the level of strategic uncertainty increased (Auster and Choo, 1993; Daft et al., 1988) and as long as the information sources was perceived as accessible (May et al., 2000).

Managers in developing countries, on the other hand, rely more on external sources every time they perceive uncertainty in the environment (Elenkov, 1997b; Sawyerr et al., 2000). Elenkov (1997b) noted that Bulgarian managers under-utilised certain information resources because they lacked the knowledge necessary to handle

complex business documentation and management information systems. Similarly, Sawyerr et al., (2000) indicated in their study of Nigerian executives that two of the characteristic features of developing countries are the lack of systematic information sources and the absence of social and political infrastructures necessary to support scanning.

Form this discussion we can put forward the following propositions about the external information sources use and the perceived environmental uncertainty with the frequency of using information sources in scanning:

Proposition 4: External sources will be used more frequently than internal sources.

Proposition 5: Higher level of perceived environmental uncertainty will be associated with higher level of frequency of all type of information sources.

To summarise, information has become an asset for today's organisations. Therefore, one of the challenges facing managers in their task to scan the environment is how to best identify all the possible sources of information available that would provide timely and accurate information. Scanning involves the use of a variety of information from personal/impersonal and external/internal sources. We can conclude here that executives use various sources but they prefer personal sources to impersonal sources. Despite the documented evidence suggesting that the use of information sources is influenced more by its perceived accessibility, a few other studies found perceived source quality to be considered a major factor in determining the information source's selection. Executives' selection of information sources should not be influenced only by their accessibility. Reliable and relevant information should influence executives' selection in order to enhance the quality of environmental scanning. The increase in the use of electronic sources such as the Internet, Email and on-line publishing makes it essential to include them in a further survey of scanning. The Internet may provide executives with current

information on a variety of issues which may impact the firm's future. Electronic mail also could be used as an effective tool to communicate with different people either inside or outside the firm to obtain the required information. Finally, there are inconsistencies with regard to whether external sources of information are considered more important than internal sources. Some earlier studies showed greater reliance on external sources over internal ones, while multinational firms and firms in developing countries were found to focus more on internal sources.

2.12 Formal Scanning vs. Informal

Scanning research suggests that scanning may exist on an informal or formal basis. In an effort to understand the changing environment and cope with turbulence, the literature recommends that organisations need to adopt a systematic and structured approach to scan the environment. The reason is that the speed of change in the environment is increasing to the extent that predictability of the future in a timely manner becomes very difficult (Ansoff and McDonnell, 1990). Ghoshal and Kim (1986) suggest that there are three reasons underlining an organisation's decision to implement formal scanning to monitor the business environment. These are as follows: first, there is global competition, which requires both multinational firms and domestic ones to take into consideration foreign competitors who have different cultural, administrative, and physical resource bases. Secondly, the sources of threats and opportunities have become more diverse and volatile in the business environment, therefore, the need for early detection of changes in the environment becomes essential. The third reason for organisations to implement formal scanning is that competitive advantages have become difficult to achieve. With aggressive competition, technological diffusion, firms need to determine their competitive position on the basis of how well they can cope with the current wave of change.

Further reasons to explain the increased need for formal scanning have been provided by Keegan, (1974); Subramanian et al., (1993). They argued that the huge amount of information available to users will force organisations to engage in systematic and structured methods, as it becomes necessary to reduce redundancy and obtain the best information values. Significantly too, such a system should be linked to the firm's goals and information needs. Under such circumstances, implementing a formal scanning process would facilitate the detection of early signals in a thorough and consistent manner, and entail the collection of relevant and timely outside information to a number of appropriate users (Subramanian et al., 1993; Yasai-Ardekani and Nystrom, 1996). An adequate information system requires the inclusion of information that makes managers ask the right questions, not just provide them with the information they expect (Drucker, 1995). Furthermore, successful environmental scanning systems would draw attention to possible changes and events well before they are generally a discernible. It is also true though, as organisations are involved in an active search for environmental information that a considerable amount of this information is sometimes lost, dissipated, or unused under the pressures of day-to-day activities (Aaker, 1983).

As we described earlier, organisations can either engage in informal, ad hoc scanning activities or they can adopt a formal approach to focus and direct their scanning efforts. Aaker, (1983) suggested that an organisation should officially assign specific scanning tasks to specific individuals who are directly involved in the planning process. A major reason for this is that those individuals would focus their scanning on strategically useful information. The assignment process should provide more focus to the scanning efforts and reduce both information redundancies and individual responsibilities for the total scanning process. Furthermore, the individuals' assignment needs to take a broad approach with

regard to seeking outside information and needs to go beyond current decisions or issues. In addition, the scanning effort should occur on a continuous basis, rather than be driven by the regular schedule of the planning cycle (Lenz and Engledow, 1986).

Trends and issues identified through environmental scanning activities will differ in their visibility and thus permit their impact to devise specific plans for response. Moreover, major changes taking place in the external environment constitute either strong signals or weak signals. However, weak signals need a greater effort than strong ones (Ansoff and McDonnell, 1990). Elaborating on this point, they developed a systematic method to facilitate scanning activities. They argue that firms cannot afford to wait until weak signals become stronger, because the time remaining may not be enough to carry out an appropriate response. In their view, a formal environmental analysis unit should monitor the macro-environment for weak signals that are harbingers of potential threats. Figure 2-7 outlines a firm's potential responses towards weak environmental signals occurring at high turbulence levels.

Figure 2-7 Weak Signals and Generated Response

Graduate response / Strengths of signals	A Environmental surveillance	B Identification of relative strengths and weaknesses	C Reduction of external strategic vulnerability	D Increase of internal strategic flexibility	E Capability plans and response	F Action and response
I. Sense of threat/ opportunity						
II. Source of threat/ opportunity is known						
III. Shape of threat/ opportunity is concrete	Feasible response region					
IV. Response strategies and understood						
V. Outcome of response is forecatable						

Source: Ansoff and McDonnell (1990) p. 20

Signal strength is viewed as progressing through five different phases. In other words, information about any new issue is regarded as advancing from providing a relatively weak signal to constituting an increasingly strong signal. The left-hand column indicates this process: at signal level I (see top of left-hand column), the firm is able to perceive a potential threat or opportunity emanating from its environment. However, nothing is yet known with regard to the sources or content of these threats / opportunities. At signal level V (see bottom), on the other hand, the firm has sufficient information to calculate the profit outcomes not only of the effect of the environmental threat / opportunity but also of its response to it. At an intermediate level, such as level IV for instance, the firm has gathered enough information for it to be able to respond to an environmental signal in a specific manner, although the financial outcomes of its response cannot be calculated at this stage.

As the strength of an environmental signal grows, a repertoire of increasingly stronger responses becomes available to the firm. This process is depicted by the column headings of figure 2-7. At one end of the continuum (level A), a general assessment of the field of turbulence is the only response available to the firm (weak response). At the other end of the continuum (level F), the firm is able to respond directly to the environmental signal (threat / opportunity) by, for instance, implementing a new marketing strategy or developing a new product line (strong response). Therefore, as we move from the left to the right end of the continuum, the firm's responses not only become progressively specific but also more expensive and irrevocable.

As the strength of environmental signals grows, increasing information becomes accessible to the firm allowing for progressively stronger responses. The shaded area in figure 2-7 indicates this process. Once the source of the environmental threat or opportunity is identified (although its actual shape might still be unknown), the firm becomes able to launch a substantial programme thus decreasing its overall vulnerability as well as increasing its response flexibility.

The figure described above may prove useful in permitting strategic issue management systems to react more sensitively to weak environmental signals. In order to supply an input to the system, the firm's scanning process must be sensitive enough to pick up warning signals in its environment. Moreover, there is an overall need for management to cultivate both an attitude which is able to embrace change and decision-making strategies which can incorporate risks. In addition, problem-solving approaches need to be developed that not only rely on experience but also make room for new learning.

Initial studies of formal environmental scanning systems described their features and prevalence. Among a sample of 12 U.S. firms, a survey found that only two

firms used advanced scanning systems. Nine of the remaining ten used ad hoc and events-driven scanning (Fahey and King, 1977). As we described earlier, they classified from their data, scanning models which are currently in use into three types: irregular, regular, and continuous. A replication of this study conducted by Stubbart, (1982) based on the same 12 firms, concluded that only three firms increased the sophistication of their scanning, five showed no change, and four became less systematic in their scanning activities. Hambrick (1979) found the scanning process of executives was in general ad hoc in nature.

In a study of 186 firms, Jain (1984) confirmed Fahey and King's (1977) conclusion that most U.S. firms do not use advanced models for scanning. She also classified scanning models into four continuous types, but used different terminology than Fahey and King. Scanning systems, as Jain proposed, evolve through a series of phases; in the primitive phase, management is exposed to a variety of information without making any effort to select carefully. The environment is taken as given and accepts each impact as it occurs. In the ad hoc phase, information search is tied in this phase to day-to-day operations. However, management moves to identify specific events that need to be watched. Although management is focusing on a few areas in the environment, this does not imply that the information is related to strategy formulation. In fact, the existence of a formal method to scan the environment is not visible yet. British Petroleum, for example, may not have a formal method by which to scan its environment. It may, however, be aware of changes in recent OPEC decision to cut production which may affect a specific aspect of its activities, but be unaware of the new demands of an environmental activists group relating to toxic waste. In its reactive phase, management views the environment as very important and dabbles in scanning in an unplanned,

unstructured fashion. The main aim is to respond to the market as quickly as possible, following the example of leading firms in the industry.

In the proactive phase, management practices involve scanning with vigour and zeal, using a systematic method. Scanning focus on specific areas is considered to be important. On the basis of these phases Jain (1984) concluded that scanning systems are evolutionary in nature. It should be noted that seventy percent of the firms surveyed used either primitive or ad hoc procedures. Out of 186 firms, only 14 developed a proactive scanning system. The study concluded that the quality of these systems improved as the scanning progressed from phase to phase (Jain, 1984).

Along the line of Jain's conclusion, Subramanian et al., (1993) provided support for the notion that scanning systems evolve over time. The results indicated that scanning systems are moving from primitive models towards sophisticated models. The number of firms using a proactive scanning system had increased by 17 per cent over an eight year period compared to Jain's study.

Despite the fact that many firms have established formal scanning units, not all of them can be considered effective or successful (Ghoshal and Kim, 1986; Yasai-Ardekani and Nystrom, 1996). Scanning systems can be effective if they generate relevant and timely data, and create environmental awareness and are used by executives. Organisations with effective scanning systems enlarge their scope and frequency of scanning when they face a rapidly changing micro-environment. Furthermore, the findings suggest that firms employing effective scanning systems achieve alignment between strategy and environment. (Yasai-Ardekani and Nystrom, 1996). Elenkov (1997b) examined the environmental scanning systems in 226 Russian firms. The study concluded that there is a strong link between advanced scanning systems and greater product-service change and performance.

Studies that have examined the scanning activities of U.S. based multinational firms, however, found that there is an increasing use of formal methods to monitor a different factors of the external environment and interpret environmental data (Kennedy, 1984; O'Connel and Zimmermann, 1979; Preble et al., 1988). For example, Preble et al., (1988) studied the scanning practices of multinational firms with special reference to the degree of the level of sophistication of the scanning systems used. Their evidence suggests that in order to be able to face the increasing level of uncertainty and complexity in their environment, multinational firms use more formalised and sophisticated environmental analyses to stay abreast of a rapidly changing international environment. Among the study's key results were that over 53 per cent of the participating firms were utilising continuous in-house international scanning; nearly one-half of the firms reported some level of computerisation being employed in the scanning process (Preble et al., 1988). When considering these studies collectively, one can conclude that multinational firms are moving towards the establishment of more systematic and sophisticated scanning processes. This is in contrast to Keegan's (1974) initial study in which little evidence of systematic scanning was found.

Although much is written about the importance of implementing scanning as a formal system, few organisations have developed a structured and systematic approach to gather outside information (Drucker, 1995; Fahey and King, 1977; Ghoshal and Kim, 1986; Subramanian et al., 1993). Managers are too concerned with the short term, and for this reason, their main goal is to get information about the economy, financing and customer needs and wants, and ignoring other factors of the macro-environment (Olsen et al., 1994). In addition, previous research raises serious questions about the outcome of specialised environmental scanning units (Lenz and Engledow, 1986). Such units have proved to be ineffective due to

difficulties in implementation and serious problems with regard to integrating the unit into the existing decision-process (Ghoshal and Kim, 1986; Lenz and Engledow, 1986).

To summarise, several authors argued that a system to collect, interpret and evaluate strategic information should be established to provide data quickly and accurately (Yasai-Ardekani and Nystrom, 1996). They emphasise that continuous and planned scanning enables firms to forecast environmental trends and events accurately, and to detect early signals. Implementing a formal scanning structure can be very simple according to Aaker (1983) who developed the concept of a "Strategic Information Scanning System". The development of SISS involves several steps; areas of information needs and adequate information sources should be identified; the participants will include those individuals who are exposed to useful information; to ensure that relevant and strategic information is not lost; the SISS should provide storage/dissemination systems.

Despite the potential value of building systems to gather and organise outside information, very few firms have started to put such a system in place yet (Jain, 1984; Subramanian et al., 1993; Thomas, 1980). In addition, computer-based systems for obtaining environmental information are seldom utilised. According to many researchers this is partly because organisations are uncertain about the impact of scanning efforts on their performance. Another reason is that the effectiveness of such a unit for enhancing the quality of strategic decision-making remains to be demonstrated (Olsen et al., 1994; Stubbart, 1982). As a result, it is important to allow executives to receive information without imposing certain formality in data collection. Aguilar suggested that scanning system should be both structured and flexible. It should be noted that some authors undermine the benefit associated with utilising formal scanning systems (Lenz and Engledow, 1986; Stubbart, 1982).

On the other hand, global companies appear to possess an ability to adopt formal scanning systems to meet the unique requirements of the international business environment. In conclusion, whilst increasing the degree of formalised scanning systems is very important, the way these systems are structured and managed to achieve their aims is even more essential. "What is important is not the tools (the scanning information systems). It is the concept behind them." (Drucker, 1995, p.62).

2.13 Scanning and Firms' Performance

The linking of environmental scanning practices to the firm's performance is another central presumption in the environmental literature. Companies' experiences across time and research evidence suggest that the external environment affects firm growth and profitability (Analoui and Karami, 2002; Bourgeois, 1985; Daft et al., 1988; Elenkov, 1997a; Ketchen and Palmer, 1999). In addition, it has been found that successful firms differ from unsuccessful firms in that they do more scanning and they have a broader pattern of scanning (Babbar and Rai, 1993; Choo, 2000; Daft et al., 1988; Yasai-Ardekani and Nystrom, 1996). Scanning allows an organisation to enhance strategic decisions-making. Therefore, there should be a positive link between scanning and organisational performance (Analoui and Karami, 2002; Sawyerr et al., 2000). In a study of Belgian firms De Woot et al., (1977) have found a positive link between economic performance and the process of data collection from the environment. They observed that external information about different aspects enables a firm to establish itself in its competitive, demand and technological environment. Accordingly, gathering and dissemination of environmental data is linked to a higher level of firm performance.

Chief executives in high-performing firms were found to practise scanning in a broad range (e.g. scan beyond the micro-environment and consider all elements in the macro-environment) and more frequently, compared to their counterparts in low performing firms (Daft et al., 1988). Along similar lines evidence has been provided by Olsen et al., (1994) in research which looked, among other things, at the link between scanning and performance linkage. Results of the study showed that better scanning was associated with performance. Similarly, the existence of sophisticated scanning systems increases the firm's profit (Elenkov, 1997a).

To summarise, superior performance is often a major goal for organisations. In a review of the relationship between performance and scanning, research has shown that involvement in scanning activities can lead to better performance. Clearly, these results suggest that to be successful, organisations need to assess the conditions and changes occurring in the external environment. However, Choo (1999) claims that scanning by itself is insufficient to improve firms' performance. Therefore, scanning needs to be integrated with strategy and its contribution to the overall firm goal achievement must be evaluated (Choo, 1999; Lenz and Engledow, 1986) It must also be borne in mind that, low-performing firms may lack the resources needed to adopt the effective scanning which high-performing organisations possess (Elenkov, 1997a).

2.14 The Role of Managers

Describing the manager's work has been an ongoing pursuit of researchers and practitioners. However, Mintzberg's ten-role model is probably the most familiar analysis of the role of managers. Its significance for environmental scanning lies in its recognition of managers' reliance on information. A manager's job in any organisation is busy and demanding. Mintzberg (1973) argued that managers'

activities were scattered, short-term attempts at coping rather than deliberative, analytical and logical activities as earlier classical management writers had suggested. Rather than engaging in 'traditional' management functions (for example, planning, organising, commanding, co-ordinating and controlling) Mintzberg found that managerial activities did not generally approximate to this model. Instead, managerial roles emerged according to the wider characteristics of managerial work: namely brevity, variety and fragmentation. Ten such roles were identified, described under three general categories: interpersonal, informational and decisional (See Table 2.8). Senior managers play ten different roles that can be classified into three groups. The interpersonal role arose from the manager's formal authority and occurred when a manager dealt with others as a figurehead, leader or liaison. The informational role involved the manager's receiving, storing and sending information as a monitor, disseminator or spokesman. The decisional role involved making decisions about organisational activities as an entrepreneur, disturbance handler, resource allocator or negotiator. These roles are integrated and inseparable although this does not mean that each is given equal attention. In fact, "it is the informational roles that tie all managerial work together...linking status and the interpersonal roles with the decisional roles" (Mintzberg, 1973, p.71). It is also the manager as a nerve centre who has full and current information to make the set of decisions that determines the organisation's strategy. As a result, environmental uncertainty could have a strong influence on managers' decision-making roles. Mintzberg's ten-role model has been adapted in some scanning studies. Auster and Choo (1993) for example focused on the use of environmental information in decisional roles. They found a strong and positive link between the amount of scanning done by executives and the use of environmental information in decisional roles. In particular, the study found that executives use environmental

information frequently in all four decisional roles. In addition, executives who perceive the environment to be more uncertain tend to use environmental information more frequently in the negotiator decisional role. Choo (1993) pointed out that in each of the four decisional roles, decision-making often begins with the perception of events or stimuli in the external environment.

With respect to the managerial decisional roles we can put forward the following research propositions:

Proposition 6: Higher level of perceived environmental uncertainty, will be associated with the frequency of using external information in decision making in the four decisional roles of entrepreneur, disturbance handler, resource allocator and negotiator.

Proposition 7: The total amount scanning conducted by Saudi executives will be associated with the frequency of using external information in decision making in the four decisional roles of entrepreneur, disturbance handler, resource allocator and negotiator.

Table 2-5 Mintzberg's Ten Managerial Roles

Interpersonal Roles	
Figurehead	Symbolic head; obliged to perform a number of routine duties of a legal and social nature.
Leader	Responsible for the motivation of subordinates; responsible for staffing and training.
Liaison	Maintaining a self-developed network of outside contacts/informers who provide information and favours.
Informational Role	
Monitor	Perpetually scanning the environment for information, interrogating liaison contacts and subordinates, and receiving unsolicited information, much of it as a result of the network of personal contacts
Disseminator	Transmits information received from outsiders and subordinates to members of the organisation.
Spokesperson	Transmits information to outsiders on the organisation's plans, policies, actions, results; serves as an expert on the organisation's industry.
Decisional Role	
Entrepreneur	Searches the organisation and its environment for opportunities to bring about change.
Disturbance Handler	Responsible for corrective action when the organisation faces important, unexpected disturbances.
Resource Allocator	Responsible for the allocation of organisational resources of all kinds
Negotiator	Responsible for representing the organisation at major negotiations

Source: Mintzberg (1973)

2.15 Scanning and Management Characteristics

Another aspect of environmental scanning research focuses on the relation between scanning and the executives' characteristics such as their functional role and hierarchical level. The outcomes of empirical studies are inconsistent. Executives direct their scanning toward environmental elements consistent with their functional areas (Aguilar, 1967; Kefalas and Schoderbek, 1973). For example, finance executives focus more on financial elements and R&D executives scan technological information more than others. This result is not surprising since they scan environmental elements that are familiar to them and associated with their functional specialisation. Aguilar found that the most utilised source by marketing executives was customers while financial executives relied heavily on bankers. In contrast, Kefalas and Schoderbek (1973) found no relationship between the functional role of executives and information sources. Hambrick (1979) also attempted to relate environmental scanning to hierarchical level and functional areas. Results of this research indicated limited linkages between scanning and the two variables.

From this discussion we can put forward the following proposition:

Proposition 8: There is a significant difference between the respondents' characteristics for the scanning process in the Saudi private firms.

2.16 Scanning and Firm Characteristics

2.16.1 Scanning and Organisational Strategy

The environmental context has a substantial impact on organisation strategy. The match between the external environment and a firm's capabilities and resources is the focus of strategic management (Bourgeois, 1985). According to Ansoff (1965)

strategic decisions are concerned with external issues rather than internal ones. In fact, the environment is a great source of strategic information (Aguilar, 1967) and strategic decisions depend on information from the outside environment (Lenz and Engledow, 1986). Steiner (1979) pointed out that the effectiveness of competitive strategy largely depends on a thorough appraisal of the environment within which the business operates and how the business designs its competitive advantage in changing environments. Moreover, the strategic importance of external information is the major determinant of environmental scanning (Boyd and Fulk, 1996).

Environmental scanning as a part of strategic management is considered as the vehicle by which an organisation can adapt to environmental changes (Ebrahimi, 2000). It also follows, that strategic decisions are linked to scanning since the central focus of scanning is gathering external strategic information that is useful for making decisions about strategy (Aguilar, 1967). Hambrick (1982) has viewed scanning as the first step in the process of establishing a link between the external environment and strategy.

The relationship between environmental scanning practices and the type of strategy employed by an organisation has received little empirical attention. Few studies have investigated how executives scan their environments and related it to their strategy. Hambrick (1979) was the first writer to empirically test the relationship between environmental scanning and organisation strategy using Miles and Snow's (1978) strategy typology. One key finding of this study was that organisational strategy alone did not affect the scanning activities of top executives. Furthermore, he observed that there was a "common body of knowledge" within an industry. He noted, for example, that organisations that employ a defender strategy did not scan

the engineering[3] environment more than organisations employing a prospector strategy in the same industry (life insurance industry); prospector and defender hospitals did not differ in the extent to which they scanned the entrepreneurial[4] environment. These examples highlight the fact that organisations within an industry generally conduct very similar environmental scanning regardless of strategy. Hambrick failed to find a link between executives' scanning activities and their organisation's strategies.

Executives employing different types of competitive strategies would seek environmental information that reinforces their strategy. With regard to this argument, (Jennings and Lumpkin, 1992) conducted a study attempting to determine the relationship between environmental scanning and the type of generic strategies used. The study showed that firms employing a differentiation strategy scan the external environment for opportunities. On the other hand, firms with a cost leadership strategy directed their scanning toward threats from competitors and regulators.

At the same time though, firms following different strategies will have different views with respect to their environments. For instance, prospectors and defenders view their environment as dynamic and relatively simple, whilst analysers look at their environments as dominant. Reactors, however, view the business environment as more hostile and stable than other groups (Zahra, 1978).

The implementation of effective scanning systems has a significant impact on an organisation's competitive strategies. In their investigation of the relationship between low-cost oriented strategies and scanning behaviour (scope and frequency)

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[3] Hambrick (1979) classified the environmental information into four areas: entrepreneurial, engineering, administrative and regulatory. He defined the engineering sector as information that bears on rationalizing the manufacture or delivery of products/services
[4] entrepreneurial is as the information about product/services/market trends or events (opportunities or threats)

Yasai-Ardekani and Nystrom (1996) found that organisations with effective scanning systems which pursed a low-cost strategy scanned the external environment more broadly and frequently than those with ineffective scanning systems pursing a similar strategy.

2.16.2 Firm Size and Scanning

During the last three decades, several studies identified significant factors that are found to be associated with environmental scanning practices. One of these factors refers to the size of organisation. However, the circumstances under which small firms operate are different from those of larger companies. Large firms create a need for different methods in scanning practices. According to Diffenbach (1983) large firms utilise different techniques for environmental scanning from smaller firms, such as the simulation, Delphi and cross impact. Furthermore, managers in larger firms tend to use the results of scanning in their strategic planning. Studying the relationship between scanning design and organisational size, Yasai-Ardekani and Nystrom (1996) suggested that larger organisations need to be more involved in systematic and structured scanning. The reason behind this is that larger firms engage in a more diverse set of products and customers, and hence need to collect and interpret more environmental information. They concluded that larger firms with effective scanning systems scan the environment more frequently and delegate more scanning responsibility. There is also evidence to suggest that advanced scanning systems are found more in larger firms than in small ones (Diffenbach, 1983; Ghoshal and Kim, 1986; Jain, 1984). However, findings also have indicated that organisational size is not necessarily a determinant in so far as effectiveness of scanning systems is concerned (Analoui, 2000). That is, small as well as medium-

sized and large organisations are able to develop effective scanning systems (Beal, 2000; Yasai-Ardekani and Nystrom, 1996).

It should be noted that the outcome of scanning studies on large firms may not be applicable to small ones. This is because, on average, small firms have different characteristics and operate in different circumstances from those of large firms (Tavakoli and McKiernan, 1999). For instance, Smeltzer et al., (1988) identified four differences in scanning approaches between large and small firms. First, the owners of small firms are responsible for establishing the corporate strategy, while in larger firms executives at the top levels of an organisation's hierarchy conduct the strategic planning. Secondly, in large firms an independent unit will be responsible for collecting external information before transferring it to executives, while in small firms one person conducts all these functions. Thirdly, diversity forces larger firms to develop formal policies and procedures to collect and interpret environmental information. Finally, expensive fees to different information sources deny small firms access to many essential sources.

With respect to firm characteristics we can put forward the following proposition:

Proposition 9: There is a significant difference between the firms' characteristics for the scanning process in the Saudi private firms.

2.17 Conclusion

This chapter has focused on the main concepts, ideas and themes relating to environmental scanning. It has been shown, at the start of the chapter, that contingency theory is a very popular approach for research in the fields of organisation theory and strategic management. The theory enables researchers and managers to provide the basis for organisational analyses, which generate possible solutions to arising problems. The fit between an organisation and its environment

is the central theme of contingency studies (Venkatraman and Prescott, 1990). However, it was noted that there is an on going debate regarding whether the environment determines a firm's strategy or whether there is room left for managers to practise strategic choice. Another debate which has been examined is that whether the environment is an objective or subjective phenomenon

Various tools to analyse the business environment such as Porter Five forces and PEST were reviewed. It was argued that firms need to apply these tools with the knowledge of their limitations in mind and to use them as part of a larger framework of management tools, techniques and theories. We have also examined the influence of environmental uncertainty on scanning behaviour. The literature concluded that scanning frequency will increase when organisations perceive a higher level of uncertainty across environmental factors and when they operate in dynamic and turbulent environments. With regard to the information sources that are used to scan the business environment the literature showed that executives use various sources but they prefer personal sources to impersonal sources. Moreover, the frequent use of personal sources implies that they "…are important because their richness enables subtle signals to be detected" (Daft et al., 1988, p. 136). It is important to note that most scanning studies have been conducted in the West. These studies have been accepted, rejected, discussed in a different context than that of the Saudi business environment. Therefore, it is important to examine whether the research on scanning practices yields similar results in Saudi as in Western countries. The unique characteristics of the political, economic and social spheres in Saudi Arabia is of particular interest for the next chapter in which we will present background information on Saudi Arabia and discuss the contextual environment including: the political, economic, social and technological aspects of the country.

3 Chapter Three: An Overview of the Saudi Arabian Environment

3.1 Introduction

The objective of this chapter is to provide the reader with up-to-date background information about Saudi Arabia, the country under study. For an understanding of the conditions in which the executives in the study are operating, it is important to consider the political, economic, socio-cultural, technological and legal environments of the country. Knowledge of trends such as political uncertainty, economic decline, youth population explosion and Islamic extremism give the reader the insight necessary for a deeper appreciation of the findings and the implications of the research.

3.2 Political Environment

The Saudi political system has adjusted in the past to several critical challenges and has shown itself capable of taking on board change and moving on. Now the Saudi political system is facing serious new challenges that may threaten the country's future political stability. While still enjoying considerable stability at the present time, Saudi Arabia is experiencing several problems such as financial decline, high unemployment, a single-resource economy, population explosion and the Islamic opposition and these may trouble the country as never before. To ensure that these problems do not pose a threat to the Kingdom's political stability, the Saudi leadership will have to make the necessary structural changes.

3.2.1 Political Structure

The Saudi Arabian political system is a hereditary monarchy. The king is chosen from and by members of the Al-Saud family. The king rules in accordance with

Islamic law (Sharia) and through royal decrees issued in conjunction with the Council of Ministers (Al-Farsi, 1990).

There is no formal constitution and political parties are banned. However, in 1992 "The Basic Government System" was introduced, articulating the government's rights and responsibilities. One may assume that institutional rules and lines of authority are irrelevant and that all decisions are made by the king and/or a few individuals at the top of the government. It must be noted, however, that the King's power is limited by senior members of the Saudi royal family and by religion, custom, tribal leaders, key businessmen, and religious figures (The Ualma), and technocrats (Cordesman, 2001).

3.2.1.1 The Council of Ministers

The Council of Ministers was created as a cornerstone for significant change in all areas of national life in Saudi Arabia (Al-Farsi, 1990). The council serves as the chief legislative, executive and advisory body of the Saudi government. The Council is responsible for drafting and overseeing the implementation of internal, external, financial, economic, educational and defence policies, and the general affairs of state (Al-Farsi, 1990; Huyette, 1985).

The Gulf War and its aftermath posed enormous organisational and financial challenges to the Saudi economy. It became clear that many ministers failed to adapt quickly to those challenges. As a result, the first sweeping change in twenty years was made in the Council of Ministers and 16 of the 28 Council members were replaced. Veteran politicians, some of whom had served in the cabinet for two decades, made way for a younger generation of western-educated technocrats (Cooper, 1995). The new cabinet is a reflection of new realities in the country. Faced with 13 consecutive years of budget deficits and an economy growing too

slowly to sustain population growth, this new government must prove itself capable of meeting the challenges of promoting economic growth and expanding the employment base.

3.2.1.2 The Royal Diwan

The primary executive office of the king is the Royal Diwan where the king's principal advisers for domestic politics, religious affairs, and international relations have offices. The king's private office also is in the Royal Diwan. The king conducts most routine government affairs from this office, including the drafting of regulations and royal decrees (The Library of Congress Countries Studies, 1992).

3.2.1.3 The Consultative Council (Majlis al-Shura)

The establishment of the Consultative Council, or Majlis Al-Shoura marked a significant move towards the formalisation of the participative nature of government in Saudi Arabia. The primary function of the council is to provide the King with advice on issues of importance in the Kingdom (Al-Farsi, 1990). The council, though, does not have executive powers. The Consultative Council, when set up, consisted of a speaker and 60 members selected by the King. Council membership was expanded to a total of 90 and 120, in 1997 and in 2001 respectively. The members come from a wide mix of clan and religious leaders, business and professional men, as well as government officials (McDowall, 2001). According to the rules under which it was set up, the function of the Consultative Council is simply to "express its views on state policies referred to it by the prime minister". The Council's responsibility is to examine plans for economic and social development, to question cabinet members, to examine the annual reports submitted by ministries and other government agencies and to propose new laws or

amendments. Once again, the council recommendations on these issues are not binding.

The establishment of the Consultative Council was seen as a modest but significant political reform. Most importantly, it demonstrated the people's desire for change. The new move, on the other hand, has been considered insufficient to satisfy the divergent aspirations of Saudis seeking change and greater participation in the government (Benedict, 1992).

3.2.1.4 The Ulama (Islamic religious scholars)

Islam is a pervasive social and political force in Saudi Arabia. More than any other country in the Muslim world, Saudi Arabia is identified with Islam. Because there is no separation of religion and state, the political role of the Ulama is imperative. They are the sole interpreters of the precept of Sharia (Al-Yassini, 1985).

The role of the Ulama in Saudi Arabia has a long history and great significance. The alliance between Mohammed bin Saud and Sheikh Mohammed bin Abdul Wahhab (1703-1787), an eminent religious man, and its continued success through the years, reflects the important role played by the Ulama in Saudi Arabia. This alliance was both political and religious in nature and clearly emphasised the true notion of the state in Islam, that state and religion are inseparable. Saudi Arabia is an example of an Islamic state governed by Sharia. It is therefore inevitable that the Ulama should play a key role within the Kingdom. They play an influential part in the following fields of government:

❑ The judicial system of Saudi Arabia.
❑ The implementation of the rules of the Islamic Shari'ah.
❑ The Religious Guidance Group with affiliated offices all over the Kingdom
❑ Religious education, that is Islamic legal education and theology at all levels in Saudi Arabia.
❑ Religious jurisprudence.

◻ Preaching and guidance throughout the nation.

◻ Religious supervision of all Mosques in the Kingdom.

◻ The preaching of Islam abroad.

◻ Continuous scientific and Islamic research (Al-Farsi, 1990).

Importantly, the Ulama, also has played a unique role by providing religious legitimacy for Saudi rule. Because Saudi kings esteemed their Islamic credentials as custodians of the holy cities of Makkah and Madina, they considered Ulama support critical. For example, in 1979 members of the Council of Senior Ulama issued the religious edict (*fatwa*) that approved the use of force to suppress armed dissidents who had occupied the Grand Mosque in Makkah, Islam's holiest shrine (The Library of Congress Countries Studies, 1992). The credibility of the Ulama, however, depends very much on their level of independence; if there is too much cooperation with the rulers, people will turn away from the Ulama to find their religious guidance elsewhere, resulting in an Ulama without power (Al-Yassini, 1985).

3.2.2 Political Opposition

The main challenge to political stability in Saudi Arabia comes from political Islam. Opposition to the government began to find greater voice during the Gulf War, when the country hosted hundreds of thousands of Western troops. The presence of such numbers of Western, non-Muslim troops in close proximity to the holy cities of Makkah and Madina was seen as heretical. This opposition, however, was not violent (Champion, 1999). In the absence of a democratic political structure, Islam provides the opportunity and the language for people to express political grievances. In 1992, over 50 prominent men signed a petition "memorandum of advice" to the government in which they called for the creation of a consultative council independent of government influence. They also called for the repeal of all laws

and regulations not in accord with the Sharia, for redistribution of wealth and for official accountability (Fandy, 2000). Under this internal pressure, the government introduced three statutes: the Basic Law of Government, the Law of the Consultative Council and the Law of the Provinces. These events were genuine steps toward greater participation in decision-making, significant in a Saudi context, and represent progress in the institutionalisation of government.

Some political scientists believe that the opposition in Saudi Arabia has always been fragmented, with no strategic framework for change. This situation seems unlikely to alter in the foreseeable future (Champion, 1999). Furthermore, "There is little evidence of popular opposition to the monarchy, and most opposition movements that do exist are from conservative Islamists, rather than the liberal reform minded Saudis" (Cordesman, 2001,p.12). According to Fandy (1998), the opposition groups do not pose a serious threat, and the political system in Riyadh is stable now and in the foreseeable future. He added that Saudi Arabia is stable despite the presence of vigorous and sometimes violent opposition.

If domestic stability and prosperity are to continue, however, the government needs to change the structure of political life. It should be noted that a majority of Saudis seek reform within the system. They are not calling for western-style democratic institutions. The religious, cultural, tribal, and regional character of the Kingdom must be taken into consideration in any political change (Yamani, 2000).

As we noticed, the government responded to the current situation by making a number of economic and political reforms designed to assist in helping the country with social, demographic and economic pressures as well as the internal political problem. The government is taking gradual and piecemeal reform, rather than a comprehensive, radical transformation of the entire system. However, the pressing

question is whether the scope and the pace of change will be sufficient to meet the challenges which Saudis face.

3.3 Economic

The Saudi Arabian economy is primarily driven by oil production. Revenues from oil comprise about three-quarters of the national income, making the country highly vulnerable to world price fluctuations. It was during the boom period of the mid-1970s and early 1980s that Saudi Arabia made its maximum gains. Highly sophisticated and modern infrastructure projects, financed by huge inflows of petrodollars, resulted in rapid economic growth. In recent years, however, changes in the domestic and global environment have created different economic challenges. A number of factors have promoted these changes: first, the progressive decline in oil revenue which, since 1982, has led to a renewed budget deficit: secondly, the substantial cost of the Gulf War: thirdly, the rapid increase in population and in unemployment among Saudi youth. General economic indicators are shown in Table 3-1.

As a result, Saudi Arabia is striving to diversify its economy away from oil and to implement a structural reform that gives the private sector a leading role in economic development.

Table 3-1 Saudi Economic Indicators

	1997	1998	1999	2000	2001	2002	2003*	2004*
GDP $ Billion	167.866	151.704	162.758	188.772	183.257	188.471	207.474	208.981
Population (Million person)	20	20.67	21.33	22.01	22.71	23.42	24.17	24.97
GDP/ Capita $	7,313	6,208	6,689	7,863	7,483	7,039	---	---
Oil Price $	18.71	12.2	17.45	26.81	23.06	24.32		
Government Budget $B	-4.2	-12.92	-9.7	6.06	-7.19	-5.6	-10.4	---
Total Actual Revenue	54.8	37.76	39.32	68.81	60.84	54.4	45.33	---
Total Actual Expenditure	59	50.68	49.02	62.75	68.03	60	55.73	----
Unemployment	N/A	N/A	N/A	14	15	15		

*Source: IMF, the world economic outlook database for October 2003 ; Ministry of Economic and Planning-Central Department of Statistics; SAMBA, the Saudi economy in 2002. * Projected numbers.*

However, it is important to highlight the fact that oil is a valuable asset to possess and will continue to play a significant role in the global arena. Saudi Arabia is the largest oil-producing country in the world. With a quarter of the world's oil reserves - 262.7 billion barrels - Saudi Arabia will continue to be the leader in oil for some time to come (OPEC, 2000). Despite the present serious economic challenges, Saudi Arabia is expected to maintain its position in the international arena, both economically and politically.

The theme elucidated above will be developed further as subsequent sections in this chapter seek to provide the information necessary for a better understanding of the Saudi business environment.

3.3.1 Development Planning

The oil boom in the 1970s brought great wealth to the country and enabled it to finance ambitious development programmes. A series of comprehensive Five-Year Development Plans was introduced in order to develop the basic services,

infrastructure and systems necessary to improve economic and social conditions in the country.

Social, economic and institutional dimensions provide a framework for the development planning effort. Each development plan has a set of objectives for each dimension. Successive development plans pay persistent attention to diversifying the economic base and reducing dependence on the production and export of crude oil, which is a depletable resource and is subject to fluctuations of the world markets (Ministry of Planning, 2000). Development plans, however, are presented as planning tools, not as centralised controls. The Saudi government looks to the development plans as a mechanism through which a more efficient allocation of the country's financial resources can be made. Thus, the Saudi government hoped that five-year development plans would provide the necessary conditions to help in reducing waste, diversifying the economy, and ensuring internal consistencies in government finances and in the overall development process of the country. In this context, each plan has identified objectives to be achieved, and has allocated the tasks of implementing the strategy to the government or to the private sector as appropriate.

The plans have been broad-ranging in their aims, but the main thrust and strategy have always been the same, that is to uphold religious values and to provide national security. Within this framework, several broad goals are used as a guideline to develop each specific plan. These goals are stated as follows (Ministry of Planning, 2000):

- Diversifying the economy and reducing dependence on oil.
- Raising living standards and improving the quality of life.
- Maintaining economic and social stability.
- Regional development.
- Strengthening the role of the private sector.

☐　　Broadening the linkages between the Kingdom and other nations.

☐　　Developing and completing the physical infrastructure.

☐　　Developing human resources.

3.3.1.1　The First Development Plan (1970-1974)

The first Five-Year Plan, 1970-1974, placed special emphasis on developing the basic infrastructure, particularly public utilities, and on improving government services. Developing the nation's human resources also received greater attention, through extensive investment in education and training (Moliver and Abbondante, 1980). The unanticipated massive expansion of crude oil production, accompanied by large increases in revenues per barrel, contributed to an exceptionally high rate of economic growth, far beyond the planners' expectations. For example, the annual growth rate of 15.5 % exceeded the projected GDP growth rate of 9.8 %. As oil revenues grew, budget allocations increased, totalling about US$27 billion for the five years; actual budget expenditures amounted to US$21 billion (Ministry of Planning, 1970). In terms of its goal of diversification, the plan did not achieve its aims in the agricultural and manufacturing sectors as expansion in these areas fell short of the respective plan targets (Al-Sahlawi, 1997).

However, in general, the first plan was successful in meeting the planners' targets. Moreover, the planning authority gained invaluable experience which proved useful in the next plan.

3.3.1.2　The Second Development Plan (1975-1979)

The Second Development Plan contained numerous social goals similar to those of the first plan, but it also set forth goals that reflected decreased fiscal constraints. Social goals included the introduction of free medical services, free education and vocational training, interest-free loans and subsidies for the purchase of homes,

subsidised prices for essential commodities, interest-free credit for people with limited incomes, and extended social security benefits and support for the needy. The demand for infrastructure, services and housing had increased dramatically. At the same time, higher oil prices and rising oil production enabled these needs to be met and led to the creation of jobs in both government and private sectors. To maintain high economic growth, a wide variety of government financial institutions was established. They offered financial assistance for most developing sectors of the economy (Presley, 1984).

The oil boom years witnessed an unprecedented construction activity, the creation of industrial cities, the development of an integrated road network and implementation of giant infrastructure projects that provided a solid foundation for the economy to take off in later years. Government expenditure increased nine-fold to reach nearly $204 billion, allowing for a greater expansion of the development projects. One major example is the industrial development that took place in the Jubail and Yanbu industrial complexes which contain some of the world's most sophisticated oil refineries and petrochemical plants. Despite the massive increase in government expenditure, overall real GDP growth at 9.2 percent average per annum was below the planned 10 percent rate.

3.3.1.3 The Third Development Plan (1980-1984)

The Third Plan coincided with the sharp downturn in oil prices and Saudi oil production. From a high of 111 billion dollars in 1981, total oil revenue for the country plunged to 45 billion dollars in 1983 and the prices plunged from a high of $34 to less than $10 a barrel. For more information on oil prices see figure 3-1.

Despite the dramatic decline in oil prices, most of the major development projects implemented by the second plan were successfully completed. However, the

government began to implement a spending cutback. The largest reductions were made in infrastructure projects (Ministry of Planning, 1990). Despite these cutbacks, a whole range of subsidies, current expenditure on civil service salaries and other state spending which might have affected the citizenry were hardly touched. During the five years of the plan the average annual real GDP growth rate declined 1.5 percent compared with a planned annual increase of 1.3 percent. The uncertainty of oil revenues reaffirmed the need to diversify the economy away from oil with special emphasis on industrial and agricultural projects. The government encouraged economic diversification by establishing large public investment projects (e.g., petrochemical industries) in order to be less dependent on the oil sector and attempted to engage the private sector in the development process by providing financial subsidies. In response to government incentives and funding, considerable growth was reported in manufacturing industries and agriculture (Ministry of Economy and Planning, 2000). This is illustrated by the fact that the non-oil manufacturing sector and utilities expanded at 12.4 percent and 18.6 percent respectively while the agricultural sector grew rapidly, surging to 8.1 percent per annum. See figure 3-2.

Figure 3-1 Oil Prices, 1970-2002
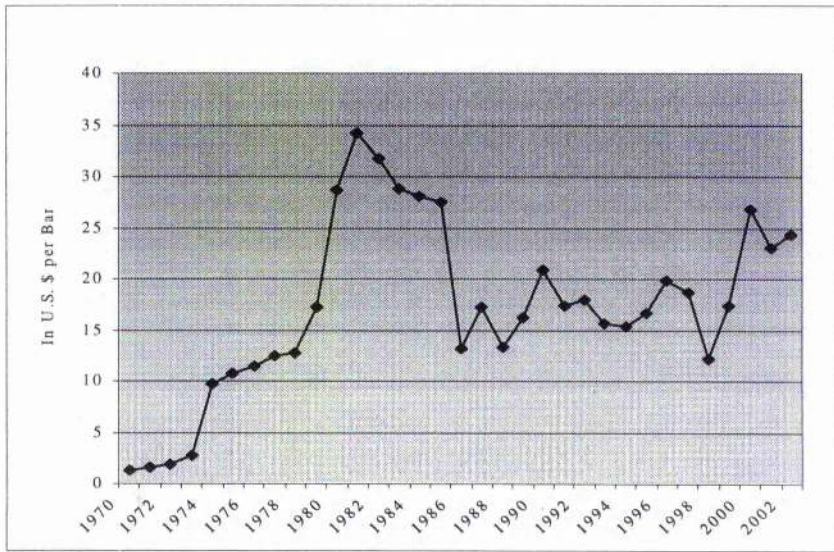
Source: the 2000 Annual Statistical Bulletin, OPEC .

Figure 3-2 The Economic Growth in Selected Sectors during the Third Development Plan

	Non-oil	Utlities Sector	Agricultural
■ Series1	12.4	18.6	8.1
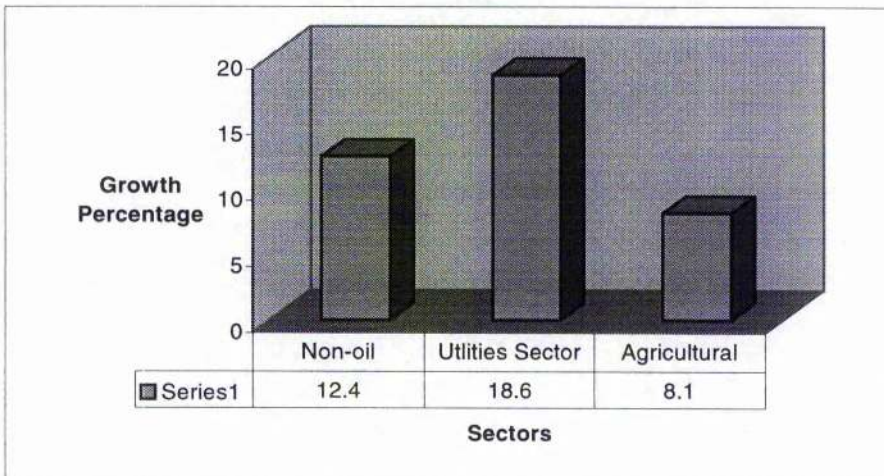
Sectors

Source: Ministry of Planning (1980)

In general, the increased contribution of the non-oil sector and the Saudi agricultural employment generated during the Third Five-Year Plan period reflected considerable progress in development planning performance.

3.3.1.4 The Fourth Development Plan (1985-1989)

The period under the Fourth Plan saw major structural changes to create a broader base for the economy in order that it move away from total reliance on oil. The main objectives of this plan were:

❑ To continue structural change in the economy in order to diversify the economic base and reduce dependence on crude oil as the main source of national income.

❑ To encourage the rapid development of the private sector as the principal mechanism for achieving economic diversification.

❑ To improve the economic efficiency of the government sectors.

❑ To complete the infrastructure projects necessary to achieve long-term economic and social development goals.

To further develop the Kingdom's human resources (Ministry of Planning, 1985).

At the same time, many infrastructure projects provided for by the third plan but which had not yet been completed, or in some cases not even started, were included in this plan. The plan aimed to de-emphasise the government's role in the economy. Instead it encouraged the private sector to become an active partner by making full use of the modern infrastructure built during the three previous five-year plans. This plan had two dominant themes: development and diversification of the national economy to minimise dependence on both revenue from oil sales and imports of goods and labour: concentration on maintaining and improving the quality of systems and facilities already in place (Haldane, 1985).

In order to achieve these objectives, the government approved a total of $ 267.7 billion expenditure. However, it was subsequently forced to reduce spending to 20 % below this target due to a further decline in oil prices. This situation together with a completion of the country's basic infrastructure caused the government to adopt a new methodology that concentrated on programmes and policies rather than specific project targets (Azzam, 1993).

3.3.1.5 The Fifth Development Plan (1990-1994)

The Fifth Five-Year Development Plan reflected the long-term vision of restructuring the country's productive resources, expanding its industrial sector and introducing modern technology throughout the economy. The objectives of the previous plan were reinforced, but the fifth plan placed special emphasis on the importance of the private sector as a player in economic development. Having completed major infrastructural projects, attention shifted to economic diversification, development of non-oil revenues, promotion of export and import substitution industries and more emphasis on balanced development throughout the country (Ministry of Planning, 1990). Other important development initiatives included measures that aimed at supporting the private sector and consolidating its participation in the promotion of various development sectors. Another aspect that gave the fifth plan its unique feature was the acceleration of the Saudisation process through strengthening the capabilities of the labour force.

Unsurprisingly, the Gulf War and its aftermath placed an enormous financial burden on the Saudi economy in the early years of this plan. The Gulf crisis is estimated to have cost Saudi Arabia over $ 55 billion, the equivalent of 56 per cent of GDP (Azzam, 1993). Furthermore, the Saudi government had to draw heavily on its foreign liquid assets and reserves and to seek loans on the international capital market and from national commercial banks at high interest rates to cover the substantial cost of the war (Azzam, 1993; Vassiliev, 1998). In adjusting to these new conditions, Saudi Arabia reduced its expenditure to pre-war levels and modified the expenditure priorities, which in turn affected private sector performance (Ministry of Planning, 2000).

3.3.1.6 The Sixth Development Plan (1995-1999)

While continuing to consolidate and expand on the objectives of prior development plans, Saudi national planners now faced a different challenge. The domestic and international conditions under which the sixth plan was prepared - the aftermath of the Gulf War and the steep decline of oil prices that followed in the later years - influenced government planning policy (Ministry of Planning, 2000). Diversification of the Saudi economy by reducing dependency on crude oil as a major source of income continued to be a key priority under the Sixth Development Plan. The plan was designed to boost the role of the private sector in the national economy. To accomplish this objective the government introduced different strategies. These included an expansion of the offset programme to include larger civilian projects, attracting international investment in joint venture projects and augmenting the use of private sector capital in financing government projects. To further expand the role of the private sector, the government called for the privatisation of the government's key existing commercial facilities. Another key focus of the sixth plan was the emphasis on the development of a skilled national workforce. It also stressed the importance of preparing Saudi nationals for the forthcoming movement towards replacing non-Saudi manpower with suitably qualified Saudis (Ministry of Planning, 1995). The government had been moving away from its role as a willing employer of Saudi nationals while the private sector was seen as the main provider of employment for the increasing number of Saudi citizens entering the job market.

3.3.1.7 The Seventh Development Plan (2000-2004)

The new development plan focused on ways to further encourage the private sector to take up a more active role. In this context, the government continued to give the

private sector the opportunity to undertake many of the government's economic and social tasks on condition that this would result in real cost benefits, better performance and employment opportunities for Saudi citizens (Ministry of Planning, 2000). Moreover, the plan emphasised privatisation as a strategic economic option. Continued attention was placed upon the development of human resources, in particular increasing the national labour force, upgrading its efficiency through training in order to meet the requirements of the country's economy and upon replacing expatriate workers. The training programme was designed to enable the national cadre to cope with modern technological development in various sectors (Ministry of Planning, 2000). To this end, efforts were exerted, by the Ministry of Labour and Social Affairs, to strengthen vocational training facilities and programmes to respond better to labour market needs. The number of young men searching for jobs increased from 1990-2000 (Tash, 1999). In 1996 the Saudi Manpower Council estimated the civilian labour force in the country was 7 million but only 2.5 million were Saudis. It is not possible to quote unemployment figures as they do not exist, but according to a report published by the Saudi American Bank, the rate is somewhere between 15 and 20 per cent.

In order to meet the needs of a growing population and new development efforts, continuous expansion of infrastructure facilities was stressed in the plan. The plan gave attention to the maintenance of the existing infrastructure. The government set a maximum average expenditure of $200 billion in the seventh plan, compared with an actual expenditure of $258 billion under the previous plan. This limitation has been set as government officials expect an increase in private sector investment.

The plan confirmed the country's accelerated pace toward integration into the global economy, including accession to the World Trade Organisation (WTO) and enhancement of technological developments within the country.

In addition, the national planners highlighted the international factors which might determine the country's economic development in the coming years. These factors can be summarised in four trends: first, globalisation; secondly, new technology, particularly in information and telecommunications; thirdly, the increased use of science as a tool to realise economic benefits in the competitive climate of both domestic and international markets; fourthly, volatility in stock markets, foreign exchange rates and costs of primary materials (Ministry of Planning, 2000).

To summarise, the five-year development plan was conceived as the instrument with which to transform a traditional society into a modern industrial one. The foundations of the Saudi economy were laid in the seventies when massive infrastructure projects were undertaken. The five-year development plans have reshaped many aspects of Saudi society. Furthermore, they have transformed the country into a progressive and modern state. However although successive development plans have made important progress towards achieving the main strategic objectives, the efforts to diversify the economy and reduce the number of foreign workers in the Saudi labour force have been largely unsuccessful.

3.3.2 The Challenges facing the Saudi Arabian Economy

At the turn of the new millennium, Saudi Arabia faced serious economic challenges. In recent years, the country has undergone significant changes that have important consequences. According to Nahed Taher, senior economist at the National Commercial Bank, to progress Saudi Arabia must move quickly to restructure the economy (BBC News, 2003). In the followings we will highlight some of these challenges:

3.3.2.1 Unemployment

Young people in Saudi Arabia found themselves at the turn of the new millennium competing with more than seven million expatriate workers when seeking employment. Thus, one of the most serious problems facing the country is the large number of expatriate workers which makes up two thirds of the total workforce and one third of the total population. The boom period of the 1970s and 1980s created a phenomenal expansion in the labour market of Saudi Arabia (Presley, 1984). The size and the quality of domestic labour were insufficient to support the rapidly developing economy (Ministry of Planning, 2000). This shortage of manpower resulted in the large-scale importation of skilled and unskilled labour to achieve the proposed growth targets. The traditionally small and closed Saudi labour market suddenly became wide open to significant labour inflows from numerous countries (Sirageldin et al., 1984). Expatriates make up a large and increasing portion of the employed work force: from about 27 percent in 1970, they have expanded to 53 percent in 1980, and to approximately 65 percent in 2001 (BBC News, 2002; SAMBA, 2002; Sirageldin et al., 1984). Another concern was the high cost of expatriate workers. For instance, the economy loses billions of dollars each year in the form of remittances sent by expatriate workers to their respective countries.

The developments from 1990 to 2000 have created a serious challenge for the Saudi labour market. Saudi Arabia has experienced a population explosion which has created among other things an indigenous demand for employment.

Figure 3-3 shows how the Saudi population of 18,200,000 in 1994 has grown to 23,420,000 in 2002 and is expected to reach 29.7 million by 2010 (SAMBA, 2002). The country has one of the fastest-growing populations in the world (McDowall, 2002). The World Bank estimates that half of the population is under 18 years old and there are not enough jobs for them. Currently, unemployment among Saudi

youth has risen to 15 per cent and each year another 163,000 enter the job market (Allen, 2000a; McDowall, 2002; Ministry of Planning, 2000). It must be noted, too, that "with young people representing such a large percentage of the population, the state's inability to provide them with employment will in the long term prove a major source of social tension that could result in the destabilization of the current regime" (Yamani, 2000, p.75).

Figure 3-3 Population Growth
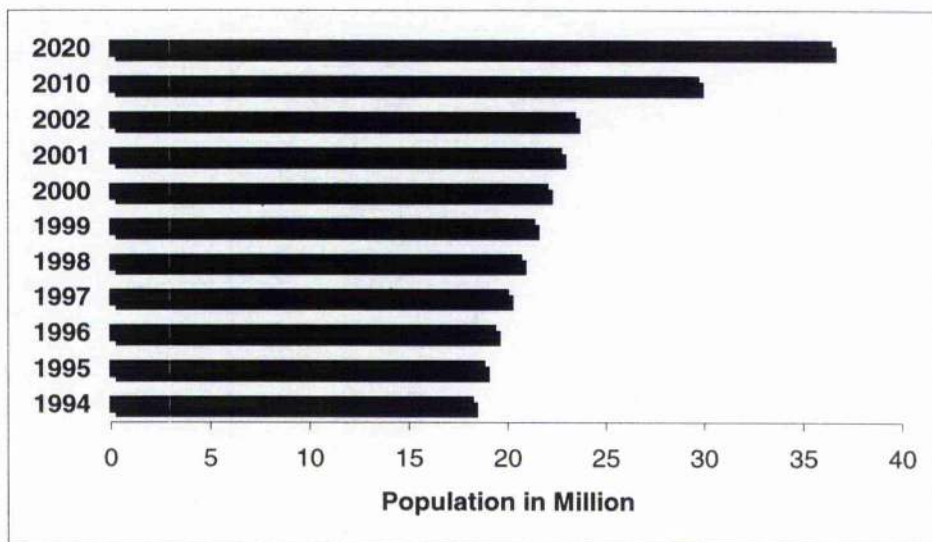
Adapted from: SAMB, the Saudi economy in 2002, pp.1; and the World Bank database for World Development Indicators base on
http://www.worldbank.org/data/wdi2000/pdfs/tab2_1.pdf

In the past the job security and higher paid jobs offered by the government have attracted the Saudi labour force to work either in government or in state-run companies such as ARAMCO and SABIC. Nevertheless, the government cannot afford to continue with its policy of the past twenty years of providing Saudis with white-collar office jobs. Therefore, job creation is becoming the single most important economic driver in the country and the most critical factor for the liberalisation and reform programme.

The Seventh Plan aims to create 328,600 jobs for nationals. The plan calls for additional employment for more than 817,000 Saudis which will be achieved partly through Saudisation – Saudis taking over from expatriate workers - and the remainder through job creation (Bashir and Hanware, 2001). Employment in the non-oil private sector is expected to increase from 6.16 million in the base year 1999 to 6.47 million by the end of the Plan in 2004. Thus, the total number of additional job opportunities available in the private sector will be 311 thousand, or about 94.6 percent of the total number of jobs created during the period of the plan. The situation is expected to become more critical in the future. In an attempt to create employment opportunities, the government has initiated protective labour regulations, the so-called "Saudisation " (Washington Post, 2001). The programme aims at employing more Saudis in both public and private sectors. We will discuss the Saudisation programme in details in section 2.5 in this Chapter.

3.3.2.2 Population Growth

From 1980 to 2000, Saudi Arabia experienced one of the world's highest population growth rates as well as massive migration to urban areas. According to the primary results of the general census in 1992, the total population of the country was 16,929,294 (Ministry of Economy and Planning, 2003). The demographic structure is very young, with 73.5 percent aged 29 or younger. Figure 3-4 shows the distribution of the total current Saudi population by age. At current growth rates, the population is expected to reach 29.2 million by 2010. In 2001 the number of children entering primary school was almost double the number of students who left secondary school. At the same time, the fertility rate of 5.5 children is double the world average (McDowall, 2002; Powell, 2001; SAMBA, 2002; UNICEF, 2000).

Figure 3-4 Population in Saudi Arabia by Age Group-2001
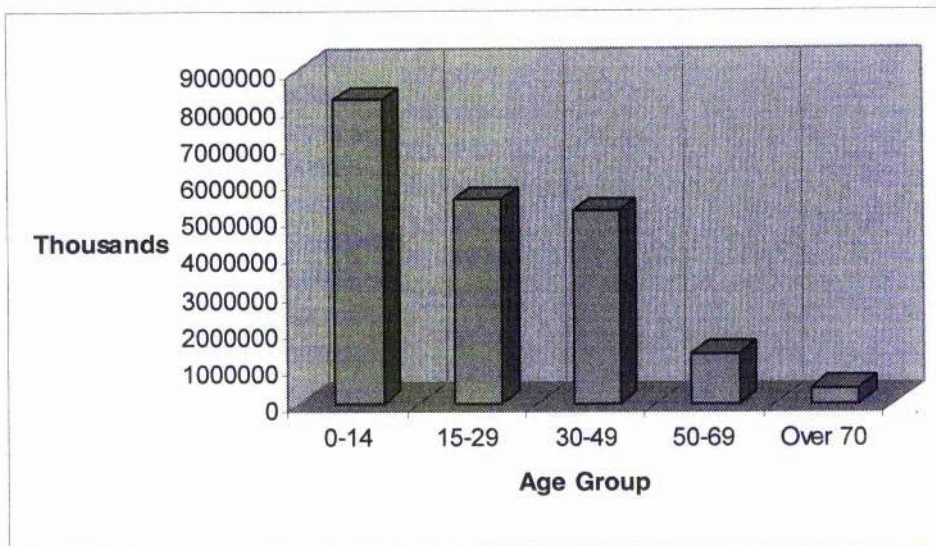
Adapted from: Ministry of Economy and Planning Web Site, Central Department of Statistics base on http://www.planning.gov.sa/statistic/sindexe.htm

Substantial expenditure, therefore, will be required during the next two decades to finance investments in the replacing of the ageing infrastructure, to add further capacity to meet the needs of expected population and economic growth. The extent of Saudi population growth will necessarily have an immense impact on the country's economic wealth and development. The unemployment issue is not the only demographic concern for the Saudi government. The above figures suggest the necessity for massive investment in infrastructure and government services to support a population which will at least double in number. Children and teenagers are large consumers of public services such as health care and education, while their productive contribution is marginal (Winckler, 1998). The table below indicates that the Saudi government will need to invest more than $ 250 billion in the next twenty years to meet the demands of rapid population growth (See Table 3-2).

Table 3-2 Infrastructure Needs, Financing requirements in the next 20 years

Power Sector	$115 billion
Telecommunications	$20 billion
Petrochemicals	$10 billion
Oil and Gas	$25 billion
Water	$80 billion
Total	$250 billion

Source: Riyad Bank, Overview of Saudi Arabia's Current Economic Environment, 2001

Without proper planning, the economic situation will deteriorate in the future. The national planners are aware of the need to maintain the existing infrastructure and to meet the increasing demand for basic services, including education, health and social care (Ministry of Planning, 2000). For example, the Saudi budget allocated 25% of its resources to education in 1999. This percentage grew to over 37% in 2002. The government clearly needs to encourage smaller families in an effort to reduce population growth. However, religious teaching and societal expectations may well undermine this effort.

3.3.3 Structural Economic Reforms

Now it seems that Saudi Arabia is ready for drastic change. Already the realities of economic setback have forced the government to take positive action to transform the economy. Prince Alwaleed bin Talal who is well recognised in the field of business in Saudi Arabia and has made the Forbes magazine list of the world's 10 richest men, warned that "if oil goes down to $10 or $11 dollars (per barrel), then the government will only be able to pay itself. That is why we can't let this nightmare happen and we have to start now to diversify" (McDowall, 2002).

The government has begun to consider and in some cases to implement a series of structural economic reforms designed to open the country to greater foreign investment and to diversify the economy. We shall first attempt to shed light on some of the major economic reforms being undertaken by the government:

3.3.3.1 The Supreme Economic Council

In 1999, a royal decree was issued announcing the formation of the Supreme Economic Council (SEC). The council is aimed at accelerating economic reforms and ensuring investor stability. For the first time, all major economic decision-makers in the government will be brought together regularly to focus exclusively on economic issues (Alkatheri, 1999). The primary purpose of the council is to develop and evaluate economic, industrial, agricultural and labour policies to assess their impact on the national economy. Among the SEC's stated objectives are to sustain economic growth in an organised manner, to focus on economic diversification, to enhance per capita income, to sustain price stability, to create job opportunities, to increase savings and sound investment channels, to expand state revenues and to enhance and encourage private sector participation in the economy. Similarly, the Supreme Economic Council is expected to revise the country's commercial and investment laws to remove legal and/or technical barriers for the free movement of people, goods and services (Resources, 1999). The birth of the SEC is considered as clear evidence of government determination to reform the economy. However, questions remain about its ability to deliver quick results. Saudi Arabia is better known for cautious change than for radical innovation. Therefore, rapid moves towards reforming the economy will become a major source of challenge to the SEC.

3.3.3.2 Foreign Investment Law

Attracting foreign investment has become a vital part of Saudi Arabia's economic policy. One of the first accomplishments of the SEC was the approval of a Foreign Investment Law on April 2000. Foreign investors have traditionally found Saudi Arabia a challenging market to enter (Al-Saleh, 1994). Under the new law foreign investors have the right to the same benefits, incentives and guarantees offered to Saudi Arabian individuals and companies. It also allows foreign investors to own property and real estate, either jointly with a Saudi partner, or independently. In a dramatic change from previous investment law, foreign firms no longer need a Saudi sponsor; that means foreign investors can own 100% of the project. Previously, foreigners were allowed only a 49 percent stake in joint projects — a restriction which economists saw as too great. Furthermore, the regulation also gives foreign investors some of the incentives that are given to national companies. For instance, subsidised loans from the Saudi Industrial Development Fund (SIDF) are now available to both foreign and Saudi owned enterprises. Additionally, sponsorship of the foreign investor and its non-Saudi employees is undertaken by the licensed entity and not a local person/entity.

The chief executive of Shell in Saudi Arabia, Floris Ansigh, believes the Saudis are serious about their economic reforms:

> "We have seen tremendous efforts by the government to make it possible for a very wide group of investors, both Saudi and foreign, to see an opportunity in Saudi Arabia. Tax rates have been changed, ownership rules have been changed. It's been made much easier to get visas into the kingdom" (Gardner, 2000a).

Another very significant change is the reduction in the corporate tax rate for foreign companies with profits over SR100,000 a year, from 45 percent to 30 percent. The

new law also enables companies to carry forward corporate losses for an unspecified number of years (Bourland, 2000).

It should also be noted that the new law targets both foreign and domestic investors. According to the U.S.-Saudi Arabian Business Council (2001), Saudi private capital overseas now totals $600 to $700 billion. The absence of clear, stable and flexible laws had driven the domestic investor away from the local market (Al-Fwzan, 2002).

There is evidence that the flow of foreign investment has increased since the introduction of the new investment law. For example, while only $4.5 billion of capital investment came to the country in 1999 this doubled to $9 billion in the year 2000 (Al-Baqami, 2002). However, the government wants foreign investors to bring in not just capital but also management know-how and technology (Butter, 2001). The SEC issued a "negative list" of a small number of activities which deny foreign investors participation (Al-Zobidy, 2002b). Among 19 activities barred to foreign investors are those in sectors like telecommunications, insurance, oil exploration, security, retail and wholesale, education, and land and sea transport. Meanwhile, SAGIA is required by law to revise periodically this list and is committed to making it as short as possible

The Saudi Arabian General Investment Authority (SAGIA) was formed to facilitate liberalised investment policies and legal reforms. Further, the organisation was made responsible for approving licences for foreign investments, both temporary and permanent. It will be mandated to approve or deny foreign investment application in the streamlined timeframe of thirty days. SAGIA has a broad mandate on all matters relating to foreign and domestic investment in industry, services, agriculture and contracting. Its duties include formulating the country's policies for the promotion and enhancement of domestic and foreign investment,

and devising executive plans and regulations appropriate for the creation of a good investment climate in Saudi Arabia. SAGIA will follow up and evaluate the performance of both domestic and foreign investment, and conduct studies on investment opportunities in Saudi Arabia and ways of promoting them (Saudi Arabian General Investment Authority, 2002).

Saudi Arabia hopes to increase and diversify these capital inflows and thus create more employment and training opportunities for young Saudis (Time, 1992). In short, factors which attract investors and increase the volume and productivity of both foreign and domestic investment are effective policies, governance and institutions, adequate infrastructure and appropriate regulations. As a result, SAGIA should focus its effort toward creating such an environment for investors. Further, SAGIA needs to establish all the necessary elements required for removing the bureaucratic obstacles that hamper foreign investment. Some analysts think the government has been a little slow in providing the favourable climate needed to attract foreign investments (Asharq Al-Awsat, 2001). The September 11 attack on the United States, followed by the smear campaign in the American media have had a negative impact on the investment climate and have added a new challenge to the Saudi government including SAGIA. To illustrate, a multi billion project may be delayed because of diplomatic tensions between the White House and the Kingdom (Lorenzetti, 2002). Saudi Arabia needs to project itself now as a safe place for investment (Alhayat, 2002).

3.3.3.3 Privatisation

Privatisation has become a global phenomenon, as more and more countries adopt it. Several reasons contribute to why many developing countries have launched ambitious privatisation programmes. The aims are to improve the efficiency of the

state-owned enterprises, to promote economic growth and to stimulate productive efficiency. Other characteristics of privatisation may include; expanding the role of the private sector, reducing the size of the government sector and attracting foreign investment and help in the development of capital market programmes (Bakr, 2001).

In Saudi Arabia, privatisation has been adopted as a strategic option to enhance the private sector role in the economy as well as to increase efficiency and productivity. The public sector in Saudi Arabia is very large. Several public organisations were established in the 1970s and the mid-1980s, involved in many activities such as oil and minerals, silos, water and electricity, regional development, banking and investment funds, as well as in the petrochemical industry (Ayubi, 1995). The scope for privatisation therefore is vast within the Kingdom. Some of the potential candidates for sell-offs are the Saudi Basic Industries Corporation (SABIC), which is 70 per cent state-owned, Saudia, the national airline, and the telecommunications sector. As we discussed earlier, the government is trying to move away from its role as the main provider of capital for economic development. The government has started with privatising the telecommunications sector even though it generates significant revenue for the government. In May 1998, the Council of Ministers announced the establishment of the Saudi Telecommunications Corporation (STC), the first phase of privatisation of telecommunications services. STC will operate as a wholly state-owned corporation for two years before starting to offer shares to the public in stages. The intention is ultimately to sell STC and it is currently being advised on its privatisation options. Three years later, the government took further steps and passed three new laws on the regulation of the sale of stakes in the telecommunications sector to the private sector. The first law established a regulatory framework for the telecommunications sector, and the second law

created a telecoms authority, which will be responsible for granting licences to private investors. The bill's third law settled the status of STC's employees, transferred from the Ministry of Post, Telegraph and Telecommunications. In a related development, the Saudi Government in May 1998 also authorised the private operation of postal services. As of July 1998 there were already over 100 private postal offices across the country.

Attention later shifted to the power sector. The Saudi electricity sector is set to be a major area of investment by foreign companies. This sector's capital investment needs are estimated at $117 billion by 2020, and significant investment is needed to increase generating capacity. The Saudi government has merged its main regional electricity companies into a single private entity, to be known as the Saudi Electricity Company (SEC). Initially, SEC will be 85 per cent owned by the state, but the long-term aim is to make Saudi Arabia's power sector self-supporting and not dependent on the state. The merger is intended to facilitate the role of private companies in establishing and managing power projects in Saudi Arabia. In another major step towards restructuring the power sector, the Supreme Economic Council established an authority to regulate electricity services. The new authority will regulate in the interest of all parties - generators, transmission companies, distributors, consumers and investors. It will also review costs and tariffs across the industry and present periodic reviews to the Council of Ministers (Asharq Al-Awsat, 2001; McDowall, 2001).

Attention is currently focused on Saudi Arabian Airlines (Saudia), municipal services, grain mills and silos, the Saudi Railways Organisation (SRO) and the Saline Water Conversion Corporation (SWCC) as well as large minority stakes in banks. For example, a group of regional and international consultants including

Clifford Chance, KPMG, BNP Paribas and SH&E were appointed to submit proposals for how the privatisation of Saudia might best be completed.

Privatisation in Saudi Arabia is still at an early stage of development. However the process is taking a relatively discreet approach rather than an aggressive one. To date, only 30% of the state-owned Saudi Telecommunications Company has been privatised and generally privatisation has largely been limited to allowing private firms to take on certain service functions. The government is probably concerned about the negative social, financial and economic impact of privatisation. Some studies suggest that the cost of privatisation may include unemployment, closure of plants, cutbacks in workers' fringe benefits, wage reduction, and reduced subsidies (Husain, 2001; Jiyad, 1996). It is worth mentioning in this respect that reduced subsidies and increasing tariffs on electricity have proved problematic, with a rate increase announced in April 2000 subsequently reversed in October in the face of widespread public opposition (Alriyadh, 2000; Yamani, 2000). One reason for the reluctance to adopt such measures is the imperative of not imposing undue burdens, such as higher tariffs for utilities, on Saudi citizens. This may reflect what some analysts have suggested that "although Saudi leaders have in recent years talked the talk of privatisation, they have not yet walked the walk" (Gause, 2000).

Some argue that the Saudi government needs to move more aggressively to enact its reform programme. Although Saudi decision-makers are better known for gradual change, the "Saudi way" of progressing may no longer be possible. As Minister of Oil Ali Al-Naimi, Saudi Arabia's Minister for Petroleum and chairman of Aramco, the national oil company, described, "With globalization, I don't think we have time. We are living in a crystal ball now. People see what's happening worldwide on every screen." (Friedman, 2002). Yet, successful privatisation requires more than just the buying and selling of public property. The pace and intensity of

privatisation in Saudi Arabia has to take into account the multiplicity of government objectives (economic, social and political) that have to be pursued compared to the profit objective for private enterprises. If privatisation is to proceed it must be introduced in a gradual and controlled manner.

3.3.3.4   Saudisation

Massive population expansion, greater energy demands and high unemployment made the provision of jobs for Saudi nationals a priority for the government. The baby boom of the previous generation has resulted in 45.6 per cent of the national population of 17 million being under the age of 15. In addition, unemployment among young Saudis now stands at about 15 per cent in a quickly growing population (SAMBA, 2002). Recognising how this figure will affect future employment rates and the general economy, the government has instituted a policy known as "Saudisation" to cope with the high national unemployment rate. "Saudisation" is used to describe the country's effort either to provide jobs for a growing number of Saudis or to replace an uncomfortably large number of expatriates with a trained and qualified local labour force in a planned manner that will ensure the continuity of work.

The total number of young Saudi men reaching working age (15-19 years) rose from 789,000 in 1990 and 1.0 million in 1995, to 1.3 million in 2000 and is projected to rise to 1.5 million in 2010, 1.8 million in 2015 and 2.1 million in 2020 (Knipe, 2000; World Bank, 2000). At the moment it is clear that the country is still relying on expatriate workers for labour. According to the Manpower Council, there are 7.2 million foreign workers in Saudi Arabia, representing nearly 65% of the country's total labour force (Al-Zobidy, 2002a).

The Saudi government has actively pushed towards Saudisation since the fourth five-year development plan. However under the fourth and fifth plans the number of foreign workers actually increased (Cooper, 1996). The Saudi Sixth Development Plan (1996-2000) attempted to create 191,700 new jobs, 148,700 vacancies as a result of turnover, and the creation of an additional 319,500 jobs by replacing non-Saudis with Saudis. It also called for the creation of 660,000 new jobs in the private sector.

Despite all these efforts, the government has not yet succeeded in meeting its targets. The seventh development plan, once again, "lays special stress on human resources development, seeking to increase employment opportunities... this is attributed to the plan's keenness to enhance the participation of national manpower, raise their efficiency to meet the requirements of the national economy and replace non-Saudi manpower by Saudis" (Ministry of Planning, 2000).

Against this background, several measures were implemented to address the rising unemployment among Saudi nationals. For example, in 1996 the government required that any enterprise with more than 20 employees should be committed to increasing the Saudi work force by no less than five percent annually. This percentage was further increased to 25 percent in 2000 (SPA, 2000). However, labour ministry officials say small companies, those employing fewer than 20 people and representing 97 per cent of Saudi Arabia's private sector, are exempt from this quota (Financial Times, 2000).

Another measure implemented by the government limited employment in certain fields to citizens. Those fields include; the wholesale vegetable and fruit markets, jewellery shops, cleaning and maintenance, real estate, telephone and postal services (Arab News, 2002).

As part of its drive for Saudisation the government has established the Human Resource Development Fund to finance the training of Saudi nationals for jobs most needed by the private sector, and a new labour law to further enhance flexibility is under discussion. Furthermore, the council aims to come up with practical solutions to the problems encountered in the drive for Saudisation in the private sector. The creation of the fund is another step towards the development of human resources and ensuring an increasing supply of qualified manpower through training to meet the market demand. Two schemes approved by the fund will help create employment for hundreds of thousands of Saudi youths. The fund will match the amount received by each employee as both salary and allowances — or a minimum of SR2,000 if that figure is higher — for each Saudi recruited directly by private firms. Saudis who have completed a training course from approved centres and have not yet been employed will be eligible for the scheme. The second scheme approved by the council is on-the-job training for young Saudis. The scheme encourages youths to join a company that will train them and during this period the fund will cover 75 percent of their salaries and allowances (Al-Baqami, 2001).

The government hoped that through the aforementioned policies the private sector would make greater use of the Saudi Arabian work force rather than the foreign work force and create new work opportunities for Saudis. The government, however, has accused the private sector of failing to fulfil its duties to reduce the number of foreign workers and replace them by Saudis. However, there are several obstacles which make it very difficult for the private sector to accomplish this ambitious aim.

The driving force behind the private sector's employing of non-Saudis is the high cost of the national workforce. The private sector has naturally tended towards the recruitment of foreign workers because of the availability of cheaper foreign labour

(El-Mallakh, 1982). Based on the Central Department of Statistics (CDS) survey, the average monthly salary of non-Saudis during the 1996-97 period amounted to SR1901 compared to SR5704 for Saudis. In all economic activities, apart from the oil and mining sectors, the average monthly wages of Saudis were higher than non-Saudis (Al-Shaikh, 2000).

In the past, Saudis have shown a preference for employment in the government sector, which paid higher wages, at middle level positions and below, than the private sector, and provided greater job security and better conditions in terms of working hours, employment regulations and promotion prospects (Ministry of Planning, 1995). Economic necessity, though, is forcing growing numbers of Saudis to accept less well-paid and prestigious jobs than in the past.

A further factor that needs to be taken into consideration is the problem of attitude. Saudi youth has a low acceptance of manual labour (Yamani, 2000). The greatest challenge may lie in the social prejudice of young Saudis against certain jobs. The existence of a very complex set of social and cultural values has encouraged unfavourable attitudes towards certain jobs, considered socially shameful and improper, such as plumbers and carpenters. Young Saudis want jobs that offer them both prestige and high wages. Although growing numbers of Saudi youth show willingness to accept jobs in hotels and fast food outlets, there are clearly jobs that young Saudis cannot imagine doing (Knipe, 2000; Yamani, 2000). Fortunately, there is a gradual awareness among the new generation that the "boom" period cannot continue and that they themselves must take greater responsibility for their employment (Yamani, 2000). Faced with this reality the Saudi youth needs to adopt a more realistic and much healthier attitude to the role they should play within the Saudi Arabian economy.

3.3.3.5 Women and Saudisation

Women's role in the labour market in Saudi Arabia is extremely limited. Although women's education has witnessed considerable expansion in term of schools and students, and although the number of female university graduates has continued to increase at a faster rate than that of male graduates, their contribution to the national workforce is still secondary. To illustrate this, the total number of male graduates of the higher education system will increase from about 69000 in the Sixth Plan to about 127000 in the Seventh Plan, and the number of female graduates from 85000 to 146000 during the same period (Ministry of Planning, 2000). Therefore, a greater role for women in the labour market is essential to support the government effort to replace expatriate workers with Saudis.

There are certain social conditions, government regulations and cultural aspects which all limit women's participation in the workforce (Sado, 1999). According to statistics compiled by the local chambers of commerce women account only for five percent of the Saudi workforce (Bashir, 2001). The number of professions which women can enter is still limited. Most working women are either teachers or nurses, but others are getting into accounting, banking and journalism (The Economist, 1998). However, since most educated Saudi women reside in the Kingdom's major cities, jobs in teaching and nursing have become increasingly difficult to come by in urban areas. In private businesses, the banking sector has been the most advanced in training women. The commercial banks now have women not only as managers of women's branches of the banks but also as divisional managers in bank headquarters (Washington Post, 2001). The pressures for female employment will grow explosively because of the country's economic contraction. Young Saudi women want to work not only because of the desire for self-fulfilment, but because family budgets can use a second income in these leaner

times (Hirst, 1999). Today, Saudi living standards have slipped from among the world's highest in 1981 with per capita of about $19000 to the level of a middle-income country in 2000 with a per capita income of about $7000 (Cordesman, 2001; SAMBA, 2002).

In the light of the above evidence, a greater role should be given to women in the labour market in accordance with the teachings of Islam (Gaouette, 2001; The Economist, 1998). Segregation between sexes in the work place need not to be an obstacle. For instance, banks in the Kingdom have separate female branches. Both the government and the private sectors can create employment opportunities for women in an all-female environment. Moreover, the experience in Saudi hospitals has shown that men and women can even work comfortably together (Martin, 2002). The role of women has become more than a social and cultural issue. Now it is a very concrete economic one.

3.3.3.6 Gas Initiative

Another significant development on the structural reform front is the awarding of three major natural gas upstream projects to major international energy companies. The selection is all part of what has been dubbed the Saudi Arabian Natural Gas Initiative and is the first foreign direct investment in the Saudi upstream energy sector (other than in the Saudi-Kuwaiti neutral zone) since Aramco was nationalised with compensation during the period 1974-1980. The agreements cover exploration and production of natural gas, power generation, water desalination and petrochemicals manufacture, and will involve a combined capital expenditure of $25 billion (Al-Mutrif, 2001). According to the 2000 Statistical Review of World Energy, published last June by BP, at the end of 1999 Saudi Arabia had proven natural gas reserves of 204.5 trillion cu ft. By comparison, Iran had reserves of

812.3 trillion cu ft, the Russian Federation 1,700 trillion cu ft and the U.S. 167.2 trillion cu ft.

Saudi Arabia has a pressing need for more electricity and drinking water and clean-burning gas is the most desirable fuel for firing the necessary power stations and water desalination plants. Current economic realities, including strong energy demand, necessitate foreign investment in the gas sector. For the last 20 years, Saudi Arabia has experienced one of the world's highest population growth rates and massive migration to urban areas. As a result, energy demand has grown rapidly to unsustainable levels (Alhajji, 2000). Furthermore, demand within the domestic market is growing rapidly as a feedstock for industry, particularly petrochemicals (Hassan, 2001b).

Under the plans already announced, consortia are being formed to develop three so-called core ventures, with definitive agreements due to be in place by the end of the year. The first venture, viewed as the most attractive investment opportunity, entails exploiting gas reserves in eastern Saudi Arabia at South Ghawar, estimated at 30,000 billion cubic feet, and building two petrochemical plants, two power stations and four desalination plants. The consortium is being led by Exxon Mobil, with Anglo-Dutch Shell, the UK's BP and Phillips Petroleum all taking smaller roles. Initial investment is estimated at $12 billion to $16 billion. The other ventures cover the west coast (Red Sea) area and Shaybah in the far south-east, near the border with the United Arab Emirates. These projects are likely to require investment of $5 billion to $10 billion each and are being led by Exxon Mobil and Shell respectively, with Marathon, Occidental, Conoco and France's TotalFinaElf also involved. The role of Saudi Aramco in the projects remains unclear but official sources have said it will be closely involved in what it describes as a co-operative

effort. In all, the three projects will cover 170,000 square miles, an area about the size of Sweden (Al-Mutrif, 2001; Al-Zobidy, 2001).

Analysts expect natural gas to become the new engine of the Saudi economy as these projects will increase the government's revenues from gas and related industries from $11bn to an estimated $23bn. The impact of the initiative will extend far beyond the energy sector. For example, there are many indirect advantages especially concerning the labour market, as studies have shown that a $1bn investment in the gas sector will provide 1,300 to 2,000 jobs, in addition to 16,000 jobs in the petrochemicals, electricity, water desalination and cement industries, which will all witness a substantial growth in order to provide the necessary infrastructure for these projects. The government should ensure that the largest possible number of Saudi citizens takes advantage of these new jobs to reduce the unemployment rate (McDowall, 2001). Saudi officials have promised repeatedly that the gas initiative will lead to the creation of thousands of jobs for Saudi citizens and many advantageous opportunities for Saudi businesses (Macleod, 2002).

3.3.3.7 Education

Among the other important obstacles to Saudisation is the mismatch between skills and the requirements of the local labour market. Few Saudis have the necessary skills to replace the foreign technicians, mechanics, and other skilled workers (AlDoghan, 2001; Yavas, 1997). Many analysts blame an outdated education system that does not encourage intellectual curiosity and produces too many graduates ill-equipped to find a job (Allen, 2000b). Stressing the same point, some argue that the traditional Saudi education system does not prepare students for the competitive global marketplace (Al-Humaid, 2002). For example, more than 84%

of university graduates in Saudi Arabia are in social sciences, not technology. This illustrates that most of the graduates are in fields not in demand by the private sector. See table 3-5

Figure 3-5 University Graduated by Field of Specialisation's (1995-1999)
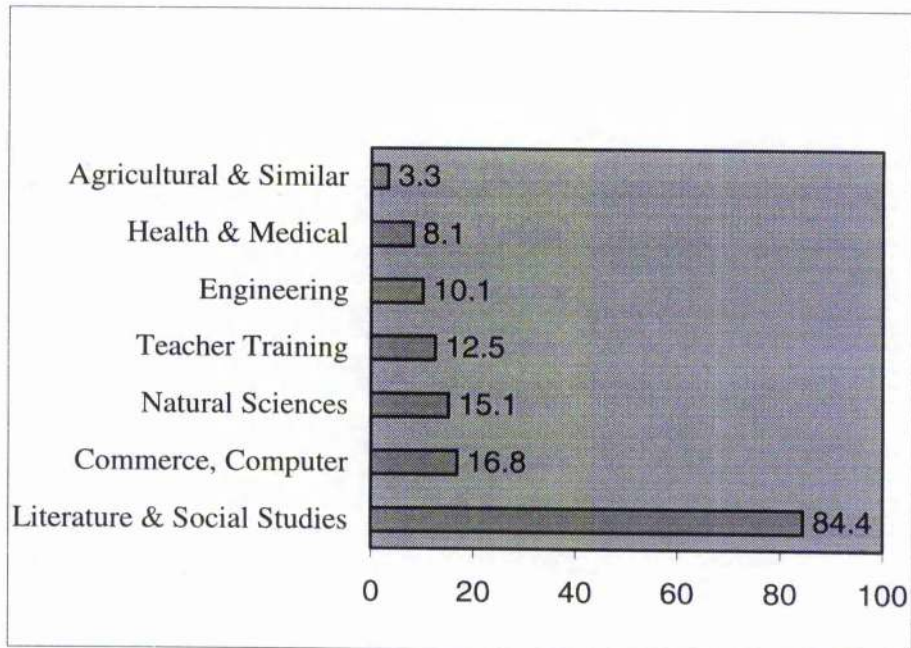
Massive investment in education has done little to change the character and the quality of Saudi education. As we discussed earlier, the educational and vocational system in Saudi Arabia does not encourage intellectual curiosity in modern sciences such as physics, maths, biology etc and thus it produces too many graduates who are ill-equipped to find a job. According to Cordesman (2001), Saudi graduates

> "...do not have the equivalent of a Western junior college education, and that even at the post-secondary level, far too few teachers insist on the proper performance level or are willing to fail Saudi students. They are particularly concerned with the low quality of teacher training and a tendency to emphasize Islam at the expense of teaching skills in core areas" (p.45).

There is an immediate need to reform the education system. If there is a true will for economic development, the quality of education must receive closer attention. It is clear that the present curriculum largely fails to address the wide range of educational purposes outlined in the earlier development plans (Al-Humaid, 2002). If the education system is to play a vital role in addressing the unemployment problem, it must reflect the technical skills the Saudi economy demands. Therefore, serious attention should be given to the issues of cognitive skills, computer literacy, and engineering and science skills (Prokop, 2003). In addition, there is increasing recognition that the technical education and vocational training systems require a deliberate link with businesses and industry (Al-Ghafis, 1999). According to the Saudi Chamber of Commerce and Industry, "the demand for jobs is high, the key is qualifications," and this is why the Saudi education system is now attempting to channel young nationals away from universities toward technical training (Champion, 1999).

3.4 The Sociocultural Environment

Saudi Arabia has gone through rapid modernisation and technological infusions in the last three decades. These changes have influenced all aspects of social and cultural life. Saudi society has moved from being a rural and isolated society, divided into regional and tribal groups, to one that is largely urbanised. However, Saudi society has retained its deeply conservative and religious character despite the country's rapid modernisation over the last half century (Cordesman, 2001). Islam remains the major influencing factor on Saudi sociocultural life. For Saudis, Islam is an integral part of daily life: no distinction is drawn between the sacred and the secular, or between morality, law and politics. Strong devotion to family, respect

for social cohesion and pride in their heritage and culture also play an important role.

Today, rapid population growth appears to constitute the most critical pressure on Saudi society and the Saudi economy. The Saudi population of 6 million in 1975 has grown to 23.42 million in 2002 and is forecast to reach 29.7 million by 2020. The high rate of population growth means that the country has a very youthful demographic profile with around 45.6 percent of the population aged less than 15 and more than 73 percent of the population 29 years old or younger (Gardner, 2000a; SAMBA, 2002). This population growth has been accompanied by high expectations and falling oil revenues. Saudi youths today expect more from the government than did their parents, even though they are receiving less. These young people grew up accustomed to a high standard of living and they continue to expect high-quality health care, housing and other services which their parents never knew as children (Byman and Green, 1999). They are more educated and know more than their parents' generation because of their exposure to print and electronic media, including satellite television, the Internet and a variety of publications (Yamani, 2000). This knowledge, however, creates problems and uncertainties in the majority of Saudi people. Part of the problem lies in the government's inability to provide high levels of expenditure on welfare provision such as health and education. Fortunately, there is a general awareness that the oil boom is over. Per capita incomes in Saudi Arabia are only one third of what they were at the peak of the oil boom, a decline caused in part by falling world prices. In December 1998, Saudi crown prince Abdallah bin Abd al-Aziz at the GCC[5] summit warned the Gulf leaders that the giddy days of limitless oil money were over: "It is useful for us, governments and people, to remind ourselves that the boom days are

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[5] Gulf Cooperation Council.

gone and will not come back." He also called for "a new way of life that is not based on total dependence on the state" (May, 1998).

The social contract theory goes a long way to explaining the high socioeconomic expectations and the government's declining ability to deliver. The social contract, in the past, between the rulers and the ruled implied that the absence of political participation was to be compensated by generous social benefits and subsidies (Henderson, 1999). However, low oil prices and the mounting deficit, along with rapid increase in population pose an impending threat to this social contract. Therefore, the Saudi people now are calling for greater freedom of expression and greater participation in decision-making regarding public policy. As Champion (1999) points out:

> "Paradoxically, socioeconomic and political expectations may enjoy an inverse relationship: accepting lower socioeconomic expectations may prompt demands for political development and greater political participation, reversing the social contract which has been in place since the 1973–1974 oil boom whereby the Saudi government supported a generous "welfare state" in return for political quiescence" (p.53).

If the government violates its commitment to the social contract that might well lead to social instability unless it maintains the same level of subsidies and social benefits. In fact, the government has taken some steps to cutting back subsidies on water, petrol, electricity and telephone to increase revenue (Montagu, 1995). The uncertainty of declining oil revenues hits the Saudi public hard economically. In order to prevent social pressures from getting out of hand, the government must take the necessary steps to promote economic and political reform.

Saudi society remains culturally homogeneous. The reflection of this homogeneity can be seen in a common Arabic language and in devotion to Islam. Also at the heart of the cultural homogeneity is the family. It is considered as the most important social institution in Saudi Arabia (The Library of Congress Countries

Studies, 1992). According to Ymani (2000) the family is one of the primary units of identity and status for the individual. However, Saudis still attach importance to Islamic identity first and then national identity as the second one. In this context, it is worth mentioning that urbanisation, education, and modernisation are having profound effects not only on society as a whole, but also on the family. Urban migration and wealth are breaking up the extended family household, as young couples leave home towns and establish themselves in single-family homes (The Library of Congress Countries Studies, 1992).

There is no doubt that Saudis are experiencing a complete transformation of their traditional way of life. The conflict between tradition and modernity is also a factor in social life. There is some resistance to modernity and globalisation. Some Saudis fear that modernity may bring Western values that threaten Saudi traditions (Yamani, 2000). On the one hand, there is a tendency toward new technology, liberal attitudes and a constant balancing of the new and potentially uncertain with the certainty of the old. On the other hand, for many Saudis modernity must be carefully controlled to maintain social values. As Byman and Green (1999) point out, "the spread of new ideas, new forms of communication, urbanization, literacy, and other sources of change disrupted the rhythms of daily life and social hierarchies" in the Gulf States (p.25). For example, some conservatives in Saudi Arabia have pressed the government to ban access to the Internet sites that contradict with Islam and to remove satellite dishes. In contrast, people with liberal views think it is crucial that the country develops a modern competitive economy and moves gradually toward globalisation. However, Islam to the latter group is still the fundamental frame of reference (Wilcox, 2001; Yamani, 2000). These people are crafting a new strand of Islam, one that aims to reconcile the basic tenets of the faith with the realities that modern life imposes (Khalaf, 2002). Yet, the

challenge which Saudi society will face in this decade is to maintain social harmony.

3.5 The Technological Environment

Like many developing countries, Saudi Arabia has placed the emphasis on science and information technology activities. Without a doubt, the last two decades have witnessed dramatic changes in science and information technology, which have affected the society at all levels. In fact, governments that fail to obtain the necessary components of an advanced technology are likely to fall further behind in the quest for economic development. The Saudi government recognises that technology transfer and acquisition play an essential role in the development process. Moreover, the introduction of a modern technology throughout the economy has been at the core of Saudi developments plans, beginning with the first five-year plan. In order to fulfill its responsibility towards planning and development for science and technology, the current Seventh Development Plan gives special attention to the enhancement of technological advancement and the building of a national science and technology base capable of creation and innovation, with the participation of both the government and the private sectors. The plan encompasses, in this respect, the policies that are aimed at the adaptation of technology and the enhancement of research and development (R&D) activities in the various sectors (Ministry of Planning, 2000).

It has been shown in previous sections how Saudi Arabia's over-dependence on oil has left the country's economy vulnerable to fluctuations in world oil prices. This has led to Saudi Arabia taking several steps to diversify its economy away from oil. The pace of diversifying the economic base, however, will certainly be affected by the availability of the necessary technology. Technology is urgently needed to

allow Saudi Arabia to succeed in achieving an acceptable level of diversification of its economy. When the early economic developments were introduced in Saudi Arabia, the national scientific and technological potential of the country was very weak. The lack of skilled and professional manpower often delayed the successful implementation of technology transfer. Thus, high priority was given to the development of manpower in the fields of natural science, engineering, agriculture and medicine (Ministry of Planning, 1995).

Although there is no basic formula for the successful development of science and technology in a developing country like Saudi Arabia, one might be able to identify factors or components that play a major role in such a formula; R&D activities, the government's role, the educational system. In its effort to accelerate technological change, the government established some technological institutions to promote finance and execute science and technology activities. Among these key institutions is King Abdulaziz City for Science and Technology (KACST). The creation of KACST has been instrumental in strengthening science and technology activities in SA. KACST's responsibilities, among others, include the formation of the national science and technology policies in Saudi Arabia (Siddiqui, 1997). According to Al-Athel, KACT's main objectives include:

❑ Conducting applied scientific research programmes in the fields that serve the economic and social development objectives of the country.

❑ Establishing and managing an information centre which collects and disseminates data on the scientific and technological manpower resources in Saudi Arabia development in order to utilise this labour force in implementing scientific and technological development policies.

❑ Establishing and operating laboratories for applied scientific research in areas of importance to the country.

❑ Awarding scholarships to develop the necessary skills for conducting research work.

Besides this, KACST, through cooperative agreements with international science and technology institutions, encourages closer ties with friendly countries. When carefully comparing these objectives with the government's achievements in the field of science and technology, one must conclude that the science and technology potential is still far from being strong (Al-Sahlawi, 1997). Today, KACST must continue to guide and encourage institutions and scientists in order to meet future challenges. Furthermore, it must create the necessary support for the transfer of cutting edge technology into particular economic sectors.

3.5.1 The Saudi Offset Programme

The material and the expertise of the industrialised world are prerequisites for policy-makers in Saudi Arabia in order that they continue their drive for diversification of the economic base and expansion of infrastructural facilities (El-Mallakh, 1982). According to Alshoaibi (1998), this drive will not be smooth if it is not accompanied by the latest technology that the developed countries now possess. In this context, Saudi Arabia has initiated an interesting example of a new approach to technology transfer in the country by establishing the Saudi Offset Programme. This is an innovative investment programme established in 1984 to help form profitable businesses in Saudi Arabia. Designed to attract foreign investment, the programme encourages joint ventures between foreign and Saudi companies in order to:

- Diversify the industrial base.
- Facilitate technology transfer.
- Enhance private sector development.
- Create employment opportunities.
- Take advantage of local raw materials and infrastructure.
- Train and employ local people in highly skilled industries.

During the last decade the Saudi state has used such programmes in a variety of economic sectors including electronics, aerospace, computer system engineering, health, medical technology, telecommunications and energy. In the offset agreement, a certain percentage of a contract's value is reinvested in the purchasing country's economy (MEED, 2001). Among key participants are Lucent Technologies, Boeing, General Electrics and British Aerospace.

3.5.2 The Internet in Saudi Arabia

The desire to be globally linked to the latest communication technologies led the Saudi government to announce in 1997 its approval for providing the internet locally in the country. The first general users of the internet as in the rest of the world, were scientists, scholars, and eventually, students. General access was delayed until January 1999, when the Saudi government began allowing its public to access the internet through local service providers. It is worth reiterating that Saudi society remains one of the world's most conservative. Changes come slowly, usually preceded by extensive debate (Burkhart and Goodman, 1998). This delay, therefore, was due in a large part to the fear of offensive material (especially pornography) entering the highly sensitive and religious culture (Whitaker, 2001). KACST was ordered to monitor closely and filter and block undesired sites. This would in theory filter out any material which the authorities considered dangerous to the country's national security or public morals. Officials in the City have said that over 95 percent of the blocked sites deal with pornography and the rest comprise political and social subjects that violate Islam and the country's laws (Al-Saed, 2001). According to an official at KACST, it is hard to keep up when new sites are appearing almost every hour (Gardner, 2000b). In addition to the social and security concern, other factors obstruct internet growth in Saudi Arabia. The

high price paid for network access and the lack of an adequate telecommunications infrastructure are both critical factors which slow growth. Al-Furaih (2002) pointed out that the country's prices are among the highest in the world. To solve these problems, Saudi Telecom has taken important steps to upgrade and expand the public telephone network. Under this telecommunication expansion project the situation is rapidly improving for long-distance communications and within certain urban areas. A further barrier to internet penetration is the frequent disruption to internet services. KACST blames it on the ISPs (Internet Service Providers) for overloading their lines by serving more customers than their capacity. The ISPs point out that the disruption is due to heavy traffic which makes it difficult to log on to the net. Many observers believe that it is time for both the Saudi Telecom Company (STC) and KACST to review their internet policies and charges (Haider, 2002). In short, there must be high quality and reliable communication facilities to create a climate conducive to increased use of the internet. Despite these obstacles the internet is rapidly gaining momentum in Saudi Arabia, as is evident in the increase in internet cafes located in busy shopping districts. Since multiple users can be linked to a single internet protocol address, it is difficult to know what the exact user base of the internet looks like. According to a recent survey by the Internet Service Unit at KACST (Al-Furaih, 2002) there are 406,000 internet subscribers in Saudi Arabia with close to 1 million users or 4 percent of the population of over 23 million. Certainly there is scope for further expansion. For instance, 300,000 new internet users are expected to go online each year. In addition, many Saudis have easily available internet access at work; all students have easy and free access through their university, and many access the internet regularly at one of the growing number of internet cafes in the country.[6] That

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[6] A recent study has conducted by King Abdulaziz City of Science and Technology shows that there

makes the country the largest in the Middle East in term of users. This figure is expected to increase by 21 percent in 2004, making Saudi Arabia a major internet user in the world.

3.5.3 E-Commerce

The arrival of the internet provides a major opportunity for Saudi Arabia to accelerate and transform the prevailing level of economic activity. Over recent years the internet has become widely accepted as a means for people worldwide to share information and conduct business electronically regardless of physical location. These developments are expanding the use of the internet from a simple communication medium to an important new market-access medium. The Saudi business community is becoming increasingly aware of the value of electronic commerce. According to official statistics, the level of e-commerce in Saudi Arabia is expected to increase from $1.7 billion this year (2002) to $4.03 billion by 2005 (Hassan, 2001a). The Saudi Arabian Monetary Agency (SAMA) together with all major banks relies heavily on a network called the "Saudi Network" which facilitates the sharing and exchange of information between these financial institutions. In addition, SAMA has introduced the Saudi Payment Network (SPAN) which allows different banks to use online electronic funds transfer (EFT) capabilities for their teller machines (ATMs) and point of sale (POS) terminals.

Banks also are now offering customers a wide range of on-line services and features. All online-banking customers can manage their personal accounts, credit cards and loans and pay some bills. The reason behind the Saudi banks' adoption of the internet is that they will soon face direct competition from many international financial institutions which will be allowed to operate in Saudi. It is yet a further

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were 150 Internet café in Saudi Arabia as of March 2002.

reflection of how banks are looking to implement on-line banking as a way of reaching a broader range of new clients and to provide efficiency in transaction costs (Ba-Isa, 2001). Online-banking is still comparatively limited in Saudi when compared to Europe or the US. As Azzam (2001) explains, Saudi banks will face deregulation of the financial services sector and the prospect of competition with multinational banks as the country prepares to join the WTO. However, it is important for Saudi banks to beware of moving forward too fast in this direction to meet the global competition. Moreover, competing with well-developed international financial institutions means that Saudi banks need to keep up with their competitors and deliver new products and services at speed. Meanwhile, there is great potential for online banking as the majority of Saudi internet users are under thirty years old. They may soon be considering setting up new accounts, and on-line banking services might well become their major method of managing their accounts.

3.6   The Legal Environment

The Saudi legal system is based on Sharia or Islamic law. Nonetheless, Royal and Ministerial Decrees are periodically issued to handle the demands of a rapidly advancing society, but a constant feature of these changes is that they must be compatible with the basic principles of Sharia. Also, the use of settlement or arbitration for deciding conflicts is becoming more common.

The formation and operation of business firms and companies is regulated by companies' law promulgated by Royal Decree. A variety of laws regulate business, including labour law, tax law, and intellectual property law. The Ministry of Finance has jurisdiction over disputes involving letters of credit and cheques, while the Banking Disputes Committee of the Saudi Arabian Monetary Agency (SAMA)

adjudicates in disputes between bankers and their clients. Judgments of a foreign court are not yet accepted and enforced by the local courts, but the Saudis' signature to the New York Convention may change this. Saudi commercial law is still developing, but the Saudis have taken positive steps such as joining the New York Convention of 1958 on the Recognition and Enforcement of Foreign Arbitral Awards. Dispute settlement in Saudi Arabia continues to be time-consuming and uncertain. Even after a decision is reached in a dispute, effective enforcement of the judgment can still take years.

Some products remain restricted from entering Saudi Arabia for religious, health or security reasons. Prohibited items include alcoholic beverages, pork, non-medical drugs, non-Islamic religious materials, weapons and weapon-related electronic equipment. For a few categories of imported goods, advance approval or import licences are required. In most cases, goods must be imported by Saudi nationals (Al-Farsi, 1990). Imports from Israel are also prohibited. In addition, foreign companies that are deemed to support Israel in any way are blacklisted because of the boycott of Israel by the Arab League, to which Saudi Arabia is a party.

In the meantime, Saudi Arabia is hoping to become a WTO member by the year 2005. To comply with WTO requirements, the country is institutionalising several changes in its policies which would make it more transparent, leading to greater competition in domestic markets, and help boost efficiency and economic growth. The reform policies include corporatisation and privatisation of public sector companies, reducing subsidies, liberalising trade and safeguarding intellectual property rights. As part of its effort to accede to the WTO, the government introduced a new foreign investment code, changing current sponsorship law and granting foreigners the right to own shares and real estate. Other reforms, necessary for WTO membership and under consideration, relate to company law, sponsorship,

capital markets, insurance, competition, trademark and intellectual property, and the removal of technical barriers to trade (MEED, 2000).

There are different tax systems for Saudis and non-Saudis. Saudi citizens and businesses pay no tax on income and are only liable for zakat, an Islamic tax, of 2.5% of net worth. Non-Saudi citizens and businesses are subject to tax on income up to a maximum of 30% (reduced from 45% in May 2000). Joint-ventures between Saudis and non-Saudis are liable to tax on the non-Saudi portion of the income (SAGIA, 2002).

3.7 Conclusion

The Saudi economy is still dependent on oil production. Revenues from oil comprise about three-quarters of the national income, making the country highly vulnerable to world price fluctuations. Saudi Arabia has gone through rapid modernisation and technological infusions in the last three decades. These changes have influenced all aspects of political, economic, social, technological and legal forces. The information provided in this chapter demonstrates that the uncertainty these changes bring can be challenged and placed in perspective by confronting its effects and questioning the outcomes. Also described in this chapter is the complex, fast-changing business environment faced by Saudi executives who, as a result, face enormous challenges. In order to plan effectively in such an environment execuitves must be able to anticipate the impact of new developments on their firms. According to Goll and Rasheed (1997) environmental scanning is critically important for firms competing in highly volatile environments. The following chapter will present the design of this research and the methodology which was implemented in order to achieve the objectives of this study.

4 Chapter Four: Research Methodology and Design

4.1 Introduction

The purpose of this chapter is to describe the research design followed to achieve the objectives of the research. In brief, this chapter describes the selection of the sample used, the data collection process, the research questionnaire, and discusses the methods by which the raw survey data have been prepared. An exposition of the principles and reasons behind the particular choices and actions is provided in each case. As well as their informative purpose, these explanations are also intended to point to the limitations arising out of the particular choices made and perspectives adopted.

4.2 Research Design

Research design is a fundamental element in scientific investigation in the fields of both pure and social science. Design deals primarily with aims, purposes, intentions and plans within the practical constraints of location, time and availability of staff (Hakim, 1987). Selecting a design may be complicated by the availability of a large variety of methods, techniques, protocols and sampling plans (Cooper and Schindler, 1998).

Research design is defined in various ways in the related literature, some are broad and others are narrow. Nevertheless, almost all these notions centre around the fact that research design provides a guideline for researchers and a framework for researching. Bryman (1989) believes that research design is "the overall structure and orientation of an investigation. This structure provides a framework within which data are collected and analysed" (p. 28). A more general definition is offered

by Oppenheim (1996) that emphasises "the term research design refers to the basic plan or strategy, and the logic behind it, which will make it possible and valid to draw more general conclusions from it" (p. 6).

4.3 Key Choices of Research Design

Researchers face the task of selecting from a number of different design approaches (Cooper and Schindler, 1998). The literature has revealed many potential choices for researchers with regard to research design. The most commonly used research designs in organisational research are the case study, survey research, experimental design and action research design (Saunders et al., 2000).

However, there is no simple classification system which defines all the variations that must be considered. Yin (1994) describes three classifications of research: descriptive, explanatory and exploratory. As with basic and applied research, these types are differentiated by the researcher's goals and purposes. Descriptive research, perhaps the most rigorous of the three types, attempts to measure frequencies or make predictions based on stated hypotheses. Explanatory research studies attempt to explain, based on tested hypotheses, operational phenomena over time. The goal of exploratory research on the other hand, is to discover and define operational phenomena which will become the basis for the development of hypotheses for future studies. Along similar lines, Cooper and Pamela (1998) and Emory (1980) suggested that in any given study there are various different perspectives that can be used to classify research design:

1. The degree to which the research question has been crystallised (the study may be either exploratory or formal).

2. The topical scope-breadth and depth- of the study (a case or a statistical study).

3. The time dimension (research may be cross-sectional or longitudinal).

4. The method of data collection (the study may use observational or survey methods).

5. The power of the researcher to produce effects in the variables under study (the two major types of research are experimental and ex-post facto).

6. The purpose of the study (research studies may be descriptive or causal).

7. The research environment (most business research is conducted in a field setting, although the laboratory is not unusual; simulation is another category).

In the following section, we will link the above categorisation to this study.

4.3.1 The Degree of Research Question Crystallisation

The distinction between the exploratory study and the formal study relates to the degree of structure and to the immediate objective of the study. Exploratory studies are a valuable means of finding out what is happening; of seeking new insights; and of assessing phenomena in a new light (Robson, 1993). They are undertaken when we lack a clear idea of the problem or where the researcher has no information on similar problems in the same environment. Sekaran (2000) suggested that extensive preliminary work has to be done to gain familiarity with the phenomena in the situation and to understand what is happening before we can develop a model and set up a design for complete investigation. He added that it is important to acquire a good grasp of the phenomenon of interest and thereby enhance knowledge through good theory building. The purpose of the exploration methods is usually to develop questions or a hypothesis for further research (Cooper and Schindler, 1998). In contrast, the main goal of a formal research design is to test the hypotheses or answer the research question by following a precise procedure (Zikmund, 1989).

Taking the above description into consideration, this study can be considered to be both exploratory study, in the first stage, and formal, in the second stage. It is an

exploratory study because, initially we do not know much about scanning activities in Saudi business organisations. Little research has focused on scanning practices in developing countries (Ebrahimi, 2000; Elenkov, 1997b; Sawyerr, 1993). More importantly, studies of strategic management in Saudi Arabia have not been given much attention (Al-kathiri and Al-awadh, 1998; Almalik, 1989). No similar studies, to the best knowledge of the researcher, have been conducted in the Saudi business environment. When the researcher completed the extensive preliminary work, he became familiar with the phenomena in the situation. The first purpose of the exploration study was achieved through the raising of questions for further investigation. Finding answers to these questions was the purpose of the subsequent formal study. However, a clear structure and precise data collection methodology are prerequisites for a formal study. Thus several considerations had to be taken into account in developing the research method. The sections on methods of data collection and on the survey design in this chapter (see sections 4.4.1, 4.4.2, and 4.5 in this Chapter) provide more details as to those considerations.

4.3.2 The Scope of the Topic

When we consider the scope of the topic, we can use either the statistical (the quantitative approach) or the case study (the qualitative approach). Quantitative studies differ from qualitative studies in several ways. In the case study, a researcher places more emphasis on the full analysis of fewer events or conditions and their interrelations, while statistical study is more concerned with conditions at one point (Emory, 1980). Further differences are demonstrated in Table 4-1.

Table 4-1 Differences between Quantitative and Qualitative Research

Quantitative	Qualitative
Concepts are in the form of distinct variables.	Concepts are in the form of themes, motifs, generalisations, taxonomies.
Measures are systematically created before data collection and are standardised.	Measures are created in an ad hoc manner and are often specific to the individual setting or researcher.
Data are in the form of numbers from precise measurements.	Data are in the form of words from documents, observation and transcript.
Theory largely causal and deductive	Theory can be causal or noncausal and replication is very rare.
Analysis proceeds by using statistics, tables or charts and discussing how what they show relates to hypotheses.	Analysis proceeds by extracting themes or generalisation from evidence and organising data to present a coherent, consistent picture.

Source: Neuman, (2000), p. 317.

Qualitative research has many characteristics. First, it is unstructured, flexible and of open research design. Secondly, it is committed to examining events through the eyes of the people being studied. Thirdly, it is contextual in nature and events have to be understood in their wider social and historical background. Finally, theories and propositions act as guides rather than formalised models (Bryman, 1988). In addition, qualitative research has a unique and valuable contribution to make by generating a better conceptual framework than would otherwise be possible (Hoinville et al., 1978). Hakim (1987) sustains that this design of research "offers richly descriptive reports of individuals' perceptions, attitudes, beliefs, views and

feelings, the meanings and interpretation given to events and things, as well as their behaviour; displays how these are put together, more or less and consciously, into which make sense of their experiences" (p. 26)

Qualitative research has its strengths as well as its drawbacks and whether to adopt will depend heavily on the context of the study. It has several advantages which include:

☐ Allowing the researcher to gain first-hand knowledge of the empirical social world in question.

☐ The possibility of gaining more detail information which may not be obtained by the questionnaire.

☐ Detailed insight into the phenomena researched, provided by the depth of investigation which accompany it.

☐ Helping in the interpretation of the qualitative result and informed/support assumptions. (Chisnall, 1991; Easterby-Smith et al., 2002; Yin, 1994).

However, it would be unwise to overlook the weaknesses of the qualitative approach (case study). One weakness is that it may not be able to cover as many variables as the quantitative approach. Another is that the qualitative approach does not provide a basis for generalising research findings to other cases. Some argue too, that if the researcher does not have a good relationship with the "Gatekeepers" who are the key members of the organisations to be studied and could therefore allow access for a study, he will not collect reliable data for his research. Finally, the cost and the time effect on this approach is negative (Ghauri et al., 1995; Yin, 1994).

On the other hand the use of the quantitative approach in research also has many advantages. First, it tests many variables which the case study may not be able to

do. Secondly, the information in this approach is more to the point and identifies which issues will be clear for analysis (Ghauri et al., 1995).

After reviewing these two research approaches along with their merits and drawbacks as outlined above, we should decide which approach is more suitable to our research. According to Emory (1980) the conditions under which the research is conducted determine which methods will be suitable to obtain the data needed within the time and cost constraints. There are several reasons which might make the use of the case study more valid to our research than the quantitative approach. For instance, Eisenhardt (1989a) believes that the case study is highly suitable for topics not covered by previous empirical work or which are not subject to intricate theoretical models, and for those studies that tend to focus on exploration. Further, it is possible that more detailed and extensive information could be gained about scanning practices in Saudi business organisations through the use of a case study. Unfortunately, information and documents about the companies are difficult to obtain in the Saudi Arabian context. The ability to collect data for the case study approach would depend on gaining access to firms. We might also seek to repeat our collection of data in different parts of the organisations. Gaining physical access and informal acceptance from intended participants within organisations in order to collect the necessary data is extremely difficult in Saudi Arabia. In an early stage of this research a number of firms were approached in order to seek access to collect detailed data, of the case-study type, by interviewing executives and consulting documents. However, all firms declined our request and only two firms agreed to a personal interview with their CEOs for about an hour. Information about firms is very scarce and owners and managers view them as top secret (Boodai, 2001). In Saudi Arabia, information confidentiality is not clearly defined. Respondents are often hesitant to provide economic information about the company

to an unknown party. They are afraid of an official investigation if something goes wrong (Champion, 1999). Along similar lines, Devereux and Hoddinott (1993) believe that field work in the Developing World should be conducted with extra care due to the fact that many contextual elements may be involved and thus restrain access to data. They further argue that contextual and methodological considerations should be considered jointly and not as two distinct categories in which the first obstructs the pursuit of the second.

In the light of difficulties experienced in building a case study, it was decided to support a quantitative survey with interviews. Because of the many variables this study covers and attempts to examine, the quantitative approach was used as the main source of the primary data. Furthermore, the quantitative approach allowed the research questions and propositions of the present study to be framed numerically. For example, 'environmental uncertainty' as perceived by respondents can be quantified numerically. Thus, in order to answer the study's questions and to test its propositions, quantitative data were collected by mail survey sent to the study's respondents. However, in order to minimise the limitations of the quantitative approach and to compensate for the loss of the advantages of the qualitative approach, personal interviews were conducted with those who responded to the questionnaire and showed their willingness to discuss the study subject in detail.

In this way it was possible to blend qualitative and quantitative methods to examine the research questions. Quantitative data provide definitive measures, whilst qualitative data usually provide richer source of insights to the research. This is referred to as triangulation. The use of more than one independent method in answering research questions is called methodological triangulation (Easterby-Smith et al., 2002). Triangulating is used to provide confirmation and

completeness. It should not be expected that each source of data will confirm each another. Rather, each source will contribute an additional piece to the puzzle and in that way complement each other. The researcher's bias can be minimised and the validity of the findings enhanced (Foster, 1997; Jick, 1979). Moreover, it is generally accepted that using more than one method strengthens the validity and credibility of the analysis (Strauss and Corbin, 1994). It is hoped that by adopting methodological triangulation, we would provide greater insights and more reliable analysis to the question of environmental scanning practices in Saudi private firms.

4.3.3 The Time Dimension

Research may be cross-sectional or longitudinal. In cross-sectional research, researchers observe at one point in time. When the main interest is in describing or assessing change or development over time, the longitudinal research is the preferred method. It is usually more complex and costly than cross-sectional (Neuman, 2000). Adams and Schvaneveldt (1991) point out that in observing people or events over time the researcher is able to exercise a measure of control over the variables being studied, provided that they are not affected by the research process itself. Because this study has been carried out at one point in time, it is considered to be a cross-sectional study. Robson (1993) believes that such studies often employ the survey strategy and can be exploratory, which is the main characteristic for our research. However, some objectives of the longitudinal approach were achieved. In certain survey questions (see Appendix A) the respondents were asked to review aspects of their past scanning behaviour over a 3 year period. One year was considered inadequate to capture the dynamic nature of their scanning behaviour, five years was considered too long period for accurate recall.

4.3.4 Method of Data Collection

Under this category, studies may be observational or survey. In observational research, the researcher gathers data by observing people in their natural work environment or in the lab setting and recording their behaviour and then describing, analysing and interpreting what they have observed (Sekaran, 2000). The main advantage of this approach is its directness. It enables the researcher to gather data without asking questions of the respondents and to survey behaviour as it occurs in its natural setting (Robson, 1993).

In survey research, the researcher questions the subjects and collects their responses by personal or impersonal means. Studies of this type collects data using personal interviews, telephone interviews, self-administered questionnaires, mail surveys, telephone surveys or a combination of these (Hoinville et al., 1978). The survey approach was found to be the more appropriate method for collecting data in this research. It is very difficult to convince Saudi firms to allow an outside researcher to observe their behaviour. Moreover, there is a major issue concerning the extent to which an observer affects the situation under observation (Frankfort-Nachmias and Nachmias, 1996). For instance, the presence of an observer would make the managers cover up their normal practices in the firm. According to Robson (1993) it is fairly unusual to use observation as a technique in survey research. As a result, the present study relied on both written surveys and personal interviews. In short, we used a combination of personal and impersonal techniques to collect data for our research (survey study).

4.3.5 Research Control of Variables

The researcher can choose between experimental and ex post facto designs. In experimental design the researcher creates a situation with the exact conditions he

wants to have and in which he controls and/or manipulates the variables in the study (Cooper and Schindler, 1998). Despite the fact that this type of research design has internal validity as its major strength, its weakness lies with its external validity i.e. the generalisability of its outcomes (Frankfort-Nachmias and Nachmias, 1996). Moreover, experimental design is being used less widely in social science due to its rigid structure that cannot be adjusted to social science research. Today, however, it is widely used in social psychology and evaluation research (Robson, 1993). The researcher in the ex post facto studies, has no control over the variables in the sense of being able to manipulate them. Here, the researcher reports what has happened or what is happening (Cooper and Schindler, 1998). In our research, we report what is happening without attempting to manipulate the variables. Therefore, this research is considered as ex post facto.

4.3.6 The Purpose of the Study

Cooper's and Pamela's (1998) classification distinguishes between descriptive and causal studies. The descriptive study is undertaken when we seek to understand the characteristics of organisations that follow common practice and to be able to describe the characteristics of variables in any given situation (Sekaran, 2000). The fundamental difference between descriptive and causal research is in their objective. Descriptive research seeks to answer the who, what, where, when and how of a topic whereas the causal research is simply aiming to find out why. The emphasis here is on studying what effect one variable has on others or why certain conditions are obtained (Emory, 1980). This study aims at determining the who, what, when, where and how of the topic. The main purpose of the present study is to define and describe environmental scanning practices and processes in the Saudi Arabian private sector by answering:

Which areas of the business environment are seen as important and uncertain by Saudi firms?; How frequently do Saudi firms monitor different factors in their business environment?; What level of interest do they have in scanning various events and trends occurring in their environment?; What information sources do Saudi firms use to find out about what is happening in their business environment?; What types of decisions depend on the firms' scanning activities?; How do the Saudi firms scan their environment for information?; Who is responsible for scanning activities?; What types of techniques are used to analyse external information?; Where is the environmental information stored?; When do they scan their business environment?; How do they exchange environmental information?. Robson (1993) argues that the survey design is the preferred method to answer descriptive research questions. Hence, this study can be classified as descriptive. However, although this is not a casual study, the discussion chapter (Chapter 8) did aim to give explanations for the results obtained from both the interviews and the surveys; therefore, to this extent, some of the objectives of a causal study were achieved.

4.3.7 The Research Environment

Studies can be carried out either in the field, "the real world", or in the laboratory. The degree of control of the environment and of what happens to the subject involved is crucial in obtaining reliable data about the phenomena of interest in laboratory studies (Robson, 1993). Frankfort-Nachmias and Nachmias (1996) believe that a laboratory study is the most controlled method in the social sciences. The researcher in laboratory studies creates conditions in the environment whose characteristics can be adjusted by the researcher. On the other hand, field research is the study of real organisations or social settings. It is conducted under actual

environmental conditions or in the "real world" and this is what this present study has done.

4.4 Survey Design

This study explores the existence of environmental scanning practices and processes in the Saudi Arabian private sector. The survey research design involves gathering data by interview and questionnaire, from a sample of the identified population. In the survey, the researcher collects data directly from people about their feelings, motivation, plans, beliefs and personal, educational and financial background (Fink and Kosecoff, 1985). The purpose of this survey research design is to generalise from a sample to a population, so that inferences can be made about some characteristic, behaviour or attitude of the total population (Babbie, 1990). There are several data collection methods in survey studies. These methods include personal interviews, telephone interviews, mail questionnaires, self-administered questionnaires, telephone questionnaires and Internet questionnaires. The choice of data collection method may depend on personal preference, cost, time constraints, potential response rate or many other factors important to a particular research project (Clover and Balsley, 1984; Frazer and Lawley, 2000). Moreover, the conditions under which the research is conducted usually play an essential role in determining which method will be most suitable to obtain the necessary data within the time and budget available (Emory, 1980). Because little is known about scanning activities in Saudi business organisations, this research sought to discover and to explore rather than to explain. Survey methods can provide a search device when we do not know much about the situation at hand. It is probably the best method available for collecting original data to describe a population too large to observe directly (Babbie, 1990).

Different instruments had been used in previous studies to collect primary data to assist in answering the research questions. In this study, two main methods were employed, namely personal interviews and mail survey questionnaires. Thus, the following section will discuss these two main methods.

4.4.1 The Mail Survey Questionnaire

A questionnaire is a highly structured data-collection technique whereby each respondent is asked a pre-formulated written set of questions to which he/she records his or her answers. The mail survey questionnaire, as a method of collecting data and like any other method, has many advantages and disadvantages. The following are some of the advantages (Bourque and Fiedler, 1995; Czaja and Blair, 1996; Frankfort-Nachmias and Nachmias, 1996; Kerlinger and Lee, 2000; Mangione, 1995; Oppenheim, 1996):

❏ Low cost: mail surveys are among the least expensive. It does not require a trained staff of interviewers; the processing and analysis of data are usually cost effective. The lower cost is particularly evident when the respondents are widely spread over a large geographic area.

❏ Considered answers and consultations: Respondents have more flexibility in answering. They can take more time to collect detailed information required for the questionnaire and/or consult other sources. Furthermore, the respondents can answer the survey at their convenience.

❏ Accessibility: data can be gathered from a sample that is widely dispersed geographically.

❏ Greater anonymity: the absence of an interviewer provides greater anonymity for the respondent. The assurance of anonymity that a mail

questionnaire provides is especially helpful when the survey deals with sensitive issues.

❑ Avoidance of interviewer bias: Biasing errors are reduced because respondents are not influenced by interviewer characteristics or techniques.

❑ A mail survey allows for large numbers of respondents to be surveyed in a relatively short period.

❑ People such as top executives are difficult to reach in any way other than a mail survey.

❑ A further advantage of this method is that mail surveys provide a greater uniformity than do the interviews. Everyone responds to exactly the same questions.

On the other hand, there are several criticisms mounted against the mail survey. The main disadvantages are:

❑ Low response rates have always been a problem with the mail questionnaire. Yet, some measures can be taken to increase the response rate (See section 4.7 below).

❑ Researchers have no control over who fills out the questionnaire.

❑ The answers have to be accepted as final; the researcher cannot correct misunderstanding, give help or probe for further information.

❑ It is difficult to collect detailed information that allows in-depth analysis; to overcome this weakness the mail questionnaire survey is supplemented by a number of personal interviews with selected respondents.

As mentioned earlier, the decision was made to use the mail survey to gather the primary data for this study. According to De Vaus (1996):

> "It is impossible to decide which method is the best. The relative strengths and weaknesses vary according to the characteristics of the survey. There are many factors affecting which method is the most

suitable for a survey such as the purpose of the study, sample size and distribution, the time available and the environment and conditions under which the study is conducted." (p.113)

However, the choice of mail survey in the present study has many advantages over other methods. We can summarise these advantages as follows: first, the mail surveys have been sent to a wide range of areas as the sample companies in this research are spread over the whole of Saudi Arabia. The sample is geographically dispersed across a country equal in size to the whole of Western Europe and equal to one third of the size of the United States of America[7]. Secondly, the surveys were sent to a large sample comprising the executive officers of the top 500 companies in the Saudi private sector. The survey is probably the best method available for collecting original data to describe a population too large to observe directly (Babbie, 1990). Thirdly, it is difficult to reach the top 500 executives in the major Saudi corporations in any other way than by mail survey. Fourth, given the highly informal nature of scanning, it is very difficult to collect data by direct observation (Auster and Choo, 1993). Finally, the mail survey is widely used in scanning studies. These include those of Aguilar (1967), Auster and Choo (1993), Hambrick (1982), Garg et al., (2003), Sawyerr et al., (2000). Thus, the mail survey was chosen for this study, because the many benefits far outweighed any negative aspects.

4.4.2 The Personal Interview

The mail survey was supplemented by personal interviews with some of the executives in order to raise, and discuss in detail, issues relating to the scanning practices of Saudi organisations. An interview is a way of collecting data to measure the variables of interest. Frankfort-Nachmias and Nachmias (1996) stated

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[7] Saudi Arabia encompasses about four-fifths of the Arabian Peninsula with a total of 2,240,000 square kilometres.

that: "…the personal interview is a face-to-face interpersonal role situation designed to elicit answers pertinent to the research hypotheses." (p. 232). The use of interviews can help in gathering valid and reliable data that are relevant to research questions (Saunders et al., 2000).

According to Kerlinger (2000), the interview as a data collection method can serve three purposes. First, it can be used as an exploratory device to help identify variables and relations. Secondly, it can be the main instrument of research. Thirdly, it can supplement other data-collection methods in order to go deeper into the situation at hand. We used the interview in this study to supplement the data gathered through the mail survey.

Using the interview method to collect data has many advantages. This method helps the researcher to explore and understand complex issues that could not be stated in the mail survey (De Vaus, 1996). Another major advantage of the interview is that it allows the interviewer to determine the wording of questions, to clarify terms that are unclear and to control the order in which the question are presented. Also, carrying out a personal interview enables the researcher to probe for additional and detailed data (Frankfort-Nachmias and Nachmias, 1996). Finally, in an interview situation, an interviewer can collect supplementary information about respondents that can aid the researcher in interpreting the results. In short, Sekaran (2000) conveniently summarises the advantages of face-to-face interviews: they "provide rich data, offer the opportunity to establish rapport with the interviewees, and help to explore and understand complex issues" (p. 220).

However, there are shortcomings in an interview method. The cost is significantly higher than that of mail surveys, in terms of the skills needed, training, analysis, and especially when interviews are spread over a large geographical area (De Vaus, 1996). Furthermore, the interviewer's personal influence and bias can affect the

interview. Finally, the interview lacks the anonymity of the mail questionnaire. The presence of the interviewer may be seen as jeopardising anonymity, especially if a respondent is sensitive to the topic or some of the questions (Oppenheim, 1996). In this study, the personal interview was chosen to clarify patterns observed in the mail survey results and to discuss in detail issues related to the scanning practices of Saudi private firms. The following is an example of the interview questions:

Q1. In the questionnaire you indicated that you depend mainly on (......) as a source of environmental information. Do you choose among the information sources based on the source relevance and reliability or on accessibility and cost?

Q4. In the questionnaire you indicated with the majority of the respondents that rivalry among competitors is seen as the most important, variable and complex environmental factor in the last three years compared to other environmental factors. Can you offer an explanation of why you feel this way?

Ten executives participated in the interviews. The last question in the mail survey asked the respondents if they were willing to take part at a later date in an additional personal interview about issues related to scanning practices in their companies. Appointments were made for personal interviews in the three cities (Riyadh, Dammam and Jubail) where the majority of the firms had their offices. All interviews were conducted in the respondents' company premises. However, some of these interviews were conducted late in the afternoon or early in the evening. This was done at the request of some respondents who were extremely busy during normal working hours. Others preferred early evening after breaking their fast, since all the interviews took place during the month of Ramadan when Muslims fast during the day. In fact, this allowed some interviews to be conducted without interruption from subordinates or customers. Each interview lasted for about one

hour and to allay any fear, it was stressed at all time that confidentiality would be respected. Permission was sought for the tape recording of the interview. Eight of the interviews were subsequently recorded. However, the other two executives refused to allow this, explaining that it was not necessary to record the interview. During the opening stage of each interview, the researcher explained why he preferred to use a recorder rather than simply to take notes. It is worth mentioning here that the researcher allowed the interviewee to maintain control over the tape recorder with the option of switching it off whenever deemed necessary. Tape-recording personal interviews allowed the researcher to concentrate on listening to the respondent's story and enabled him to maintain eye contact with the respondent and observe his body language. Moreover, it was felt important to obtain a full record of the interview in the respondent's own words. At the beginning of the interview all effort was made to create a friendly atmosphere. McCracken (1988) believes that "this is an important time to reassure the respondent because it is in these opening stages that he or she sets his or her defenses." The biographical data questions were used for this stage. After the recorded interviews were transcribed, each interview respondent was mailed or emailed with this transcription for comment or agreement. A few changes were requested and the amendments made. The personal interview was used in this study because this approach provides more valid and reliable data than other survey methods.

4.5 Instrument Design and Development

Good questionnaire design is vital for the success of the study. A well-designed questionnaire can provide the data necessary to address research questions. The questionnaire design will affect the response rate and the reliability and validity. Therefore, there are several issues to be considered when developing a

questionnaire in order to ensure the production of a valid and reliable instrument. These issues include question type, content, wording of the questions, sequence, format, and flow of the instrument. We will discuss the steps that were taken in the present study to address the instrument design issue.

4.5.1 Questions types

In mail survey questionnaires, there are two types of questions, termed open and closed-ended. In this study, close-ended questions were used. These questions offered a list of possible answers from which a respondent has to choose the one which best represented their view or situation, while open-ended questions do not provide the respondents with specific response categories from which to choose (Bourque and Fiedler, 1995; Bryman, 1988). Although open-ended questions are much easier to write, they are difficult to answer and still more difficult to analyse (Frankfort-Nachmias and Nachmias, 1996). On the other hand, closed questions are easier and relatively quicker to answer (Oppenheim, 1996). Respondents have only to pick one of several possible answers rather than come up with a solution themselves. Bourque and Fielder (1995) believe that careful design and sufficient pre-testing in closed questions will guarantee efficient data collection, processing and analysis. In addition, closed questions are more efficient and reliable. They are efficient because they are easy to use, score and code. Also, the reliability comes from the uniform data closed questions provide since everyone responds in terms of the same options (Fink and Kosecoff, 1985). Finally, answers in closed questions are less variable and can be meaningfully compared (Frazer and Lawley, 2000). The major drawback for closed questions is that they may introduce bias, either by forcing the respondent to choose from given alternatives or by offering the respondent alternatives that might not have otherwise come to mind. To overcome

the limitation of using closed questions, the researcher has provided spaces after many questions to give the respondents the chance to express their thoughts freely. For example, spaces are provided in this study for the respondents to add environmental factors or information sources that are not in the questionnaire list. (See figure 4-1.)

Figure 4-1 An Example of the Provision of Spaces after Many Questions in the Questionnaire

10. How important during the last three years have the events and trends in each of the following environmental factors been to your organisation?

Environmental Factors					
Customers	1	2	3	4	5
Competitors	1	2	3	4	5
Suppliers	1	2	3	4	5
Possible entry into the industry of future competitors/ new entrants	1	2	3	4	5
Substitute products/services offered by competitors	1	2	3	4	5
Technological	1	2	3	4	5
Political	1	2	3	4	5
Economic	1	2	3	4	5
Socio-demographic environment	1	2	3	4	5
Legal	1	2	3	4	5
Other (Please specify)	1	2	3	4	5

Leaving space for comments or additional information will provide valuable information not captured by the response categories.

There are several types of close-ended questions: yes-no, multiple choice, semantic differential, ranking and rating scales. Rating scale questions ask the respondents to select a point on a scale ranging from 'very little' to 'a significant amount' of a particular attribute (Mangione, 1995). An example of rating scales is the Likert scale, which is utilised in our instrument. The use of Likert scale provides a reasonable scope for discrimination without being too sophisticated and allows for analysis of individual questionnaire items (Babbie, 1990). At the same time, the

scale is very popular with researchers because of the power and simplicity of the format (Alreck and Settle, 1985). In addition, the Likert scale has been widely used in research on scanning activities (see for example Auster and Choo, 1993; Boyd and Fulk, 1996; Garg et al., 2003; Sawyerr et al., 2000). With this scale the respondent is asked to answer each statement by choosing from a scale of one to five: a six and seven point scales are also used. The numbers on the scale indicate the value to be assigned to each possible answer with 1 indicating the least favourable degree and 5 the most favourable. The majority of the questions in this study were constructed in the form of statements followed by a five-point Likert scale to indicate the strength of response. Because of the newness of management surveys in Saudi Arabia (Ali, 1985; Tuncalp, 1999), this research used a 5 point Likert scale rating which made it simpler for respondents to make clear and quick judgements; given that Saudis are new to scaling systems, an extended scale of more than 5 could have incorrectly influenced respondents' judgement and slowed the survey process. As Alreck and Settle (1985) pointed out, the rating format tries to make each point of the scale more meaningful to the rater, to make rating less arbitrary, and thereby increase reliability of the answers to the questionnaire. A rating scale of 5 can allow for a non-answer in the centre. However, the scale chosen is worded so that the central value is part of the scale such as "of some importance", but not "no opinion" or "undecided"

4.5.2 Item Content, Wording and Sequence

The literature on questionnaire design suggests some guidelines about the content, wording and sequence of questions, which strongly impact the effectiveness of a questionnaire. Several suggestions were adopted in our instrument to improve the readability and usefulness of the research questionnaire.

The question content should be precise, unambiguous and brief because it is likely to be read completely. The more specific the question, the greater the relation that can be achieved between attitude and behaviour (Converse and Presser, 1986; Mangione, 1995). It is important to bear in mind that there will be no chance to clarify a question once the survey is mailed. It is vital that the meaning of each question should be entirely clear to all respondents and the content should ensure that all words convey the meaning that the researcher intends. Questions should be worded to encourage specific answers. One way to develop a questionnaire with simple wording and clear content is to avoid negative questions since they are confusing. Questions that include the word "not" are sometimes difficult to understand (Fink, 1995; Saunders et, al., 2000). In addition, care should be taken to ensure that the terminology can be clearly understood by the respondent and will have the same meaning to all respondents (Mangione, 1995). For example, the present study defined 'rate of change' for respondents as 'the extent to which agencies, issues, trends or opportunities change over time in your firm's external environment'. In particular, we should avoid slang, colloquialisms, jargon and abbreviations (Fink, 1995; Saunders et, al., 2000). If technical terms are used, they should be clearly defined (Mangione, 1995). Double-barrelled and leading questions should also be avoided (Bryman, 1988). Along similar lines, Bourque and Fielder (1995) suggest that a good question should avoid vague qualifiers. This can arise from using an adverb like "usually" or having unclear use of pronouns such as "it" and "they". In addition, sensitive questions or questions respondents are uncomfortable with may produce poorer quality data. Adopting those guidelines for the wording of questions will reduce misunderstandings and make the questionnaire appear easier to complete. These guidelines were observed as much as possible as is evident in the survey presented in Appendix A.

The order in which questions appear and the flow of the questionnaire can also influence the responses. To build up the necessary interest of the respondent, the first questions should be simple and easy to answer. People generally look at the first few questions before deciding whether or not to complete the questionnaire. In this study, we start with personal data questions. Demographic questions, according to Bourque and Fielder (1995) should be placed at the beginning of a questionnaire. There are two reasons for this position. First, demographic questions are easier for the respondent to answer since the information sought is well known to them. Secondly, if the questionnaire is not completed, the demographics section, being at the beginning, will not be left out. It is important to get complete demographic information about the respondent. At the same time, general questions should be placed before specific ones and simple questions need to be asked before complex ones. Another important way to make the questionnaire user-friendly is to divide the questionnaire into subtopics in which the same or similar subjects are grouped together. It is important to group items into coherent categories. All items should flow smoothly from one to the next. Within each subtopic, the questions should be arranged in a logical order to build a sense of continuity. Whenever possible, we should start and end with easy questions (Mangione, 1995). The following is an example of the design of the questionnaire:

Section One: Background Information
Question 1 to 9

Section Two: Environmental Importance
Questions 10 to 12

Section Three: Environmental Change and Complexity
Questions 13 to 16

Section C: Scanning Behaviour

Etc... (See section 4.6 below).

A copy of the questionnaire is provided in Appendix A.

4.5.3 Translation of the Questionnaire

Oppenheim (1996) argued that to translate a questionnaire from one language to another is akin to entering a series of mine fields. Once the final draft of the English version of the study questionnaire had been written, the questionnaire was translated from English to Arabic (the language of the study sample respondents). The first draft of the Arabic version was translated and prepared by the researcher. Both the Arabic and English versions were then reviewed by the translation department of Asharaq Alawsat Newspaper. They made sure that all words and phrases were acceptable in the Arabic language and culture. It was important to receive advice from individuals specialising in English into Arabic translation. The researcher received very effective feedback on translating the questionnaire correctly. To ensure that no information was lost or distorted in the translation, the English language department at King Faisal University translated the translated version back into English. A few linguistic problems in the Arabic version were tracked down and then corrected. This ensured that the two English versions and the Arabic version were compatible. (See section 4.8 and Table 4.2 below)

4.6 The Research Questionnaire

The questionnaire (the survey instrument) used in this study was developed following extensive reading of the environmental scanning literature. Good practice is to divide the questionnaire into subsections, each one focusing on one area with questions arranged

logically. The research questionnaire in this study comprised six sections and was eight pages in length. Each section was clearly headed (see section 4.5.2 above) in order to give respondents a clear idea about what the question in that section was about. Most of the questionnaire questions and measures were drawn from established instruments, used in prior environmental scanning research, to facilitate comparison, replication, generalisation and validation.

Section 1 Firm and respondents Information

Questions in this section focused on demographic background information on the company and the respondent. The first five questions provided information about the company including the company's age, legal form, type of activity, ownership and number of employees. The other questions provided information about the respondent. They covered several variables such as position in the company, highest educational qualification, where this was acquired, and age so that we could test for scanning differences according to these demographics. For example, respondents were asked:

6. Which of following best describes your job title in the firm?

CEO or President   1

Vice president   2

Other (please specify) 3

Section 2 Environmental Uncertainty

The objective here was to measure the respondent's perception of environmental uncertainty in the external business environment comprising both the microenvironment and the macro-environment. The microenvironment involves factors in which there is direct interaction with the organisation (customers, competitors, suppliers, new entrants and substitute products / services). The macro-environment includes factors (technological, political, economic, socio-demographic and legal) that indirectly affect organisations. So to measure the perceived environmental uncertainty it was necessary to ask questions relating to the importance, complexity and the rate of change of both the micro-environmental elements and the macro-environmental. These three variables were measured using five-point Likert scales. We provided definitions of rate of change as 'Rate of change is the extent to which agencies, issues, trends or opportunities change over time in your firm's external environment' and of complexity as 'the number and diversity of events occurring in environmental sectors outside the operations of your company'. Respondents assess the rate of change of ten environmental factors according to the following question: "What has the rate of change been taking place during the last three years in each environmental factor?" They indicate their answers on a five-point Likert scale labelled as follows: Low: Fairly low: Medium: Fairly high: High.

Section 3 Scanning Behaviour (Amount of Scanning)

This section was designed to focus on the amount of scanning done by Saudi firms, by examining both the degree of interest and the frequency of scanning. Respondents were asked about their interest in scanning in each of the above environmental factors. They were then further asked how often they scan each

factor. Respondents answer the following question to indicate their frequency of receiving external information: "How frequently does information about each environmental factor come to your attention?" They indicate their answers on a five-point Likert scale labelled as follow: Never: A Few Times a Year: Monthly: Weekly: Daily.

Section 4 The Scanning Process

This section collects data on a variety of aspects of the environmental scanning process including: information exchange, information storage, scanning responsibility, information analysis and scanning modes. Respondents were given a description of scanning practices and asked to rate the extent to which each statement was pertinent to his company. For example, respondents are asked about information storage in this way: 'There are different practices with regards to information storage. Please indicate to what extent each of the following statements describes the current practice in your firm.'

Corporate database systems are used to store and record the external information.

Manual filing and archival system is used to store and record the external information.

They indicate their answers on a five-point Likert scale labelled as follows: None; To a little extent; To some extent; To a great extent; To a very great extent.

Section 5 Information Sources

This section aimed to identify which information sources were used most frequently. Respondents were given a list of seventeen information sources and asked to indicate how frequently they used each source to scan the environment.

Respondents answer the following question to indicate their frequency of using each source to scan the business environment: "How frequently do you use each of the following information sources to scan the environment". They indicate their answers on a five-point Likert scale labelled as follows: Never; Few times a year; Monthly; Weekly; Daily.

Section 6 Use of the Environmental Information

In this part, the respondents were asked about how they use the information that collected is from the external environment. Respondents answer the following question on the use of scanning information, matching Mintzberg's (1973) decisional role of entrepreneur, resource allocator, disturbance handler and negotiator: "How often does your firm use information about the external environment, when you:

Decide on improvement such as going into new business, organizational structuring, acquisition, public relation programs, computerisation projects, and the like;

Decide about resources allocation, including budget allocation, employment of resources, setting of targets, distribution of work, and the like;

Decide how to handle unexpected but important events, such as loss of a major customer or supplier, conflict with another organization, cutting off of key resources, and so on;

Decide during negotiations with external organizations or individuals, about your firm's position on, for example, the commitment of resources, or agreement on contracts". They indicate their answers on a five-point Likert scale labelled as follows: Never; Seldom; Sometimes; Often; Always.

The eight-page questionnaire, on white paper, was printed on one side of the paper only and stapled. Full and clear instructions were given to respondents throughout the survey instrument. The clear and uncomplicated format was designed to maximise the appeal of the survey.

A copy of the survey can be found in the appendix of this thesis.

4.7 Enhancing the Response Rate

A major disadvantage of the mail survey is the low response rate (Bourque and Fiedler, 1995; Mangione, 1995). Mail surveys with a response rate of between 20 and 40 percent are often typical and considered satisfactory. In the case of Saudi Arabia where this study was conducted, a response return of 15 percent is considered normal (Alarfaj, 1996). It is important to consider the cultural differences when conducting a mail survey internationally. Furthermore, Auster and Choo (1993) believe that requesting chief executives to respond to a mail surveys may produce a lower response rate than usual. The sample for this study comprises the executives of the top 500 Saudi private sector companies (the sampling technique will be discussed later in this chapter). A low response rate can affect the reliability and generalisability (Erdos, 1970). The response rate can also be a good measure of the survey quality (Czaja and Blair, 1996). Therefore, every effort should be made by the researcher to increase the response rate. A wealth of experimental investigations have been preformed over the past half-century in an attempt to identify those survey characteristics which contribute to the cause of improving response rate. There is, it appears, no single determinant or winning formula of response-inducing strategies which can be employed to maximise response to mail surveys. Rather, response rates are affected by a combination of factors and interactive characteristics that are not stable across sampled populations

(de Chernatony, 1990; Harvey, 1987). Success is thus achievable only through careful survey design and administrative planning, identifying each aspect of the survey process that may effect the nature of response and managing each in order to obtain the best possible response (Dillman, 2000). In this research, we carefully designed the questionnaire to look as professional as possible. The following techniques were employed in order to secure an acceptable response rate:

4.7.1 The Cover Letter

The cover letter is an essential part of the survey. A good cover letter will increase the response rate. It provides an opportunity to persuade individuals to respond by filling out the questionnaire and posting it back. In this study, a cover letter in Arabic was attached to the questionnaire (See Appendices C and D). It was written first in English and then translated into Arabic. The tone of the letter was friendly and familiar. It appealed to the recipients of the survey to help the researcher and accented the importance of the respondents' contribution to the success of the study. This letter briefly outlined the topic of the research and why this study would be beneficial to the respondent's company. It appealed for help and stressed the importance of the respondent's contribution. The letter was written on King Faisal University (the researcher's employer) official paper to establish the importance and the legitimacy of the study. It also described how to return the questionnaire and promised complete confidentiality for the responses. The researcher's address, telephone and fax numbers and email were also provided should any problems or queries arise. The last part of the covering letter included a statement of appreciation. Finally, the cover letter was signed by the researcher to give a personalised feel to the letter. The guidelines offered by Bourge and Fielder (1995) and Alreck and Settle, (1985) for questionnaire cover letters were used.

4.7.2 Questionnaire Length

The length of a questionnaire will be determined by the amount of data required, the cost of the survey, the likely response rate and the maximum amount of time respondents would be willing to spend answering questions (Frazer and Lawley, 2000). The general rule is to keep questionnaires as short as possible (Saunders et al., 2000). Dillman (2000) suggests that surveys that are mailed to a specialised population can expect a reasonable response rate if they are of twelve pages or less. Thus, the survey instrument in this research was restricted to eight pages.

4.7.3 The Follow up

After a survey has been sent, many potential respondents will set their surveys aside and forget to return them. "Follow up provides an opportunity to appeal to potential respondents using different approaches" (Frazer and Lawley, 2000). Several follow-up techniques have been recommended by the researchers. For instance, Mangione (1995) recommended that the researcher needs to send follow-ups when the returns to the original sample start to level off because there is little advantage in sending out additional mailings. In this research two follow ups were sent out four and six weeks after the original mailing thanking those who had already responded. The follow up-mailing also politely reminded those who had not responded to please do so and stressed the importance of the individual's response. Another copy of the questionnaire was enclosed with each reminder. The overall response rate of this study was 30 per cent. The original mailing had a response rate of about 18 per cent and the follow up strategy increased the response rate by 7 and 5 per cent respectively.

4.7.4 Survey Sponsorship

The sponsorship of a questionnaire is an effective technique to enhance the response rate. The cover letter in the present study mentioned King Faisal University (KFU) as the sponsor of the research and the name of St Andrews University as the university attended by the researcher, emphasising the sponsor and the non-commercial nature of the research project. The respondent's first impression of the study usually comes from the envelope containing the survey. A special King Faisal University envelope was used in order to add credibility to the questionnaire. The official paper of KFU also was used to write the covering letter (See Appendix C).

4.7.5 The Timing of Mailing

Studies suggest that the timing of the mailing affects the response rate, as mailing during the summer and other holiday times produces a lower response rate (Frankfort-Nachmias and Nachmias, 1996). Therefore, the questionnaires were mailed during October and November 2001. It is very likely that top managers in Saudi Arabia would have been on holiday during the summer months because of the hot weather at that time. A higher response rate can be expected if respondents have the questionnaire on their desks by the middle of the week when the workload would most probably be at a minimum and not on the last day of the business week when managers would be rushing to finish work before the starts of the weekend (Alreck and Settle, 1985). The intention was for the survey to reach respondents when it was felt they might likely have more time/inclination to complete the task. For this reason, the questionnaires were sent out on a Saturday so that they were

expected to reach the respondents' companies on the following Tuesday at the latest.[8]

4.7.6 Confidentiality

Complete confidentiality was assured for every respondent in the covering letter as it was explained that the data and information provided would only be used for the purpose of this study. To reinforce the assurance of total confidentiality, the completion of respondent details was made voluntary. A copy of the research results and an invitation to attend an invitation to attend a lecture on the topic of "Environmental Scanning" at the Saudi Chambers of Commerce in Dammam, were promised to respondents who completed the respondent details section.

4.7.7 Postage

This study used first class mail to send the questionnaires. This ensured that the questionnaire would arrive at the respondent in one or two days. All questionnaires were mailed through the post office at King Faisal University, the researcher's employer.

4.7.8 Post-paid Self-addressed Envelopes

A good questionnaire makes it convenient for the respondent to reply. In an attempt to reduce the burden of mailing the survey, a stamped self-addressed envelope was enclosed with each questionnaire. This in fact had no significant effect in terms of enhancing the response rate. More than 65 percent, of those who responded, used a company envelope to send back the questionnaires. The study sample comprised the executives or equivalent of the top 500 Saudi companies. Such executives are likely to have handed the completed questionnaires to their secretaries to mail it

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[8] The business week in Saudi Arabia runs from Saturday until Wednesday with the weekend coming on Thursday and Friday.

back to the researcher. Our primary interest was on the scanning habits of CEOs, as they are likely the primary strategy-makers in firms of this size.

4.7.9 Rewards

Response to mail surveys is deemed to be a function of the ratio between the perceived costs of responding and the rewards one expects the other party to provide as a result. Therefore, in order to maximise survey response, there is a need to minimise the costs of responding, maximise the rewards for doing so, and establish trust that those rewards will be delivered (Dillman, 2000). Rewards offered to respondents can be either tangible or intangible. The choice of appropriate rewards will depend on the type of respondent in each study (Frazer and Lawley, 2000). The respondents in this study were promised an executive summary of the findings. In addition, the respondents were offered an invitation to attend a lecture on "Environmental Scanning" at the Saudi Chambers of Commerce in Dammam, where most of the major companies in Saudi operate.

4.7.10 Other Measures

Another technique to enhance the response rate is the presentation of the questionnaire (Babbie, 1990; Dillman, 2000). The questionnaire was therefore designed to look as professional as possible. We used clear fonts and scripts. Black ink on white paper was used for the cover letter and the questionnaire because of its professional as well as an academic appeal (Bourque and Fiedler, 1995; Mangione, 1995). Pilot testing was also used to help improve the response rate by eliminating several potential sources of difficulty. Pilot tests helped us to evaluate important methodological alternatives and to predict accurately response rate levels for the full survey. The pilot survey will be discussed in the next section.

4.8   The Pilot Study

Conducting a pre-test to refine the survey instrument is an essential step prior to carrying out a full-scale survey. Oppenheim (1996) mentioned that questionnaires have to be composed and tried out, improved and then tried out again, often several times over, until it is certain that they can do the job for which they are intended. The main concern in pre-testing the questionnaire is to detect weaknesses in the instrument. Bell (1999) suggested a checklist of seven items for conducting a pilot test of a survey instrument. The checklist includes: 1. how much time the questionnaire took to answer; 2. the clarity of the instructions; 3. which, if any, questions were unclear or ambiguous; 4. which, if any, questions the respondents found difficult to answer; 5. whether in their opinion there were any major topic omissions; 6. whether the layout was clear and attractive; 7.appraising the suitability of the terminology to specific sectors, 8. making other suggestions, criticisms and comments on the questionnaire and its facets.

In order to apply this checklist and other procedures to the instrument, the questionnaire was revised and taken to the field for pilot testing. The questionnaires went through a number of development stages before their final distribution. First, a draft of the questionnaire was designed by writing down and grouping all questions and issues which resulted from a detailed literature review. The researcher then asked five professors and associate professors at the College of Management Sciences and Planning, King Faisal University, to fill it in.[9] Comments and suggestions, regarding both the wording of the questions and the instrument's format, were fully considered and subsequently integrated. To ensure that the testing of the questionnaire achieved its intended purposes, it was taken to

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[9] On September 1, 2001, the researcher returned to Saudi Arabia to conduct the empirical work and supervise the distribution of the questionnaire to the Saudi private sector.

the field for pilot testing. A sample of twelve potential respondents was contacted and asked to respond to the questionnaire. Care was taken to ensure that the sample consisted of companies of various industries, sizes and ages. Because the companies were scattered throughout Saudi Arabia, the initial contact with executives of the selected companies was by telephone. The purpose of the intended research was explained and all executives contacted were willing to co-operate. They had the choice either to receive the questionnaire by mail or by fax. All of them preferred fax. The returned questionnaires were carefully scrutinised for signs that respondents had had difficulty answering or understanding any of the questions. The average time needed to complete the eight-page questionnaire was about twenty minutes. The questionnaire was amended according to the comments obtained from those executives. For instance, the word "competition" was used in several questions. Feedback from respondents indicated that "the intensity of competition among current competitors" was more readily understood by respondents. A few questions required the adaptation of some wording from the original (while retaining the same meaning) in order to create a better understanding for the Saudi executives. Below are some of the examples where changes occurred.

Table 4-2 Example of Changes

Original Version	Translation Version
What has the rate of change been taking place during the last three years in each environmental factor?	How would you describe the rate of change which has been taking place during the last three years in each environmental factor?
Competition	The intensity of competition among current competitors
How frequently does information about each environmental factor come to your attention?	To what extent does information about each environmental factor come to your attention?

4.9   Sample Selection

Babbie (1990) defines the sample as "a set of respondents selected for a study in such a manner as to ensure that whatever is learned about those comprising the sample would also be true of the population from which they were selected". Sampling is important for many reasons. Usually, the population is too large for the researcher to attempt to survey all of its members. Thus, it would be impossible and impractical to survey the entire population. Sampling also saves money and time compared to a comprehensive study. As there are fewer data to enter, results can be obtained more quickly (Saunders et al., 2000). Many researchers argue that using a sample can sometimes lead to more reliable results. The smaller the number of cases for which we need to collect data, the more time can be spent designing and piloting the methods of collecting these data (Henry, 1990; Sekaran, 2000).

The full set of elements from which a sample is taken is called the population (Saunders et al., 2000). The researcher's objectives dictate what the relevant population is. In this study, our purpose is to learn more about the environmental scanning practices in the Saudi private sector. Consequently, all organisations in the Saudi private sector regardless of their size, ownership or business sector are considered as the population for this study.

4.10 The Sampling Frame

The sampling frame is a complete list or a set of directions indicating all the sample units in the population. It might be a list of names and telephone numbers, city directories or membership lists of private and public organisations (Malhotra, 1996). This study used the 2001 directory of the top 1000 Saudi Companies as its sampling frame. The directory is published annually by the International Information and Trading Services Company located in Al Khobar in the eastern

province of the country. The information in this directory is very comprehensive, accurate and up-to-date. It contains valuable data on these companies. For example, the company address, the phone number, senior executive's name, number of employees and the nature of business (See Figure 4-2).

Figure 4-2 An Excerpt from the Directory of the Top 1000 Saudi Companies

Co. Name	P.O. Box	City	Postal Code	Tel.	No of employees	Senior executive's name	Title
MOHAMMED ASSAD ALDREES & SONS COMPANY	5648	Jeddah	21432	26600007	400	HAMAD MOHAMMED ALDREES	CHAIRMAN
AL ALAMIAH ELECTRONICS COMPANY	609	Riyadh	11421	14780000	1,234	HAMID ALSHAREKH	PRESIDENT
UNITED MOTORS COMPANY	5954	Riyadh	11432	14770106	375	OMAR ABDULFATTAH AGGAD	CHAIRMRN
ABDULAZIZ, MOHAMMED AND ABDULLATIF ALJABR CO.	31684	Khobar	31952	38933333	500	FAHID ABDULAZIZ ALJABR	GENERAL MANAGER
AHMED H. FITAIHI CO.,LTD.	5330	Jeddah	21422	26531555	1,000	AHMAD H. FITAIHI	PRESIDENT
ABDULREHMAN ALGOSAIBI GENERAL TRADING BUREAU	58310	Riyadh	11594	12332222	380	FAHAD ABDULRAHMAN ALGOSAIBI	CHAIRMAN
FAISAL AL SUWAIKET GROUP OF COMPANIES	2884	Khobar	31952	38970444	200	FAISAL A. AL SUWAIKET	PRESIDENT
ARABIAN FOOD SUPPLIES	1400	Jeddah	21431	26514284	1,750	SALEH YOUSUF NAGHI	GENERAL MANAGER
SAUDI INDUSTRIAL EXPORT COMPANY	21977	Riyadh	11485	14058080	18	ABDULLA M. ALKEHNAIFER	PRESIDENT
SAUDI TRAVELLERS CHEQUE COMPANY	7915	Riyadh	11472	14760888	14	ABDULAZIZ ALAJROOSH	GENERAL MANAGER
DALLAH HOSPITAL	87833	Riyadh	11652	14702777	750	TAWFIQ AL ABDULMUGHNI	EXECUTIVE MGR.

4.11 Selecting Sample Techniques

Once a suitable sampling frame has been chosen and established, it is necessary to select the most appropriate sampling technique to obtain a representative sample. A very important issue of sampling is its representativeness. A sample is considered to be representative if the analyses made using the researcher's sampling units produce results similar to those that would be obtained had the researcher analysed the entire population (Bryman, 1989). The sampling techniques available can be divided into two types: probability sampling and non-probability sampling.

4.11.1 Probability Sampling

With probability sampling the chance, or probability, of each element being selected from the population is known and is usually equal for all cases (Saunders et al., 2000).

A great advantage of using probability sampling over non- probability sampling is that selection bias will be mostly eliminated and sampling errors, the differences between the sample and the population, will be reduced. However, probability sampling is more complex, more time-consuming and usually more costly than non-probability sampling. Probability methods include random sampling, systematic sampling, and stratified sampling (Sekaran, 2000). In simple random sampling, each member of a population has an equal chance of being included in the sample. Also, each combination of members of the population has an equal chance of composing the sample (Fink and Kosecoff, 1985). To select a simple random sample, you need to list all of the units in the survey population (Babbie, 1990). Advantages of this technique are that it is simple to apply and analysis of data is reasonably easy and has a sound mathematical basis (Sekaran, 2000). On the other hand, this technique can be expensive and unfeasible for large populations because all elements must be identified and labelled prior to sampling. Moreover, a current list of the whole population we are interested in (the sampling frame) may not be readily available. This applied in our case; the method was not used in this study because an up-dated list of all Saudi firms, other than the top one thousand firms, in all sectors was not available.

Secondly, systematic sampling means that there is a gap, or interval, between each selected unit in the sample (Cooper and Schindler, 1998). The advantages of systematic sampling are that the sample selection cannot be easier (you only get one random number—the random start—and the rest of the sample automatically

follows) and that the sample is distributed evenly over the listed population. The biggest drawback of this method is that if there is some cycle in the way the population is arranged on a list and if that cycle coincides in some way with the sampling interval, the possible samples may not be representative of the population (Fink and Kosecoff, 1985).

Finally, in stratified sampling the population is first divided into non-overlapping subpopulations called strata, and then independent samples are selected from each stratum (Fink and Kosecoff, 1985). Stratified sampling ensures that different groups of a population are adequately represented in the sample, so as to increase their level of accuracy when estimating parameters (Frankfort-Nachmias and Nachmias, 1996). A major disadvantage of this technique is that it requires more effort than simple random sampling, and it often needs a larger sample size than a random sample to produce statistically meaningful results (Fink and Kosecoff, 1985).

4.11.2 Non-probability Sampling

In non-probability sampling, there is no assurance that every element has some chance of being included in the sample. In other words, the probability of each element being selected from the total population is not known (Saunders et al., 2000). In this study, we adopted a non-probability sampling. Probability sampling is costly in both time and money. It requires more planning and repeated call-backs to ensure that each selected element of the sample is contacted. Moreover, if the total population is not available then non-probability sampling might be the only feasible alternative to the researcher (Cooper and Schindler, 1998). A range of non-probability sampling techniques is available. These include quota sampling,

purposive sampling, and snowball sampling, self-selection sampling and convenience sampling.

Quota sampling refers to the selection of a sample based on relevant characteristics that describe the dimension of the entire study. It tries to represent the total population (Emory, 1980). Purposive sampling targets a particular group of people. When the desired population for the study is rare or very difficult to locate and recruit for a study, purposive sampling may be the only option. Snowball sampling is used when the desired sample characteristic is difficult to identify while convenience sampling involves selecting whatever sampling units are conveniently available (Frankfort-Nachmias and Nachmias, 1996). Finally, self-selection sampling occurs when the sampling units are allowed to identify their desire to take part in the research (Saunders et al., 2000).

As mentioned before, non-probability sampling techniques have been used for this research. A decision was made to choose the top 500 Saudi companies to embody the sample for this study. Although probability sampling has more advantages than non-probability sampling (see discussion above), there are some circumstances when it is unfeasible or impractical to conduct probability sampling. For example, when a current list of the whole population we are interested in (sampling-frame) is not readily available. The top 500 companies were used as a sample in our study. In this research the following are the motives behind this selection:

(1), Executives of those companies are well educated, have expert knowledge and are able to provide the information required of this research (Alarfaj, 1996; Alshoaibi, 1998). (2), an up-to-date list for the whole population of this study, which is all the firms in the Saudi private sector, is not available. (3), the 2001 directory of the top 1000 Saudi Companies is the most updated and accurate list of firms available for public use. (4), Alarfaj (1996) suggested that the executives of

the top 1000 Saudi firms are more willing to participate in mail surveys than less successful and smaller firms. (5), In accordance with Hambrick's (1981) recommendation that research on environmental scanning should cover multiple industrial sectors, the top 500 companies represent several industries. A cross-industry sample helps to ensure that our sample respondents face a wide variety of environmental conditions, which in turn allows for maximum variance of scanning (Boyd and Fulk, 1996).

4.11.3 The Sample Size

Sample size is influenced by the availability of resources, in particular, financial support and the time available to select the sample, to enter it into the computer and to analyse the data (Saunders et al., 2000). According to Sekaran (2000) a sample size larger than 30 and less than 500 can be effective, depending on the type of research questions investigated. However, the final sample size is almost always a matter of judgment rather than of calculation (Hoinville et al., 1978). In this study, it was decided that the top 500 Saudi companies would be used as the sample size for the study.

4.12 Reliability

There is a great concern about reliability and validity in any research project. The extent to which results are consistent over time and an accurate representation of the total population under study is referred to as reliability. In other words, if the results of a study can be reproduced under a similar methodology, then the research instrument is considered to be reliable (Alreck and Settle, 1985). One method to measure reliability is test-retest, the administration of the same test to the same participants at different times (De Vaus, 1996). The questionnaire therefore needs to be administered twice to respondents. This may result in difficulties as it may be

impossible to arrange for people to be tested in this way. In addition, if the retest is given too quickly, the respondent will remember the answers already given and repeat them (Cooper, 1998). As a result, the researcher has decided to use coefficient alpha to measure reliability, as this can be found in the SPSS (Statistics Programme for Social Sciences) of the Windows computer package (see section 4 in Chapter 5). This approach will provide a measurement of the overall reliability of the scale, the "alpha" index in statistics. All scores of the coefficient alpha, or Cronbach alpha, are within the range between 0 to 1. The higher the coefficient, the more reliable the scale, and, as a rule of thumb, alpha should be at least 0.7, which is deemed the minimum scale considered reliable (De Vaus, 1996). For the purpose of this study, reliability is further improved through proper wording of the items. This research followed several techniques that can improve the readability of the questionnaire items (See section 4.5.2 in this chapter).

4.13 Validity

Validity, on the other hand, is the degree to which the instrument measures what it is intended to measure. There are three ways to measure the validity of an instrument; these are content validity, criterion validity and construct validity. Content validity requires researchers with expertise in the required area to evaluate the content of the measurement tool in order to assess the extent to which it is representative of the area it is supposed to cover (Alreck and Settle, 1985). The researcher can determine content validity through careful definition of the research topic, the items to be scaled, and the scale to be used. This logical process is somewhat intuitive and is unique to each research designer (Emory, 1980). Furthermore, Malhorta (1996) suggested that the scale items should be reviewed by researchers or someone else to examine whether they cover the entire domain of the

construct being measured. Content validity in this research is ensured as the majority of the questionnaire questions and measures in this study are borrowed from established scales and measures that have already been subjected to tests of content validity (Auster and Choo, 1993; Daft et al., 1988; Elenkov, 1997a; Hambrick, 1982; Sawyerr, 1993). For example, the use of sources in scanning variable is measured by asking respondents how frequently they use each information source to scan the environment. This study measures the frequency of using each source in scanning by a five-point ascending scale labelled: Never; Few times a year; Monthly; Weekly; Daily. This scale is similar to those used by Auster and Choo (1993) and Daft et al., (1988) and facilitates comparison of results with these studies. In addition, several practitioners and experienced academics revised both English and Arabic version of the questionnaire to make sure that the questions asked were relevant to the Saudi business context and provided valuable feedback. Based on their comments modifications were made to the questionnaire wording and structure. The pilot study was discussed earlier in this chapter (See section 4.8 above). Criterion validity asks the question "How well does the measure predict a criterion or outcome?" Researchers may want to predict an outcome or estimate the existence of a current behaviour or condition (Cooper and Schindler, 1998). In this study, the results from the questionnaire and the personal interviews data analysis was successful in providing results that are consistent with what the researcher expected (see Chapters 5, 6 and 7). At the same time, these results are consistent with other research findings such as those related to Arab management style (see Chapter 8). The last type of validity is construct validity. The purpose of construct validity is to tell us how a measure would agree with theoretical expectations (Babbie, 1990). The survey questions in this study were constructed clearly and directly. It could be concluded therefore, that the construct validity is

acceptable specially as the first draft was pre-tested and revised. Moreover, it is generally accepted that using more than one method strengthens the validity and credibility of the analysis (Strauss and Corbin, 1994). As this study employed the triangulation approach, the use of the personal interview contributed to the construct validity of this study. This is because the researcher could explain to the interviewee respondent the actual construct.

4.14 Data Coding and Editing

The raw data from the mail survey was coded and edited into a data file. The process of coding involves assigning a number to each of the possible answers in the questionnaire (Pallant, 2001). This enables the researcher to enter the data quickly and with fewer errors (Saunders et al., 2000). These entries were double checked for errors by a second person (a PhD student colleague) to ensure the correctness of the data entry. The coded databases were analysed using SPSS (Statistical Package for Social Science) 11.5 of Windows. SPSS is one of the most widely used social statistical packages (Field, 2003). The frequencies command in SPSS was again used to detect any coding error.

4.15 Conclusion

This chapter has reviewed and discussed some of the research design and methodology issues that researchers need to deal with. Based on this review, the survey design, within the context of a survey study approach, was chosen. The data collection methods used were explained; comprising of mail survey and personal interviews with those who responded to the questionnaire and showed their willingness to discuss the study subject in detail. It is hoped that by adopting methodological triangulation, the use of a mix of methods in answering research questions, we would provide greater insights and more reliable analysis to the

question of environmental scanning practices in Saudi private firms. The chapter concluded with a discussion of validity and reliability checks. Quantitative analysis of the survey data and findings of this study together with the test of propositions will be presented in the next two chapters.

5 Chapter Five: Data Analysis and Results: Descriptive Statistics

5.1 Introduction

The previous chapter outlined the choice of methodology for answering the research questions. In addition, data collection methods were explained. The next task is to analyse the data collected from the sample of top executives in the Saudi private sector.

This chapter is organised into three main sections. Section 5.2 describes the statistical procedures and tests employed in the study. Section 5.3 discusses the response analysis, including response rate, speed, quality and bias. This is followed by section 5.4, which looks at the characteristics of respondents and their firms. The last section presents the analysis of the research questions.

5.2 Review of Statistical Procedures

Before presenting the statistical techniques used to analyse the data from the mail survey, we will first examine the data for outliers and normality as described in (Tabachnick and Fidell, 2001). The analysis of these potential problems is discussed as follows:

5.2.1 Outliers:

Field (2003) described outliers as observations that differ substantially from the main trend of the data. In this study, the data collected from all participants was examined for any case that may have been unusual or distinctive in some respect. Outliers need to be identified in a data set as those cases may exert undue influence on statistical results (Tabachnick and Fidell, 2001). SPSS descriptive procedures were used to conduct these checks. The data for the present study used histograms

and box plots to detect outliers (Pallant, 2001). The analysis of all variables revealed no outliers.

5.2.2   Normality

Prior to performing data analysis it is important to examine variables and combinations of variables for normality. The normality test was carried out in this study in order to decide which statistical tests were applicable (parametric or non-parametric). Parametric test require the assumption of normality or any other specific distribution. Parametric statistics can be used when data are collected in an interval, ratio or even ordinal scale (Cooper and Schindler, 1998). Non-parametric statistics, however, do not make any specific assumption about population distribution (Kinnear and Gray, 2000).

Normality can be assessed both by obtaining skewness and kurtosis values and by examining the residual plots. Skewness and kurtosis values diagnose the shape of the distribution and indicate how much each distribution departs from a normal, bell shaped curve. When a distribution is normal, the values of skewness and kurtosis should be close to zero (Field, 2003). In this study, the assumption of normality was checked by looking at both residual plots and examining skewness and kurtosis. From the analysis, the residual plots appear to be non-normal and the values of skewness and kurtosis were generally not close to zero. Therefore, the assumption of normality was violated.

5.2.3   Non-parametric Tests

Bearing in mind the results obtained from the normality test and considering the measurement used in the mail survey, the researcher in this study chose to apply non-parametric tests. These tests are often used in place of their parametric counterparts when certain assumptions about the underlying population are

questionable. Non-parametric tests do not require the data to be normally distributed. The major advantage attributed to non-parametric tests is that they are more powerful in detecting population differences when certain assumptions are not satisfied. Moreover, the assumptions associated with non-parametric tests are fewer than those associated with parametric tests (Siegel and Castellan, 1988). Although the disadvantage of non-parametric tests is that they are less powerful than parametric tests, the power of non-parametric test approaches the power of the corresponding parametric test when large samples are involved (Ben-Horim and Levy, 1983). Since the data are non-normally distributed and the surveyed sample was relatively large (150 firms), we are restricted to the non-parametric tests. The specific non-parametric tests used to analyse the data from the mail survey were Spearman's Rank Order Correlation, the Wilcoxon Signed Rank Test, the Mann-Whitney U Test, the Kruskal-Wallis Test. These will be explained next, along with the descriptive statistics.

5.2.4 Descriptive Statistics

Descriptive statistics are used to describe the basic features of the data in a study. They enable the researcher to describe and compare variables numerically. Together with simple graphics analysis, they form the basis of virtually every quantitative analysis of data. Statistics describe a variable focus on two aspects: 1. the central tendencies, 2. the dispersion (Saunders et al., 2000). Descriptive statistics were used to provide knowledge of how frequently certain phenomena occur (frequencies), and what is the average score of a set of figures, as well as the extent of variability in the set (i.e., the central tendencies and dispersions of the dependent and independent variables). Thus, this study utilised the frequency distribution, the arithmetic mean and the standard deviation measures.

According to Sekaran (2000) the standard deviation, in conjunction with the mean, is a very useful measures. Looking at the mean only, a difference might be realised. The standard deviation reveals information that provides a fuller description of the variability that exists in the distributions of these two different sets of data. In this study, descriptive statistics are used to exhibit general frequencies for all variables related to the firm characteristics and the personal background of the respondents. In addition, the mean, standard deviation and rank order were calculated to summarise the respondents' answers to the research questions:

1. Which areas of the business environment are seen as important and uncertain by Saudi firms?

2. How frequently do Saudi firms scan different factors in their business environment?

3. What level of interest do they have in scanning various events and trends occurring in their environment?

4. How do the Saudi firms scan their environment for information? :

4-1. how do they exchange environmental information?;

4-2. where is the environmental information stored?;

4-3. what types of techniques are used to analyse external information?;

4-4. who is responsible for scanning activities? and

4-5. when do they scan their business environment?

5. What information sources do Saudi firms use to find out about what is happening in their business environment?

6. What types of decisions depend on the firms' scanning activities?

5.2.5   Spearman's Rank Order Correlation

Propositions 1, 2, 3, 4, 5, 6, 7 were tested using Spearman's Rank Order Correlation (rho). It is a non-parametric test and can be used to compute the strength of the relationship between two variables. This test was used to determine the relationship between perceived environmental uncertainty and: scanning behaviour, the use of information sources and the use of external information in decision-making.

An important issue to consider in the correlation analysis is the size of value of Spearman's rho (r). This can range from -1.00 to 1.00. This value will indicate the strength of the relationship between two variables. A correlation of 0 indicates no relationship at all, a correlation of 1.0 indicates a perfect positive correlation, and a value of -1.0 indicates a perfect negative correlation (Pallant, 2001). Determination of the effect size may be based on past or related research, or on suggested conventional values. In interpreting the strength of relationships between variables, the guidelines suggested by Cohen (1988) were followed. His classification of the correlation coefficient (*r*) is as follows:

$r = .10$ to $.29$ weak association

$r = .30$ to $.49$ moderate association

$r = .50$ to 1.0 strong association

These guidelines are also based on other scanning studies, for example, see Hambrick (1982); Auster and Choo (1994).

Spearman's rho procedure was subject to a one-tailed test of statistical significance at two different levels: highly significant ($p \leq .001$) and significant ($p \leq .01$) or ($p \leq .05$).

5.2.6   The Mann-Whitney U Test

This is a non-parametric test used for testing if there are any significant differences in the means for two groups in the variable of interest. Unlike the parametric t-test, this non-parametric makes no assumptions about the distribution of the data (e.g., normality). It is one of the most powerful of the non-parametric tests, and it is a very useful alternative to the parametric *t* test (Siegel and Castellan, 1988). This test was performed to determine if there is a significant difference in the scanning process in respect of the respondents' country of education (Saudi Arabia and the US or the UK), the ownership of the firm (Saudi and Foreign) and the age of the firm (Old and New). In other word, a Mann-Whitney U test was used to see, for example, if the scanning process of those who received their higher degrees from Saudi Arabia differed from those who received their degrees from the UK or the US.

5.2.7   The Wilcoxon Signed Rank Test

In a situation where a researcher wants to compare two sets of scores that come from the same subject, the Wilcoxon Signed Rank test is typically used to analyse the data (Field, 2003). This test was used in the present study to determine if there is a significant difference in frequency of use between personal and impersonal sources of information and then between the external and internal sources of information.

5.2.8   The Kruskal-Wallis One-Way Analysis of Variance by Ranks

The Kruskal-Wallis Test is a non-parametric test, equivalent to ANOVA, used to indicate whether or not there is a significant mean difference in a dependent variable among three or more groups (Sekaran, 2000). It is similar in nature to the Mann-Whitney test (see 5.2.6), but it allows us to compare more than just two

groups. Scores are converted to ranks and the mean rank for each group is compared (Pallant, 2001). Kruskal-Wallis One-Way Analysis of Variance tests the hypothesis that K independent groups are the same against the alternative hypothesis that one or more of the groups differs from the others. When the obtained value of Kruskal-Wallis One-Way Analysis of Variance is significant, it indicates that at least one of the groups is different from at least one of the others. We can then inspect the mean rank for the three (or more) groups to find out which of the groups had the highest overall ranking that corresponds to the highest score on our variables. While analysis of variance tests depends on the assumption that all populations under comparison are normally distributed, the Kruskal-Wallis Test places no such restriction on the comparison (Siegel and Castellan, 1988).

This test was performed to compare the difference between the scanning process and education level and firm size. A significant level of 95% (alpha (α) level) is used for all of the above tests to determine whether or not a finding is the result of a genuine difference between two (or more) variables, or whether it is merely due to chance (Siegel and Castellan, 1988).

To conclude, these techniques (See sections 5.2.4-5.2.8) were found sufficient to achieve the purpose of this study.

5.3 Response Analysis

Response analysis involved assessing the mail survey response rate, speed and quality. Researchers always strive to get better response rates, quicker responses (that is, a faster response speed) and, more usable responses (that is, better response quality), while at the same time, minimising costs. A low response rate, slow response speed and poor response quality can affect the reliability and generalsability (Erdos, 1970). Furthermore, findings from surveys in which

response rate, speed and quality are low are open to the criticism that they do not represent the entire population sampled. A preliminary analysis was also conducted to test if there were any potential biases in the sample.

5.3.1 The Response Rate

The term response rate refers to the proportion of people in a particular sample who participated in a survey (i.e. returned a questionnaire). The response rate is determined by dividing the number of surveys returned by the number of surveys mailed (Dillman, 2000). Ideally, all questionnaires will be completed and returned, but this rarely occurs. One of the major disadvantages of collecting data by mail survey is that the response rate is low. An important issue facing survey research, therefore, is how to obtain an acceptable or satisfactory response rate. Survey researchers disagree about what constitutes an acceptable response rate. An acceptable rate is a judgment call that depends on the population, practical limitations and the response with which specific researchers feel comfortable. A response rate of 10 to 50 per cent is common and reasonable for mail survey (Crimp and Wright, 1995; Neuman, 2000).

In this study, of the original 500 questionnaires mailed to the top executives of the top 500 Saudi companies in early October 2001, a total of 162 were returned. This represented an overall return rate of 32.4%. Of the returned questionnaires, five respondents returned the questionnaire blank. Three of them indicated that they were not the appropriate individuals to answer questions concerning the scanning activities of their companies. In the others, respondents indicated that they were simply too busy and did not have time to respond to the survey. Seven questionnaires were also excluded because they were returned incomplete. The omission of these twelve questionnaires yielded 150 usable responses. This

represented a usable return of 30%, which is considered very acceptable for similar studies conducted in Saudi Arabia. The Saudi environment is a difficult one in which to conduct research (Tuncalp, 1999). According to Alarfaj (1996) a response rate of 15 per cent is considered normal in the case of Saudi Arabia. In addition, since questionnaires require respondents' time and knowledge, this response rate would be is unsurprising for this type of research. To enhance the interest and the involvement of the CEOs in the research, a number of measures were used to increase the response, and these are believed to have increased the response rate. Cover letter, questionnaire length, return envelopes and follow-up measures are some elements were selected as inducements to the present survey to increase the response rates (Detailed discussion about how to enhance the response rate is included in chapter 4 under section 4.7) Table 1-1-1 shows the response rate analysis.

Table 5-1 Response Rate

Number of questionnaires mailed.	500
Number of respondents with questionnaire not applicable.	3
Number of respondents who had no time to answer the questionnaire.	2
Number of incomplete questionnaires.	7
Number of usable questionnaires.	150
Total response rate.	30%

5.3.2 Response Speed

Response speed is defined as the difference in days between the date a completed questionnaire is received and the mailing date for mailed questionnaires (Tse et al., 1994). There is a longer time-lag in mail surveys than in personal or

telephone interviews. This affects a survey in several ways (Houston and Ford, 1976). First, a longer time is needed for the completion of a study. Secondly, it creates the potential for external events to affect the replies of some respondents. Finally, such delays in reply may result in an increase in follow-up work such as sending reminder letters which will have cost implications. (Tse et al., 1994). The literature suggests that various factors may influence the speed of return of a mail questionnaire. Research by Dillman (2000) and Fry (1974) indicated that personalisation of correspondence increases response speed. Moss (1981) reported that the questionnaire format has a significant effect on response speed. Account was taken of both of these and is believed to have speeded up the response rate. (See sections 4.6 and 4.7.1 in chapter 4). Response speed was determined by the number of days between the date of mailing the questionnaire and the date of its return to the researcher.

In this study, 38.6 per cent of the surveys mailed in the initial phase were received within two weeks and 21.3 per cent were received by the fourth week. It took five days to receive the first return survey. There is usually a time-lag before returns begin to come in. Of an overall response rate of 30 per cent, 60 per cent of the returns came within four weeks. 22.6 per cent of all returned mail surveys were received two weeks after the second mailing. The other 16.6 per cent were returned within 18 days of the final third mailing of the questionnaires. Replies to the mail survey continued to trickle in until nine weeks after the initial mailing. It is clear that the speed of response in the present study was not too slow and did not pose a problem. The response speed reported in this study is similar to those obtained in other similar research using mail survey in Saudi Arabia (Alarfaj, 1996; Al-Mulhem, 2001). The cumulative percentage over time is summarised in table 5.2

Table 5-2 Cumulative Response (%) at End of each Week

Week	1	2	3	4	5	6	7	8	9
No. of returns	12	46	23	9	22	13	8	12	5
Total No of Returns by Date	12	58	81	90	112	125	133	145	150
Cumulative Frequency of Returns	8%	38.7%	54%	60%	74.7%	83.4%	88.7%	96.7%	100%

Figure 5-1 Response Speed
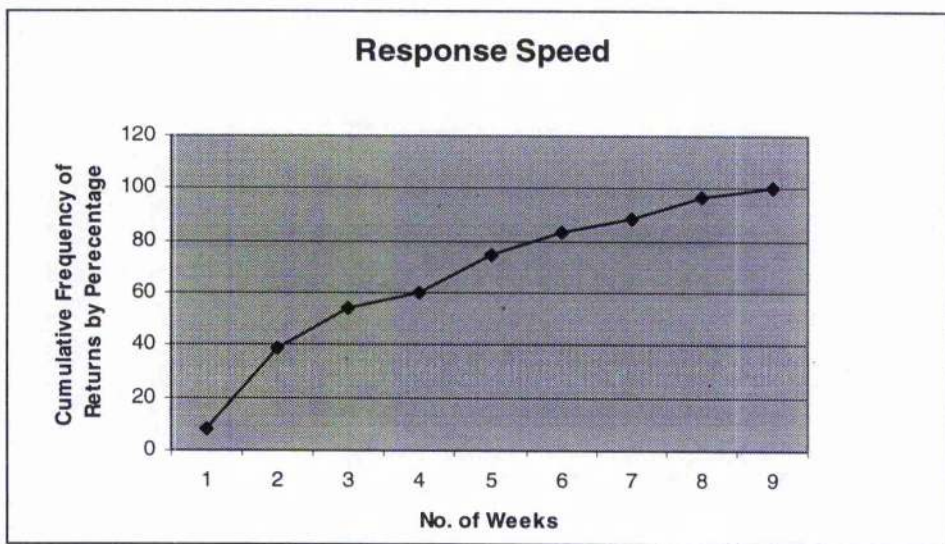
5.3.3 Response Quality

Several researchers have suggested that the response quality to a mail survey is as important as, if not more important than, the response rate and speed (Hawkins et al., 1988; Klose and Ball, 1995). Response quality is referred to as the degree of effort and thought devoted by respondents to completing the questionnaire (Houston and Ford, 1976). There has not been a consensus on how response quality can be measured (Downs and Kerr, 1986; Greenleaf, 1992). In fact, this variable is not easy to quantify and measure. Several measurements were suggested by Czaja and Blair (1996): (1) completeness of answer, (2) item omission, (3) response rate.

The above three aspects of response quality were examined. All the usable[10] return questionnaires were fully completed with no item omitted. The response rate was also deemed satisfactory when measured against similar studies conducted in Saudi Arabia (See section 1.1 above). In addition, it is important to mention that many respondents (more than 40 per cent of the response rate) attached an official letter with the return survey indicating an interest in the study. This would suggest that the respondents had taken care in answering the questions and that their interest in learning of the survey's results may well have been reflected in the reliability of the information submitted.

Thus, we consider the quality of the response in this survey to be high and sufficient to allow certain meaningful information to be drawn from the results.

5.3.4 Response Bias

Response bias occurs when one subgroup is more likely to cooperate than another. It is potentially greater in mail surveys than with other data collection methods because respondents can more easily ignore mail questionnaires (Czaja and Blair, 1996). Lessler and Kalsbeek (1992) explain that the problem with non-response is the occurrence of bias or systematic distortion in a survey because of an inability to obtain a response from some members of the selected sample. For this reason careful survey design and administrative planning, with the aim of identifying each aspect of the survey process that may affect the nature of the response, is critically important in encouraging cooperation and in minimising response bias (For more detailed discussion of how to enhance the response rate see section 7 in chapter 4). A typical method for assessing non-response bias would be to compare the characteristics of the population from which the sample was drawn. Therefore, the

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[10] Only 2.4 percent were excluded from the total returns and that is considered acceptable.

survey and a response sample were compared using two criteria: the firm size by number of employees: and the legal form of the firm (Table 5.3 and 5.4). For both firm size and legal form, the deviations between the survey and the response sample are equal to or less than ± 5% range, with one exception for medium-size firms (101-500) where the deviation is 7.3%. The response from the other groups was greater than from firms which have between 101-500 employees.

This result reveals that the relatively low response rate in this group of firm may actually reflect characteristics of the target group, who appear unlikely to spend time on unsolicited material. Further inspection of this group of firms (101-500 employees) revealed that most of them are in the oil and industrial sector and located in the eastern province of Saudi Arabia. The presence of two universities in the region would be the most plausible explanation for the lower response rate of this group of firms. Both academics and students are actively involved in academic research and so one might expect managers in this group to receive many surveys throughout the year.

In summary, a comparison of the survey and a response sample using these two criteria threw up no major differences between the two groups since almost all deviations are within ± 5% range (Kerlinger and Lee, 2000). It can therefore be concluded that the respondents and the entire sample did not differ significantly in terms of number of employees and legal form. These results helped to enhance the generalisability of our findings to the entire sample of organisations. In other words, the mail survey respondents are representative of the CEOs in the top 500 Saudi private firms.

Table 5-3 Comparison of Response and Survey sample by Firm Size

Years of establishment	Response Sample (N = 150)	Survey Sample (N = 500)	Deviation = Survey – Response sample
Less than 20	3 (2%)	5 (1%)	1%
Between 21-50	5 (3.3%)	18 (3.6%)	0.3%
Between 51-100	9 (6%)	25 (5%)	-1%
Between 101-500	59 (39.3)	233(46.6%)	7.3%
Between 501-1000	29 (19.3)	89 (17.8%)	-1.5%
More than 1000	45 (30%)	130 (26%)	-4%

Table 5-4 Comparison of Response and Survey Sample by Firm Legal Form

Legal form of organisation	Response Sample (N = 150)	Survey Sample (N = 500)	Deviation = Survey –Response sample
Government Body	2 (1.3%)	4 (0.08%)	1.22
Joint Stock Co.	24 (16%)	55 (11%)	5
Sole Proprietorship	20 (13.3%)	84 (16.8%)	-3.5
Limited Liability	88 (58.6%)	278 (55.6%)	3
Limited Partnership	7 (4.6%)	31 (6.2%)	-1.6
Partnership	9 (6%)	48 (9.6%)	-3.6

5.3.5   Early and Late Response Bias Test

It was mentioned in previous sections that the questionnaire was followed up with two reminder letters. Ninety responses (early responses) were received at the end of the fourth week, which was the date of the first follow-up letter. A total of 60 questionnaires (late responses) were received after the second follow-up procedure. Participants who respond only after repeated contact may fill in the questionnaire quickly without taking it seriously. Therefore, their answers may be unreliable

(Fowler, 1989). To assess if the effort to overcome non-participation bias, by chipping away at resistance to respond with repeated contacts, affects the composition of responders and the responses they supply, the two independent-samples T –test was used. It is important to mention that participants who respond after the first mailing are like non-responders and that their replies can be used to assess for non-response bias (Lin and Schaeffer, 1995). The assumption is that non-respondents would not have responded if the second mailing effort had not been carried out. In this study, six questions were randomly selected from the questionnaire in order to test if there was any significant difference between the early and the late respondents. The first two questions covered the perception of the environment. The third question concerned the amount of scanning. The fourth question related to how scanning activity is accomplished. Finally, the last two questions were about information sources and information use respectively. As shown in table 5-5, the results indicated no significant difference between the two groups. In other words, answers to the selected questions by those responding to later contact did not differ from those responding to the first mailing. The table shows the mean, the t value and the p value for early and late participants. The P values for the tested six questions were greater than 0.05 and indicated that the null hypotheses could not be rejected as there were no significant differences between early and late respondents. To summarise, non-response bias and the early and late response bias do not appear to be a concern in this study.

Table 5-5 Compare the Mean Differences of Early and Later Participants

Items	Test for Mean Difference		t	Sig. P value
	Early Res. (N=90)	Late Res. (N=60)		
How important are the events and trends in each of the following environmental elements (Competition)	4.53	4.45	0.644	.521
What has been the rate of change taking place in environmental element (Sociocultural)	3.06	2.95	0.672	.503
How frequently does information about each environmental elements come to your attention (Technological)	3.07	2.98	0.455	.649
To what extent does your company use the following techniques to analyse external information (Statistical and analytical software techniques)	2.56	2.72	-0.771	.442
How frequently do you use each of the following information sources to scan the environment (Arabic newspapers and magazines)	4.29	4.47	-1.159	.248
How frequently do use the information obtained from environmental scanning in deciding how to handle unexpected but important events, such loss of a major customer supplier (Disturbance Handler role)	4.31	4.08	1.390	.168

5.3.6 Reliability Test

According to Emory (1980), the reliability of a construct means that it supplies consistent results when repeated. In other words, the measuring procedure should yield consistent results on repeated tests. The theoretical concepts of reliability have been addressed in chapter 4. The methods used to assess the reliability of the current study measurements will be explained and illustrated in this section.

Nunnally (1978) suggested that there are at least four methods of estimating the reliability coefficient including the test-retest method, the alternative form and the subdivided-test method (referred to as the split-half method). The test-retest method involves the administration of identical instruments on two different occasions to the same sample of respondents under as nearly equivalent conditions as possible. A correlation coefficient is computed to determine the degree of similarity between the two measurements. The reliability is assumed to be positively related to the correlation coefficient – the higher the correlation coefficient, the higher the reliability (Kinnear and Gray, 2000; Malhotra, 1996). The alternative-forms method involves measuring the same respondents at two different times with two equivalents, but not identical, instruments. The scores from the administration of two separate instruments are correlated to assess the reliability (Frankfort-Nachmias and Nachmias, 1996). For the third method, the split-half method, the scale is divided into two sets of items and given to the same respondents. The reliability coefficient is estimated by correlating the scores of the two halves (Nunnally, 1970).

However, there are methods for estimating reliability which do not require splitting or repeating items. Instead, these techniques require only a single test administration and provide a reliable estimation of the coefficient reliability. As a group, these methods are referred to as measures of internal consistency (Carmines and Zeller, 1979). The most highly recommended of these is the coefficient alpha (α) or Cronbach's alpha, as it provides a good reliability estimate in most situations (Cooper and Schindler, 1998). This is the method employed in this study to assess the reliability of several items in their index form: the value of α range from 0 (no internal consistency) to 1 (complete internal consistency), the closer the value of α to 1, the greater the internal consistency of item reliability. If the value is low,

either there are too few items or there is very little commonality among items (Churchill, 1979). For the early stages of any research, Nunnally (1978) suggested that the reliability of 0.5-0.6 is sufficient, although a coefficient of 0.7 or above is desirable (Hair et al., 1998).

The coefficient alpha was computed using the reliability procedure in SPSS and presented in Table 5-6. All coefficient alphas exceed 0.7 and therefore the data set would appear to possess reliability.

Table 5-6 Reliability Coefficients (Cronbach's α) of Scales

	Number of Items	Alpha
Perceptions of Business Environment Importance	10	.7334
Perceptions of Business Environment Dynamism	10	.7887
Perceptions of Business Environment Complexity	10	.8405
Amount of Scanning (Frequency Measure)	10	.8459
Amount of Scanning (Interest Measure)	10	.8152
Scanning Process	16	.8333
Information Sources	17	.7779
Decisional Roles	4	.7729

5.4   Sample Profile

This information is considered helpful in understanding the background of both respondents and their companies.

5.4.1   Executives' Background

The background information about the Saudi business executives is presented in terms of position, education, place of education, and age. Complete frequencies, and percentages are presented in the following sections.

5.4.1.1 Job Position

The results of analysis of the job position of respondents are summarised and presented in table 5-7. These results indicate that the majority of respondents (111 or 74 per cent) described their position in their companies as that of top executive or general manager while twenty -one respondents (14 per cent) described it as that of vice president. Although the letter mailed with the questionnaire requested that the CEO or equivalent fill in the survey, 18 respondents have different titles ranging from marketing manager and financial manager to legal affairs manager. Of those 18 respondents, 10 are marketing managers, 4 are financial managers, 2 are production managers, 1 is a public relations manager and 1 legal affairs manager. This shows that scanning activities are undertaken by a variety of departmental heads. Despite its critical, costly nature, available evidence suggests that environmental scanning is not necessarily a formal task assigned specifically to certain executives. According to Hambrick (1981) scanning is conducted largely on an ad hoc basis by all middle and top executives in an organisation.

Table 5-7 Job Position

Position	Frequency	%
CEO or General Manager	111	74
Vice President	21	14
Marketing Manager	10	6.7
Financial Manager	4	2.7
Production Manager	2	1.3
Public Relations Manager	1	.7
Legal Affair Manager	1	.7
Total	150	100

5.4.1.2 Education

With regards to the level of formal education that the respondents may have, the results of the analysis on this aspect are presented in table 5-8. Education levels of respondents were grouped into four categories. The results indicate that respondents who had at least a bachelor degree are the majority (88 per cent). Only eighteen (12 per cent) of the total number of participating managers had less than a bachelor's degree. This suggests that the respondents have a good educational background.

Table 5-8 Educational Level

Educational Categories	Frequency	%
Ph.D.	9	6
Master's	38	25.3
Bachelor's	85	56.7
Less than bachelor's	18	12
Total	150	100

5.4.1.3 Country where most recent qualification was acquired

The results of this analysis are presented in table 5-9. They indicate that fifty (33.3%) respondents had completed their studies in Saudi Arabia. Interestingly, half the respondents (50%) had studied in the United States or the United Kingdom. These figures show the tendency within the private sector to employ managers with a degree from a Western country. Such managers are expected to be very well educated and qualified individuals who have acquired advanced skills and can speak another language apart from Arabic (Ali and Camp, 1995; Yavas, 1997). The remaining number was distributed amongst Arab countries (15.3%) with France and Pakistan both having one each.

Table 5-9 The Country of Higher Education

Country of higher educt.	Frequency	%
Saudi Arabia	50	33.3
US or UK	75	50
Arab Countries	23	15.3
Other	2	1.3
Total	150	100

5.4.1.4   Age

The results of the analysis on the age of the respondents are summarised and presented in Table 5-10. About half of the respondents (77 or 51.4%) reported that their age was between 36 and 55.   This suggests that the respondents are experienced and likely to have a good knowledge of the local business environment and therefore to provide valid and reliable responses to the issues relating to business environment in the questionnaire.   Twenty-one (14%) respondents were over 55 years old. Only 2 of the respondents said that they were less than 25 years old.

Table 5-10 Age of Managers

Age of Managers	Frequency	%
Less than 25 years	2	1.3
25-35 years	16	10.7
36-45	61	40.7
46-55	50	33.3
Over 55	21	14
Total	150	100

5.4.2 Business Background

In order to present an overall view of the characteristics of the respondent companies, the background information collected from the surveyed companies has been analysed in terms of time in business, legal form, business sector, size and ownership.

5.4.2.1 Time in Business

Table 5-11 presents the result of the analysis on the age of the respondent companies. One hundred and seven companies (71.3%) had been established before 1981. Twenty-four (16%) of the companies had been established during the period 1981-1985. The remaining 19 (12.7%) had been operating for between five and 15 years. These results indicate that most of the respondent companies were well established in the business. The data from this survey is in line with the Saudi economic history presented in chapter 3. As noted, in the 1970s the oil boom brought great wealth to the country and enabled it to finance ambitious developmental programmes. This period witnessed the establishment of many firms in the Saudi private sector. Government development policy resulted in a great expansion of the private sector as measures such as providing subsidies and loans for various projects motivated the private sector to get involved in development. Further incentives to the private sector included the establishment of industrial cities equipped with all necessary facilities and the provision of plots of land within these cities at a nominal rent of 2 US cents per square meter annually, with electricity and water also at low prices.

Moreover, the scanning literature suggests that as firms become older their experience, resources and data-processing capabilities increase. It will thus be interesting to observe whether the age of the firms influences scanning behaviour.

Table 5-11 Time in Business

Time in Business	Frequency	%
5-10 years	7	4.7
11-15 years	12	8
16-20 years	24	16
More than 20 years	107	71.3
Total	150	100

5.4.2.2 Legal Form

Figure 5-2 presents the results of the analysis of the legal form of the respondent companies. The majority of the sample was either limited liability (59%) or sole proprietorship (14%). Only 24 (16%) were joint stock companies. In other categories sixteen companies were partnerships and only one company was fully owned by the government. In Saudi Arabia the scope of the private sector can be extended to include some companies of mixed public and private ownership. The primary concern of those companies is very similar to that of a private company, namely profitability. As a result, they enjoy great autonomy and freedom of activity (e.g. Saudi Aramco and Saudi Basic Industries Corporation (SABIC)).

Figure 5-2 Legal Form of Companies
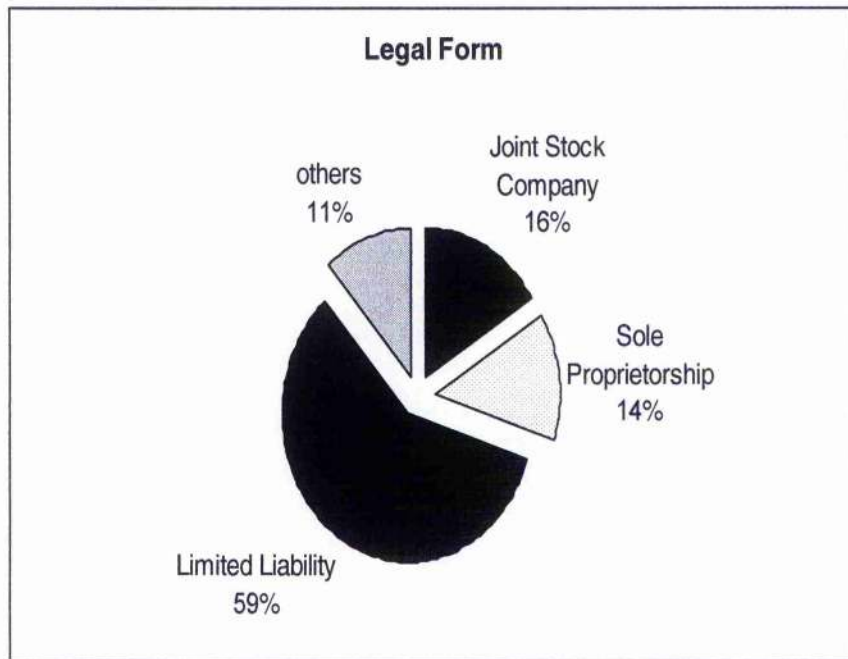
5.4.2.3 Business Type

Table 5-12 presents the results of analysis on the type of industry that respondent companies are involved in. Oil and industrial companies seem to be most widely represented by the sample subjects at 31.3%. Services and trading companies come second with 22.7%, and the number of diversified companies (those involved in more than one type of business activity) comes third with 14%. The remaining number is distributed over contracting companies (12%), agriculture companies (3.3%), finance and banking (2.7%) and others (14%). This finding reflects the nature of the Saudi Arabian economy as a petroleum producer with companies in the oil and the industrial sectors expected to make up a greater proportion of businesses. It also reflects the fact that Saudi Arabia is not an agricultural country since its land is mostly dominated by desert.

Table 5-12Type of Business

Type of Business	Frequency	%
Oil & Industry	47	31.3
Services & Trading	34	22.7
Diversified	21	14.0
Contracting	18	12.0
Agriculture	5	3.3
Finance & Banking	4	2.7
Other	21	14.0
Total	150	100

5.4.2.4 Size of Firm

Figure 5-3 presents the results of the analysis on the size of respondent firms. This research uses number of employees as a measure of firm size. Eighty-eight of the firms (58.6%) employ between 101 and 1000 persons, while another forty-five (30%) employ more than 1000 persons. Only seventeen firms in the sample employ 100 persons or fewer.

Figure 5-3 Firm Size (Number of Employees)
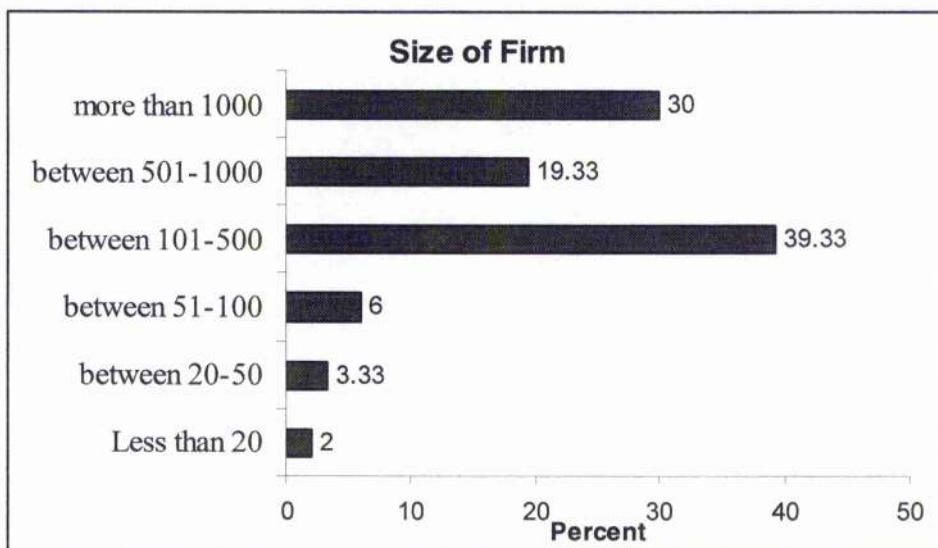
5.4.2.5 Ownership

Table 5-13 presents the results of analysis on the ownership aspect of respondent firms. One hundred and twenty-eight companies (85.3%) out of the sample are Saudi- owned companies while twenty companies are joint venture. Only two companies are completely foreign. This finding is not surprising since the Saudi government approved a new investment law just one year before the running of this study. Under this new law, foreign firms no longer need a Saudi sponsor which means foreign investors can own 100% of the project. Most of the joint venture companies in the sample are operating in either the petrochemical or the IT sector. This data may well reflect the fact that Saudi firms still lack specific expertise and technology in the operation of these industries and in the marketing of petrochemical and IT products locally and worldwide or in the way global firms usually do business. Therefore, the joint venture approach has been adopted to help establish those industries in the country and help local partners. Foreign partners can offer advanced process and product technologies, management know-how, and access to export markets.

Table 5-13 Type of Ownership

Ownership	Frequency	%
Saudi 100%	128	85.3
Foreign 100%	2	1.3
Joint venture	20	13.3
Total	150	100

5.5   Environmental Characteristics

Research Question 1

Which areas of the business environment are seen as important and uncertain by Saudi firms?

This section shows the findings with regard to how respondents assess the importance, rate of change and complexity of various factors within the Saudi business environment.   Moreover, answers to research questions one will be presented.   In the present study, the external business environment is broken into two main groups according to their relative immediacy to decision makers:

Micro-environment; customers, competitors, suppliers, new entrants and substitute products/services.

Macro-environment; technological, political, economic, sociocultural and legal factors.

The micro-environment involves factors in which there is direct interaction with the organisation, while the macro-environment is made up of those factors of the environment that have an indirect influence on the organisation.   The respondents' perception of these ten environmental elements was examined.

5.5.1   The Level of Importance of Environmental Factors

Respondents were asked to indicate the importance for each of the ten environmental elements.   For this, respondents were asked the following, "How important during the last three years have the events and trends in each of the following environmental elements been to your organisation?"

Respondents were given a Likert scale of 1-5 where 1= Not at all important, 2=Not important, 3=Of some importance, 4=Important, 5=Very important.   Table 5-14 ranks the different factors of the environment in terms of importance and shows the mean and standard deviation of each one. The study found that the most important

factor in the external environment was Competition with a mean rating of 4.50 and a standard deviation of .78. This was closely followed by Economic (4.20) and Legal (4.13) factors. Sociocultural and Substitute Products/Services are rated considerably lower in importance than the other environmental factors (see table 5-14). Respondents were then asked about the importance to their organisations of events and trends in general during the last three years, using the scale above. The results suggest that respondents believe that the Saudi business environment is considered important to their organisations with a mean rating of 3.99 and a standard deviation of .77. Seventy-four per cent of respondents stated that they believe that the environment was either very important or important to their organisations. Results are depicted in Table 5-15. Additionally, respondents were asked to determine the usefulness of external information in recognising threats and opportunities. Table 5-16 suggests that external information is very useful to the respondents' firms.

Table 5-14 Importance of Environmental Factors

Environmental Factors	Mean[11]	Std. Deviation[12]
Competition	4.50	.78
Economic	4.20	.88
Legal	4.13	.93
Customer	3.99	1.08
New Entrants	3.93	.96
Technological	3.89	.99
Political	3.87	1.10
Supplier	3.45	1.10
Sociocultural	3.43	.96
Substitute Products/ Services	3.23	1.30

[11] Although Likert scales are really ordinal scales, still at other times, Likert scales are analysed as continuous, with each set of 1 2 3 4 5 treated as equal points along a continuum, when well constructed, there is equal distance between each value. In such cases, a mean and standard deviation is often reported for each of the Likert-scale questions. Many researchers in behavioural science argue that ordinal variables with 3 categories as "categorical" and variables with more than three levels as "continuous" (Kerlinger, 2000; Jaccard and Wan 1996; Borgatta and Bohrnstedt, 1980). The same technique have been used by researchers in many scanning studies (see for example, Hambrick, 1982, Daft et al., 1988, Auster and Choo, 1993; Sawyerr et al., 2000 Garg, et al., 2003)

[12] The standard deviation is the positive square root of the variance. It is, therefore, a measure of how well the mean represent the data. Small standard deviations indicate that data points are close to the mean. A large standard deviation indicates that the data points are distant from the mean. Like the mean, the standard deviation is affected by extreme scores.

Table 5-15 Response on the Perceived Importance of the Business Environment

Very important		Important		Of some importance		Not important		Completely not important	
NO	%	NO	%	NO	%	NO	%	NO	%
40	26.7	71	47.3	36	24	3	2	0	0

Mean: 3.99

Table 5-16 Response on the Perceived Usefulness of External Information

Highly useful		Useful		Neutral		Not useful		Completely not useful	
NO	%	NO	%	NO	%	NO	%	NO	%
38	25.3	93	62	14	9.3	4	2.7	1	.7

Mean: 4.09

5.5.2 The Rate of Change of Environmental Factors

Respondents were asked to evaluate the rate of change for each of the environmental factors. For this, respondents answered, using a five- point Likert scale where 1= No change at all, 2= Low, 3= Medium, 4= Fairly high, 5= Very high, the question, "What has the rate of change been taking place during the last three years of each environmental element?"

From table 5-17, it is observable that Competition again is ranked first in rate of change with a mean rating of 4.17 and a standard deviation of .85, followed by Economic factors (3.79 and 1.09) and Technological factors (3.60 and 1.01).

Supplier, Sociocultural and Substitute Products/Services factors are seen as the least changeable. The results, presented in table 5-17, show that Saudi executives in general believe that their businesses operate in a reasonably turbulent environment.

Table 5-17 The Rate of Change of Environmental Factors

Environmental Factors	Mean	Std. Deviation
Competition	4.17	.85
Economic	3.79	1.09
Technological	3.60	1.01
New Entrants	3.56	1.03
Legal	3.54	1.13
Customer	3.37	1.11
Political	3.15	1.26
Supplier	3.11	1.05
Sociocultural	3.01	.94
Substitute Products/ Services	2.98	1.20

5.5.3 The Degree of Complexity of Environmental Factors

Respondents were asked to indicate the degree of complexity for each of the environmental factors. For this, respondents answered, using a five- point Likert scale where 1= Not at all, 2= Fairly low complexity, 3=Medium complexity, 4= Complex, 5= Very complex, the question, "What has been the level of complexity during the last three years of each environmental element?"

Table 5-18 ranks the different factors of the environment in terms of complexity and shows the mean and standard deviation of each one. Competition is seen to have the highest level of complexity with a mean rating of 3.68 and a standard deviation

of .99. Economic factors ranked second followed by New Entrants. The least complex factors are Sociocultural and Substitute Products/Services.

Table 5-18 The Degree of Complexity

Environmental Factors	Mean	Std. Deviation
Competition	3.68	.99
Economic	3.43	1.08
New Entrants	3.26	1.04
Technological	3.25	.98
Legal	3.21	1.29
Customer	3.08	.99
Supplier	2.99	1.00
Political	2.87	1.25
Sociocultural	2.77	1.18
Substitute Products/ Services	2.73	1.07

5.5.4 Perceived Strategic Uncertainty

Perceived Strategic Uncertainty (PSU) was calculated using the formula used by Daft et al., (1988). The mean scores for complexity and rate of change for each environmental factor were totalled and multiplied by the importance score as follows: PSU = Perceived importance of the factor × (Perceived rate of change of the factor + Perceived of complexity of the factor).

Table 5-19 presents the results of the mean PSU score for each environmental factor. As can be seen, competition has produced the highest level of perceived strategic uncertainty. Economic and Legal factors also have higher strategic uncertainty scores than the other factors in the business environment. Sociocultural

and Substitute Products/Services factors are generating the lowest level of perceived strategic uncertainty. Surprisingly, political factors produced a low level of perceived strategic uncertainty. Three out of the top five strategically uncertain factors are from the macro-environment of the firms' business environment.

Table 5-19 Perceived Strategic Uncertainty of Environmental Factors

Environmental Factors	Mean	Std. Deviation
Competition	35.7667	10.6073
Economic	30.9667	12.2406
Legal	28.9000	12.6781
New Entrants	27.7533	11.9433
Technological	27.6267	11.5634
Customer	26.7667	11.6777
Political	24.3400	12.6617
Supplier	22.1933	11.4204
Sociocultural	20.7733	11.1813
Substitute Products/ Services	20.1200	12.3429

5.6 The Amount of Scanning

Research Question 2 and 3

How frequently do Saudi firms monitor different factors in their business environment?

What level of interest do they have in scanning various events and trends occurring in their environment?

Hambrick (1982) indicates that executives may have difficulty in accurately describing their scanning behaviour. In addition, they scan in fragmented, informal and *ad hoc* ways (Aguialr, 1967). In order to overcome these problems, the total

amount of scanning in which executives scan their external business environment in Saudi Arabia is measured across the micro and macro-environmental factors in two ways:

Frequency method: frequency of receiving external information about each of the ten environmental factors. Respondents were asked to indicate "how frequently does information about each environmental factor come to your attention". A Likert scale of 1-5, where 5= Daily, 4= Weekly, 3= Monthly, 2= Few times a year, 1= Never, were used. This scale is adapted from Hambrick (1982); Elenkov (1997b) and Auster and Choo (1993). Mean values of the scanning frequency are in Table 5-20. As can be seen, information about competition comes to executives' attention most frequently with a mean rating of 3.94 and standard deviation of .99. Economic, legal and customer factors are next in scanning frequency by executives. Information about substitute products/services and sociocultural factors comes to their attention the least.

Interest method: respondents were asked to rate the extent to which they keep themselves informed about developments in each of the environmental factors, coded as 5= To a very great extent, 4= To a great extent, 3= To some extent, 2= To a little extent, 1= None. This scale is adapted from that derived by the authors of the frequency method. Table 16 shows the mean values of the level of respondents' interest in each environmental factor. As can be seen, executives are more interested in scanning competition, customer and new entrants, followed by economic, technological and legal factors. Executives have the least level of interest in substitute products/services and sociocultural factors.

Table 5-20 Scanning Behaviour

Environmental Factors	Scanning Frequency		Scanning Interest	
	Mean	Std. Deviation	Mean	Std. Deviation
Customer	3.21	1.21	3.89	1.02
Competition	3.94	.99	4.26	.83
supplier	2.91	1.10	3.36	1.13
New Entrants	3.07	1.12	3.82	1.06
Substitute Products/ Services	2.73	1.17	3.33	1.16
Technological	3.03	1.09	3.63	1.00
Political	3.02	1.27	3.37	1.16
Economic	3.47	1.20	3.80	1.00
Sociocultural	2.39	1.00	2.85	1.07
Legal	3.24	1.28	3.62	1.14

5.7 The Scanning Process

The objective of this section is to obtain a broad picture regarding the scanning process in Saudi firms. Answers to research questions 4-1, 4-2, 4-3, 4-4, and 4-5 will be presented in this section. The questionnaire solicited information about various aspects of environmental scanning. Respondents were presented with a variety of statements that describe several practices which might relate to the scanning process in their firms and were asked to indicate the extent to which each statement described the actual practice in their firms. A total of 16 statements was categorised under five broad headings: A. channels of exchange for external information; B. information storage; C. information analysis techniques; D. scanning responsibilities; E. scanning mode. Measurement was on a five-point

scale where 1= To no extent, 2= To a little extent, 3= To some extent, 4= To a great extent, 5= To a very great extent.

5.7.1   Channels of Exchange for External Information

Research Question 4-1

How do Saudi firms exchange environmental information?

The questionnaire examined three types of communication channels that can be used: interpersonal communication (e.g. meetings, face to face contact, phone calls), email and the internal report.   As can be seen in table 5-21, interpersonal communication was the channel most used when exchanging external information, represented by 77.3 percent of the all respondents who rated using it to a great or to a very great extent.   The internal report came second with a mean rating of 3.62. 59.8 per cent of the firms used the internal report to a great or to a very great extent. Only 10.7 per cent used email to a very great extent.   This finding is not surprising since access to the Internet in Saudi Arabia began only a few years ago[13].   Not every firm has access to the World Wide Web, and just because a person has access does not mean they are comfortable enough to use the technology.   In addition, Internet usage in Saudi firms has been held back by the relative slowness of infrastructure development and the high price of network access (Al-Furaih, 2002).

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[13] The Saudi government began allowing its public to access the Internet through local service providers on January 1999.

Table 5-21 Channels of Exchange for External Information

Communication channels	Mean	To no extent	To a little extent	To some extent	To great extent	To a very great extent
Interpersonal communication	4.12	3.3	4	15.3	32	45.3
Email	3.15	8	21	29	30.7	10.7
Internal Report	3.62	10	9.3	20.7	28.7	31.1

5.7.2 Information Storage

Research Question 4-2

Where is the environmental information stored?

The volume of information collected from the external environment needs to be organised and stored to facilitate information sharing and retrieval. The respondents were asked about the types of tools their firms used to store and record the information they received about the external environment. As can be seen in table 5-22, manual filing together with an archival system was the tool most used to store and record external information, represented by 44 per cent of the all respondents who rated using it to a great or to a very great extent. Corporate database systems were used by only 26 per cent of the executives. These results suggest that when it comes to storing and recording external information, respondents use information technology less frequently.

Table 5-22 Information Storage Tools

Information storage	Mean	To no extent	To a little extent	To some extent	To great extent	To a very great extent
Corporate database systems	2.86	14	24.7	34.7	14.7	12
Manual filing and archival system	3.15	13	20.7	23.3	22.7	20

5.7.3 Information Analysis Techniques

Research Question 4-3

What types of techniques are used to analyse external information

In order to study the use of information analysis techniques by Saudi companies, executives were asked to indicate the extent of use of various analysis techniques to analyse their external information. As can be seen in table 5-23, senior managers' experience, intuition and judgment was the technique most used when analysing the environmental information. One hundred and thirteen (75.3 per cent) of all respondents reported that they used this technique to a great or to a very great extent. Statistical and analytical software techniques were used by only 26.7 per cent of the executives, while only 22.9 per cent used qualitative techniques such as Delphi and Scenario planning.

Table 5-23 Information Analysis Teqniques

Information Analysis Techniques	Mean	To no extent	To a little extent	To some extent	To great extent	To a very great extent
Senior managers' experience	4.05	3.3	4.7	16.7	34	41.3
Statistical and analytical software	2.62	23.3	26	24	18.7	8
Qualitative techniques (e.g. Delphi and Scenario planning)	2.33	36	25.3	15.3	14.7	8

5.7.4 Scanning Responsibilities

Research Question 4-4

Who is responsible for scanning activities?

The firms in the study were questioned as to who would be involved in scanning activities. As can be seen in table 5-24, the mean for all management levels was more than 3.0. This indicates that upper-, middle- and functional-managers scan the

environment. On the other hand, Saudi firms rely less on the planning unit to scan the business environment. This finding reflects the absence of comparative planning as a formal process in Saudi firms.

Table 5-24 Scanning Responsibilities

Scanning Responsibilities	Mean	To no extent	To a little extent	To some extent	To great extent	To a very great extent
Executives and/or general managers	3.53	6	14.7	22.7	34	22.7
Vice presidents	3.23	10.7	14	30.7	30.7	14
Functional managers	3.32	11.3	13.3	27.3	27.3	20.7
Division managers	3.15	16	16.7	25.3	20	22
Planning unit	2.97	30.7	10.7	12	24.7	22

5.7.5 Scanning Mode

Research Question 4-5

When do they scan their business environment?

Scanning activities can be placed on a continuum from irregular to continuous scanning (Fahey and King, 1977; Jain, 1984). Respondents were asked about the mode they used to scan the business environment. As can be seen in table 5-25, firms are engaged more in irregular and/or regular scanning. Forty eight per cent of all respondents reported that they scan the business environment to a great or to a very great extent. Continuous scanning was used by only 27.3 per cent of the executives. This finding suggests that relatively few Saudi firms employ continuous scanning.

Table 5-25 Scanning Mode

Scanning Mode	Mean	To no extent	To a little extent	To some extent	To great extent	To a very great extent
Irregular	3.35	6.7	24	21.3	24	24
Regular	3.33	6.7	14.7	32.7	28	18
Continuous	2.90	6.7	29.3	36.7	22.0	5.3

5.8   Information Sources

Research Question 5

What information sources do Saudi firms use to find out about what is happening in their business environment?

During environmental scanning, information is gathered from numerous sources. Respondents were asked to indicate how frequently they used various information sources to scan the environment. A Liker scale of 1-5, where 5= Daily, 4= Weekly, 3= Monthly, 2= Few times a year, 1= Never, was used. Table 5-26 shows the information sources ranked according to frequency of use. Arabic newspapers and magazines and customers topped the list in terms of frequency of use in scanning. Subordinate managers, subordinate staff, business/professional associates and broadcast media (radio, TV) were ranked three to six in frequency, respectively. Information sources used least are internal memoranda, circulars, government officials, company reports and studies and government publications. It is interesting to note that from 150 respondents only 13 indicated that they used government publications daily in their efforts to scan the business environment.

Table 5-26 The Use of Information Sources in Scanning

Information Sources	Mean	Std. Deviation
Arabic newspapers and magazines	4.36	.922
Customers	4.01	1.074
Subordinate managers	3.85	1.104
Subordinate staff	3.77	1.106
Business/professional associates	3.75	.935
Broadcast media (radio, TV)	3.73	1.390
Industry, trade associations	3.57	1.120
The Internet (Web pages, Email, etc.)	3.45	1.103
English language newspapers and magazines	3.40	1.111
Competitors	3.38	1.197
Superiors, board members	3.28	1.159
Exhibitions, business trips	3.24	.953
Relatives and family members	3.21	1.001
Internal memoranda, circulars	3.19	1.276
Government officials	3.15	1.047
Company reports and studies	2.83	1.350
Government publications	2.68	1.058

5.9 The Use of Environmental Scanning in Decision-Making

Research Question 6

What types of decisions depend on the firms' scanning activities?

Scanning provides important information for making strategic decisions (Aguilar, 1967). In this study, Mintzberg's (1973) four decisional roles are used

(entrepreneur, disturbance handler, resource allocator and negotiator) to examine the use of external information in decision-making. Mintzberg's role typology is frequently used in studies of managerial work and environmental scanning (e.g. Auster and Choo, 1993; Pinsonneault, 1998).

Respondents were asked to indicate how frequently they used the information obtained from environmental scanning in each role. Measurement is on a five-point scale, where 5= Always, 4= Often, 3= Sometimes, 2= Seldom, 1= Never. Table 5-27 presents the results of the test. As can be seen, the mean of all decisional roles was more than 3.80 and this indicates that Saudi executives use external information in all decisional roles. This finding is consistent with past research (Auster and Choo, 1993; Stephens, 1993).

Table 5-27 Frequency of Using External Inforamtion in Decsion-Making

Decisional Role	Mean	Std. Deviation
Entrepreneur	4.35	.859
Disturbance handler	4.30	.903
Resource allocator	4.22	.929
Negotiator	3.98	1.096

5.10 Conclusion

This chapter discussed and defined the statistical techniques that were used in this study. Also reported were the results of analysing the data collected by the mail survey. The findings indicated that Saudi executives in general believe that their businesses operate in a highly turbulent environment where competition, economic and legal factors are perceived as the most strategically uncertain. Surprisingly, political factors produced a low level of perceived strategic uncertainty. In general,

macro-environmental factors are seen as more uncertain than micro ones in relation to information scanning. The analysis also revealed an over-reliance on conventional methods to scan the business environment. The information derived in this chapter make a contribution towards a general understanding of the environmental scanning activities in the Saudi private sector. The following chapter will test the propositions that were developed from the literature for empirical investigation.

6   Chapter Six: Propositions Testing

6.1   Introduction

As discussed in chapter one, this research aims to investigate the environmental scanning activities in the Saudi private firms. In the light of the literature review presented in chapter two and after describing the Saudi environment in chapter three, the following propositions were developed for empirical investigation:

Proposition 1: A higher level of perceived environmental uncertainty across environmental factors will be associated with a higher level of scanning frequency.

Proposition 2: The greater the degree of perceived environmental uncertainty across environmental factors, the higher the degree of executives' interest in that factor.

Proposition 3: Personal sources will be used more frequently than impersonal sources.

Proposition 4: External sources will be used more frequently than internal sources.

Proposition 5: A higher level of perceived environmental uncertainty will be associated with a higher level of frequency of all type of information sources.

Proposition 6: A higher level of perceived environmental uncertainty, will be associated with the frequency of using external information in decision-making in the four decisional roles of entrepreneur, disturbance handler, resource allocator and negotiator.

Proposition 7: The total amount of scanning conducted by Saudi executives will be associated with the frequency of using external information in decision-making in the four decisional roles of entrepreneur, disturbance handler, resource allocator and negotiator.

Proposition 8: There is a significant difference between the respondents' characteristics for the scanning process in Saudi private firms.

Proposition 9: There is a significant difference between the firms' characteristics for the scanning process in Saudi private firms.

6.2   Environmental Uncertainty and Scanning Behaviour

Testing of Proposition 1 and 2

Proposition 1: A higher level of perceived environmental uncertainty across environmental factors will be associated with a higher level of scanning frequency.

Proposition 2: The greater the degree of perceived environmental uncertainty across environmental factors, the higher the degree of executives' interest in that factor.

In these propositions an attempt is made to assess the relationship between the perceived environmental uncertainty and scanning behaviour (as measured by scanning frequency and scanning interest).   As discussed in Chapter two, some studies found connection between environmental uncertainty and some dimensions of environmental scanning, particularly with the scanning behaviour. To cope with these increases in environmental variation (which also may result in increased environmental uncertainty), managers will tend to increase their information-gathering activities in an attempt to better their decision-making under uncertainty. Unstable environments create environmental uncertainty for executives. Daft et al., (1988) proposed that perceived uncertainty would result in increased levels of environmental scanning. Their results, in conjunction with those of Auster and Choo (1993), provide support for the theory that high levels of perceived environmental uncertainty will lead to an increase in scanning frequency and interest across environmental factors. To test these propositions, Spearman's rank

order correlation coefficient[15] is computed between the perceived environmental uncertainty and the scanning behaviour (as measured by scanning frequency and scanning interest) of each environmental factor.

As shown in table 6-1, it was found that the perceived environmental uncertainty of each environmental factor has a positive and significant correlation with all their respective frequency scores. A noteworthy feature of Table 6-1 is that, as measured by scanning frequency, the Spearman correlation (*r*) of the micro- environmental factors (customer, competition, supplier, new entrants, substitute products/ services) is lower than those of the macro-environmental factors. In other words, the uncertainty of macro-environmental factors exhibits a stronger relation with their respective scanning frequency scores than those in the micro-environment. As measured by scanning interest, it was found that environmental uncertainty, of all the environmental factors, has a positive and moderate-to-strong correlation with the scanning behaviour measured by interest in that factor. Moreover, we notice that all correlation between environmental uncertainty and scanning interest is deemed to be significant at the 0.01 level. Again, the Spearman correlation (*r*) of all macro-environmental factors is $\geq .50$

These results suggest that the higher an executive's perception of environmental uncertainty, the higher his frequency and interest in scanning activities are likely to be. The results also indicate that Saudi executives increase scanning frequency and interest in response to increased perception of environmental uncertainty in the macro-environment more than in the micro-environment. This result is not surprising since the macro-environment appear to be more salient for executives in developing countries (Elenkov, 1997b; Sawyerr, 1993). Based on the above results,

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[15] The Spearman's rank correlation was chosen because the data have violated parametric assumptions and the ordinary (Pearson's) correlation coefficient is only suitable for parametric data (See section 2.2 in Chapter 5).

we can conclude that data support Proposition 1 and 2, that for this group of respondents, perceived environmental uncertainty of each factor is positively associated with scanning behaviour as reflected by the scanning frequency and scanning interest in that factor.

Table 6-1Correlation between Perceived Environmental Uncertainty and Scanning Behaviour (Spearman's Correlation Coefficients)

Environmental Factors	Scanning Frequency	Scanning Interest
Customer	.38**	.51**
Competition	.37**	.43**
Supplier	.51**	.57**
New Entrants	.29**	.47**
Substitute Products/ Services	.50**	.64**
Technological	.48**	.59**
Political	.59**	.56**
Economic	.57**	50**
Sociocultural	.54**	.57**
Legal	.52**	.57**

Notes: **p < 0.01

6.3   Scanning and Usage of Information Sources

Testing of Proposition 3and 4

Proposition 3: Personal sources will be used more frequently than impersonal sources.

Proposition 4: External sources will be used more frequently than internal sources.

In chapter 5 we describe how Saudi executives frequently use various information sources in scanning.   As a further step, the study examined whether personal sources are used more frequently than impersonal sources in scanning, and whether external sources are used more than internal sources.   Empirical studies of environmental scanning have typically divided information sources into numbers of

categories. Examples include: personal vs. impersonal sources;[16] external vs. internal (e.g. Aguilar, 1967; Daft et al., 1988): formal vs. informal sources (e.g. Mohan-Neill, 1995): and written vs. oral sources (e.g. Schafer, 1990). The 17 information sources identified in this study are classified into personal and impersonal, and then external and internal sources.

A Wilcoxon signed rank test was conducted to examine these two pairs of relationships. The rank sum test shows that the difference between the two scores of personal and impersonal sources is statistically significant (Table 6-2). It can be concluded that personal sources are used more in scanning than impersonal sources. This finding is consistent with Tuncalp (1999) who found personal sources more important to Saudi executives in their marketing decisions. Based on this result, we conclude that data provide full support of Proposition 3, and that personal sources are used more frequently than impersonal sources in scanning. On the other hand, examining the use of external and internal sources shows a different picture. It revealed that the mean rank does not differ significantly (Table 6-2). It could be concluded from this that Saudi executives use both external and internal sources of information in scanning their business environment. Since we have a non-significant result, we conclude that data do not support Proposition 4, in that external sources will not be used more frequently than internal sources.

Table 6-2 Mean Difference Tests on the Frequency of Using Information Sources in Scanning by Source Classification

Classification	Mean Rank	Asymp. Sig. (2-tailed)	Z-score
Personal	77.09		
Impersonal	69.99	▮▮▮	-3.319
External	77.67		
Internal	69.49	.099	-1.649

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[16] This refers to whether the information source is located inside or outside the firm.

6.4   Environmental Uncertainty and the Use of Information Sources

Testing of Proposition 5

Proposition 5: A higher level of perceived environmental uncertainty will be associated with a higher level of frequency of all type of information sources.

The literature suggests that there are crucial linkages between the scanning activities of managers and their perceptions of environmental movement and discontinuities. For example, Auster and Choo (1993) found that top-level managers' perceived environmental uncertainty was positively correlated with their frequency of use of all sources.   Similarly, Brown and Utterback (1985) found that research and development staff who perceived the environment to be more uncertain sought greater contact with sources outside their firms.

The relationship between environmental uncertainty and the use of personal/ impersonal and external/ internal information sources was investigated using Spearman's rank order correlation coefficient.   As shown in table 6-3, environmental uncertainty has a positive and significant correlation with both personal/impersonal and external/internal information sources.   However, the strength of these associations is weak.

Table 6-3 Correlation between Environmental Uncertainty and Information Sources by Classification (Spearman's Correlation Coefficients)

	Personal	Impersonal	External	Internal
Environmental Uncertainty	.219**	.235**	.230**	.230**

Notes: **$p < 0.01$

The results of the correlation analysis suggest that as Saudi executives' perception of uncertainty in the environment increases, they rely on all types of information sources in order to minimise their perception of uncertainty.   This finding is

consistent with the study of chief executive scanning by Auster and Choo (1993), which found that chief executives reacted to perceived environmental uncertainty by increased scanning in all modes, that is using external and internal, as well as personal and written sources. It seems that in the absence of reliable, comparative and recent data sources, Saudi executives rely on multiple sources of different types. This allows them to compare and cross-check information, and have multiple perspectives on the issues that interest them. We can conclude that there is full support for Proposition 5, that the higher the perception of environmental uncertainty, the more likely it is that an executive would be inclined to use all external and internal sources, as well as all personal and impersonal sources.

6.5 Environmental Uncertainty and the Use of Environmental Scanning in Decision-Making

Testing of Proposition 6

Proposition 6: A higher level of perceived environmental uncertainty will be associated with the frequency of using external information in decision-making in the four decisional roles of entrepreneur, disturbance handler, resource allocator and negotiator.

Perceived environmental uncertainty represents lack of information about the environment. The executive, therefore, feels a need for more information in order to keep up-to-date with the latest developments and to understand cause and effect links underlying changes in the environment. Nevertheless, information is not an end in itself; it is the basic input to decision-making. The manager plays the major role in a unit's decision-making system. As its formal authority, only the manager can commit the unit to important new courses of action; and as its nerve centre, only the manager has full and current information to make the set of decisions that determines the unit's strategy (Mintzberg, 1990b). As a result, environmental uncertainty could have a strong influence on managers' decision-making roles. The

relationship between environmental uncertainty and the use of external information for decision-making, as measured by Mintzberg's four decisional roles, was analysed by Spearman's rank order correlation coefficient. Environmental uncertainty was obtained by adding the perceived environmental uncertainty scores for all ten environmental factors (customers, competitors, suppliers, new entrants, substitute products/services, technological, political, economic, sociocultural and legal).

As shown in table 6-4, environmental uncertainty has a positive and significant correlation with both disturbance handler and negotiator roles. In contrast, the correlation coefficients between environmental uncertainty and the other decisional roles (entrepreneur and resource allocator) are positive and small, but are not statistically significant. We conclude that there is a partial support for Proposition 6, that a higher level of perceived environmental uncertainty is associated with the frequency of using external information in decision-making in the decisional roles of disturbance handler and negotiator.

Table 6-4 Correlation between Environmental Uncertainty and the Use of External Information in Decision-Making (Spearman's Correlation Coefficients)

Decisional Role	Environmental Uncertainty
Entrepreneur	.124
Disturbance handler	.259**
Resource allocator	.141
Negotiator	.185*

Notes: **$p < 0.01$; **$p < .05$

6.6 Total Amount of Scanning and the Use of Environmental Scanning in Decision-Making
Testing of Proposition 7

Proposition 7: The total amount of scanning conducted by Saudi executives will be associated with the frequency of using external information in decision-making in the four decisional roles of entrepreneur, disturbance handler, resource allocator and negotiator

Spearman's rank order correlation coefficient was used to assess the relationship between the total amount of scanning carried out by Saudi executives and the use of external information in decision-making. The total amount of scanning for frequency method was obtained by adding the scores indicating the frequency with which information about each environmental factor comes to the respondent's attention for all ten environmental factors. The total amount of scanning for interest method was obtained in a similar fashion (Adapted from Auster and Choo, 1993). We use Mintzberg's (1973) four decisional roles (entrepreneur, disturbance handler, resource allocator, and negotiator) to examine the use of external information in decision-making.

As shown in table 6-5, the total amount of scanning measured by frequency has a positive and significant correlation with all decisional roles. However, the strength of these associations is weak. On the other hand, the total amount of scanning measured by interest and the use of external information in decision-making display a positive but very weak correlation. Furthermore, we noticed that all correlations are not statistically significant. This suggests that the frequency of using environmental information in decision-making in the four decisional roles increase with the amount of scanning. This is predictable from Mintzberg's theoretical exposition of the decisional roles. According to Mintzberg (1973), senior managers play ten different roles that can be classified into three groups. In their

interpersonal roles, managers act as figurehead, leaders and liaison people on the basis of their formal authority. In their information roles they act as monitors, disseminators and spokes people. In their decisional roles they act as entrepreneur, disturbance handler, resource allocator and negotiator. In fact, "it is the informational roles that tie all managerial work together...linking status and the interpersonal roles with the decisional roles" (Mintzberg, 1973, p.71). It is also the manager as a nerve centre who has full and current information to make the set of decisions that determines the organisation's strategy. Therefore, we expect that environmental information would be used in all four decisional roles.

Table 6-5 Correlation between Scanning Behaviour and the Use of External Information in Decision-Making (Spearman's Correlation Coefficients)

Decisional Role	Scanning Behaviour	
	Scanning Frequency	Scanning Interest
Entrepreneur	.25**	.099
Disturbance handler	.29**	.105
Resource allocator	.15*	.033
Negotiator	.23**	.063

Notes: **p < 0.01; **p < .05

6.7 The Scanning Process and Demographic Characteristics

One particularly interesting question is whether a difference exists in the scanning process according to demographic characteristics. Several characteristics of the organisation such as firm size, age, type of ownership, industry are presumed to have an effect on scanning activities (Elenkov, 1997b; Hambrick, 1982; Jain, 1984; Mohan-Neill, 1995; Sawyerr et al., 2000). For example, firm size is one of the most popular variables in explaining differences in scanning activities. The common argument is that larger firms have sized-related advantages that enable them to engage in scanning activities more effectively than smaller firms (Smeltzer et al.,

1988; Yasai-Ardekani and Nystrom, 1996). Moreover, many researchers have studied management characteristics and attempted to relate them to scanning activities (Elenkov, 1997b; Hambrick, 1982). These characteristics include the top manager's education level, age group and executive role. According to Hambrick and Mason (1984) strategic decisions might be affected significantly by executives' characteristics. There are many characteristics which could be studied and related to the scanning process.

The scanning process in this study was categorised under five broad subjects: A. channels of exchange for external information; B. information storage; C. information analysis techniques; D. scanning responsibilities; E. scanning mode. Respondents were presented with a variety of statements which might describe practices relating to the scanning process in their firms and were asked to indicate the extent to which each statement described the actual practice in their firms. For example, respondents were presented with three statements to answer the question on which channels are used by their firms to exchange external information: 1) people in the company use interpersonal communication (e.g. meeting, face to face contact, phone calls) to exchange external information; 2) people in the company use email to exchange external information; 3) people in the company use internal reports to exchange external information. Measurement was on a five-point scale where 1= To no extent, 2= To a little extent, 3= To some extent, 4= To a great extent, 5= To a very great extent.

6.8 The Scanning Process and Management Characteristics

Testing of Proposition 8

Proposition 8: There is a significant difference between the respondents' characteristics for the scanning process in the Saudi private firms.

In order to understand the relationship between the scanning process in the Saudi firms and the respondents' characteristics, the Kruskal-Wallis one-way analysis of variance by ranks test was used. The analysis of variance (Kruskal-Wallis) is a non-parametric test, that is, we do not need to make any assumption as to the distribution of the data. It has the advantage that it can be used to analyse situations in which there are several groups needing to be compared. In addition, the Mann- Whitney U test was used to investigate whether a difference exists in scanning activities between Western-educated executives and those who were educated in Saudi or other Arab countries. When only two groups are tested, the Mann- Whitney U test is the simplest non-parametric tests available (Siegel and Castellan, 1988). The country of higher education variable has only two groups[17]. In this study, there are four top managers' characteristics: job position, education level, country of higher education and age.

Table 6-6 shows the results of the Kruskal-Wallis and Mann- Whitney tests for each variable. Both tests were carried out at 5 percent significant level. Based on the test, there were no differences between top management characteristics and the scanning process for most variables. The only exceptions were few differences that were detected (Significant p values shown in bold figures) in the education and the country of higher education group. Using email to exchange environmental

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[17] In order to carry out the test, the four groups involved in the question of where the respondents received their higher degrees were classified into two groups. The first group included those who received their higher degrees from either Saudi Arabia or other Arab countries (74 executives) while the second group contained those who received their degrees from the West (76 executives).

information was the only variable that had a significant difference (P = .000) in the age group[18]. Closer inspection of the mean ranks for the executives' education level suggests that the executives with more than a bachelor's degree use email to exchange external information more than the other two groups (See table 6-7). Differences were also detected between executives educated in Saudi Arabia or other Arab countries and executives educated in the US or UK toward the use of email to exchange external information (P = .000) and the use of manual filing and an archival system to store the external information (P = .045). Further inspection of the mean ranks for the two groups suggests that those of the Western-educated executives is significantly higher than of those executives educated in Saudi or other Arab countries with regard to using email to exchange external information (See Table 6-8). On the other hand, mean ranks for the two groups revealed that executives who were educated in Saudi achieved higher mean ranks than the other group with regard to using manual filing and an archival system to store external information (See Table 6-9). In other words, Western educated executives use email to exchange external information more than those who obtained their higher degree from Saudi Arabia or other Arab countries, while the picture is the oppsite for the use of manual filing and an archival system to store external information. The above analysis has shown that management characteristics have little impact on scanning practices in Saudi private firms. We therefore, conclude, that the data did not provide support for Proposition 8, that there is a sgnificant difference between the respondents' characteristics for the scanning process.

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[18] In order to carry out the test, the five groups involved in the question of which age group categories the respondents are in were classified into three groups; less than graduate (18 executives), bachelor's (85 executives) and postgraduate (47 executives).

Table 6-6 Kruskal Wallis and Mann-Whitney Test for the Impact of Management

Scanning Process	1/KW	2/KW	3 / KW	4/ MW
Communication Channels				
Interpersonal communication	.627	.163	.786	.755
Email	.563	**.000**	.446	**.000**
Internal report	.325	.799	.360	.986
Information Storage				
Corporate database systems	.572	.858	.769	.622
Manual filing and archival system	.576	.060	.816	**.045**
Information Analysis Techniques				
Statistical and analytical software	.227	.744	.155	.710
Qualitative techniques (e.g. Scenario planning)	.236	.436	.563	.438
Senior managers' experience and intuition	.443	.515	.973	.388
Scanning Responsibilities				
Executives and/or general managers	.137	.994	.146	.394
Vice presidents	.149	.520	.212	.616
Functional managers	.306	.753	.586	.886
Division managers	.227	.996	.971	.843
Planning unit	.602	.561	.913	.942
Scanning Mode				
Irregular	.942	.061	.167	.157
Regular	.557	.078	.095	.883
Continuous	.461	.114	.304	.813

1: Top Managers' age, 2: Education level, 3: Job position, 4: Country of higher education. KW: Kruskal-Wallis, MW: Mann-Whitney.

Table 6-7 Mean Rank Difference on Using Email to Exchange External Information for Education Level

Education Level	N	Mean Rank
Less than bachelor's	18	56.78
Bachelor's	85	68.06
Post graduate	47	96.12

Table 6-8 Mean Rank Difference on Using Email to Exchange External Information for Country of Higher Education Group

Country of Higher Education	N	Mean Rank
Executives who educated in Saudi	73	51.12
Western Educated	75	97.26

Table 6-9 Mean Rank Difference on Using manual Filing and an Archival System to Store the External Information for Country of Higher Education Group

Country of Higher Education	N	Mean Rank
Executives educated in Saudi	73	81.50
Western Educated	75	67.69

6.9   The Scanning Process and Firm Characteristics

Testing of Proposition 9

Proposition 9: There is a significant difference between the firms' characteristics for the scanning process in the Saudi private firms.

In order to understand the relationship between the scanning process in the Saudi firms and the firms' characteristics, the Kruskal-Wallis one-way analysis of

variance by ranks test was used. Again, the Mann- Whitney U test was used to investigate whether a difference exists in scanning activities between foreign and joint venture firms and Saudi firms. As explained in section 6.7 of this chapter, when only two groups are tested, Mann- Whitney U test is the simplest non-parametric tests available (Siegel and Castellan, 1988). The firm ownership variable has only two groups[19]. In this study, there are five firm characteristics: firm size, business sector, age, legal form, ownership.

Table 6-10 shows the results of the Kruskal-Wallis and Mann- Whitney tests for each variable. Both tests were carried out at 5 percent significant level. An examination of table 6-10 reveals no significant differences detected between most groups in response to most of the variables related to the scanning process in Saudi private firms (significant p values shown in bold). Two characteristics did not influence any of the variables. They were firm's age and legal form.

Few differences were detected (Significant p values shown in bolded) in the firm size and business sector group. Significant differences were detected between groups in business sectors towards using corporate database systems to store external information (**P = .013**) and using statistical and analytical software to analyse external information (**P = .054**). To examine these variables more closely, an examination of the mean ranks for business sectors suggests that the finance and banking sector used the latter scanning practices more than other groups (see Table 6-12). This finding is not surprising since the Saudi banking industry has invested heavily in information technology in the last ten years. Information storage is an area where IT could have a large impact, partly because the huge volume of data cries out for automation, and partly because most documents today are prepared on

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[19] In order to carry out the test, the three groups involved in the question of the type of respondents' firm ownership were classified into two groups; the first group containing the Saudi firms (128 firms) and the second group containing foreign and joint venture firms (22 firms).

computers (Choo, 2000). Moreover, seven of the Saudi commercial banks have substantial foreign participation and several leading international banks are present in the form of locally incorporated joint venture banks. Foreign banks have played an important role in introducing advanced management experience and expertise.

With regard to firm size groups, differences were detected only in the use of email to exchange environmental information (**P = .046**) and the use of senior managers' experience and intuition to analyse external information (**P = .047**). By examining the mean ranks of the three firm size groups[20], it appears that medium and large firms use email and senior managers' experience and intuition in their scanning activities more than do small firms (see Table 6-11).

The ownership column (see table 6-10), on the other hand, shows a different picture. The Mann-Whitney U test shows that half of the listed variables which describe the scanning process demonstrate a significant difference between Saudi firms and foreign and joint ventures.

As can be seen from table 6-13, the mean rank of foreign and joint venture firms is significantly higher than Saudi firms in the following: *Communication Channels* (interpersonal communication, email and internal report): *Information storage* (corporate database systems): *Information analysis techniques* (statistical and analytical software): *Scanning Responsibilities* (functional managers) and *Scanning Mode* (continuous scanning). It can be concluded that foreign and joint venture firms operating in Saudi Arabia are applying more modern managerial practices in their scanning activities compared with Saudi firms. This is what we normally

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[20] In order to carry out the test, the six groups in firm size variable were classified into three groups. The first group contained 8 small firms (up to 50 employees), the second group contained 68 medium-sized firms (50-500 employees) and the third group contained 74 large firms (more than 500 employees). This criterion to identify firms by size was adapted from that used by the Saudi Consulting House classification of 1999. It is a government consulting corporation which provided a range of research and consultancy services for industry in the Kingdom. On 10th April, 2000, the Saudi Consulting House was dissolved. All its duties and rights were transferred to the newly-established Saudi Arabian General Investment Authority (SAGIA).

expect. Foreign and joint venture firms bring with them their experience, knowledge and many modern managerial practices. Results also suggest that foreign and joint venture firms scan the business environment in amore structured way than Saudi firms. We can conclude that data partially support proposition 9, that there is a significant difference between firms and the firms' characteristics for the scanning process in the Saudi private firms

Table 6-10 Kruskal Wallis and Mann-Whitney Test for the Impact of Firm Characteristics on Scanning Process

Scanning Process	1/KW	2/KW	3/KW	4/KW	5/MW
Communication Channels					
Interpersonal communication	.880	.417	.809	.495	**.013**
Email	**.046**	.750	.074	.253	**.000**
Internal Report	.125	.238	.331	.611	**.031**
Information storage					
Corporate database systems	.090	**.013**	.923	.405	**.000**
Manual filing and archival system	.875	.322	.670	.587	.604
Information analysis techniques					
Statistical and analytical software	.805	**.054**	.986	.730	**.000**
Qualitative techniques (e.g. Scenario planning)	.547	.044	.559	.838	.192
Senior managers' experience	**.047**	.537	.254	.923	.780
Scanning Responsibilities					
Executives and/or general managers	.271	.646	.630	.377	.139
Vice presidents	.788	.743	.498	.072	.193
Functional managers	.962	.336	.530	.060	**.042**
Division managers	.950	.758	.627	.519	.149

Scanning Process	1/KW	2/KW	3/KW	4/KW	5/MW
Planning unit	.343	.176	.987	.062	.932
Scanning Responsibilities					
Irregular	.147	.406	.187	.227	**.002**
Regular	.525	.426	.754	.645	.650
Continuous	.201	.428	.148	.585	**.000**

1: Firm size, 2: Business sector, 3: Age, 4: Legal form, 5: Ownership.
KW: Kruskal-Wallis, MW: Mann-Whitney

Table 6-11 Mean Rank Difference on Using Email and Senior Managers'
Experience in Scanning Activities- Firm Size Groups

Scanning Process	Firm Size	Mean Rank
Using Email to exchange external Information	Small firms	46.75
	Medium Firms	71.66
	Large Firms	82.14
Using Senior managers' experience and intuition to analyse external information	Small firms	40.81
	Medium Firms	76.71
	Large Firms	78.14

Table 6-12 Mean Rank Difference on Using Corporate Database and statistical and analytical software in Scanning Activities- Business Sectors Groups

Scanning Process	Business Sector	Mean Rank
Using corporate data base to store external Information	Agriculture1	70
	Contracting	69.89
	Oil & Industry	88.41
	Services & Trading	58.44
	Finance & Banking	102.88
	Diversified	71.12
	Others	79.50
Using statistical and analytical software to analyse external information	Agriculture1	77.20
	Contracting	78.44
	Oil & Industry	83.30
	Services & Trading	56.68
	Finance & Banking	131.50
	Diversified	79.52
	Others	70.90

Table 6-13 Mean Rank Difference on Certain of the Scanning Process Activities- Ownership Groups

Scanning Process	Ownership	Mean Rank
Interpersonal communication	Saudi	72.10
	Foreign / Joint V.	95.30
Email	Saudi	67.58
	Foreign / Joint V.	121.59
Internal report	Saudi	72.43
	Foreign / Joint V.	93.39
Corporate data base	Saudi	67.38
	Foreign / Joint V.	122.75
Statistical and analytical software techniques	Saudi	68.13
	Foreign / Joint V.	118.36
Functional (business) managers.	Saudi	72.59
	Foreign / Joint V.	92.41
	Saudi	79.94

Scanning Process	Ownership	Mean Rank
Irregular scanning	Foreign / Joint V.	49.68
	Saudi	69.36
Continuous scanning	Foreign / Joint V.	111.23

6.10 Conclusion

In our quest to achieve our objectives as stated at the beginning of Chapter 1 we have empirically tested the research propositions which were generated based on appraisal of the literature relating to environmental scanning. The results indicate that Saudi executives increase scanning frequency in response to an increased perception of strategic uncertainty in the macro-environment more than in the micro-environment and this differs from scanning studies conducted in the West. The literature has suggested that this difference can be explained by the unique situational characteristics of the political/legal environment in developing countries. Some studies have proposed that there are several elements that differentiate the business environment in developing countries from those of the West. These elements include unstable economic and political environments and the absence of the political and social infrastructures necessary for carrying out environmental scanning activities (Adegbite, 1986; Anastos et al., 1980; Flores, 1972)

The results also show that Western-educated executives and those who have been educated in Saudi or other Arab countries do not have significantly different mean scores with regard to the scanning process and scan their business environment in the same way. This lack of difference is not a straightforward matter to explain. However, we will try to shed some light on this issue in Chapter 8.

Although, Chapters 5 and 6 presented important results and reached significant conclusions, there are still many unanswered qualitative questions. An attempt will be made in the next chapter to answer some of these important questions and thus to

complement the findings of the last two chapters. It is hoped that the personal interviews conducted with 10 executives will provide a more comprehensive understanding of the scanning activities in Saudi firms.

7 Chapter Seven: Personal Interviews

7.1 Introduction

In this study, two main methods were employed to collect data, namely mail surveys and personal interviews. The use of a mix of methods to examine the same phenomenon is called a triangulation. This means we can use both quantitative and qualitative approaches. As discussed in Chapter 4, triangulation was used to strengthen and improve the accuracy of the research. The purpose of the personal interview was to gather information that would both enrich and elaborate the findings of the mail survey. In this context the objectives were:

1. To clarify patterns observed in the mail survey results.

2. To discuss in detail issues relating to the scanning practices of Saudi private firms.

3. To check the validity of the results of the mail survey.

By giving us a better understanding of the meanings behind those findings, these interviews helped to rule out alternative explanations and increased our confidence in the survey findings.

When integrated with quantitative methods, qualitative methods are especially useful for examining different dimensions of the same phenomenon (Monti and Tingen, 1999).

Studies in Saudi Arabia, that involve primary data collection through field surveys and interviews, require special and tedious organisational permission (Tunclap, 1988). In conducting personal interviews with Saudi managers, one must be aware of the private and reserved nature of Saudis (Usunier, 1998, Tunclap, 1988). The executives who participated in personal interviews were co-operative and very

helpful. However, they were reluctant to answer questions that related to political uncertainty. Moreover, confidentiality is not clearly defined in the Saudi business environment and therefore respondents are often hesitant to provide economic information about the company to an unknown party. They are afraid of an official investigation if something goes wrong (Yavas, 1997). As a result, the interviews conducted in this study cannot be considered to constitute case studies. On the other hand, the top managers who participated in the interviews of this study were in a strong position to give detailed information without any fear. Ten executives participated in the interviews. The final question in the mail survey asked the respondents if they would be willing to take part at a later date in an additional personal interview about issues relating to scanning practices in their companies. This chapter presents the analysis of the data gathered from those executives who agreed to participate.

7.2 Demographic Information

A total of ten interviews were conducted with top executives from a range of firms who had indicated in the questionnaire that they were willing to take part in an additional personal interview. The educational background of the respondents ranged from secondary school to doctorate level. However, most held university qualifications, with six having undergraduate and three postgraduate qualifications. Only one had no university qualification. He had gained knowledge from personal study and from experience gained in the workplace. He stated:

> "I left school at 18. My father wanted me to share responsibilities with him in the family business... I started reading about management and

marketing at the age of 20 ... with the experience I gained from the workplace I think I know enough" (Interview, 2)[21]

Two executives had received their education overseas. All ten managers interviewed were either the CEO or a member of the senior personnel of the companies, such as Deputy Executive Director or Departmental Manager. According to their job descriptions, most of the interviewees had to handle many activities in their firms, as a CEO in manufacturing industry stated:

> "My duties include coordinating between different departments...making sure that systems, policies, and instructions are correctly applied. It is also important to follow developments and to evolve and raise issues and ideas through long or short-term strategic plans. In other words, there is no specific definition to my position, but I do all these things" (interview, 5)

The firms engaged in a variety of businesses. Included was one of Saudi's largest soft drink firms, an American multinational firm which designs and delivers the systems, software and services for next-generation communication networks for service providers and enterprises and one of the largest Saudi banks. The summary of the CEOs' characteristics and their firms are tabled below:

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[21] As much as possible the words of the executives are used as evidence of the conceptions that the researcher discerned from the discourse of the interview. Each direct quote from an executive is referenced to interview number.

Table 7-1 Profile of Interview Respondents

	Age	Education Level	Country of Education	Job Title	Type of Business	Ownership
1	36-45	Master's	Saudi Arabia	Sr. Manager INS	One of the world's largest companies in telecommunications	Foreign (American)
2	36-45	Secondary school diploma	Saudi Arabia	General Manager	Manufacturer and distributor of Saudi male traditional clothes	Saudi
3	46-55	Bachelor's degree	Saudi Arabia	CEO	Health Services	Saudi
4	25-35	Bachelor's degree	Saudi Arabia	General Manager	Plastic fabrication	Saudi
5	36-45	Bachelor's degree	Saudi Arabia	CEO	First Saudi company to manufacture pre-painted steel products	Joint venture with Australian company
6	36-45	Bachelor's degree	United States	CEO	Banking and Financial Industry	Saudi
7	46-55	Bachelor's degree	Saudi Arabia	General Manager	A company involved in the construction of and trading in all types of commercial laundries	Saudi
8	36-45	Master's	Saudi Arabia	General Manager	Manufacture of steel pipes	Saudi
9	46-55	PhD	United States	Deputy Executive Director	Soft drinks bottling	Saudi (franchise bottlers)
10	36-45	Bachelor's degree	Saudi Arabia	CEO	Food retailer	Saudi

7.3 Perception of Environmental Uncertainty

Environmental uncertainty arises from an individual's perceived inability to predict the organisation's environment, typically due to dynamism and complexity (Dess and Beard, 1984; Duncan, 1972) and should therefore lead to greater amounts of

time and resources spent on environmental scanning and forecasting (Milliken, 1987). In this section, we are concerned with the respondents' answers to the question of identifying the most uncertain environmental factors and the reasons behind their answers.

7.3.1 Legislation volatility

Most of the respondents indicated that their firms are confronted with unpredictable government action and they usually came up with very different examples of policy and regulatory uncertainties. This is in accordance with the claim made by Abdelhalim (1989), Kassem (1989) and Yavas (1985) that government intervention together with uncertainty about government long term policies and legislation within developing countries creates a high level of uncertainty for decision makers in these countries. These ranged from unexpected royal decrees to unpredictable customs procedures, as reflected in one interviewee's opinion:

> "It is not possible to predict what can come up, with regard to government policies. For example, you may hear at a business dinner or meeting with a friend that there is new legislation regarding a new system to finance local factories. However, years may go by without any legislation. At other times, you may be surprised to find out that a decree was issued to increase utility prices without any warning..." (Interview, 4)

Similarly, another executive explains the lack of clarity in government laws and policies:

> "We feel that the government lacks clarity in its legislation and systems, which can sometimes be purposeless, illogical, or even badly thought out. If the government wants to issue new legislation, there must be enough clarity and transparency, and the decision should be well examined, taking into consideration the national or local interests of the company" (Interview, 5)

Moreover, the same executive gives us a recent example of an unexpected government decision that caused a serious problem. He complained that the

instability created by the regulatory activity of the government jeopardises their planning efforts:

> "In May 2001, the cabinet decided to reduce import duties, from 12% to 5%, which caused a lot of confusion in our work, and gave us a lot of worry. This is because we had made our annual plan and budget according to certain criteria, and suddenly this decision came in the middle of the year, which resulted in an unexpected loss for the company. We had bought a large quantity of steel from a company in Australia and paid 12% customs' duty just two weeks before this decision, while some of our competitors got their goods, three weeks later, and paid just 5% customs' duty. Who was responsible for the difference in the cost? Of course we were the losers" (Interview, 5)

Although the government sometimes has clear objectives for changes in legislation, the weakness lies in a lack of implementation, as one CEO who works in health service provision explained:

> "A new health bill passed in June stipulates the bylaws for the new health insurance plan, which will be provided under the Cooperative Health Insurance Scheme. The new programme will be introduced in 5 phases, beginning with expatriates and eventually extending to Saudi nationals. Phase one, which began on September 5 and will last one year, requires all expatriates working in establishments of over 500 employees to adhere to the new cooperative system. Phase two of the health insurance scheme will include establishments of one hundred or more employees while phase three, beginning in 2004, will cover all expatriates. The cost of an insurance card for each person will range between $120 and $133...this is a great opportunity for us ...unfortunately, there are many unanswered questions. The bill did not give us many details. For instance, will the government dedicate some of its health establishments for this purpose? Or is the policy for private hospitals only? Will the government follow through with their intention to extend the scheme to Saudis?! I have my doubts, - at least in the short term. We simply don't know. I don't know why there is a lot of secrecy surrounding these decisions. They should listen to what we think!" (Interview, 3)

The same sort of criticism is produced by the CEO of the large bank. However, he thinks that in order to reduce such surprises in legislation, one must obtain information early on or by consulting government agencies. He reflects on that in the following:

"It is always very difficult to predict legislation due to lack of information coming from these establishments [government agencies]. But we must monitor the government's decisions...we have to stay totally informed from a legal point of view" (Interview, 6)

A different perspective was provided by another interviewee who had worked as a production manager in his firm before being promoted to his new job as general manager. He expressed his frustration with government legislation:

"Things happen [government agencies] and we have to react to them and adapt. I don't waste time looking at them because what will apply to me will be the same for other factories...I'd rather turn my focus to other areas where I can gather useful information from the environment." (Interview, 4)

However, according to Boyd and Fulk (1996) when the environment is not predictable, scanning may not be an effective investment of scarce executive time. As a result, the government may need to provide a considerable degree of certainty and stability in its legislation. The road to diversifying the country's economy away from oil, by implementing a structural reform that gives the private sector a leading role in promoting economic development, requires a considerable degree of certainty and stability in the government legislation. Moreover, as the government aims to open the door to foreign investors (see section 3.3.3.2 in Chapter 3), legal stability becomes crucial to attract such investments. The government needs to establish all the necessary elements required for removing bureaucratic obstacles that hamper foreign investment. The government also is targeting Saudi private capital overseas, which according to the U.S.-Saudi Arabian Business Council (2001), now totals $600 to $700 billion. Some believe that the absence of clear, stable and flexible laws has driven the domestic investor away from the local market (Al-Fwzan, 2002). We can see how frequent changes to, and the complexity

of, the Saudi legal system affect negatively the scanning activities of Saudi executives. This may force them to focus more on short-term scanning.

7.3.2 Competition

Throughout the interviews we can observe how managers try to cope with the severe competition in Saudi markets in order to survive. It appears that all executives, regardless of the firm or industry, consider competitor information to be very important. The behaviour of competitors in the external environment very often affects firms. Thus, it is necessary to understand and analyse the nature and the role of competition (Capon, 2000). In some cases, management decided to introduce a new product mainly in response to constraints they perceived in the competition environment. One executive expressed his views on the subject in the following extract:

> "The market in which our firm operates [Saudi traditional clothing] is highly competitive and unfair... In the last 10 years there have been more than six new firms in our industry. The competition we face from our main competitor has intensified significantly over the past five years. This is evidenced by the aggressive expansion plans undertaken by other competitors in the clothing industry and especially by our main competitor (......). In order to remain competitive... we recognised also that it was almost impossible to survive simply by producing the Shumag[22]. We have expanded our production lines to include underwear, the Thobe[23] etc. We introduced a new high quality Shumag, targeting people who are willing to pay for quality. Many of our competitors tend to attract lower middle-class people who are relatively more price-sensitive" (Interview, 2)

Price and quality are two separate issues that shape the competitive environment in Saudi markets. The firms interviewed said they aimed to provide an excellent product or service, at a competitive price, and took into consideration market conditions prevailing at the time. One manager stated that there is a high level of

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[22] A heavy red and white checked head cover which is worn by men.
[23] The traditional dress of men in Saudi; it is a long sleeved one piece dress that covers the whole body.

competition in the local market where competitors mainly focus on price rather than quality. The following extract shows us how competition may become so destructive between firms, as expressed by one executive:

> "After a thorough study of the Saudi market, we realised that there were small competitors who produced their goods in Taiwan and other Asian countries. The quality and the production prices are much less than with our products, but they are presented in the market as being made in England with the same price as for English products, which are of much higher quality. This happens because there is a total absence of government laws/legislation to protect people from such commercial cheating, and even when there are laws and legislation, they are not implemented. In most cases, normal consumers don't distinguish between the quality of products, they think mainly about the price."
> (Interview, 2)

Competition with local firms in terms of price was extremely difficult. In this example, the firm is very competitive in terms of quality and after sale services. Yet, competing with other competitors who sell cheaper products is very difficult. This is evident in the following extract from a senior manager in the laundry equipment industry:

> "The competition in the local market is very tough and it makes things more difficult for us, as we try to make customers understand the fact that prices are not everything, and that we are offering services that cannot be matched by our competitors...Quality and its relationship with prices is one of the important factors in competition. We import our products from European countries, USA, and from companies known worldwide for their high-tech and fine quality. This of course makes the prices of our products higher than other products, which may look similar, but are of inferior quality. These products are often imported from Arab or Asian countries and sold at prices that are much cheaper than our products...we need information about the technical features of these products, how things are done technically, or issues of technology...that would help us to be in a better position to convince customers about the need to differentiate...you have to keep up with the competition, I have to beat their quality, service and price and give the correct information to customers" (Interview, 7)

It is important to note that buying decisions (and repurchase decisions) are not made in a competitive vacuum. If a competitor offers a sufficiently lower price, for example, then a customer may be tempted to switch, even if that customer is currently satisfied. Likewise, if a competitor establishes a reputation of providing high quality and satisfying its customers, that also may tempt a customer to switch (Rust et al., 2000).

A major issue readily identified by all respondents was the low demand by Saudi consumers for their products or services due to market depression and the large number of local competitors who had entered the market in the last ten years. In the 1990s the number of Saudi firms increased significantly while the demand for products and services declined due to economic instability, as evident in the following extracts:

> "Despite the fact that the production at our factory was sufficient for the local market, we now have a local competitor, a similar factory based in Jeddah. As a result, supply of products in the market outstrips consumer demand, and we are often forced to sell at cost price." (Interview, 5)

> "It is because many companies decide to get into 4 or 5 different fields without there being a strong connection between these fields, simply because one competitor has succeeded in this field and others think it is going to be the same for them. As a result, there is often a purposeless expansion with no concentration in one direction, which results in tougher competition...during the 1980s our industry boomed, when the country's oil revenues brought tremendous wealth in a very short period of time. But, the oil boom is over...we started to notice delays in monthly payments from our customers, the cancellations of many orders." (Interview, 4)

> "...Every factory tries to increase its production capacity, while consumption has lessened during the last few years as a result of the recession in Saudi Arabia. For example, the demand for our products has clearly decreased, due to the fact that there are fewer projects, and we have been forced to lower our prices by up to 20%, which is obviously very damaging to us." (Interview, 8)

This type of competition drives the search for competence and innovation and makes customers become ever more demanding. The need for innovative

competitive advantages continuously drives strategic thinking forward into new and challenging ground. As a result some firms have shifted their emphasis away from technological innovation to focus on improved customer service. This is evident in the following paragraph:

> "I don't aim to monitor what competitors are doing and match the activities they're undertaking...I need to be different and offer something that my competitors can't. In fact, we believe that competitor analysis will lead to our success in the future. We know that it's difficult to beat our single biggest competitor in technological terms...after a lot of conversations with customers, we found that they [the main competitor] lack the after sales services and the responsiveness to special customer requirements. As a result we turned our attention to meet customer needs and we succeeded." (Interview, 4)

In a changing competitive environment, resources are innovation and change. Firms increase their returns through new products and processes, which change the competitive dynamics. As Porter (1990) pointed out, "Firms create competitive advantage by perceiving or discovering new and better ways to compete in an industry and bring them to market, which is ultimately an act of innovation." (p. 45) Respondents in this section demonstrate that competition in the local market is becoming more intense; markets are becoming more diversified and harder to predict; threats as well as opportunities in the evolving environment seemingly are getting more difficult to foresee. As a result, Saudi firms showed that they devote more time and efforts to scan the competition environment. The statistical results in Chapter 5 showed that Saudi executives more interested in scanning competition than the other environmental factors (See Table 5-20).

7.3.3 Economic

The health of a nation's economy affects the performance of individual firms and industries. Saudi private firms during the mid-1970s and 1980s benefited from the massive government programme to build its infrastructure and industry. This

phenomenal boom experienced by the Saudi economy then came to a standstill as a result of the two Gulf Wars and the decline in oil income. The comments of all respondents were consistent with the view expressed by one manager:

> "There has been a notable decline in real per capita consumption in recent years and the low purchasing power due to the decline in living standards of some Saudis…you started hearing about poverty, something that hadn't existed in the 1970s or 1980s".

The cut in government expenditure on infrastructure projects and the resultant slowdown in business activity in Saudi Arabia were responsible for creating uncertainty in the economic environment for decision-makers in Saudi firms. For example, construction activity in Saudi Arabia is very much correlated with the price of oil, which impacts on the budgetary allocations for infrastructure projects. A CEO in a construction firm tells us that:

> "Most of the projects undertaken by the company are in the contracting field: government-building projects such as hospital, schools and local administration offices in different parts of Saudi Arabia. The average cost for such a project totals around 60 millions Riyals. The amount the government is able to pay depends on the annual budget, which mainly depends on the price of oil. If we look at the price of oil over the last ten years, we realise how difficult it is to anticipate oil prices due to strong fluctuations seen every year. There is also the continuous deficit in the annual budget, especially after the Gulf War and in 1998, which has resulted in long delays in paying money owed to contractors by the government which affects contractors' cash flow. Occasionally we have not received overdue amounts in payment but through bonds/stocks issued by SAMA[24]." (Interview, 7)

The decline in oil income may not only delay the firms' payments but may also lead to lost opportunities. A senior manager in the communications industry addressed this issue below:

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[24] Saudi Arabian Monetary Agency (SAMA), the central bank of Saudi Arabia

"STC[25] is our main client, and it is a government company; so if the oil price, or the growth rate, goes down there will be insufficient money to cover many projects, and consequently these projects will be delayed, which will automatically affect our activities. Therefore, I continuously and closely monitor the economic environment... Two years ago the telecommunications company put out to tender a large project to modernise the mobile telephone network. The cost of this project was estimated to be hundreds of millions of Saudi Riyals. We got the contract and built many of our future plans on the basis of this. However, the oil price dropped, and at the same time the government switched its focus to educational projects and to the creation of more jobs. As a result of these changes in circumstance the telecommunications company was forced to withdraw the one major contract and instead to put out to tender a number of smaller projects. This of course allowed some of our rival companies, who had not had the resources to bid for the major contract, to compete strongly against us because the new and smaller projects suited their financial capabilities." (Interview, 1)

Finally, a senior manager in the food industry stated that:

"There is an increasing demand among our customers for products with low prices because their purchasing power has decreased due to the poor and uncertain economic situation" (Interview, 10)

7.3.4 Sociocultural

Also crucial for Saudi firms is information that enables them to understand social and cultural changes. The socio-cultural segment is concerned with a society's attitudes and cultural values. Because attitudes and values form the cornerstone of a society, they often drive demographic, economic, political/legal and technological conditions and changes. Saudi Arabia has moved from being a rural and isolated society, divided into regional and tribal groups, to one that is largely urbanised. In fact, such changes have influenced all aspects of social and cultural life. The youth age structure of the Saudi population, with 73.5 percent aged 29 or younger, yields exciting challenges and significant opportunities. These young people have grown up accustomed to life styles different than their parents. Firms have responded to

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[25] Saudi Telecommunications Company

these critical environmental issues in a number of ways in order to monitor social trends. In the words of one senior manager of a soft drinks bottling firm:

> "I am keen to know about changes in the habits of the Saudi people, in regard to eating out or eating at fast food restaurants. A while ago, I read a report in the Middle East Economic Digest magazine, in which I found that young people and teenagers comprise more than 50% of the Saudi population of 23 million – according to the last census. When people think about census information or demographic changes, they often look at them simply as statistics, but we have to think out strategic plans, to try to look beyond these numbers, and to try to understand how these figures will influence the future of our firm. There is a big increase in the number of Saudi families going out to eat. This is very different to what was happening ten years ago. The number of local and international fast food restaurants has trebled since the second Gulf War. All these factors mean new competitive markets for us, and we have to follow the situation closely, and see what is going on…these trends may suggest numerous opportunities for us to develop products to meet the needs of an increasingly younger population." (Interview, 9)

According to some respondents, the public's exposure to satellite TV and the Internet has played a role in influencing what it now expects from providers of services. This knowledge creates a very challenging environment for Saudi managers. New management styles have had to be in place to meet the new demands of customers. One executive in health service provision explained the changing customer attitude to health care and the increasing sophistication of the market:

> "…during the last few years, there has been more need to understand what has happened in terms of development within the social environment. Some of these developments could have a major effect on our activities. For example, Saudi patients travel frequently and come in contact with high levels of medical care in Europe and America. The percentage of educated people is much higher than before. Satellite channels and the Internet offer a lot of information that was previously not easily accessible to people. All these factors make those who come to see us more aware and sophisticated. The patient now asks from where the doctor has obtained his medical qualifications and work experience. Sometimes they question the records of the hospital's performance in connection with medical mistakes. This of course puts a greater burden on us to offer high quality services. The pattern and style of management is also different from what it used to be before. (Interview, 3)

The ethnic mix of the country's population continues to change. For business firms, the challenge is to be aware of and sensitive to these changes. Through careful study, firms can develop and market goods and services intended to satisfy the unique needs and interests of different ethnic groups, as a senior manager in the food industry explains below:

> "The fact that there are more than 7 million expatriate workers in the country made me wonder why I was focusing on Saudi taste preferences when one third of the population are expatriates, especially from India and the Philippines. I took advantage of the fact that there was little provision for these groups and began to expand my business into this area. As a result my business took off." (Interview, 10)

In other cases public opinion about the conflict in the Middle East may create uncertainty amongst decision-makers. The following example shows how firms can be affected by events and trends that are taking place in another country. One senior manager tells us the following:

> "As a result of the suppressive policy taken by the Israeli government against the Palestinian people during the last few years, and the obvious violation of human rights, some activists started a serious campaign in order to boycott American products in the local market, and they benefited a lot from the Internet, which is not subject to government control like local newspapers. The activists also used text messaging, in addition to messages and words from clerics in the mosques. We started to measure the impact of this action on us and we realised that there was a slight drop in our sales; but we were worried that the damage might be greater in the future, especially if this campaign went on and even better ways were used to influence the opinion of the general public. We then started to gather information from different sources; we exchanged information with our partners in the Saudi market, who have the privilege to sell their product in the Eastern and Western provinces of Saudi Arabia. We decided to start our own campaign in order to explain to the public that, although our partner is American, the capital funding is totally from Saudi Arabia and the contents, such as some of the drinks, sugar, gas, cans, and packaging, are produced locally. In order to reduce the impact of the campaign aimed at the boycotting of American products, we also made reference to the fact that there are more than

two thousand Saudi people working in these factories…we need to keep abreast of all that" (Interview, 9)

7.4   Information Sources

Several sources are used by respondents to analyse the business environment, including a wide variety of personal and impersonal sources. Managers access a variety of information sources in order to scan their environments. The literature in environmental scanning has classified information sources into two types; external and internal sources and further subdivided into personal and impersonal sources. Some examples of external sources are customers, suppliers, bankers, and newspapers. Internal sources include subordinates, peers, and internal reports (Aguilar, 1967; Auster and Choo, 1994; Keegan, 1974). External sources are those that come originally from outside the company, and internal sources come from within the organisation (Keegan, 1974). Impersonal sources involve communicating information to a broad range, or through formalised group activities which pertain to written documentation such as newspapers and magazines or internal reports (Aguilar, 1967; Daft and Weick, 1984). On the other hand, personal sources involve personal contacts with other individuals. Interviewees indicated that their sources of information to scan the environment varied according to the type of information required. They knew the best place to get product information or competition information in their field. A CEO in the clothing industry has expressed his view in the following extract:

> "It depends on the nature of the information. For economic information, most economic reports issued by the National Commercial Bank are fairly accurate. As for marketing information - its sources vary, but often come from our salespersons. (Interview, 5)

Some respondents stated that it is difficult to say which sources they use more to scan their business environment. They explained that information from various

sources, including newspapers, salespeople, chambers of commerce, and friends has

to come together for strategic decision to be made. Another senior manager says

that:

> "It's difficult to say...it depends on what type of information it is. Journals are very rich and valuable sources of information about technical information. If I want to know something about a market, normally I ring a colleague or business associate in our network and ask his opinion." (Interview, 7)

7.4.1 Colleagues and Friends

Most executives reported that talking to people within the company or to friends

was another source of information. The use of personal contact is a typical feature

of business practices in Saudi Arabia (Alarfaj, 1996). Ideally, an Arab manager is a

family man who extends his assistance and help not only to his family, but also to

his relatives and friends. The family system extends more widely than in Western

societies, and as a consequence, loyalty and obligation to the extended family

precedes loyalty to friends, which in turn precedes loyalty to the organisation. As a

result, personal contact becomes more efficient than formal procedure (AlDoghan,

2001; Al-Faleh, 1987; Ali and Shakis, 1991). As one executive in a joint venture

firm explains:

> "Salespersons have their own personal sources. They are in the market every day. A lot of people here hold technical data of their own which may not belong to the firm. So we would then talk to them or send an email and say 'what do you know about this?' I prefer to contact friends or our local partner because they are people in the same business as we are in" (Interview, 5)

Personal contact could help in providing specific and detailed information that

cannot be found in any publications. It is also reliable and there is no cost

involved. The following two extracts illustrate this position:

> "We use personal contacts inside and outside the firm very often. Personal contact among friends and colleagues is better than searching a publication or attending an exhibition. It's through personal contact that

we receive information that's transmitted only by word-of-mouth, sometimes of a confidential nature" (Interview, 10).

> "Yes, first I will try friends and colleagues because that information costs nothing. I also believe that they are reliable. Newspapers may provide information about customers or competitors, but it is very often inaccurate...some firms let a newspaper or magazine publish their business intentions in an article about economics which is at the same time an advertising feature. The data published in newspapers regarding the profits increase of companies and firms is not accurate, and there is no system that can oblige these companies to conform to legislation except in the case of joint stock companies. For example, you may read in the Al Sharq Al Awsat newspaper about a company which has made about 10 million Riyals in sales during the first quarter of the financial year, while you know very well, through your understanding and contact with the market, that the sales of this company exceed 50 millions Riyals; but they quote such figures in order to pay less in terms of Zakat[26]." (Interview, 4)

In some instance the sources used were a combination of both personal and impersonal sources.

> "Both type of information are important...the marketing department looks for information we need, but salespersons are the most important source of information from outside, in addition to local papers. We also get information from friends and family, through whom you can know about the quality of the products, and from publicity. We blend data from multiple sources and go through a process of review to reach a decision." (Interview, 2)

Respondents' preference for personal contacts through colleagues and friends can be aligned with the fragmentary nature of their work, the need at times for speedy decisions and actions and the primacy of easy access to information.

7.4.2 Newspapers and Magazines

Newspapers and magazines have been identified by a number of executives as a critical information source. In particular, local newspapers provide respondents with detailed and reliable information about other competitors, including their

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[26] Zakat is a religious duty (tax), in accordance with Islamic Law, charged to wholly Saudi owned companies.

future plans, personnel movements and so on. It is pertinent to note that the respondents subscribed not only to local papers but also to trade magazines which provide various kind of information, particularly market intelligence information. While local papers may provide mostly general or informal information on various environmental factors (e.g. PEST), businesses need more technical information useful for the production side of business and to allow them to remain up-to-date and competitive. The respondents showed that newspapers and magazines play an important role in keeping them informed about what is happening in the external environment. Some respondents obtain most of their external information from local newspapers.

> "In using information, I guess it depends on the sort of information we are looking for. I am keen on reading local newspapers, such as Al Riyadh, which I trust for its information...it's something that I read every morning. Al Riyadh is a very typical source that I use, particularly about government regulations" (Interview, 1)

Some of the firms subscribed to journals or magazines which related to their business both locally and abroad. They subscribed to between to 2 and 7 titles.

> "We subscribe to roughly six publications, mostly in order to keep up-to-date with steel industry changes and developments. One example is 'Metal Bulletin' which offers vital access to global news and price movements in the steel industry. We subscribe also to local papers such as Al Iqtissadiyah (The Economy) daily newspaper, which is more like a broad sheet, which typically offers insider gossip and information. It's good market intelligence" (Interview, 5)

7.5 Information Attributes

An important consideration in gathering information about the external environment is the quality of sources and information gathered from them. The criteria to determine the quality varied from topicality to accessibility. Reliable and relevant

information should influence executives' selection in order to enhance the quality of environmental scanning.

7.5.1 Accuracy of information

The accuracy of information is one aspect of its quality and can be determined by the credibility of the sources of the information. Saudi executives face an increasingly turbulent and uncertain business environment. Therefore, high quality information sources are essential for them in their scanning activities in order better to understand the external environment. Some authors suggest that the turbulence of the external environment, the strategic role of scanning and the contexts of managers' information-use all combine to explain why information quality is more important than source accessibility when managers scan the environment (Auster and Choo, 1993). All respondents stated that the information they needed to scan the environment had to be of top quality. They indicated that they are willing to put in additional time and effort to obtain or seek out information that they believe to be more relevant and reliable. Environmental information is used to make very crucial decision for the firm's success and survival, so that accurate and reliable information sources become paramount. In one particular situation the importance of accuracy is crucial to an executive:

> "The real challenge in our work is to guarantee the availability of a reliable and veracious source of information, regardless of the cost. I prefer to get reliable information than any information which is not being checked and verified. Since the risk is too high, it is very important to pay the cost of credibility…in our work at the bank, it is unthinkable to accept risks. We always have to rely on written information. To take a decision, in regard to deposits, requires a reliable and documented source of information." (Interview, 6)

The problem of accuracy when consulting a number of sources is reflected on by one senior manager:

> "Every day I find booklets, publications and articles on my desk but I can't find any information, it's simply garbage. We may find some information easily, but it lacks objectivity and truthfulness. Therefore, this type of information is meaningless. For me, it is very important to find reliable and truthful information as part of what I get from outside, so that I can make appropriate decisions." (Interview, 1)

7.5.2 Timely and Currency of information

Some respondents stated that they preferred information that had quick availability and not necessarily high quality. In a rapidly changing environment where trends and events change so quickly, the need for timely information becomes essential. Several studies have indicated that speed of decision-making is a crucial determinant to gain better performance, especially for organisations working under unstable environments (Eisenhardt, 1989; Frederickson and Mitchell, 1984). We have noticed from the above analysis that Saudi firms face a highly uncertain future, frequent changes in legislation and unexpected events. Thus, getting information that has quick availability could help Saudi firms to cope and survive within the highly uncertain market. A senior manager addresses this issue below:

> "In our industry, a lot of questions come up about competition, government, customers etc. and the answers must be immediate. We don't need top quality information but we need it quickly. It only adds value If you can receive it straight away" (Interview, 5)

There is a clear emphasis on the need for timely information and how essential it is for business, as one executive explains:

> "It's better to have the information we need now, than not to have it at all. If we don't have it, then we just make a decision based on our experience in the industry" (Interview, 10)

Many respondents stated that information they required to monitor the external environment had to be current and up-to-date in the first instance.

> "Currency is more important than 100% accuracy. We always have to stay on top of information, on top of trends. Sometimes the most reliable source is actually one of my suppliers... he will give me the most up-to-date information about what I'm looking for." (Interview, 10)

7.5.3 Accessibility

A number of classic studies have in fact shown that the effect of accessibility is much more important than the perceived accuracy of the source (O'Reilly, 1982). Two of the respondents remarked more than once in their interviews that easy access to information sources is the most important attribute in their search for environmental information. One executive explains his need for accessible information in this way:

> "Frankly I like to get information easily. For me, instead of spending time running and chasing information, I would rather hear about it in the monthly meeting of businessmen at the Chamber of Commerce, or read about it in the Al Sharq Al Awsat newspaper – which I usually read everyday. Obviously quality is very important, but I also like to know where I can get what I want, in order to save time." (Interview, 8)

Such valuable available information cannot be maximally used and exploited if the access avenues are limited. It is quick and convenient access that makes a difference.

7.6 Scanning Obstacles

To know what is happening in the external environment is crucial for firms. Being up-to-date enables them to perform effectively, including developing and marketing their products and services, being competitive in the market place, as well as facilitating decision-making. The issue of obstacles in obtaining environmental

information came up throughout many of the interviews. The obstacles in question were either internal or external. According to UNDP[27] (2002) and Kassem (1989), the Arab region suffers from a severe shortage of the detailed data information required for strategic analysis. This inadequacy of reliable and recent data makes it difficult for decision-makers to scan the environment effectively and perform strategic planning in Saudi firms. Sawyerr (1993) indicated in her study of Nigerian executives that two of the characteristic features of developing countries are the lack of systematic information sources and the absence of social and political infrastructures necessary to support scanning.

7.6.1 Language

The 'digital divide', a short-hand term for describing different levels of access to information and the technologies and tools that make it available to people, is offered as an explanation for some of the inequities in information access that exist at global and international levels. The domination of English as the language of the Internet, presents challenges to reaping the benefits of information. In the words of one executive:

> "Yes, in fact it's [the Internet] so important, but I am not prepared to spend an hour or two searching tens or hundreds of sites to find the wrong places...I get frustrated most of the time. Moreover, I may find very good information through a customer or a colleague in one of our firms, and I prefer to contact colleagues in other firms because we are working in the same business, and we have so many things in common. There is the obstacle of the English language when using the Internet as a source of information. It is true that I have a fair knowledge of English, but so many words are difficult for me, and I can't go back to the dictionary 20 times or so, because it is time-consuming. It is also very time-consuming surfing so many pages, so if I have to continue to consider the Internet as a major source to learn about the external environment then there must be an easier way to find what I'm looking for" (Interview, 8)

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[27] United Nation Development Programme

Another executive expressed a similar view but with reference to international papers and magazines. He stated that:

> "Unfortunately, much of the good stuff is in English. We subscribe to a number of international newspapers such as the FT and Fortune, but honestly my command of English sometimes can pose difficulties in understanding what's in there...there are also a lot of terms that I can't understand." (Interview, 10)

By contrast, a senior manager in a foreign firm in the communications industry emphasised the importance of the Internet as an excellent source of data and information for a firm to use in understanding its external environment.

> "Of course, it makes a terrific difference. It provides a lot of timely information...basically, I'm browsing all the time just to keep up-to-date, but then I may have to focus on the market news in the area of technical development and news of competitors in neighbouring countries, since my activities include the Gulf States." (Interview, 1)

7.6.2 Lack of Comprehensive Information Services

The interviewees' responses indicated that the most difficult factor limiting their scanning activities is the absence of reliable and timely information. Unavailability of up-to-date information can affect the quality of decision made by managers in response to a dynamic and uncertain environment. Arab countries lack information policies that define objectives and priorities, coordinate the various sectors and formulate strategic alternatives with regard to the creation of infrastructure and the development of information resources (UNDP, 2002).

One executive expresses how difficult it is to obtain the necessary information:

> "...most of the government's statistics are old and not accurate. For example, these statistics do not provide much about age-group or demographic distribution. A few years ago, we tried to ascertain which was the most-watched TV channel and which newspapers had the widest circulation in Saudi Arabia, according to gender and age, but

could not get any information with regard to these issues. In the West, such information can be found easily, and at a reasonable cost, in addition to the fact that one can rely on it to take many decisions…we thought that 'Tash ma Tash' was the most watched sitcom but of course there isn't any specific study that can confirm such information. It was just based on a personal estimation because there are no specialised agencies to provide such information. So, we decided to televise our new TV advertisement at this time." (Interview, 2)

The following interviewee, who is the CEO of a private hospital, reflects his

concern regarding the absence of environmental information:

"…I also contacted the statistics department at the hospital requesting the numbers, ages, and gender of those who had frequently visited outpatient clinics during the last three years, and those who suffer from diabetes and obesity problems. I tried to obtain the same information from the Ministry of Health about patients in the region of Riyadh; unfortunately such information doesn't exist in public hospitals or, if it does exist, it is out of date. This is another problem for us to find the information we need. On the contrary, I recently went to Germany on a business trip, in order to make contracts with some German physicians; I couldn't believe the amount of accurate information and statistics I could find out about patients" (Interview, 3)

The same opinion is echoed elsewhere:

"Planning for more than one year cannot be accurate, because in Saudi Arabia there is no infrastructure for information, which would allow us to have a quick look at what we want in terms of accurate and correct information…" (Interview, 9)

Bureaucracy can sometimes slow the flow of information that firms need, as evident

in the following extracts:

"…Information systems in Saudi Arabia are very weak. There are no recent statistics about population structure, the number of importers, the size of exports, etc. Everything is kept secret, although information should be public. If one needs to get information about imports in the last six months, written permission is required from the minister in charge. We have to go through a lot of procedure in order to get information" (Interview, 5)

An additional source of information is the external consultant who could provide

the information a company needs. Such services, however, are often unable to help

firms in their scanning activities. This can be frustrating as the passage below may imply:

> "We employed a firm of consultants to provide us with a study on a particular project so that we could apply for a loan from the government in order to expand one of our production lines. Unfortunately, we realised that we were being given old information. Then a team from the marketing department went to do the same job and we received accurate information. Subsequently, we stopped using services provided by external firms that are supposed to be specialised, because they don't have the ability to do the job." (Interview, 8)

7.6.3 Lack of Trained Staff

The interviewees also indicated that a lack of trained staff was a barrier to conducting effective scanning. One of the problems that Saudi Arabia faces is the shortage of national qualified managers (AlDoghan, 2001; Ali and Camp, 1995). Most of them felt that they still lacked a number of crucial management skills, namely in the area of forecasting techniques and computer/data processing as decision-making tools. One reaction given by the CEO of a clothing firm is portrayed in the following extract:

> "Unfortunately, it is very rare that we rely on statistics or academic methods because most of us lack such skills. Our analyses rely on the personal experiences of our executives. We also talk a lot to some of our colleagues and study the strong and weak points of our competitors, in order to move in new directions. We know that our biggest competitor has some technologies that we do not have, but that they do not have many distribution units in the three big cities of Riyadh, Al-Dammam, and Jeddah. Accordingly we decided to increase our units in other cities" (Interview, 2)

Another important issue is the lack of advanced techniques to analyse the external environment, as one executive tells us:

> "...No one in the firm has the skills for building scenarios or using high-tech for data analyses" (Interview, 4)

The managers' experience and previous knowledge can help them to analyse the external environment in order to reach the right decision.

> "I gathered information about the prices of raw materials from local suppliers. I used only my personal experience to project the trend of these prices and the time-scale of periods of increase or decline." (Interview, 7)

In another situation a manager has not been told about very useful information because one staff member was not aware of the importance of this information. Choo (2000) pointed out that most employees are unaware of the potential values of the information they come across and they fail to pass it to those who can make best use of it.

> "The best information can sometimes be found in unexpected places. I remember how surprised I was when one salesperson accidentally told me about a move by one of our competitors...he replied that he didn't think that I needed to know about this when I asked him why he hadn't come and told me about this ...communication in our firm is a very difficult thing and I think it's very hard to get it right. " (Interview, 10)

The same manager decided to organise daylong seminars for people in the firm so that they could acquire a 'snap shot' of where the firm was at. These seminars were usually held twice a year in a location off-site. The aims were to keep information flowing through the firm and to train people in the process of information-sharing. According to Kourteli (2000) several companies try to encourage the flow of environmental information by requiring extensive reporting, through memoranda and meetings. Such practices may undoubtedly increase the flow and coordination of data.

7.7 Planning Time-Horizon

The respondents were asked about the timeframe on which they built their plans and strategies. Their answers indicated that their planning horizons ranged from 1-2

years. Planning for more than that is limited by the fact that required data are not always available. This is evident in the following extract from one executive in the clothing industry:

> "Our plans are based on a 2 year timeframe. This is due to the nature of the production of national clothes, and also because the information infrastructure in Saudi Arabia is very weak, which makes planning for more than two years very difficult…our plans are made according to the trends detected in the market and based on the reports of our salespersons. " (Interview, 2)

In interview all participants saw their firms' planning process as a major strength. There was a strong commitment to planning, though the process was more flexible than formal:

> "We started this firm with our Australian partner five years ago and we defined then our aims for all the business units. We have a three-year strategic plan. Some of the plans are to do with technology, while others are for the development of the product; but in a very informal way, there's nothing written. The company went through a difficult period of time with external changes. In response to tough competition, we had to come up with different strategies to keep pace with these changes. For example, within the next three years we are trying to create a strategic partnership with our local competitor in Jeddah. The reason why our plans are only for three years is because five years seems to be so long, and things change so radically before we manage to carry out what we have planned." (Interview, 5)

Another executive expressed a similar view of the planning time-horizon and formality:

> "We do an annual plan, and it has to be reviewed every six months, according to changes in the market, competitors' reactions and new technologies in our business. There are no formal plans but we have an idea of where we want to be in three or even five years time. For example, we want to enter the GCC market in 2004." (Interview, 4)

An interesting exception was found in a foreign multinational firm in telecommunications, operating in the Saudi market, as a senior manager of the firm states:

"We are committed to our plans every 3 or 5 years, and submit them to our headquarters in New Jersey. By studying the external environment, we realise potential opportunities for us, and we also study our customers through questionnaires or personal interviews. This project is called Voice of Customers, and we conduct it every year in order to understand our customers' opinions with regards to our products and services, and their proposed solutions. We also provide possible scenarios about the market, competitors, and the economic environment in order to update our different plans, and to foresee where we will be within 3 years" (Interview, 1)

In a volatile environment where government legislation cannot be predicted and economic conditions change so quickly, it is difficult to do accurate planning. In one executive's word:

"It's difficult, very difficult to do long-range planning. I can't draw any scenario for next year. We depend too much on the oil price and government legislation... but the government never provides timely information or a clear direction of their future plans, it's very difficult to forecast..." (Interview, 7)

"There are many factors influencing our plans, and it's again the unpredictability of the government decisions...and sometimes the tedious procedures by several government agencies may take." (Interview, 10)

Political instability in the region can influence a firm's ability to perform adequate planning, as one executive remarks:

"The shortage of skilled Saudi employees especially in the operation and maintenance of machines and quality control is a major dilemma we face. I have no Saudis in the factory...the government should link technical and vocational education to the labour market. We live in a highly unstable region, there is high tension. I remember in 1991during the Gulf War, many of my foreign employees decided to leave the country; we had to operate at half capacity for months...this is something that happens suddenly. This political uncertainty negatively influences our planning process" (Interview, 4)

7.8 Formal vs. Informal Scanning

Scanning activities can be organised and implemented as formal, structured efforts to obtain specific information or information about specific issues. In contrast,

scanning can be done as informal and unstructured efforts to understand the firm's external environment (Aguilar, 1967). Responses as to whether the interviewees' firm implemented formal or informal scanning indicated that they mainly adopt informal efforts to understand the external environment. One executive expresses this view below:

> "Information is critical, without information we will collapse. The change and the rate of change in this industry is so rapid, unless we get the information we need every week, you soon become out of date. We usually do informal searches through various sources. I've just come back from Dubai 10 days ago where I attended an IT exhibition. Just being there exposes you to a lot of information" (Interview, 10)

Informality in relation to scanning responsibilities is echoed elsewhere. This is reflected in the words of one executive in health service provision:

> "We have a statistician who presents the administration with regular reports about the number of patients, operations, etc. The marketing department also gathers information about variables in the market. Apart from that, we don't have a specialised unit to search and gather information regarding external variables. However, the nature of my work, at the top of the hierarchy, requires continuous and never-ending search for information. I read most of the local papers every week, with special attention paid to issues relating to our work. I am also keen to follow international medical journals. When I find an item or a report relevant to our work, I copy it and make sure that it reaches the people who may find such information useful to their work. The medical and administrative staffs follow what goes on through their daily contacts with patients and by reading medical journals in order to know the latest developments and changes in terms of medical equipment and modern treatments." (Interview, 3)

Most firms have staff members from the marketing department assigned to look after information for the whole firm as well as performing their own tasks. However, they focus mainly on market information, as evident in the following senior manager's comment:

> "No, we don't have an environmental scanning unit. The marketing department has to deal with finding things out for the firm and keeping up-to- date with competition and with what's happening in the market" (Interview, 2)

Respondents were asked to describe the way they scan their business environment

and to give an example of a decision that was taken within the company from the

time of receiving information to the time of making the decision. The following is a

description, by one executive in a plastics factory, of one such process:

> "In 1997, we went into partnership with a foreign company through
> which we were using an advanced technique of which this company was
> sole owner. At that time, we were producing the 400 mm bottle solely
> for the Coca Cola Company, and we were making very good profits.
> Towards the end of 1999, one of our directors went to Ireland for a
> training course where he met a representative of a French company
> who told him that his firm was about to release a new product which
> was better and cheaper than the one we had. I then visited the French
> company to find out more about this new product and to compare it to
> ours. When I returned to Saudi Arabia, I met with the owners and told
> them that within two years our partnership with the foreign company
> would no longer be needed when the French product was released onto
> the market. The owners were satisfied with my opinion and the
> company partnership was closed in the year 2000. Later the French
> company produced its new product but shortly after that Coca Cola –
> the mother company –produced its own cheaper version. Our decision
> was a good reading of external changes. So my need to have
> information about different environmental factors is very influential on
> my ability to compete and to my existence in the market as a leading
> company" (Interview, 4)

Another executive addresses how he scans the business environment in a similar

fashion:

> "We often take decisions according to external data. For example,
> yesterday there was a meeting with senior managers in response to the
> recent announcement by ARAMCO about its new plan for the Haradh
> pipeline project. It is one of the largest downstream pipeline packages,
> covering the supply and installation of 350-400 kilometres (215-250
> miles) of pipeline to carry dry gas to various locations in central and
> western Saudi Arabia, linking up to the master gas system. We also
> keep an eye on other major projects coming up, especially gas projects
> involving major international gas companies including Exxon Mobil,
> Royal Dutch/Shell, BP Amoco, and the Phillips Petroleum Company.
> We start to gather information from various sources in order to assess
> how ready we are to go ahead and compete on these projects….in such
> situations, a special team is formed in order to evaluate these
> opportunities, the benefits we could expect from them, and how ready
> we might be to take advantage of these. The team normally consists, in
> addition to myself, of the general director of the firm and the managers
> of the marketing and the production departments. We try to make sure
> that the information we have is very accurate, and we involve managers

from other departments on issues of a technical nature, in order to evaluate the information we have." (Interview, 8)

Scanning activities are mostly reactive, responding to crises. Research by Kassem (1989), showed that strategic planning is practised in an ad hoc, short-term, reactive and incremental form in Saudi firms. In the words of one executive:

> "There are certain seasons when there is more demand for particular products. For example, during the month of Ramadan (the fasting month for Muslims) and the Hajj (pilgrimage), there is more demand for spare parts for laundries and relevant services in the cities of Makkah and Jeddah. Therefore, we have to be well prepared in terms of gathering all important information from our customers and agents in order to respond to their needs and face any emergency situation, if necessary" (Interview,7)

Again, the exception was found in the foreign firm where the scanning system is well-developed and proactive. The interview analysis shows that foreign firms use scanning practices in a more systematic way, while Saudi firms seem to be less advanced in this area. The following passage from an interview with a senior manager in this firm sums up the description of the environmental scanning system in his firm:

> "Yes, we have a special team of four members within the marketing department. Their job is to monitor local and international newspapers and magazines, check the Internet and search for whatever is related to the telecommunications industry. This specialist team produces a weekly bulletin called *Market News Clips*. The bulletin includes what our competitors in neighbouring countries like Kuwait are doing or have done and details of new technology released onto the market or of expansion plans for The Saudi Telecommunication Company (STC), which is considered to be our main customer in the market. The team also gathers and filters information and republishes it on Intranet which is within the company. This information is well classified and allows for easy searching...we try to be proactive and to look for a solution to questions that haven't even been asked by the customers yet." (Interview, 1)

7.9   Conclusion

This chapter dealt with the interview data collected from 10 CEOs who responded to the questionnaire and showed their willingness to discuss the study subject in detail. The interviews provided a comprehensive base of information on scanning activities in the Saudi private sector. The results of the interviews are found to be consistent with those of the mail survey, and therefore adds strength to the validity of the research and the reliability of its results. Throughout the interviews, Saudi executives emphasise that their business environment is extremely hostile, very complex and highly turbulent. Uncertainty and discontinuities in the macro-environment is believed to be higher than those in micro-environment. Under these conditions, the main concern for most firms has become their ability to respond flexibly to such changes. Moreover, the results show that environmental scanning activities in Saudi firms are generally informal, unstructured and irregular, and reactive rather than proactive. Regarding the scanning obstacles, the interviews showed that the absence of reliable and timely information, a poor command of English and a lack of trained staff are among the most important barriers to scanning the environment for information. In addition, political instability, legislative volatility and economic conditions which change so quickly prevent the executives from obtaining external strategic information. In the next chapter, the results of this chapter will be combined with the results of Chapter 5 and 6 in a general discussion. The findings from the three chapters will then be used to link the present study with previous studies as well as explaining the reasons behind some of the results obtained.

8   Chapter Eight: Discussion of Results

8.1   Introduction

The main objective of this study was to investigate the environmental scanning activities of Saudi private firms. In order to achieve this, the previous chapters (Chapter 5, 6 and 7) reported the findings and the results of the data collected through both a mail survey and personal interviews. In this chapter we will discuss the research findings and their interpretation and compare them to previous studies. The findings will be arranged under the following headings:

Perceived environmental uncertainty; the influence of perceived environmental uncertainty on scanning behaviour; information sources; the scanning process; the scanning process and management characteristics; the scanning process and the firm characteristics; scanning obstacles; and the use of environmental information in decision-making.

8.2   Perceived Environmental Uncertainty

As discussed by Duncan (1972) unstable environments create environmental uncertainty for executives. The absence of sufficient information about events and activities in the business environment gives rise to perceived environmental uncertainty (Daft et al., 1988). In other word, uncertainty is a lack of information about future events, so that alternatives and their outcomes are unpredictable. The scanning literature has identified several factors that need to be monitored: economic, technological, governmental, social, competitor, and customer (Davidson, 1991; Fahey and Narayanan, 1986; Garg et al., 2003; Jain, 1984). It also indicates that these areas create different levels of strategic uncertainty for

executives with customer, competitor and economic factors having the highest levels of uncertainty (Daft et al., 1988).

Analysis of the quantitative data of this research has shown that for Saudi executives competition, economic and legal factors are perceived as being the most strategically uncertain in the business environment (Table 5-19). These statistical results are confirmed by the interview analysis. Six out of ten interviewed respondents indicated clearly that competition, economic and legal factors are the most uncertain for Saudi executives.

These findings are consistent with environmental scanning studies conducted in developing countries. Elenkov (1997b), for example, concluded that managers in Bulgaria perceived political /legal factors as the most strategically uncertain. Sawyerr (1993) examined the scanning activities of 100 CEOs in the Nigerian manufacturing sector. She also found that two of the top three factors in creating the highest level of uncertainty were economic, political and legal.

In contrast, our review of past research on scanning studies conducted in the West concluded that factors in the micro-environment create a greater degree of uncertainty than those in the macro-environment. Aguilar (1967) and Kefalas and Schoderbek (1973) found that the importance of market and competition factors was overwhelming. Technological and customer factors are seen to be the most uncertain by Canadian executives in large publishing and telecommunications firms (Auster and Choo, 1993). Xu et al., (2003) found in their study that customer, market, and competitor information was of great importance to the UK firms in their sample. Similar findings were noted by Daft et al., (1988). In their study, the environmental factors in order of their perceived environmental-uncertainty scores were customer, economic, competitor, technology, regulatory, sociocultural. Finally, McGee and Sawyerr (2003) found that environmental factors in the micro-

environment were seen as creating more uncertainty for owner-managers in small high-technology manufacturing firms. In their study, technology had the highest perceived environmental uncertainty, followed by customer, competitor and suppliers.

Several reasons can be put forward for the identification, by the target firms in this study, of the economic environment as the second most uncertain factor. As the world leader in proven reserves as well as in production and exports, Saudi Arabia relies heavily on oil. During the mid-1970s and 1980s the Saudi private sector benefited from a massive government programme to build its infrastructure and industry. The picture is different today as the country accrues debts currently estimated to be 120 per cent of GDP (SAMBA, 2002). The possession of what was once termed "black gold" does not produce the same amount of wealth as it did in the past. Moreover, the country's living standard has slipped from being amongst the world's highest in 1981 with per capita of about $19000 to the level of a middle-income country in 2002 with per capita of about $7000. Another important challenge to Saudi economy is the rapid increase in population and unemployment among the Saudi youth. The Saudi population of 18,200,000 in 1994 had grown to 23,420,000 in 2002 and is expected to reach 29.2m by 2010 (SAMBA, 2002). The country has one of the fastest-growing populations in the world (McDowall, 2001). The World Bank estimates that half of the population is under 18 years old and there are not enough jobs for them. Currently, unemployment among Saudi youth has risen to 15 per cent and each year another 163,000 enter the job market (Allen, 2000; McDowall, 2002; Ministry of Planning, 2000). Prince Alwaleed bin Talal (McDowall, 2002), who is well recognised in the field of business in Saudi Arabia and has made the *Forbes* magazine list of the world's 10 richest men, warned that, "if oil goes down to $10 or $11 dollars (per barrel), then the government will only

be able to pay itself. That is why we can't have this approaching nightmare to come and we have to start now to diversify". All these conditions compel Saudi Arabia to adopt a balanced package of reforms so as to promote the well-being of the community at large. Consequently, Saudi Arabia is undergoing an economic reform programme designed to open the country to greater foreign investment, to create jobs for Saudis and to diversify the economy. Examples of reforms already adopted are:

Corporatisation of the Saudi Telecommunications Company (1998); establishment of the Supreme Economic Council (August 1999); Foreign Investment Law and the creation of the Saudi Arabian General Investment Authority (April 2000); guidelines for transparency of economic and fiscal data (May 2001); capital markets law to modernise the regulation of the stock market and fixed income markets (June 2003).

Reforms underway and ongoing include:

Gas Initiative, allowing foreign oil companies to develop natural gas and domestic uses for gas; privatisation, at varying stages of implementation, of telecommunications, electric power, the national airline, postal services, railways, port services, and many other smaller state-owned assets; WTO accession negotiations underway (SAMBA, 2002).

One may expect then that such a list of reforms along with the challenges that the Saudi economy faces would create a highly uncertain economic environment for executives in Saudi Arabia. One interview respondent described how Saudi's joining the WTO was creating uncertainty for him:

> "With Saudi Arabia about to become a member of the WTO, I hear or read every day among other things that the government will be required to remove protectionist barriers, to place ceilings on tariffs and to further open key service sectors to foreign participation. I'm not sure about what is coming next... that's worrying obviously for us because

we may not be able to compete with foreign firms and we won't be here. I don't know what the future will bring us".

Another interview respondent explained how the economic environment has become more uncertain:

> "The price of petrol is certainly the main factor in the market. The development rate or the percentage of unemployment has a great effect on our activities. For example, if the petrol price remains the same, or rises, it means that there is a good budget to cover current government's projects, and also more projects in the future. As I stated earlier, STC is our main client, and it is a government company, so if the petrol price, or the growth rate goes down, there will be no money to cover many projects, and consequently these project will be delayed, which will automatically affect our activities. Therefore, I continuously and closely monitor the economic environment."

Secondly, the higher perceived environmental uncertainty score for the legal environment supports the claim, made by Abdel-halim (1989), Kassem (1989) and Yavas (1985), that government intervention together with uncertainty about government long-term policies and legislation within developing countries creates a high level of uncertainty for decision-makers in these countries.

One respondent said this about government policies and legislation:

> "We feel that the government lacks clarity in its legislation and systems, which can sometimes be purposeless, illogical, or even badly thought out..."

The same opinion is echoed by one CEO in the banking industry:

> "One of the main obstacles to investment and planning in Saudi Arabia is the non-existence of transparency and calling to account. There isn't enough clarity, and it is not possible to know the future plans and directions of the governmental establishments. It is always very difficult to predict the legislation, and lack of information that could come from these establishments"

Other interviewees complained about unexpected government decisions and gave an example of a recent decision which had been made by the cabinet to reduce import duties, from 12% to 5%. This decision caused much confusion among Saudi

executives who did not anticipate that the government would make such a move without consulting them.

Finally, the respondents' perception of competition as the most uncertain environmental factor can be explained by the views expressed by an executive of a plastics factory:

> "It is because many companies decide to get into 4 or 5 different fields without there being a strong connection between these fields, simply because one competitor has succeeded in this field and others think it is going to be the same for them. As a result, there is often a purposeless expansion with no concentration in one direction, which results in tougher competition...during the 1980s our industry boomed, when the country's oil revenues brought tremendous wealth in a very short period of time. But, the oil boom is over...we started to notice delays in monthly payments from our customers, the cancellations of many orders"

This is consistent with Mudani (1987) who states that many Saudi firms tend to be unsegmented and unspecialised which can make them lack commitment to a particular industry and then easily move out of it. Interview respondents also acknowledged that they operate in a climate of tough competition within the domestic market. The following extracts from other interview respondents can offer further explanations of the high level of uncertainty in the Saudi competition environment:

> "The competition in the local market is very tough and it makes things more difficult for us, as we try to make customers understand the fact that prices are not everything, and that we are offering services that cannot be matched by our competitors"

> "In the world of business, in Saudi Arabia, competition is very tough and it differs from one sector to another. In our type of business, we know that using well-developed and high-tech products gives us some advantages over our competitors. So we are very keen to know the latest development in technology that is relevant to our company, then we can buy it."

> "In the health services market, competition is not subjected to precise measures. This means that competition needs a lot of effort and close monitoring. For example, there is no comparison between the

international requirements to open a new dental clinic and the requirements produced by the ministry of health. Requirements in this country are easy and they are not subjected to international measures. This is why in the city of Riyadh we find more than 21 dental units, in addition to dental clinics at public and private hospitals. Another example - dentists who work for me in the hospital must have British or Canadian fellowships as a fundamental condition while other medical centres bring dentists from less developed countries, and they offer them salaries which are much less than what we offer our dentists. So the competition is not equal."

A further explanation can be attributed to the global competition. As one executive in a joint venture firm explains:

"Competition increases the difficulty of reaching and achieving goals, and it can be divided into local and international competition. From mid 1999 to the end of that year, we did not face local competition. The unfair competition often comes from international factories. If they have a surplus in production, after covering the local market – where they sell for a higher price – they turn to markets in under developed countries. This is called dumping and it happens in many countries, such as Saudi Arabia, with products sold at a very cheap price. This of course is greatly damaging our products, and there is no protection from the government. It is a great worry, and it can make competition one of the most important factors, which consumes much of the company decision-makers' time to know the influence of the changes and take the right decision."

On the other hand, the perceived environmental uncertainty analysis yielded the surprising finding that Saudi executives perceived political uncertainty as low. It is important to put this data in its proper context, if one is to understand the full implications of this finding. It was unexpected, given the high level of political instability in the Gulf. The Gulf region has witnessed three wars in the last 15 years. Secondly, the aftermath of September 11 has had serious consequences on the political stability of Saudi Arabia[28]. In addition to instability generated from outside, the country faces indigenous religious militants who probably are considered the most dangerous to stability (Byman and Green, 1999). One possible

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[28] The data collection of this study took place between October -December 2001.

explanation of this surprising finding is that the respondents, fearing that the government might find out about their responses, allowed this to influence their assessment of this particular factor. Criticising the political system or royal family publicly can threaten one's career (Champion, 1999). For instance, two journalists recently lost their jobs for articles blaming the rise of Islamic militants on the royal family's support for the religious establishment who, they claimed, were spreading extremist views and encouraging violence and terrorism (Whitaker, 2003). The right to freedom of opinion and expression, in particular for journalists, members of political opposition groups and human rights defenders is severely limited. Another possible explanation is that Saudi executives may have misread the political environment and think, despite the atmosphere of uncertainty existing in Saudi Arabia, that the royal family remains strong and can survive the turbulence as it has done in the last seventy years. Thirdly, it is possible that Saudi executives share the view offered by some analysts who believe, "that outsider observers have exaggerated Saudi Arabia's political instability... more often because its closed society, which is hard for outsiders to understand, than because of any clear evidence regarding the actual fragility of the regime" (Cordesman, 2001:4).

8.3 The Influence of Environmental Uncertainty on Scanning Behaviour

The findings of the mail survey show that respondents' perception of the environmental uncertainty of each factor positively correlates with both the scanning frequency of and the scanning interest in that factor. Aguilar (1967) suggests that measuring scanning activity is difficult because managers scan in fragmented, informal, and ad hoc ways. Additionally, Hambrick (1982) indicates that managers may have difficulty in accurately describing their scanning behaviour. Scanning behaviour in this study is measured by the frequency with

which environmental information comes to the executive's attention, and the executive's level of interest in keeping informed about the environment. The literature suggests that there are crucial linkages between the scanning activities of managers and their perceptions of environmental uncertainty. In chapter 2, it was noted that, in the work of Dess (1984) and Duncan (1972), environmental uncertainty arises from an individual's perceived inability to predict the organisation's environment, typically due to dynamism and complexity, and that, according to Milliken (1987), should lead to greater amounts of time and resources spent on environmental scanning and forecasting. The more uncertain the external environment, the more frequently organisations need to scan their micro and macro-environments for information (Daft et al., 1988). Research has also shown that executives are likely to devote more attention to environmental scanning and to the development and implementation of responses to environmental challenges in those environmental areas perceived as most strategically uncertain (Boyd and Fulk, 1996).

This study has found that executives who perceive their external environment as changing at a rapid pace and containing many different factors to be taken into account, need to scan their environment for more information to allow them to cope with volatility and to reduce uncertainty. This result is consistent with prior research which found that a high level of environmental uncertainty will lead to an increase in scanning frequency (Auster and Choo, 1993; Boyd and Fulk, 1996; Daft et al., 1988; Ebrahimi, 2000).

Furthermore, the statistical results also indicate that Saudi executives increase scanning frequency in response to increased perception of strategic uncertainty in the macro-environment more than in the micro-environment (see Table 6-1). This result differs from scanning studies conducted in the West. Aguilar (1967) and

Kefalas and Schoderbek (1973) found that market and technology information was scanned far more frequently than other factors in the environment. Johnson (1987) and Smeltzer et al. (1988) also found that elements of the micro-environment received the greatest attention from the owner/managers of small businesses in their sample. Furthermore, similar results were noted in a number of recent studies by Yasai-Ardekani and Nystrom (1996) and Garg et al., (2003) in which executives focused their scanning activities on micro-environmental factors in response to greater changes in the external environment. Changes in some environmental factors may be hostile, large and critically important while others are favourable, small and trivial (Yasai-Ardekani and Nystrom, 1996). Moreover, executives' cognitive and resource limits may force them to be selective in the scanning task (Cyrert and March, 1992; Simon, 1957, Hambrick, 1982). Thus, executives should focus their scanning activities on the right factors (Daft et al., 1988)

The above result can be interpreted as follows. It has been shown in Chapter 3 that Saudi Arabia is facing economic decline, political uncertainty, youth population explosion, Islamic extremism and other trends, all of which highlight the challenges that Saudi executives face in attempting to scan their environment. Because of the higher level of uncertainty existing in the Saudi Arabian macro-environment for the last decade, executives in the sample had increased their scanning emphasis on the macro-environmental factors. That is, Saudi executives perceive the macro-environment as posing a greater level of uncertainty than does the micro-environment and therefore focus their scanning attention on factors in that environment. Interview data indicate clearly the focus of respondents on macro-environmental factors. In seven interviews, respondents mentioned that they scanned the environment more for information on factors in the macro-environment.

Results suggest that macro-environmental changes may be more salient than those in the micro-environment within the Saudi context.

8.4 Information Sources

8.4.1 Personal vs. Impersonal Sources

Information is the life-blood of an organisation (Phillips, 1985). More importantly, information is "the glue that holds together the structure of all businesses...supplier relationships, brand identity, process coordination, customer loyalty, all depend on various kinds of information" (Evans and Wurster, 1997). Top managers have access to a large variety of information sources that convey strategic information about the environment (El Sawy, 1985). In Chapter 2 the classification of information sources was discussed. They have been classified into two types; external and internal sources and further subdivided into personal and impersonal sources. Mintzberg (1973) suggested that managers "demonstrate very strong attraction to the verbal media" such as phone calls, unscheduled meetings, scheduled meetings, and tours, which all involve face-to-face contact or, in other words, personal sources of information. Previous research has shown great reliance on personal sources over impersonal sources in obtaining environmental information (Aguilar, 1967; Auster and Choo, 1993; Keegan, 1974; Smeltzer et al., 1988; Tuncalp, 1999). Auster and Choo for example, (1993) found that the personal source is used significantly more frequently than the impersonal source in both scanning and decision-making.

This study found similar results. Among the five most used sources for scanning, four are personal sources (customers: subordinate managers: subordinate staff: business/ professional associates) (See Table 5-26). Moreover, all personal sources taken together as a category are used more frequently than impersonal sources (see

Table 5-26). Several respondents echoed this finding during interview. One CEO in the plastics industry said the following about which source of information he relies on most:

> "Salesmen are in daily contact with customers, suppliers and competitors. They have the ability to provide me with a precise picture of customers' needs and competitors' movements".

Another CEO in health service provision explained the importance of personal sources for him:

> "…individuals within the hospital, especially the medical team, on whom I rely to know what is happening and what is going on…their knowledge and opinions are essential to guarantee the objectivity and veracity of a particular piece of information"

Given the high level of uncertainty and turbulence that exists in the Saudi business environment, top managers may need to rely more on personal sources in order to reduce uncertainties. This may be explained by Daft's notion of media richness to explain managers' preference for some information sources (Daft and Lengel, 1986). Highly rich information sources (face-to face discussions with co-workers, customers or suppliers) are used more under highly changing, unpredictable environmental conditions than under stable, predictable conditions (Tyler et al., 1989). Related evidence indicates that managers working in a dynamic environment prefer verbal media over written sources (Kurke and Aldrich, 1983). The interview discussion of the data obtained from respondents revealed that their business environment is full of surprises, ambiguity and many unpredictable events. In situations that are characterised by ambiguity and uncertainty, the information sources need to be rich. Therefore, executives' reliance on personal sources (i.e. rich ones) to scan the environment helps them to observe additional information cues, seek clarification immediately, probe more deeply, and in general, to make better sense of an unclear situation (Auster and Choo, 1993). One interview

respondent said that, "When you receive information face to face, you have the chance to discuss details, ask for clarification, and exchange opinions regarding this information."

Another explanation for the reliance on personal sources by Saudi executives might relate to Islam. It was mentioned in Chapter 3 that Islam is central to daily life for Saudis. More than any other country in the Muslim world, Saudi Arabia is identified with Islam. For Saudis, Islam is an integral part of daily life: no distinction is drawn between the sacred and the secular, or between morality, law and politics. Against this background, Islam may have shaped respondents' choice of information sources in their scanning activities. According to Fandy (2000) trusted sources in Arab countries like Saudi Arabia are those which follow something akin to an indigenous model of *isnad*. This is a list of authorities who have transmitted accounts of the teachings or actions of the Prophet Mohammad, one of the Companions of the Prophet, or of a later authority. Each of these accounts, known as Hadith[29], includes an *isnad* that gives the chain of authorities by which it has been handed down, using the form, "It has been related to me by A on the authority of B on the authority of C on the authority of D that Mohammad said...". The reliability of this depends on the existing unbroken and unimpeachable chain of those who handed down the Prophet's words (Messick, 1993). Fandy (2000) stated that although this model is dominant in the religious domain, it shapes the cosmology of society at large with regards to trust. He adds that with the system of *isnad* in mind, personal sources of information in the Arab world today enjoy more credibility than written sources.

Another explanation might lie in the absence of detailed, useful and timely information from impersonal sources in Saudi Arabia. Ghoshal and Kim (1986),

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[29] The two main sources of Islamic rules are: the holy Quran and the sayings of and practice of the Prophet Mohammed (Hadith)

suggests that, in general, information about the macro-environment that is used mainly for long-term planning is usually obtained from impersonal sources such as general and trade journals, government publications, and reports from academic institutions, think tanks and consulting organisations. However in Saudi Arabia most of the published information available to businesses is produced by governmental agencies, and is often not current and very difficult to obtain. For example, the Saudi Arabian Monetary Agency's (SAMA)[30] annual report for the year 2000 relied more on old statistics than on up-to-date information (Al-Fwzan, 2001). The interview analysis showed that the most difficult factor limiting scanning activities is the absence of reliable and timely information. It was also pointed out that bureaucracy can sometimes slow the flow of information that firms need. One respondent described his frustration with government agencies:

> "...everything is kept secret, although information should be public. If one needs to get information about imports in the last six months, written permission is required from the minister in charge. We have to go through a lot of procedures in order to get information".

Finally, the use of personal contact is a typical feature of business practices in Saudi Arabia (Alarfaj, 1996). Ideally, an Arab manager is a family man who extends his assistance and help not only to his family, but also to his relatives and friends. The family system extends more widely than in Western societies, and as a consequence, loyalty and obligation to the extended family precedes loyalty to friends, which in turn precedes loyalty to the organisation. As a result, personal contact becomes more efficient than formal procedure (AlDoghan, 2001; Al-Faleh, 1987; Ali and Shakis, 1991).

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[30] SAMA is the central bank of Saudi Arabia.

8.4.2 The Influence of Environmental Uncertainty on Choice of Information Sources

The findings of the mail survey showed that the higher the uncertainty in the business environment, the more often Saudi executives relied on all types of information sources in scanning. In other words, the higher an executive's perception of environmental uncertainty, the more likely it is that he or she will rely on information from all available sources in order to minimise his or her perception of uncertainty. The results from this study are consistent with those of Auster and Choo (1993) and Daft et al. (1988), who found that executives use multiple, complementary sources in response to environmental uncertainty. This was also partially confirmed by Elenkov (1997b). His results indicated that as perceived environmental uncertainty increases the use of personal and external sources tends to increase.

In highly uncertain and ambiguous situations, managers lack the necessary information. Thus they scan the environment using all available information sources as a tactic to minimise uncertainty. One interview respondent explained how the use of all type of sources in scanning helped him to make the right decision:

> "Both types of information are important...the marketing department looks for information we need, but salespersons are the most important source of information from outside, in addition to local papers. We also get information from friends and family, through whom you can know about the quality of the products, and from publicity. We blend data from multiple sources and go through a process of review to reach a decision."

Further, one could refer to Daft et al, (1988) for an explanation of why executives employ multiple and complementary sources to interpret an uncertain environment:

> "Personal sources are important because their richness enables subtle signals to be detected. Written media are important because tangible data can be gathered and communicated about discrete

events...Managers use multiple media and media may complement one another. A weak signal detected from personal sources may be supplemented with objective data. Scanning information through one medium may trigger the use of a complementary medium". (p.136)

8.4.3 Information Attributes

In chapter 2, it was argued that information attributes such as the quality and accessibility of the information sources may have some influence on managers' source -selection criteria (Auster and Choo, 1993; Culnan, 1983; Sawyerr et al., 2000). O'Reilly (1982) provided evidence for the importance of accessibility as a determinant of information usage for managerial decision-making. Culnan (1983) reported greater use of information sources which were perceived to be more accessible, even if they were not perceived to be the sources of highest quality. According to Miller (1994) managers base their selection of information on the basis of the effort required to gain access to the source. Accessibility not only determined the overall frequency of the use of the source, but also the choice of being selected as the first source. More recently, Pineda et al., (1998) found that small business managers tend to use the most readily available information, even if it is not necessarily the optimal information on which to base a decision. In contrast, Auster and Choo (1993) found that the perceived source-quality was a much more important factor than the perceived source-accessibility in explaining source use by executives in their scanning activities.

The interview analysis of this study showed that the majority of interviewed respondents cited source quality and accuracy as an important factor in determining their decision on source selection. Auster and Choo (1993) suggest that the turbulence of the external environment, the strategic role of scanning and the contexts of managers' information-use all combine to explain why information quality is more important than source accessibility when managers scan the

environment. Saudi executives face an increasingly turbulent and uncertain business environment. Therefore, high quality information sources are essential for them in their scanning activities in order better to understand the external environment. Despite the lack of detailed, useful and timely information from impersonal sources, they make efforts to seek out reliable information from whatever sources are available. Findings from the interview data in this study are consistent with this interpretation. Several interview respondents explained their preference for high-quality information. One senior manager said:

> "We may find some information easily, but it lacks objectivity and truthfulness. Therefore this type of information is meaningless. For me, it is very important to find reliable and truthful information, as part of what I get from outside, so that I can make appropriate decisions. Sometimes, I need to assess the information I get, by making sure that it also comes in from another source. I can also rely on my colleagues' knowledge and opinions, in order to guarantee the objectivity and veracity of a particular piece of information. I am also keen on reading local newspapers, such as Al Riyadh, which I trust for its information, especially its issues and information that I need, in order to take tactical decisions."

This does not mean that other information attributes are any less important to Saudi executives in their decisions on source-selection. The interviewed respondents indicated that timely and accessible sources are also considered important in determining their selection of information sources. Easy access to information sources was mentioned as desirable by the majority of respondents; one respondent's comment may explain why accessibility is an important determinant of information usage:

> "For me, easy access is the most important thing. If I have to struggle to try and find something, that could lose us business because of a poor use of our time and it's also poor productivity. So, it's important to be able to know exactly where to get information from."

Since the purpose of obtaining information is to formulate and implement effective decisions in response to environmental challenges, executives are more likely to give important weight to the timeliness of formulating and implementing strategic decisions (Specht and Trussell, 1987). Other interviewed respondents stated that they preferred information that had quick availability in order to monitor the environment: "Availability, fast. Even if it's not terribly accurate, it's better to have something now, than not have it". The scarcity of executives' time may indicate that they would focus on what they perceive to be accessible sources. The reliance on personal information in scanning, as discussed earlier, also offers a partial explanation for managers' preferences for relatively accessible information sources (Specht, 1987). In addition, executives' preference for accessibility and quick-availability of information sources can be explained by the high level of uncertainty that exists in their business environment. Mail surveys and interview data showed that executives in this study believed that their business environment operated within a highly turbulent wider environment, implying that they perceived multiple environmental factors to be critical to their firms and that these factors created uncertain and volatile situations. The link between accessibility and quick-availability of information sources and environmental uncertainty has been summarised by Baldwin and Rice (1997) that: "Managers prefer oral, face-to-face communication, quick resolution favouring access and speed to accuracy, not necessarily rational decision making because of instability, conflict and uncertainty of situations" (p.676). It seems that a key aspect of Saudi executives' source-selection criteria is to achieve a balance between accessibility and quality. In a dynamic competitive environment, executives' selection of information sources should not be influenced solely by their accessibility. Reliable and relevant

information should also influence executives' selection in order to enhance the quality of scanning.

8.5 The Scanning Process

Analysis of the mail survey data revealed that, for Saudi firms in this study, the methods used in the scanning process were, to a great extent, conventional. Many methods and practices of variable formality and complexity may be used to manage the collection, analysis and dissemination of environmental information (Fahey and Narayanan, 1986; Jain, 1984; Smeltzer et al., 1988). We explained in Chapter 6 that this study categorised the scanning process under five broad headings: A. channels of exchange for external information; B. information storage; C. information analysis techniques; D. scanning responsibilities; E. scanning mode.

8.5.1 Channels of exchange for external information

Based on frequency analysis, 116 (77.3% of all respondents) reported that they used interpersonal communication to exchange environmental information. Communications by e-mail and by internal report do exist but are not used to a great extent. This finding confirms and supports the view that in traditional settings, such as the Arab world, personal contact is the main source of communication (Fandy, 2000).

8.5.2 Information Storage

Another issue with regard to the scanning process concerns information storage. Stored information represents a significant and frequently consulted component of an organisation's memory (Choo, 2000). In this study, manual filing together with an archival system was the tool most used by respondents to store and record environmental information. Corporate databases were used for this purpose by only

26% of respondents' firms. Storage is an area where information technology could have great impact. Executive information systems, for example, provide executives with easy access to internal and external information which is relevant to their .critical success factors. An EIS has the potential to support environmental scanning (Watson et al., 1997). Unfortunately, it seems evident that Saudi firms use IT very little in their scanning activities. This is consistent with a recent study which found that despite the availability of different IT tools and systems in Saudi firms, the number of IT systems' users is only 7.5% of the total employees. The study included all large Saudi firms and 300 of SMEs (Asharq Al-Awsat, 2003).

Individuals are sometimes unwilling to use available systems and express a less than enthusiastic response to IT (Dillon and Morris, 1996). According to Alshoaibi (1998) language barriers, the presence of unskilled workers, fear of losing a job, inadequate education and lack of training programmes are the highest factors contributing to the resistance to using information technology in business organisations in Saudi Arabia.

Another possible interpretation of the infrequent use of IT tools in scanning activities might relate to the culture which can create a climate for or against certain perceptions or behaviours. For example, some cultures encourage and promote the use of information technology, whereas others do not. Some scholars have asserted that design, development, implementation and management of information technology and the degree to which it accommodates cultural differences are key issues (Abdul-Gader, 1996; Harris and Moran, 1999; Hill et al., 1998). Most information technology software and hardware are based on designs that originated in the West. Information technology that is used to run organisations worldwide is mainly from this culture and imposes a Western way of doing business.

Technology developed in a Western culture may not be acceptable in a culture with a different value orientation.

The following example shows how cultural bias may affect the use of IT. A multinational corporation installed over 4000 systems around the world. The corporation emphasised the system's ease of use and provided training. Although the system proved successful in many countries, it faced considerable resistance from Saudi employees. The resistance was attributed to a number of factors. However, the cultural effect was the obvious one (Abdul-Gader, 1997). Furthermore, Yavas et al., (1992) reported that the high value placed on face-to-face communication in Saudi Arabian culture appears to be a barrier to the widespread adoption and use of IT by Saudi executives. One CEO indicated that, "The question is not about having computers or lots of data, but it is important to meet the appropriate person face-to-face, in order to get the information you need."

The low level of reliance on IT to store environmental information can be explained by the view expressed by an interview respondent:

> "In our company, there will be many difficulties facing us. One of the simple issues is that we don't have well-trained and qualified individuals to do this job. Also the idea of introducing a new management system can be very expensive. This could be spared by relying on what we have at the moment, and with participation from everyone, but we may also need to increase the awareness and understanding of our employees, in regard to this issue, in order to create a culture of valuing information in the company."

8.5.3 Information Analysis Techniques

In relation to information analysis techniques, it is clear again that Saudi executives showed little use of modern and sophisticated methods in their managerial practices, particularly in scanning activities. According to the frequency analysis, the tools used most by senior managers to analyse environmental information were

experience, intuition and judgment. In contrast, statistical and analytical software and qualitative techniques (e.g. Delphi and Scenario planning) were not popular among respondents (see Table 5-23). This confirms previous research in Saudi Arabia which found that forecasting and computer/data processing skills were perceived as the least important managerial skills and were applied at low levels by Saudi managers (Yavas, 1997). This could be because these techniques are perceived as being too complex or as requiring more effort than it is worth (Diffenbach, 1983). Another possible explanation is that Saudi executives are unaware of the modern techniques and practices which may be used to analyse environmental information and/or lack such skills. As one CEO expressed:

> "...no one in the company has the skills for building scenarios or using high-tech for data analyses. My abilities, and the nature of the market, force me to make my future plans for three years only."

Another senior manager shared the same view:

> "Unfortunately, it is very rare that we rely on statistics or academic methods because most of us lack such skills. Our analyses rely on the personal experiences of our executives."

It has been reported in Chapter 5 that Saudi executives face high levels of uncertainty in their business environment. And in such an environment, with little precedent to draw on, limited time and scarce information, intuitive decision-making would seem to be an appropriate capability. Agor (1989) highlights the effective dimension of this capability when he compares the feeling cues experienced by managers. At the point of decision, managers feel strong emotions related to euphoria, excitement, harmony and commitment yet when an impending decision might be inappropriate or the selected options prove to be incorrect other managers feel anxious and uncomfortable, even showing signs of distress. Intuition is a means of going beyond rational data and information by using experience to get

to the essence of a situation, make sense of it and begin to test various options (Clarke and Mackaness, 2001). Importantly Simon (1989) pointed out that intuitive decision-making should not be regarded as irrational.

This result may be a reflection of the prevalent decision-making styles of top managers in Arab organisations. Intuitive decision- making is the cornerstone of this style (At-Twaijri, 1989; Badawy, 1980). Yavas (1997) states that after scanning the environment, top executives make decisions using information available to them, typically without consulting subordinates. The decisions are then filtered down to lower echelons in the form of rigid instructions and management directives. This is evident in the following extract from one executive:

> "I gathered information about the prices of raw materials from local suppliers. I used only my personal experience to project the trend of these prices and the time-scale of periods of increase or decline"

All these findings (relating to channels of exchange for external information, information storage and analysis techniques) suggest that conventional methods are still quite prominent in Saudi firms. These findings are consistent with the study done by Alfalah (2002) who found that Saudi firms are still dominated by the conventional and outdated approach of the mass-production theme which is illustrated by the adoption of practices introduced in the 70s and 80s. He adds that they are not aware of new practices such as E-commerce, Electronic Data interchange and Enterprise Resource Planning. Along similar lines, Azzam (1993) pointed out that many Saudi businessmen still consider modern practices such as marketing an unnecessary overhead and continue to follow the *bedocratic*[31] approach based on tradition and an outmoded pattern of management. Furthermore,

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[31] a "bedoucracy" model means solving contemporary problems by traditional methods (Ali, 1989).

Ali (1989) suggests that executives from the Arab Gulf states favour a traditional approach to management, largely influenced by their cultural and historic values.

8.5.4 Scanning Responsibilities

Fahey and King (1977) characterised environmental scanning as the process of seeking and collecting information about events and relationships in a company's environment. The process is described as formal or informal and includes both looking at information and looking for information (Choo, 2000; Daft and Weick, 1984). Moreover, scanning is a widely distributed organisational activity, in which virtually everyone participates (Choo, 1999). According to Aguilar (1967) and Hambrick (1982) scanning is conducted largely on an ad hoc basis by all middle and top executives in an organisation.

This study confirms the above arguments, and finds that upper-, middle- and functional-managers participate in scanning the environment. It is also worth noting that the planning unit had little role in scanning activities (See table 5-24). This would seem to suggest that, in a situation where the planning unit has little or no role, Saudi executive would rely more on informal methods to scan the business environment. On the other hand, this result contradicts what has been found and discussed in the literature of Saudi Arabian managerial characteristics. The majority of firms in Saudi Arabia are family owned, where the manager- who is usually the owner- makes the most of strategic decisions and is reluctant to delegate authority to his subordinates for fear of losing his power. Decisions are then filtered down to the lower echelons in the form of rigid instructions and management directives. Moreover, a key feature of Saudi management characteristics is the concentration of strategic information at the top (Alarfaj, 1996; At-Twaijri, 1989; Badawy, 1980; Yavas, 1997). The participation of upper-, middle- and functional-

managers in scanning can be explained as follows. Saudi society is undergoing a generational change, with second-generation Saudis, now entering their 40s, assuming more responsibility. This generation tends to be more technically educated than its elders, more cosmopolitan, more open to new ideas and more aware of the existence internationally of alternative forms and ideas. Secondly, Saudi organisations, both public and private, have grown considerably in the past ten years, and the increasing complexity and scope of operations is not conducive to individual control, forcing central family figures to delegate. However the emphasis on family control of the country and its major corporations remains strong and causes new social tensions as the younger generation seeks greater autonomy and authority.

8.5.5 Scanning Mode

The literature on environmental scanning has suggested that scanning models in use can be categorised into three types: irregular, regular, and continuous (Fahey and Narayanan, 1986). Irregular models respond to a crisis in the environment and tend to be short-term oriented. Regular models periodically assess the environment and are directed at decisions or issues in the near future. Continuous models constantly assess the environment and gather data which will be used as an input for strategic decisions. Additionally these three types form a continuum in that the irregular model is reactive in its orientation, the regular model is proactive in a limited way, while the continuous model is broad in scope as well as being proactive. There is a suggestion that as firms evolve in size and complexity there is an increased need for information and more sophisticated scanning systems (Elenkov, 1997a; Jain, 1984). Analysis of the mail survey data shows that executives in this study engaged more in irregular and in regular scanning. At the same time, continuous scanning was the

practice least used by Saudi executives to scan their business environment. Keeping in mind Fahey and King's (1977) classification of scanning models, the result of this study suggests that environmental scanning activities in Saudi firms are generally informal, unstructured and irregular, and reactive rather than proactive. The interview data are consistent with the above findings. It was found that nine of the ten interview respondents adopted informal efforts to understand the external environment. Several of them indicated that they irregularly or regularly scan the environment as a reaction to environmental developments. They usually take no initiative in knowing about the changes likely to be occurring in their external environment. One respondent explained how he had scanned the environment in response to a campaign aimed at boycotting American products in the local market. Another CEO indicated that they were scanning for information regarding Saudi Aramco's announcement about its new plan for a large pipeline project. Other executives were found to be largely concerned with current operations. It is worth noting too that many interview respondents indicated that strategic planning in their firms was developed more incrementally with a shorter time horizon. The only exception was found in a foreign firm which practised formal strategic planning and scanning activities. A senior manager in the communications industry said this about his firm:

> "We are committed to our plans every 3 or 5 years, and submit them to our headquarters in New Jersey. By studying the external environment, we realise potential opportunities for us, and we also study our customers through questionnaires or personal interviews. This project is called Voice of Customers, and we conduct it every year in order to understand our customers' opinions with regards to our products and services, and their proposed solutions. We also provide possible scenarios about the market, competitors, and the economic environment in order to update our different plans, and to foresee where we will be within 3 years."

In addition, the respondents were asked if they had a scanning unit in their company. It is interesting to note that no company had a formal scanning unit. However, there were seventeen companies with existing staff members assigned to look after external information for the whole company as well as doing their own task. These staff were mainly engaged in marketing areas or administration, as a senior manager in the clothing industry states:

> "The marketing department looks for information we need, but agents are the most important source of information, from outside, in addition to local papers"

Strategic management scholars generally view environmental scanning as a prerequisite for formulating effective business strategies and as a crucial activity in the strategic management process (Aguilar, 1967; El Sawy, 1985; Elenkov, 1997b; Hambrick, 1981). Aguilar (1967) maintains that the importance of scanning derives from the importance of the decisions involved. He further argues that information derived from scanning is useful for making decisions about strategy and long-range plans. Before an organisation can begin with the task of strategy formulation, it must scan its external environment to identify possible opportunities and threats and to scrutinise its internal environment for strengths and weaknesses (Analoui and Karami, 2002). As environmental scanning is closely related and linked to strategic management it is suggested that knowledge acquired about the latter field could be extended to offer insight into the former.

Our findings regarding the nature of environmental scanning activities, as part of strategic planning in Saudi firms, are consistent with previous research in Arab Gulf states. As noted by Kassem (1989), strategic planning is practised in an ad hoc, short-term, reactive and incremental form in Saudi firms. He gave a number of plausible explanations for this result. First, the Saudi economy is highly dependent

on oil markets, which makes it difficult for both the government and private firms to predict the future and plan ahead due to fluctuation in these markets.

As one CEO said,

> "It's difficult, very difficult to do long-range planning. I can't draw any scenario for next year. We depend too much on the oil price and government legislation...but the government never provides timely information or a clear direction of their future plans, it's very difficult to forecast."

Another senior manager stated that:

> "We have trouble performing adequate planning due to the political instability in the region."

Kassem (1989) added that Saudi managers, unlike many managers in the West, are traders by tradition. Market instincts are their main focus, not hard data. They let others do the technical work, while they specialise in commercial areas, such as buying and selling. This trading mentality is focused on the short term (Kassem, 1989).

According to Muna (1980) Arab management styles in the Gulf region are authoritarian, reactive and crisis-oriented. Whipple (1989) also concluded that in uncertain environments, flexible positioning is more important than following a pre-determined strategy. Volatile environments seem to require a more flexible and innovative response which is open to fresh perceptions of the environment, accommodating any new factors and reinterpreting old ones (Toffler, 1985).

Furthermore Saudi executives' focus on short-term issues may be explained by the rapidly changing environment where long-term stability has disappeared. In such situations, firms need to focus on what is happening in the immediate-term to detect changes in strategic consequences. It is difficult to think long-term when events happen suddenly and unpredictably. A highly turbulent environment like the one

that Saudi executives face puts the stress on managers to take quick decisions and make them happen. As one senior manager expressed:

> "I remember in 1991during the Gulf War, many of my foreign employees decided to leave the country; we had to operate at half-capacity for months...this is something that happened suddenly. This political uncertainty negatively influences our planning process."

A further explanation for the Saudi firms' inability to adopt strategic long-term planning may be the high uncertainty about the future which was clearly reflected in both the mail survey and the personal interviews. Issues such as unpredictable and sudden economic developments, frequent changes in legislation and unexpected events were raised during the interviews and may have forced Saudi executives to confine themselves to the short-term. The interview analysis illustrates how all the above issues limit their abilities to think and plan ahead. The following interviewee describes the lack of clarity in government laws and policies:

> "We feel that the government lacks clarity in its legislation and systems, which can sometimes be purposeless, illogical, or even badly thought out. If the government wants to issue new legislation, there must be enough clarity and transparency, and the decision should be well examined, taking into consideration the national or local interests of the company"

Another CEO tells us that:

> "We depend too much on the oil price and the government legislation... but the government never provides timely information or clear direction of their future plans, it's very difficult to forecast..."

On the other hand, these findings contradict what has been found in scanning studies conducted in a Western context. It has been concluded that, at least among large companies (whether they practised formal or informal scanning), Western firms were conducting proactive, continuous scanning (See for example, Analoui and Karami, 2002; Daft et al., 1988; El Sawy, 1985; Yasai-Ardekani and Nystrom,

1996). Again, Islam can explain why Saudi executives are reluctant to engage in such scanning and in formal strategic planning. As we have already mentioned, traditional religious values are central to Saudi life and society and have influence on politics and economics, including the behaviour of business organisations. In a non-Muslim context environmental scanning is seen as a crucial activity that assists management in planning the organisation's future course of action (Choo and Auster, 1993). To Muslims, however, such planning involves dealing with the unknown, a domain that properly belongs to Allah, not man (Kassem, 1989). Islam teaches that Allah—not one's knowledge, experience, or character—determines one's fate. Muslims, therefore, generally do not question events and are more likely to accept the uncertainties of life. A Muslim believes that his fate is in the hands of his God, Allah, and that he has only limited control over personal events occurring in his daily life (Anastos et al., 1980). Saudis, like other Arabs, rarely discuss the likelihood of an event without interjecting "If God Wills" (Insha' Allah) (Scarborough, 1998). The concept has its origin in the Quran, the sayings and practice of the Prophet Mohammed. The Quran instructs the Muslim 'Nor say of anything, "I shall be sure to do so and so tomorrow" Except "If Allah so wills,"' (18:24) (Holy Quran, 1981). The Prophet Mohammed preached, "Be watchful of Allah (Commandments of Allah), He will preserve you. Safeguard His Rights; He will be ever with you. If you beg, beg of Him Alone; and if you need assistance, supplicate to Allah Alone for help. And remember that if all the people gather to benefit you, they will not be able to benefit you except that which Allah had foreordained (for you); and if all of them gather to do harm to you, they will not be able to afflict you with anything other than that which Allah had pre-destined against you. The pens had been lifted and the ink had dried up" (An-Nawawi). In addition to fate, Islamic law proscribes transactions that involve a particular element

of uncertainty in their contract terms. The Quran forbids gambling on games of chance, and legal opinion developed the principle so as to include within the prohibition all contracts that contain uncertain counter values in exchange (e. g. the sale of fruit before it has ripened) (Mills and Presley, 1999).

Furthermore, egocentric and manipulative value systems are the least dominant value systems in the Arab countries (Ali, 1985, 1988). Both of these types of value systems are among those labelled "inner-directed" by Hughes and Fowlers (1978). According to these authors, "The values of people operating in these systems come from within themselves" and "they focus on their external environment and attempt to control or master it" (p.24). Based on the latter classification, Arab managers can be broadly classified as "other-directed" and meaning-oriented (existential). They are managers with high levels of tolerance who do not attempt to control their environment, but try to come to terms with it.

It has been argued that executives in firms facing high turbulence ought to rely on an extensive formal model and techniques of strategic planning to cope with changing, unpredictable conditions, while executives in firms facing low turbulence needs less strategic planning (Ansoff, 1991; Lysonki and Pecotich, 1992; Miller and Friesen, 1983). As Miller and Friesen stated, "A dynamic environment must be studied carefully and diligently to afford executives an adequate degree of mastery" (1983, p.223). Advocates of the formal approach have claimed that formal strategic planning enables organisations to better prepare for, and deal with, the rapidly changing environments that most of them face. But one may pose the question of whether the formal planning process in the Saudi context is appropriate. Perhaps Saudi executives, with the Arab intuitive trading tradition still deeply ingrained, with the Islamic view of fate moulding both their private and their business lives and facing the economic uncertainties associated with fluctuating oil prices, may

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feel that an informal, flexible and short-term mode of scanning is preferable. Even in the West some academic researchers question the value of a formal planning process for complex and fast-changing environments (Grinyer and Noburn, 1974; McKiernan and Morris, 1994; Mintzberg, 1994). Mintzberg (1994) argues that executive in firms facing a turbulent environment should not arrange for high levels of planning because future states of turbulent environments are impossible to predict. Furthermore it has been argued that comprehensive planning in uncertain and complex environments may cause more inter-organisational contradictions than it resolves and therefore a low level of planning extensiveness should be associated with complex and uncertain environments. Moreover, Mintzberg (1994) emphasises that strategies may emerge outside the formal process of planning and these emergent strategies are often successful and may be more appropriate than intended strategies. Wit and Meyer (1998) state that, "It makes much more sense in new and unpredictable circumstances to remain flexible and adaptive, postponing fixed commitments for as long as possible. An unknown future requires not the mentality of a train conductor, but of an explorer – curious, probing, venturesome and entrepreneurial, yet moving cautiously, step-by-step, ready to shift course when needed" (p.157).

8.6 The Scanning Process and Management Characteristics

In chapter 6, it was argued that management characteristics such as the top manager's education level, age group and executive role may have some influence on the scanning process. Analysis of the mail survey data showed that none of the management characteristics had an impact on the scanning process. It is worth noting however, that the absence of any significant differences in scanning activities between Western-educated executives and those who were educated in Saudi or

other Arab countries was unexpected. While rich in capital, Saudi Arabia has been and continues to be inadequate in producing an indigenous supply of managers and management know-how (Al-Aali, 1995; Al-Zamel, 1993). In addition, Ali and Camp (1995) pointed out that most management education programmes in Arab countries are inadequate to meet the demands of contemporary business practice and the needs of a new generation. Along similar lines Cordesman (2001), indicated that educational standards in Saudi institutions are much lower than in comparable foreign institutions. Saudi students, therefore, have been sent abroad (notably to the United Kingdom and the United States) to obtain their business education. The assumption is therefore that Western-educated graduates are well-equipped and competent. But the results obtained from the survey analysis showed that Western-educated executives and those who had been educated in Saudi or other Arab countries do not have significantly different mean scores with regard to the scanning process, and scan their business environment in the same way. This lack of difference is not a straightforward matter to explain. One possible explanation is that Saudi firms may not have a supportive environment for the newly acquired skills to be implemented and therefore the Western-educated are unable to apply their new skills. In an organisational culture that still considers modern management practices unnecessary and favours a traditional approach to management, we can expect a certain degree of resistance to change. Secondly, Western-educated graduates may fail to understand that they have to adapt knowledge gained overseas to the Saudi context. Those graduates may have studied Western management theories and practices without careful assessment of their applicability to Saudi culture (Yavas, 1997). As a result, they may be criticised as having qualifications with no relevance to the Saudi realty. Ali (1995) and

Hofstede (1993) indicate that management theories mirror the cultural profile of their setting. Applying them in a new setting may lead to failure.

8.7 The Scanning Process and Firm Characteristics

The findings of the mail survey showed that no statistically significant differences exist between the scanning process and the firm characteristics. The only area in which there were noticeable differences was ownership type, where scanning practices differ significantly between Saudi firms and foreign and joint venture ones. According to the test results of Proposition 9 (see Chapter 6) half of the listed variables which describe the scanning process demonstrates a significant difference between Saudi firms and foreign and joint ventures. It was found that foreign and joint ventures are adopting modern and advanced management practicies to a greater extent than Saudi firms. Not surprisingly, our findings are similar to those of previous studies. Alfalah (2002) and Alshoaibi (1998) found that joint venture firms are ahead in adopting modern practicies in the Saudi context. Several Saudi firms had gone into joint ventures with firms from the developed world. These had brought with them their experience, knowledge and many modern managerial practices. Therefore, we can understand why these firms have taken the lead in using modern and advanced management methods in their scanning practicies. In the case of Saudi international joint ventures the foreign parent may be a vital source of both tacit and explicit knowledge. Previous research has suggested that acquision of organisational knowledge in international joint ventures has an important and positive relationship with joint ventures performance, particularly in building the competence of local employees (Lyles and Salk, 1996).

Despite highlighting differences between practices in joint ventures and local firms, the survey analysis also showed that there are some similarities. This may suggest that joint ventures have adapted to some local practices.

8.8   Scanning Obstacles

The interview discussion of the data obtained from respondents revealed a number of problems that hinder Saudi executives from obtaining external strategic information and therefore from performing the scanning function effectively. The availability of information and managers' knowledge of how and where to get information may play a critical role in performing scanning activities effectively (Masten et al., 1995). Interview respondents complained that the most difficult factor limiting their scanning activities was the frequent absence of reliable and timely information. They stated that most of the government's statistics are old and inaccurate. This confirms previous research in the Arab world which concluded that the region suffers from a severe shortage of the detailed accurate and current information required for strategic analysis (Alarfaj, 1996; Kassem, 1989; Malek and Alshoaibi, 1998; UNDP, 2002). According to the United Nations Development Programme report of 2002, "All Arab countries lack information policies that delineate targets and priorities, coordinate the various sectors and formulate strategic alternatives with regard to the creation of infrastructure and the development of human and information resources. The organisational and legislative frameworks for production and services institutions in various fields of information and communication are also lacking" (p. 92). The relative fragility of the data and information base in Saudi Arabia hinders executives from assessing accurately their dynamic business environment.

The inadequacy of reliable, comparative and recent data from local sources makes it necessary at times to use international data sources. Unfortunately, most of the information on these sources such as the Internet and international business newspapers and magazines is in English.

Another point mentioned by interviewed executives was that of poor command of the English language. This inadequate level of English may well be due to the poor quality of education. In this context, the UNDP report (2002) stated that a mismatch between educational output on the one hand and labour-market and development needs on the other could lead to Arab countries' isolation from global knowledge, information and technology at a time when accelerated acquisition of knowledge and formation of advanced human skills are becoming prerequisites for progress.

The Internet is a very powerful tool and can provide executives with current information on a variety of issues which may impact on a firm's future. According to Cronin (1995):

> "Employees directly connected to the global network can provide their company with important competitive information. Each staff member using the internet may be in contact with hundreds of outside people in the course of the day- including potential and existing customers, competitors, suppliers, and international partners. Well-informed employees can spot marketing opportunities, the emergence of new competition, unmet customers needs and a host of vital information" (p.16).

Many respondents however, complained of the lack of Arabic content and relevant applications on the Internet. Tellawi (2003), executive secretary of ESCWA[32] said that the Arabic language is one of the top six languages used in the United Nations but the Arabic content on the Internet is ranked in the 20s. She adds that the number of Arab internet users was estimated at 5 million and the number of Arabic

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[32] United Nations Economic and Social Commission for Western Asia

sites a mere 1 percent of the worldwide web. Hence, the domination of English as the language of the Internet and most of the international business papers and magazines on one hand and the shortage of information in Arabic on the Internet on the other hand, presents challenges to reaping the benefits of information for Saudi executives.

Another important problem mentioned by interview respondents was the lack of trained staff. They revealed that both top and middle management lack a number of crucial management skills. This is in line with the findings of many Saudi studies (Alarfaj, 1996; AlDoghan, 2001; Ali and Camp, 1995; Yavas, 1997), which revealed that there is an obvious shortage of indigenous qualified managers and that the country needs to build its managerial resources in order to improve the chances of success in development programmes.

Interviewed executives also considered political instability and legislation volatility as other important barriers for them in scanning the environment for information. Furthermore, they stated that the combination of the novelty and the speed of emerging economic issues prevents them from performing scanning effectively. In examining management practices in Saudi Arabia Anastos et al., (1980) found that planning is limited by the fact that the required data are not available and the business environment lacks the stability and predictability necessary for accurate forecasting. Moreover, studies on scanning in developing countries have indicated that political and economic instability are major obstacles in obtaining relevant information from the environment for use in strategic decisions (Elenkov, 1997b; Sawyerr et al., 2000).

8.9 Use of Environmental Information in Decision-Making.

The findings of the mail survey showed that overall perceived environmental uncertainty is correlated with frequency of using environmental information in decision- making in both disturbance handler and negotiator decisional roles. This suggests that executives in this study who perceive their external environment as changing at a rapid pace and in which many different factors have to be taken into account, use external information more frequently in the disturbance handler and negotiator decisional roles. In this study, Mintzberg's four decisional roles are used (entrepreneur, disturbance handler, resource allocator and negotiator) to examine the use of external information in decision-making. As entrepreneur, the manager seeks to improve the unit, to adapt it to changing conditions in the environment. As disturbance handler, the manager responds to pressures from situations. As resource allocator, the manager is responsible for deciding who will get what. As negotiator, the manager commits organisational resources in real time (Mintzberg, 1973).

The aforementioned result could be explained if we take into account the business environment faced by those executives, one which is full of surprises, ambiguity and many unpredictable events, as advanced in the data analysis. Data from the mail survey and personal interviews shows that executives perceive multiple environmental factors to be vital to the firm, and that these factors are highly uncertain and unpredictable. Due to the high uncertainty about the future and to frequent changes in legislation and unexpected economic events, those executives are expected to allocate more time to handling unexpected but important environmental events. Not surprisingly, Saudi executives also use external information more frequently in the negotiator decisional role. The country is heavily dependent on imports and continues to be an attractive target for exporters

(Badri et al., 1995). In fact, according to an estimate, about a third of each additional dollar in Saudi Arabia's national income is spent on imports (Metwally, 1995; Yavas, 1997). Saudi Arabia's total imports were $30.3 billion in 2000, an increase of 8 percent from $28 billion 1999 (See Table 8-1). In this milieu, negotiation skills become very important for Saudi executives. Choo (1993) offers another explanation. Executives are playing the roles of symbolic head and of spokesperson for the firm when they engage in important negotiations with outside organisations. Hence they feel obliged to be more sensitive to external issues, especially when the external environment is perceived to be uncertain.

Table 8-1 Saudi Arabian Top Commodity Imports (U.S. $ Billions)

COMMODITY	1996	1997	1998	1999	2000	2001	2002
Food Stuff	4.80	5.01	4.70	4.81	5.42	4.78	5.21
Medicines	.78	.87	.89	.89	.88	.95	.98
Chemical Products	2.48	2.38	2.59	2.56	2.77	3.76	2.87
Textiles & Clothes	2.11	2.03	1.89	1.73	1.78	1.74	1.84
Wood & Wood Products	0.39	0.36	0.38	0.34	0.39	.36	.39
Jewellery	1.18	2.20	1.67	1.37	1.22	.95	.44
Base Metals and Metal Articles	2.78	2.60	2.87	2.35	2.38	2.54	2.65
Electrical Machines, Equipment and Tools	5.83	5.68	6.00	6.73	6.67	6.4	7.09
Car and Spare Parts	4.25	4.47	5.53	4.06	5.35	4.43	N/A
Other	3.28	3.30	3.39	3.17	3.41	5.19	10.7
TOTALS	27.8	28.9	29.91	28.0	30.2	31.1	32.17

Source: Central Department of Statistics, Ministry of Economy and Planning, base on http://www.planning.gov.sa/statistic/sindexe.htm

8.10 Conclusion

Throughout this chapter, we have attempted to highlight the most significant results of this study. The chapter offered an extensive discussion of the empirical results of

the present study. The scanning activities of the Saudi private sector were discussed and contrasted with other studies' findings. The results of the study are generally in agreement with previous studies, especially those of developing countries. Several explanations were offered in order to gain increased insight and understanding of many of the major findings of this study. Some of explanations derived from the personal, cultural, organisational aspects that characterise Saudi society. For example, Saudi executives, with the Arab intuitive trading tradition still deeply ingrained, with the Islamic view of fate moulding both their private and their business lives and facing the economic uncertainties associated with fluctuating oil prices, may feel that an informal, flexible and short-term mode of scanning is preferable. The managerial implications are presented in the concluding chapter, where we discuss the limitations of the study in addition to suggestions for further research.

9   Chapter Nine: Summary and Conclusion

9.1   Introduction

The objective of this final chapter is to highlight the research findings and in the light of these finding to discuss the implications for managerial and organisational aspects within Saudi Arabia. Recommendations for these areas, as well as for further research, will be put forward and thought will be given to the limitations of the study.

The aim of this study was to investigate scanning activities in the Saudi private sector. Environmental scanning is an essential activity for an organisation's success, undertaken by top executives to allow them to be effective in steering the organisation within a changing environment. Organisations exist in an increasingly turbulent world. The pace of change is quickening and the pressures on organisations are increasing in complexity, diversity and ambiguity. Choo (1998) noted that a crucial task of management is to discern the most significant changes, interpret their meaning and develop appropriate responses. Given the potential influence of the rapidly changing and unique characteristics of the political, economic and social environments in Saudi Arabia, executives need to be aware of such changes and to read their impact on their firms in order to succeed and survive in the ever-changing business environment. At the beginning of the twenty-first century the country is being bombarded by turbulent forces for change as it faces political uncertainty, economic decline, a youth population explosion, Islamic extremism and other trends. These provide immense challenges for Saudi executives; in order to plan effectively in such an environment they must be able to anticipate the impact of new developments on their firms. Organisations which

want to succeed in the ever-changing business environment need to adopt suitable management tools that can identify emerging issues that may have the capacity to impact on their business. Environmental scanning is such a technique, often used within a suite of tools as part of a strategic planning process; it can be an important source of information for firms which operate in rapidly changing environments.

Most of the previous research on environmental scanning has been carried out in a Western context, and no empirical research exists on the scanning activities of Arab executives in general and Saudis in particular. This research aimed to address this gap in the literature by investigating environmental scanning activities in Saudi private firms. In particular the study looks at (1) executives' perception of their business environment: (2) the frequency of, and level of interest in, executives' scanning: (3) the information sources used to investigate what is happening in the business environment: (4) the decisions which are dependent on scanning activities: (5) the methods used by Saudi firms to scan their environment.

9.2 Summary and Highlights of the Research Findings

The findings indicate that Saudi executives in general believe that their businesses operate in a highly turbulent environment where competition, economic and legal factors are perceived as the most strategically uncertain. Surprisingly, political factors produced a low level of perceived strategic uncertainty. In general, macro-environmental factors are seen as more uncertain than micro ones in relation to information scanning (See table 5-19). This contradicts what has been found in previous research on scanning in Western countries where micro-environmental factors are seen as more important and uncertain than the macro ones.

The findings indicate that the executives in this sample tend to scan for a large number of issues in their environment. In particular, they conduct the greatest amount of scanning in the competition, economic and legal areas.

The analysis reveals that the scanning behaviour[33] of each environmental factor is correlated with the environmental uncertainty of that factor. This means that executives who perceive their external environment as changing at a rapid pace, and as one in which many different factors have to be taken into account, tend to do a great amount of scanning of that external environment. These findings provide further support for the theory that high levels of perceived strategic uncertainty will lead to an increase in scanning frequency across environmental factors.

In addition, the findings indicate that the executives in the sample increase scanning frequency in response to an increased perception of environmental uncertainty in the macro-environment more than in the micro-environment. This result differs from scanning studies conducted in the West where executives focus their scanning activities on micro-environmental factors in response to greater changes and complexity in the external environment.

The findings show that personal sources are used more frequently than impersonal sources in scanning by executives in this study. Among the five most used sources for scanning, four are personal sources (customers: subordinate managers: subordinate staff: business/ professional associates). However, quantitative and qualitative analysis reveals that Arabic newspapers and magazines are a very important source in scanning and are used more frequently than any other source.

The study found that executives in this study who experience higher levels of perceived environmental uncertainty tend to scan more frequently using all

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[33] Scanning behaviour in this study is measured by the frequency with which environmental information comes to the executive's attention, and the executive's level of interest in keeping informed about the environment.

available sources (personal/impersonal: external/internal) in order to minimise their perception of uncertainty. This is in line with Auster and Choo (1993) and Daft et al., (1988) who found that executives use multiple, complementary sources in response to environmental uncertainty.

The interviews reveal that quality and accessibility both determine executives' selection of information sources in their scanning activities. There were a few voices, however, which revealed a distinct preference for source accessibility. The results also indicate that respondents need information which is as up-to-date as possible and which is preferably presented in a brief format.

The analysis reveals the over-reliance on conventional methods to scan the business environment. Most respondents use interpersonal communication to *exchange environmental information*, manual filing together with an archival system to *store and record environmental information* and senior managers' experience, intuition and judgement to *analyse the environmental information*. It is clear that Saudi executives show little use of modern and sophisticated methods in their managerial practices, particularly in scanning activities. Most of the interviews suggest that the use of the Internet, statistical and analytical software and qualitative techniques in scanning activities (e.g. Delphi and Scenario planning) is almost non-existent.

The study found that upper-, middle- and functional-managers participate in scanning the environment. This result further supports Aguilar (1967) and Hambrick (1982b) who found that scanning is conducted largely on an ad hoc basis by all middle and top executives in an organisation.

The study found evidence to support the fact that environmental scanning activities in Saudi firms are generally informal, unstructured and irregular, and reactive rather than proactive. The analysis reveals that executives in this study engage more in irregular and/or regular scanning while continuous scanning is the practice least

used by Saudi executives to scan their business environment. Other evidence also suggests that executives in this study rely more on informal methods to scan the business environment, with a planning unit having little or no role in such activities. This study found that, contrary to expectation, neither the management characteristics nor the firm characteristics had an impact on the scanning process. The only exception was found in the ownership type where scanning practices differ significantly between Saudi firms and foreign and joint-venture ones. It was found that foreign and joint-venture firms adopt more modern and advanced management practicies in their scanning activities than do Saudi firms.

The interview respondents agreed that the absence of reliable and timely information, a poor command of English and a lack of trained staff are among the most important barriers they face in scanning the environment for information. They also pointed out that political instability, legislative volatility and economic conditions which change so quickly prevent them from obtaining external strategic information. In addition, government agencies are perceived as holding out-of-date information.

The study found that planning time-horizons in the firms studied ranged from 1to 3 years. Planning for more than that is limited by the fact that the required data are not always available.

Finally, executives in this study who perceive their external environment as changing at a rapid pace and as one in which many different factors have to be taken into account, use external information more frequently in the disturbance handler and negotiator decisional roles. It was also revealed that executives use external information frequently in all four decisional roles (entrepreneur, resource allocator, disturbance handler, and negotiator). (See Table 9-1)

Table 9-1 Summary of the Main Findings

Perceived Environmental Uncertainty	• Competition, Economic and Legal factors are perceived as being the most strategically uncertain in the business environment by Saudi executives; • The perceived environmental uncertainty analysis yielded the surprising finding that Saudi executives perceived political uncertainty as low; • Macro-environmental factors are seen as more uncertain than micro ones in relation to information scanning.
The Influence of Environmental Uncertainty on Scanning Behaviour	• Executives who perceive their external environment as changing at a rapid pace and containing many different factors to be taken into account, need to scan their environment for more information to allow them to cope with volatility and to reduce uncertainty; • Saudi executives increase scanning frequency in response to increased perception of strategic uncertainty in the macro-environment more than in the micro-environment
Information Sources	• Saudi executives use personal sources more frequently than impersonal sources in scanning their business environment; • Quality and accessibility both determine executives' selection of information sources in their scanning activities
Scanning Process	• Executive in this study still rely on conventional methods to scan the business environment; • Environmental scanning activities in Saudi firms are generally informal, unstructured and irregular, and reactive rather than proactive.
Scanning Barriers	• The main barriers Saudi executive face in scanning the business environment are the absence of reliable and timely information, a poor command of English and a lack of trained staff

9.3   Conclusion to Research Propositions

Proposition 1: A higher level of perceived environmental uncertainty across environmental factors will be associated with a higher level of scanning frequency.

Proposition 2: The greater the degree of perceived environmental uncertainty across environmental factors, the higher the degree of executives' interest in that factor.

The literature of environmental scanning suggests that high levels of perceived environmental uncertainty will lead to an increase in scanning frequency and interest across environmental factors (Daft et al., 1988; Auster and Choo 1993). The outcomes of the study offer full support to these two propositions. In other words, this result is consistent with prior research which found that a high level of environmental uncertainty will lead to an increase in scanning frequency (Auster and Choo, 1993; Boyd and Fulk, 1996; Daft et al., 1988; Ebrahimi, 2000).

Proposition 3: Personal sources will be used more frequently than impersonal sources.

The literature of management studies suggest that managers "demonstrate very strong attraction to the verbal media" such as phone calls, unscheduled meetings, scheduled meetings, and tours, which all involve face-to-face contact or, in other words, personal sources of information (Mintzberg, 1973). Further, family is of central importance in the Arab World (Hutchings and Weir, forthcoming). The family system extends more widely than in Western societies, and as a consequence, loyalty and obligation to the extended family precedes loyalty to friends, which in turn precedes loyalty to the organisation. As a result, personal contact becomes more efficient than formal procedure (AlDoghan, 2001; Al-Faleh,

1987; Ali and Shakis, 1991). This proposition had also full support and it can be concluded that personal sources are used more in scanning than impersonal sources.

Proposition 4: External sources will be used more frequently than internal sources.

Past research on source usage in scanning suggests that managers rely more on external sources to gather strategic information from the business environment (Keegan, 1974). Data did not support Proposition 4, in that external sources will not be used more frequently than internal sources.

Proposition 5: A higher level of perceived environmental uncertainty will be associated with a higher level of frequency of all type of information sources.

The literature suggests that there are crucial linkages between the scanning activities of managers and their perceptions of environmental movement and discontinuities. The results show that environmental uncertainty has a positive and significant correlation with both personal/impersonal and external/internal information sources. We can conclude that there is full support for Proposition 5, that the higher the perception of environmental uncertainty, the more likely it is that an executive would be inclined to use all external and internal sources, as well as all personal and impersonal sources.

Proposition 6: A higher level of perceived environmental uncertainty, will be associated with the frequency of using external information in decision-making in the four decisional roles of entrepreneur, disturbance handler, resource allocator and negotiator.

This was only partially supported, since a higher level of perceived environmental uncertainty is associated with the frequency of using external information in decision-making in the decisional roles of only disturbance handler and negotiator.

Proposition 7: The total amount of scanning conducted by Saudi executives will be associated with the frequency of using external information in decision-making in

the four decisional roles of entrepreneur, disturbance handler, resource allocator and negotiator.

This proposition also had partial support. The results show that the total amount of scanning measured by frequency has a positive and significant correlation with all decisional roles. However, the strength of these associations is weak. On the other hand, the total amount of scanning measured by interest and the use of external information in decision-making display a positive but very weak correlation. Furthermore, we noticed that all correlations are not statistically significant. This suggests that the frequency of using environmental information in decision-making in the four decisional roles increase with the amount of scanning.

Proposition 8: There is a significant difference between the respondents' characteristics for the scanning process in Saudi private firms.

The data of this study did not provide support for Proposition 8, that there is a sgnificant difference between the respondents' characteristics for the scanning process. This lack of difference is not a straightforward matter to explain. However, we shed some light on this in Chapter 8.

Proposition 9: There is a significant difference between the firms' characteristics for the scanning process in Saudi private firms.

Again, the data of this study data offers little support for proposition 9, that there is a significant difference between firms and the firms' characteristics for the scanning process in the Saudi private firms. The only area in which there were noticeable differences was ownership type, where scanning practices differ significantly between Saudi firms and foreign and joint venture ones.

9.4 Implications

9.4.1 Contribution to the Management literature in Saudi Arabia

This study is the first of its kind to investigate environmental scanning activities in the Saudi private sector. The findings of this study are expected to contribute to the enhancement of strategic management practices in Saudi Arabia. It will also contribute to the management literature in Arab countries, in a region where research in general, and research in management science in particular, is scarce. Furthermore, the findings of the study will contribute to the existing stock of knowledge in the literature of environmental scanning, particularly in relation to the experience of private firms in a developing country. Despite the recognition of the importance of environmental scanning in private firms, there has been a gap in the empirical knowledge of the practice of environmental scanning in developing countries in general and Arab countries in particular. The findings of this study, therefore, will make a contribution to this knowledge gap.

9.4.2 Implications for Management

The present study found that in general macro-environmental factors are seen as more uncertain than those in the micro-environment in relation to information scanning. Moreover, the executives in this study increase scanning in response to an increased perception of environmental uncertainty more in the macro-environment than in the micro-environment.

Because of the complexity and interconnectedness of the environment, some authors have suggested that analysing the environment as a whole is an impossible task (Garg et al., 2003; Hambrick, 1982a). Therefore, we need to identify the environmental elements that make up the external environment. The literature has identified two broad environmental segments to facilitate the study of

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environmental scanning behaviour, since every factor may have a distinct influence on decision-making. These are macro and micro environments (Daft et al., 1988; Fahey and Narayanan, 1986; McKiernan, 2003; Sawyerr et al., 2000). Research into environmental scanning suggests that micro-environmental factors pose a greater strategic uncertainty than factors in the macro-environment. It has also been suggested that the micro-environment should be given more attention because it changes more rapidly and is considered more complex and important than the macro-environment (Daft et al., 1988). Moreover, the micro-environment seems to play a greater role in strategic management as it is more relevant in the goal setting and goal attainment of the firm (Dill, 1958; Ebrahimi, 2000; Thompson, 1967). In contradiction to this previous research, the findings of this study lead to a different conclusion and suggest that, in the Saudi context, macro-environment factors should be treated as the primary environmental factors for strategic information scanning. Thus Saudi executives should focus their attention more on factors in the macro-environment since it is these which create more strategic uncertainty. The particular challenges which Saudi Arabia is facing, including economic decline, political uncertainty, youth population explosion, and Islamic extremism (all part of the macro-environment) support this argument.

While little is known about environmental scanning in private firms in many developing countries including Saudi Arabia, the study has revealed that Saudi firms do not practise environmental scanning, as part of strategic planning, in the way it has been described normatively in much of the literature (i.e. as a part of formal procedures). The study suggests that environmental scanning activities in Saudi firms are generally informal, unstructured and irregular, and reactive rather than proactive. Our interpretation of the findings suggests that there are many factors which may influence this behaviour, including:

1. The nature of the Saudi economy, dependent for its income on a single source, oil, with its fluctuating prices, makes it very difficult to plan ahead.

2. The Islamic attitude toward fate.

3. The "trading mentality" of Saudi executives.

4. The unpredictable and sudden economic developments, frequent changes in legislation and unexpected political events (see Chapter 8).

Consideration of the above issues gives support to the proposition that the emphasis given to the formal procedures of scanning and strategic planning in previous studies in a Western context may not be appropriate for Saudi private firms. The environmental conditions facing Saudi firms in the global economy today differ from those firms faced previously. The boom period of the 1970s and the 1980s brought great wealth to the country and generated countless opportunities for businesses. The challenges that Saudi executives now face - which have been mentioned throughout this study – suggest that there is a need to continuously scan the business environment and adopt a proactive approach in which future changes can be anticipated accurately. This will help them to adapt to the pressing demands of fundamental changes in the environment. According to Choo (2000) continuous monitoring enables organisations to detect deviations from the norm and so sense early warning signals. In a dynamic competitive business environment firms must prepare to change in accordance with the environment, and must not be bound by past practices or traditions. It is also proposed that this informal, continuous scanning should be accompanied by a raising of every employee's information awareness. Choo (2000) suggested that this can be done through reading, clipping and circulating significant news from newspapers and the trade press: asking managers to maintain and share spreadsheet and directories about customers, competitors, suppliers and so on: forming focus groups to discuss important

environmental developments. The interview analysis has shown that some of the best information can be found in unexpected places. For example, one firm organised daylong seminars for people in the firm so that they could acquire a 'snap shot' of where the firm was at in order to keep information flowing through the firm and to train people in the process of information-sharing. Such measures are of great potential benefit.

One of the surprising results of the study is that Saudi executives perceive political uncertainty as low. The political situation in the Gulf region is highly unstable and volatile. The region has witnessed three wars in the last 15 years in addition to the serious consequences of September 11 on the political stability of Saudi Arabia. In addition to instability generated from outside, the country faces the problem of indigenous religious militants who probably are considered the most dangerous to stability (Byman and Green, 1999). Unless executives are aware of environmental trends important to their organisation, and unless their perceptions are accurate, they cannot form judgements appropriate for efficient decision-making in support of organisational success. Failure to realise the importance of the opportunities and threats which may be created by changes in the political situation in Saudi Arabia, may make decision-making difficult, adding to confusion, and affecting the performance of the firm. In order to avoid such pitfalls, executives should monitor the political environment closely and accurately assess whatever impact it might have on their business activities.

The research results indicate that a poor command of English reduces the potential of accessing vast amounts of crucial and reliable international information sources. It is therefore suggested that Saudi firms should recruit at least one person who can communicate very well in other languages, especially English. They also should encourage their staff to learn English. This will help those firms benefit from a

large amount of data about customer, competition, economic, technological, social and political issues.

The firm's external environment is challenging and complex. Because of the effect the external environment has on performance, the firm must develop the skills required to identify opportunities and threats existing in that environment. A major problem which was identified in this study is a lack of trained staff. Moreover it was found that the application of advanced management practices is very limited in Saudi firms. This reflects more general concerns regarding a critical shortage of suitably qualified Saudi managers with the knowledge and skills to meet the demands and challenges of the 21st century. Although new technologies such as the Internet make it easier to acquire information, most organisations are overwhelmed by the huge volume of information available. The exhaustive search, analysis and proper interpretation of this information cannot be accomplished by traditional methods. It is therefore highly recommended that firms attach urgent importance to providing training programmes for their managers and adopting the "investing in people" concept. Training and development are a crucial aspect of preparing managers to scan their business environment effectively. Such training programmes need to place more emphasis on modern and sophisticated managerial techniques such as forecasting and computer/data processing skills. The focus of these programmes should also be directed at training managers on how to use current information technology effectively, for example how to search the Internet and CD-ROMs. In addition, managers and staff should be trained and provided with the tools to gather, summarise and analyse external information. These issues should be emphasised, supported and encouraged. In order to remain competitive within the global economy, managers should adopt the latest techniques in management practices. There is a clearly demonstrated need for improvement on

traditional approaches to business. According to Yavas (1997), "While the entrepreneurial visions of the executives have served them well in the past, it should not be forgotten that there is a window in time for Saudi firms to adapt their management orientations and organisational cultures to today's realities. It is imperative that Saudi firms face the challenge now, redirect their orientations and embrace contemporary management know-how before the window in time closes" (p.284). Though we do not suggest that well-established, traditional competencies are outdated, we would propose that there is a need for managers to effectively combine a diverse range of skills to meet the challenges of a dynamic environment. Ultimately executives must use what techniques exist to keep abreast of environmental developments and the tradition methods are not to be dismissed – especially when they are practised by an experienced manager.

The world currently is in the information age, which has the function "to make available to all the cultural heritage of mankind as well as the necessary knowledge to govern the complexity of modern society" (Bauwens, 1996). The emergence of IT has effected changes in information-handling in many ways such as the provision of mechanisms for accessing, using, recording and disseminating information (Simon and Abell, 1991). With more and more information becoming available in electronic form, organisations have increasingly carried out environmental scanning using information technology (Vandenbosch and Huff, 1997). For example, executive information systems (EISs) are designed to provide executives with easy access to internal and external information which is relevant to their critical success factor (Watson et al., 1997). It is therefore suggested that Saudi firms utilise the IT tools available to help managers and staff access, share, store, track, organise, and present external information.

In addition, the study findings indicate that the Internet, compared to other information sources, is not frequently used in scanning. The Internet is increasingly a vital source of data and information for the purpose of understanding the external environment. Haynes et al., (1998) state that the most important use of the Internet amongst participants in a mail-survey was as a tool for 'obtaining and disseminating information' and Bennett (1997) concludes that the greatest assistance the firm gets from the Internet is as an information-gathering tool. Web sites present simple tools to both distribute and gather information (Hamill and Gregory, 1997). The borderless nature of the Internet suggests that organisations may be able to scan a greater variety of information sources which cover a wider range of environmental factors. The ease of access to information on the Internet implies that organisations may be able to scan more frequently. It is therefore suggested that access to the Internet should be available to all management levels and that they should be encouraged to take full advantage of the wide selection of information on every aspect of the organisation's external environment.

The present study underscores the heavy use of personal sources in scanning the external environment. Moreover, the study confirms the severe shortage of detailed information from impersonal sources in the Arab world. It is recommended, therefore, that executives should actively develop personal information sources which can supply high-quality information. It is also suggested that managers place more emphasis on networking because such networks supply important intelligence and help to generate ideas. Additionally, firms should recruit executives with good networks and endeavour to develop networking skills amongst existing managers.

9.4.3   Implications for the Saudi Government

The study results reveal that a poor level of English language ability and a lack of trained staff are among the major barriers that Saudi firms face in scanning the environment for information.   In addition, there is a weakness among Saudi executives in applying advanced management practices in their scanning activities. This is possibly because of a poor quality of education.   In particular, it seems that there are some shortcomings in management education systems at Saudi universities.   In fact, the educational and vocational system in Saudi Arabia has often been criticised in that it does not prepare young people for the world of work adequately (See Chapter 3).   There is a major mismatch between the output of educational systems and labour-market need in the Arab world (UNDP, 2002). Moreover, most management education programmes in the Arab world are inadequate to meet the demands of contemporary business practice and the needs of a new generation (Ali and Camp, 1995).   An awareness of this is evident in the Seventh Development Plan (2000-2004), which states that, "The level of integration and interaction between higher education institutes and the private sector remains inadequate, thereby weakening the private sector's ability to absorb and employ the Plan's expected number of graduates.   Thus, the Seventh Development Plan will address this issue through the following steps: linking education programs to development and labour market requirements, encouraging the private sector to provide practical training for students in the private establishments, and considering the period of training as a requirement of graduation; reconsidering the training programs of graduates, and encouraging the private sector to participate in performance evaluation".   It is therefore suggested that the government, especially those responsible for education, should pay serious attention to education reform, take the problem more seriously and raise the educational standards of the Saudi

population in order to give them a better chance in a world that is becoming more and more competitive. The horizons are limitless, the challenge immense, and current efforts are meagre at best. Furthermore, it is important to highlight the fact that most Arab books on management are simply translations of Western textbooks and theories (Ali and Camp, 1995). This practice belies the fact that management practices are based upon deep-rooted historical, sociocultural and ideological values and beliefs and are conditioned by environmental factors such the economic, legal, political and educational characteristics of the subject country. Therefore, it is recommended that prior to defining any specific policy towards reforming management education, two issues should be given serious attention: the mere translation of Western textbooks and theories does not enrich Arab management practices: teaching appropriate topics and techniques is a serious matter that demands a revision of the existing approach (Ali and Camp, 1995). However, "It is important to note that Arab scholars should not close their door to foreign intellectual contributions. Rather, they should examine them with creativity, openness, and particular selectivity. An optimal adoption of selective foreign contributors cannot be realized without understanding the foreign and Arab cultures. Thus, it is imperative for Arab scholars to re-examine their own culture and its constraints while actively reflecting on the foreign intellectual contribution" (Ali and Camp, 1995, p.15).

The results of this study support the previous research which indicated that Saudi Arabia, like other Arab countries, suffers from a severe shortage of the accurate and current information required for strategic analysis. Unless this problem is addressed vigorously and diligently, the ability of the Saudi private sector, and perhaps that of the country as a whole, to compete globally may be seriously affected. It is therefore suggested that the government should establish an information centre

which can provide quick and easy access to relevant information for Saudi businesses. Government data should be made available promptly and be constantly updated. The study findings indicate that Saudi executives require various kinds of information from a variety of sources in order to find reliable and relevant information about the business environment. The centre's collection should therefore include a wide range of information which covers the business community's needs. In addition, the design of the centre's collection must be grounded on a solid understanding of the information needs of the private sector. However, as it would be difficult for the centre to house every kind of information it is recommended that the government should seek active cooperation and partnership with other organisations, which house relevant information, both locally (e.g. Saudi Chambers of Commerce, King Fahd National library) and abroad.

The information centre should be electronically based, with a high quality and speed of service. It is also suggested that the centre provides Internet access to its material. However, despite the importance of electronic communication, the physical presence of the centre would facilitate the provision of services and personal contact which is the major communication channel within the business community in Saudi. The fee structure should be flexible and based on the user's ability to pay, with account taken of whether the user is an SME business or a large company.

Additionally, the centre should be staffed by computer-literate people with up-to-date business awareness as well as background knowledge in both technical and business related areas.

The study results indicate that foreign and joint-venture firms can support local business by contributing the experience and the necessary technology which can help Saudi private firms scan their external environment effectively and compete

globally. It is recommended therefore that the government encourage the idea of joint venturing in Saudi Arabia.

9.5 The Limitations of the Current Study

Although the research findings of this study are important, several limitations should be noted:

❑   The study was necessarily limited by the sample of representatives of the Saudi private sector. Due to constraints of time and funding and the desire to maximise response rates, the study was limited to a sample from the top 500 large firms. However, the study does not generalise its conclusions to encompass all managers within this sector and any generalisation of the study's findings should be undertaken with care.

❑   Despite diligent effort in translating the questionnaire from English into Arabic, the details of which are explained in Chapter four, the possibility exists that some of the original meaning of the survey may have been lost in this process.

❑   The present study is of a snapshot type which might not fully capture the dynamic nature of environmental scanning in business organisations. As with all survey research of this type, the inferences drawn from this study must be limited by the self-reporting and cross-sectional characteristics of the data. However, in several of the survey questions executives were asked to give an account of their scanning behaviour over the past three years and this helped to compensate for the snapshot nature of the survey and allowed us to give some insight into the dynamic nature of scanning activities.

❑   Another limitation of this study is the reliance on individual executives to provide their views on activities of the organisation. Self-reported data may be

inclined to perceptual or attitudinal biases, or even lack of information, which can reduce the reliability and validity of the data.

❑   This limitation is related to the length of time required to investigate completely the phenomenon being studied. Only brief amount of time was available for each interview (one hour); thus, full contextual richness was not obtained.

❑   A further limitation relates to the general problem of 'truthfulness' of the respondents when completing the mail survey or answering questions in interviews. False data may have been given by respondents deliberately or there may have been a lack of contextual understanding (Easterby-Smith et al., 2002). However, the degree of discrepancy is expected to be limited by the cross-checking of data across the investigation.

❑   In order for the statistical analysis to be feasible, most survey items were closed questions. However, respondents have been provided by spaces after many questions to give the respondents the chance to express their thoughts freely. Further, the mail survey is supplemented by a personal interview, which helped to gather detailed information that would both enrich and elaborate the findings of the mail survey.

9.6 Suggestions for Further Research

Although this study went to great lengths in an attempt to discuss scanning practices in the Saudi Arabia private sector, it cannot be claimed that all necessary aspects of scanning have been covered. It is equally difficult to claim that this study is free of deficiencies and that it cannot be improved upon. The following are suggestions that could be the basis for further investigations on this topic:

◻   The rapid changes in the socio-cultural and economic environment in Saudi Arabia in the last two decades are expected to continue in the near future. Thus, a replication of a study with similar research aims is highly desirable.

◻   Although the results of this study indicate that scanning practices are related to perceived environmental uncertainty, additional empirical research is needed to determine if other factors influence certain scanning behaviour. Further research can examine the relationship between environmental scanning and organisational strategy. Hambrick (1982) noted that the, type of organisational strategy influences the form of environmental scanning technique.

◻   Further clarification of scanning in Saudi firms can be explored through more in-depth study of significant environmental factors. The use of Delphi technique in a focus group setting can highlight environmental factors of interest to executives and categorise them into comprehensive, mutually exclusive factors.

◻   This study includes all top 500 Saudi firms, regardless of the type of business they conducted. A research sample taking each business individually would provide a further valuable contribution on the findings this work.

◻   A cross-sectional approach does not detect any causal effect of variables. To achieve this, a longitudinal study would be needed because of the dynamic nature of scanning behaviour.

◻   Choo (2000) noted that, "Research evidence shows that environmental scanning is linked to improved organisational performance" (p. 102). Further research therefore, could examine the relationship between environmental scanning and firm performance in Saudi Arabia.

◻   The amount of control held by an individual plays a significant role in human behaviour. The extent to which an individual believes he/she can directly affect the environment has a substantial effect on perceptions of that environment

and reaction to it (Spector, 1986). Hence, further study could also examine the impact personal characteristics of the executives, such as the locus of control and tolerance of ambiguity on scanning practices in Saudi Arabia.

❑   International comparative studies of environmental scanning are rare, hampered by barriers such as difficulty in gaining access to executives in other countries, cost, and lack of reliable secondary data. However, further research could examine the influence of national culture on the scanning practices of executives with different nationalities operating in the same environmental setting. Saudi Arabia can provide a unique setting for such research. There are 7.2 million foreign workers in Saudi Arabia from more than 30 nationalities, representing nearly 65% of the country's total labour force (Arab News, 2001). For instance, 90 percent of workers in the travel industry are expatriates (Al-Baqami, 2001).

❑   A final suggestion for further research studies is for an examination of scanning practices in other Arab countries. Although, it is generally accepted that Arab countries share the same culture and values, regardless of economic and political differences (Muna, 1980), variations do exist in the manager value systems, especially between the Arab Gulf countries and other Arab countries (Ali, 1988). Differences in relation to environmental scanning, between individual Arab countries and between Arab countries and Western countries should be examined.

9.7 Conclusion

This study was based on an empirical investigation of environmental scanning activities in Saudi Arabia. Data analysis was performed by using both quantitative and qualitative methods. It provides insight into the nature of environmental scanning activities in Saudi Arabian private firms, in an environment which is totally different from those of Western studies. Through the interviews it has been

shown that Saudi firms react and respond to environmental changes in order to cope with the high level of turbulence and discontinuities that characterised the business environment in the country. However, these environmental scanning activities are informal, unstructured and irregular, and reactive rather than proactive. Furthermore, the emphasis is not on modern and sophisticated methods for coping with the environmental complexity, but rather on managers' experience, intuition and judgement is the main technique in this regard. The Arab trading mentality and the Islamic attitude towards fate were put forward as explanations for this behaviour.

The study also revealed many characteristics of the Saudi environment which cause concern, including legislative volatility, shortages of skilled staff and intense competition in the local market and these need to be considered by government if the goal is to provide a more accommodating business environment. It is worth emphasising here that, as Saudi Arabia prepares to join the WTO, the WTO will become a dominant environmental factor in the evolution of Saudi government policies, competition policies, market competition and industry structure. In conclusion, this study has provided valuable insight into the environmental scanning activities of Saudi firms. Yet, the apparent lack of published strategic management research in the Saudi context, investigating the relationship between firms and their environments, highlights the urgent need for both qualitative and quantitative studies to guide decision-makers in their responding proactively to their environment by detecting new signals and providing early warning of threats.

Appendix A: The English Version of the Mail Survey

For the statements and questions which follow, please read each choice and circle the number of the one that best describe you and your firm.

1. Approximately how long has your firm been in business?

Less than 5 years	1
5-10 years	2
11-15 years	3
16-20 years	4
More than 20 years	5

2. Which one of the following describes the current form of company ownership?

Joint stock companies	1
Sole proprietorship	2
Limited liability	3
Other (Please Specify)	4

3. Which of the following sectors best describes the major business activities at your organization?

Agriculture	1
Contracting	2
Oil & Industry	3
Services & trading	4
Finance & banking	5
Diversified	6
Other (Please	7

4. Approximately how many employees currently work in your company?

Less than 20	1
Between 21-50	2
Between 51-100	3
Between 101-500	4
Between 501-1000	5
More than 1000	6

5. How is the ownership in your company structured?

Saudi 100%	1
Foreign 100%	2
Joint Venture	3

6. Which of following best describes your job title in the firm?

CEO or President	1
Vice president	2
Other (please specify)	3

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7. Do you happen to hold any of the following degrees?

Less than Bachelor	1
Bachelor	2
Master	3
Ph.D.	4
Other (Please	5

8. Did you happen to study for any of your degrees in any the following areas?

Saudi Arabia	1
US & / or UK	2
Arab Countries	3
Other (Please Specify)	4

9. Which age group categories are you in?

Less than 25 years	1
Between 25-35	2
Between 36-45	3
Between 46-55	4
Over 55	5

Section Two: Environmental Importance

10. How **important** during the last three years have the events and trends in each of the following environmental factors been to your organization?

At All Not Important	Fairly Unimportant	Of Some Importance	Important	Very Important
1	2	3	4	5

Environmental Factors					
Customers	1	2	3	4	5
Competitors	1	2	3	4	5
Suppliers	1	2	3	4	5
Possible entry into the industry of future competitors/ new entrants	1	2	3	4	5
Substitute products/services offered by competitors	1	2	3	4	5
Technological	1	2	3	4	5

Environmental Factors					
Political	1	2	3	4	5
Economic	1	2	3	4	5
Socio-demographic environment	1	2	3	4	5
Legal	1	2	3	4	5
Other (Please specify)	1	2	3	4	5

11. How **important** during the last three years have the environmental events and trends in general been to your organization?

At All Not Important	Fairly Unimportant	Of Some importance	Important	Very Important
1	2	3	4	5

12. To what extent does the external information provide decision-makers in your firm with **useful** information about threats and opportunities which exist in the business environment?

Completely Not Useful	Not useful	Neutral	Useful	Very Useful
1	2	3	4	5

Section Three: Environmental Change and Complexity

13. What has the rate of **change** been taking place during the last three years in each environmental factor?
Rate of change is the extent to which agencies, issues, trends or opportunities change over time in your firm's external environment.

Low	Fairly Low	Medium	Fairly High	Very High
1	2	3	4	5

Environmental Factors					
Customers	1	2	3	4	5
Competitors	1	2	3	4	5
Suppliers	1	2	3	4	5
Possible entry into the industry of future competitors/ new entrants	1	2	3	4	5
Substitute products/services offered by competitors	1	2	3	4	5
Technological	1	2	3	4	5
Political	1	2	3	4	5

Environmental Factors					
Economic	1	2	3	4	5
Socio-demographic environment	1	2	3	4	5
Legal	1	2	3	4	5
Other (Please specify)	1	2	3	4	5

14. What has the **rate of change** been taking place in general during the last three years in the business environment?

Low	Fairly Low	Medium	Fairly High	Very High
1	2	3	4	5

15. What is the level of **complexity** in general during the last three years in the business environment?

Complexity is the number and diversity of events occurring in environmental factors outside the operation of your company.

Low Complexity	Fairly Low Complexity	Medium Complexity	Fairly High Complexity	Very High Complexity
1	2	3	4	5

Environmental Factors					
Customers	1	2	3	4	5
Competitors	1	2	3	4	5
Suppliers	1	2	3	4	5
Possible entry into the industry of future competitors/ new entrants	1	2	3	4	5
Substitute products/services offered by competitors	1	2	3	4	5
Technological	1	2	3	4	5
Political	1	2	3	4	5
Economic	1	2	3	4	5
Socio-demographic environment	1	2	3	4	5
Legal	1	2	3	4	5
Other (Please specify)	1	2	3	4	5

16. What is the level of **complexity** during the last three years of each environmental factor?

Low Complexity	Fairly Low Complexity	Medium Complexity	Fairly High Complexity	Very High Complexity
1	2	3	4	5

Section Four: Scanning Behaviour

17. How frequently does information about each environmental factor come to your attention?

Never	Few Times a Year	Monthly	Weekly	Daily
1	2	3	4	5

Environmental Factors					
Customers	1	2	3	4	5
Competitors	1	2	3	4	5
Suppliers	1	2	3	4	5
Possible entry into the industry of future competitors/ new entrants	1	2	3	4	5
Substitute products/services offered by competitors	1	2	3	4	5
Technological	1	2	3	4	5
Political	1	2	3	4	5
Economic	1	2	3	4	5
Socio-demographic environment	1	2	3	4	5
Legal	1	2	3	4	5
Other (Please specify)	1	2	3	4	5

18. To what extent do you keep yourself inform about developments in each environmental factor?

None	To a Little Extent	To Some extent	To a Great Extent	To a Very Great Extent
1	2	3	4	5

Environmental Factors					
Customers	1	2	3	4	5
Competitors	1	2	3	4	5

Environmental Factors					
Suppliers	1	2	3	4	5
Possible entry into the industry of future competitors/ new entrants	1	2	3	4	5
Substitute products/services offered by competitors	1	2	3	4	5
Technological	1	2	3	4	5
Political	1	2	3	4	5
Economic	1	2	3	4	5
Socio-demographic environment	1	2	3	4	5
Legal	1	2	3	4	5
Other (Please specify)	1	2	3	4	5

Section Five: Scanning Process

19. There are different practices with regards to environmental. Please indicate to what extent each of the following statements describes the current practice in your firm.

None	To a Little Extent	To Some Extent	To a Great Extent	To a Very Great Extent
1	2	3	4	5

Channels of Exchange for External Information					
Interpersonal communication (e.g. meeting, face to face, phone calls) is used to exchange the external information	1	2	3	4	5
Email is used to exchange the external information	1	2	3	4	5
Internal reports is used to exchange the external information	1	2	3	4	5
Other (Please specify)	1	2	3	4	5
Information Storage					
Corporate database systems are used to store and record the external information	1	2	3	4	5
Manual filing and archival system is used to store and record the external information	1	2	3	4	5
Other (Please specify)	1	2	3	4	5
Information Analysis Techniques					
Statistical and analytical software techniques are used to analyse external information	1	2	3	4	5
Qualitative techniques (e.g. Delphi, Scenario planning,) are used to analyse external information	1	2	3	4	5

Senior managers' experience, intuition or judgment is used to analyse external information	1	2	3	4	5
Other (Please specify)	1	2	3	4	5

Scanning Responsibilities

Executives play a leading role in searching for external information	1	2	3	4	5
General managers play a leading role in searching for external information	1	2	3	4	5
Functional (business) managers play a leading role in searching for external information	1	2	3	4	5
Division managers play a leading role in searching for external information	1	2	3	4	5
Planning group play a leading role in searching for external information	1	2	3	4	5
Other (Please specify)	1	2	3	4	5

Scanning Mode

The environment is scanned when there are unanticipated events in the environment and focus on data for near-term future **(Irregular)**	1	2	3	4	5
The environment is scanned to review the environmental changes in selected areas on **a regular** basis	1	2	3	4	5
The environment is scanned to review the environmental changes in all areas in order to find opportunities and avoid problems on **a continuous** and structured basis.	1	2	3	4	5

Section Six: Information Sources

20. How frequently do you use each of the following information sources to scan the environment?

Never	Few Times a Year	Monthly	Weekly	Daily
1	2	3	4	5

Information Sources					
Customers	1	2	3	4	5
Competitors	1	2	3	4	5
Business/professional associates'	1	2	3	4	5
Government officials	1	2	3	4	5
Relatives and family members	1	2	3	4	5

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Information Sources					
Arabic newspapers and magazines	1	2	3	4	5
English newspapers and magazines	1	2	3	4	5
Broadcast media (radio, TV)	1	2	3	4	5
Industry, trade associations	1	2	3	4	5
Exhibitions, business trips	1	2	3	4	5
The Internet (Web pages, Email, etc.)	1	2	3	4	5
Government publications	1	2	3	4	5
Superiors, board members	1	2	3	4	5
Subordinate managers	1	2	3	4	5
Subordinate staff	1	2	3	4	5
Internal memoranda, circulars	1	2	3	4	5
Company reports and studies	1	2	3	4	5
Other (Please specify)	1	2	3	4	5
Other (Please specify)	1	2	3	4	5

Section Seven: Use of Information

21. How often does your firm use information about the external environment, when you...

Never	Seldom	Sometimes	Often	Always
1	2	3	4	5

Decisions					
Decide on improvement such as going into new business, organizational structuring, acquisition, public relation programs, computerisation projects, and the like	1	2	3	4	5
Decide about resources allocation, including budget allocation, employment of resources, setting of targets, distribution of work, and the like	1	2	3	4	5
Decide how to handle unexpected but important events, such as loss of a major customer or supplier, conflict with another organization, cutting off of key resources, and so on?	1	2	3	4	5

Decisions					
Decide during negotiations with external organizations or individuals, about your firm's position on, for example, the commitment of resources, or agreement on contracts	1	2	3	4	5
Other (Please specify)	1	2	3	4	5

22. Does your firm have a separate unit or individual whose only responsibility is to scan the external environment?   Yes _____   No _____

If Yes, Continue

23.   What is this unit name?   ————————————————

24.   How many people are in this unit?   _____

25.   Would you be interested in talking about this research further?
Yes _____   No _____

If Yes, Please complete the following
Name _____   Telephone Number _____

Thank you very much for answering the survey. You can visit the research project website for more information on www.st-and.ac.uk/~ma24

If you would like a summary of results, please attach your business card to the survey, or print your name and address below.

Please return the questionnaire in the enclosed stamped-addressed envelope.

Appendix B: The Arabic Version of the Mail Survey

سعادة المدير العام: الرجاء قراءة الأسئلة والعبارات التالية بعناية ثم ضع علامة **X** أو دائرة حول اختيارك

2. ما هو الشكل القانوني الحالي لمنشأتكم؟

مساهمة	1
فردية	2
ذات مسؤولية محدودة	3
أخرى (الرجاء ذكرها)	4

1. ما هو عمر المنشأة التقريبي؟

اقل من 5 سنوات	1
بين 5 – 10 سنوات	2
بين 11 – 15 سنة	3
بين 16 – 20 سنة	4
اكثر من 20 سنة	5

4. كم عدد الموظفين في منشأتكم؟

اقل من 20 موظف	1
مابين 21 – 50 موظف	2
مابين 51 – 100 موظف	3
مابين 101 – 500 موظف	4
مابين 501 – 1000 موظف	5
اكثر من 1000 موظف	6

3. ما هو القطاع الرئيسي الذي تعمل فيه منشأتكم؟

قطاع الزراعة	1
قطاع المقاولات	2
قطاع النفط والصناعة	3
الخدمات والتجارة العامه	4
القطاع المالي والبنكي	5
متعدد الأنشطة	6
أخرى (الرجاء ذكره)	7

6. ما هي وظيفتك الحالية في المنشأة؟

الرئيس التنفيذي أو المدير العام	1
نائب الرئيس	2
أخرى (الرجاء ذكره)	3

5. ما هو نوع ملكية المنشأة؟

سعوديه 100%	1
أجنبية 100%	2
راس مال مشترك	3

8. في أي من الدول التالية حصلت على آخر مؤهلاتك الدراسية

السعودية	1
الولايات المتحدة و/ أو بريطانيا	2
الدول العربية	3
دول أخرى (أرجو ذكرها)	4

7. ما هو آخر مؤهل علمي حصلت عليه؟

أقل من البكالوريوس	1
بكالوريوس	2
ماجستير	3
دكتوراه	4

إلى أي من الفئات العمرية تنتمي؟

اقل من 25 سنة	1
بين 25 – 35 سنة	2
بين 36 – 45 سنة	3
بين 46 – 55 سنة	4
اكبر من 55 سنة	5

10. تتغير البيئة ويؤدي تغيرها لظهور فرص أو تهديدات. ما مدى **أهمية** تأثير التغيرات في عناصر البيئة الخارجية التالية لمنشأتكم وذلك خلال الثلاث السنوات الماضية؟

(حيث أن: مهم للغاية = **1**، مهم = **2**، متوسط الأهمية = **3**، غير مهم = **4**، غير مهم إطلاقاً = **5**)

					عناصر البيئة الخارجية
5	4	3	2	1	تغير أذواق العملاء واحتياجاتهم
5	4	3	2	1	اشتداد المنافسة بين المنافسين الحاليين
5	4	3	2	1	قوة الموردين وضغطهم على المنشأة
5	4	3	2	1	دخول منافسين جدد في مجال نشاط المنشأة
5	4	3	2	1	ظهور سلع وخدمات بديلة لما تنتجه منشأتكم
5	4	3	2	1	البيئة التقنية (التطورات التقنية في مجال التصنيع، تقنيات الحاسب وتطبيقاته..)
5	4	3	2	1	الوضع السياسي (سياسات الدولة الخارجية والعسكرية، الاستقرار الأمني..)
5	4	3	2	1	البيئة الاقتصادية (سعر البترول، دخل الفرد ، سعر صرف العملة، معدل البطالة..)
5	4	3	2	1	البيئة الاجتماعية والديموغرافية (العادات والتقاليد، التركيبة السكانية، ...)
5	4	3	2	1	البيئة الحكومية (الأنظمة والقوانين، التشريعات الحكومية،..)
5	4	3	2	1	أخرى (أرجو ذكرها)

11. ما مدى أهمية تأثير التغيرات البيئية بشكل عام على منشأتكم خلال الثلاث السنوات الماضية؟

غير مهم إطلاقاً	غير مهم	متوسط الأهمية	مهم	مهم للغاية
5	4	3	2	1

12. إلى اي مدى ترون ان المعلومات التي قمتم بجمعها عن التغيرات البيئية خلال الثلاث سنوات الماضية **إفادتكم** في التعرف على الفرص والتهديدات في بيئة الأعمال التي تعملون فيها؟

غير مفيدة على الإطلاق	غير مفيدة	لا أدري	مفيدة	مفيدة جداً
5	4	3	2	1

13. تعمل المنشآت في بيئات تختلف في درجة تغيّرها، فهناك ما يتغيّر بسرعة وهناك ما يتغيّر بمعدلات محدوده كيف تصف معدل <u>التغيّر</u> لكل عنصر من عناصر البيئة الخارجية التالية لمنشأتكم خلال الثلاث سنوات الماضية؟

(حيث أن: مرتفع جداً = 1، مرتفع = 2، متوسط = 3، منخفض = 4، لايوجد أي تغيير = 5)

					عناصر البيئة الخارجية
5	4	3	2	1	تغير أذواق العملاء واحتياجاتهم
5	4	3	2	1	اشتداد المنافسة بين المنافسين الحاليين
5	4	3	2	1	قوة الموردين وضغطهم على المنشأة
5	4	3	2	1	دخول منافسين جدد في مجال نشاط المنشأة
5	4	3	2	1	ظهور سلع وخدمات بديلة لما تنتجه منشأتكم
5	4	3	2	1	البيئة التقنية (التطورات التقنية في مجال التصنيع، تقنيات الحاسب وتطبيقاته..)
5	4	3	2	1	الوضع السياسي (سياسات الدولة الخارجية والعسكرية، الاستقرار الأمني..)
5	4	3	2	1	البيئة الاقتصادية (سعر البترول، دخل الفرد ، سعر صرف العملة، معدل البطالة..)
5	4	3	2	1	البيئة الاجتماعية والديموغرافية (العادات والتقاليد، التركيبة السكانية، ...)
5	4	3	2	1	البيئة الحكومية (الأنظمة والقوانين، التشريعات الحكومية،..)
5	4	3	2	1	أخرى (أرجو ذكرها)

14. ما رأيك في معدل التغيّر الذي مرت به البيئة الخارجية **بشكل عام** للقطاع الذي تعملون فيه خلال الثلاث سنوات الماضية؟

لايوجد أي تغيير	منخفض	متوسط	مرتفع	مرتفع جداً
5	4	3	2	1

15. تعمل المنشآت في بيئات تختلف في درجة تعقدها. فهناك ما يعمل في بيئة تتنوع فيها القوى البيئية وترتبط المتغيرات بعضها البعض. كيف تصف مدى <u>التعقد</u> (تنوع القوى وارتباطها) لكلٍ من عناصر البيئة الخارجية التالية لمنشأتكم خلال الثلاث سنوات الماضية؟

(حيث أن: معقد للغاية = 1، معقد = 2، متوسط التعقد = 3، محدود التعقيد = 4، غير معقد على الإطلاق = 5)

					عناصر البيئة الخارجية
5	4	3	2	1	تغير أذواق العملاء واحتياجاتهم

5	4	3	2	1	عناصر البيئة الخارجية
5	4	3	2	1	اشتداد المنافسة بين المنافسين الحاليين
5	4	3	2	1	قوة الموردين وضغطهم على المنشأة
5	4	3	2	1	دخول منافسين جدد في مجال نشاط المنشأة
5	4	3	2	1	ظهور سلع وخدمات بديلة لما تنتجه منشأتكم
5	4	3	2	1	البيئة التقنية (التطورات التقنية في مجال التصنيع، تقنيات الحاسب وتطبيقاته..)
5	4	3	2	1	الوضع السياسي (سياسات الدولة الخارجية والعسكرية، الاستقرار الأمني..)
5	4	3	2	1	البيئة الاقتصادية (سعر البترول، دخل الفرد ، سعر صرف العملة، معدل البطالة..)
5	4	3	2	1	البيئة الاجتماعية والديموغرافية (العادات والتقاليد، التركيبة السكانية، ...)
5	4	3	2	1	البيئة الحكومية (الأنظمة والقوانين، التشريعات الحكومية،..)
5	4	3	2	1	أخرى (أرجو ذكرها)

16.   كيف تصف درجة التعقد بشكلٍ عام لبيئة الأعمال التي تعمل فيها منشأتكم خلال الثلاث سنوات الماضية؟

غير معقد على الإطلاق	محدود التعقيد	متوسط التعقيد	معقد	معقد للغاية
5	4	3	2	1

الجزء الرابع: أسئلة تقيس محتوى وتكرار جمع المعلومات البيئية

17. إلى أي مدى يثير اهتمامك ويسترعي انتباهك كل عنصر من عناصر البيئة الخارجية التالية؟
(حيث أن : تُثير اهتمامي بشكل يومي = 1،   بشكل أسبوعي = 2، بشكل شهري = 3،   عدة مرات في السنة = 4،   لا تُثير اهتمامي أبداً = 5)

5	4	3	2	1	عناصر البيئة الخارجية
5	4	3	2	1	تغير أذواق العملاء واحتياجاتهم
5	4	3	2	1	اشتداد المنافسة بين المنافسين الحاليين
5	4	3	2	1	قوة الموردين وضغطهم على المنشأة
5	4	3	2	1	دخول منافسين جدد في مجال نشاط المنشأة
5	4	3	2	1	ظهور سلع وخدمات بديلة لما تنتجه منشأتكم
5	4	3	2	1	البيئة التقنية (التطورات التقنية في مجال التصنيع، تقنيات الحاسب وتطبيقاته..)
5	4	3	2	1	الوضع السياسي (سياسات الدولة الخارجية والعسكرية، الاستقرار الأمني..)
5	4	3	2	1	البيئة الاقتصادية (سعر البترول، دخل الفرد ، سعر صرف العملة، معدل البطالة..)
5	4	3	2	1	البيئة الاجتماعية والديموغرافية (العادات والتقاليد، التركيبة السكانية، ...)

					عناصر البيئة الخارجية
5	4	3	2	1	البيئة الحكومية (الأنظمة والقوانين، التشريعات الحكومية،..)
5	4	3	2	1	أخرى (أرجو ذكرها)

18. إلى أي مدى تتابع ما يستجد من تطورات حول العناصر البيئية التالية؟

(حيث أن: متابعة مستمرة = **1**، متابعة بدرجة كبيرة = **2**، متابعة متوسطة = **3**، متابعة محدودة ونادرة = **4**   لا أتابع مطلقاً = **5**)

					عناصر البيئة الخارجية
5	4	3	2	1	تغير أذواق العملاء واحتياجاتهم
5	4	3	2	1	اشتداد المنافسة بين المنافسين الحاليين
5	4	3	2	1	قوة الموردين وضغطهم على المنشأة
5	4	3	2	1	دخول منافسين جدد في مجال نشاط المنشأة
5	4	3	2	1	ظهور سلع وخدمات بديلة لما تنتجه منشأتكم
5	4	3	2	1	البيئة التقنية (التطورات التقنية في مجال التصنيع، تقنيات الحاسب وتطبيقاته..)
5	4	3	2	1	الوضع السياسي (سياسات الدولة الخارجية والعسكرية، الاستقرار الأمني..)
5	4	3	2	1	البيئة الاقتصادية (سعر البترول، دخل الفرد ، سعر صرف العملة، معدل البطالة..)
5	4	3	2	1	البيئة الاجتماعية والديموغرافية (العادات والتقاليد، التركيبة السكانية، ...)
5	4	3	2	1	البيئة الحكومية (الأنظمة والقوانين، التشريعات الحكومية،..)
5	4	3	2	1	أخرى (أرجو ذكرها)

الجزء الخامس: أسئلة تقيس بعض الممارسات المتعلقة بجمع المعلومات البيئية

19. هناك عدة ممارسات قد تتبناها المنشآت فيما يتعلق بالبحث والتحليل البيئي.   ما مدى مطابقة الممارسات التالية لواقع منشأتكم؟

(حيث أن: مطابقة تماماً = **1**، مطابقة إلى حدٍ كبير = **2**، مطابقة إلى حدٍ متوسط = **3**، مطابقة بشكلٍ محدود = **4**، غير مطابقة أبداً = **5**)

					الممارسات التي تقوم بها المنشأة
					ثانياً: وسائل الاتصال
5	4	3	2	1	يتم استخدام الاتصال المباشر بين الأفراد داخل المنشأة لتبادل المعلومات البيئية كاالاجتماعات، الاتصالات الهاتفية.. الخ
5	4	3	2	1	يتم استخدام البريد الالكتروني لتبادل المعلومات البيئية.

5	4	3	2	1	يتم استخدام التقارير الداخلية لتبادل المعلومات البيئية.

ثالثاً: وسائل حفظ المعلومات

5	4	3	2	1	يتم استخدام نظم قواعد البيانات الخاصة بالمنشأة لحفظ المعلومات البيئية.
5	4	3	2	1	يتم استخدام النظام الأرشيفي واليدوي لحفظ المعلومات البيئية.

رابعاً: طرق تحليل المعلومات البيئية

5	4	3	2	1	يتم استخدام برامج الحاسب الإحصائية والتحليلية في تحليل المعلومات البيئية.
5	4	3	2	1	يتم استخدام وسائل التحليل الوصفية، على سبيل المثال دلفي، بناء السناريو.. الخ
5	4	3	2	1	الاعتماد على خبرة المدراء التنفيذيين وتقديرهم وحكمهم الشخصي في تحليل المعلومات البيئية.

خامساً: مسؤولية جمع المعلومات من البيئة الخارجية

5	4	3	2	1	يقوم المدراء العامون بالدور الرئيسي في جمع المعلومات من بيئة المنشأة الخارجية.
5	4	3	2	1	يقوم نواب المدراء العامين بالدور الرئيسي في جمع المعلومات من بيئة المنشأة الخارجية.
5	4	3	2	1	يقوم رؤساء الأقسام بالدور الرئيسي في جمع المعلومات من بيئة المنشأة الخارجية.
5	4	3	2	1	يقوم رؤساء الوحدات الفرعية داخل الأقسام بالدور الرئيسي في جمع المعلومات من بيئة المنشأة الخارجية.
5	4	3	2	1	تقوم إدارة التخطيط بالدور الرئيسي في جمع المعلومات من بيئة المنشأة الخارجية.

سادساً: طرق مختلفة للبحث البيئي

5	4	3	2	1	يتم البحث عن التغيرات البيئية *بشكل غير منتظم*، وذلك من خلال متابعة الإحداث المفاجأة وغير المتوقعة في البيئة الخارجية مع التركيز على المعلومات التي تخدم المنشأة في المدى القصير.
5	4	3	2	1	يتم البحث عن التغيرات البيئية **بشكل منتظم**، وذلك من خلال متابعة التغيرات في البيئة الخارجية بشكل دوري عن طريق التركيز على عدد من المؤثرات الخارجية التي يتم تحديدها واختيارها مسبقاً.
5	4	3	2	1	يتم البحث عن التغيرات البيئية **بشكل مستمر**، وذلك بمراجعة ومتابعة التغيرات في البيئة الخارجية بشكل شامل من أجل تحديد الفرص و المخاطر.

الجزء السادس: أسئلة تقيس مصادر المعلومات

20. هناك عدة مصادر يتم استخدامها للحصول على المعلومات المتعلقة بالتغيرات البيئية. مامدى استخدام منشأتكم لمصادر المعلومات التالية من أجل التعرف على التغيرات في بيئة المنشأة الخارجية؟
(حيث أن: يومياً = 1، أسبوعياً = 2، شهرياً = 3، سنوياً = 4، لاستخدم أبداً = 5)

					مصادر المعلومات
5	4	3	2	1	العملاء
5	4	3	2	1	المنافسون
5	4	3	2	1	الشركاء المهنيون وشركاء الأعمال كالممولين والموردين
5	4	3	2	1	المسؤولون الحكوميون
5	4	3	2	1	الأقارب والأصدقاء
5	4	3	2	1	الصحف والمجلات المحلية والعربية

5	4	3	2	1	مصادر المعلومات
5	4	3	2	1	الصحف والمجلات الأجنبية
5	4	3	2	1	الإذاعة والتلفزيون
5	4	3	2	1	الغرف التجارية والصناعية والروابط المهنية
5	4	3	2	1	المعارض التجارية ورحلات العمل
5	4	3	2	1	الإنترنت (المواقع المتعددة والبريد الإلكتروني... الخ)
5	4	3	2	1	الإصدارات والتقارير والوثائق الحكومية
5	4	3	2	1	أعضاء مجلس الإدارة
5	4	3	2	1	مرؤوسيك من المديرين
5	4	3	2	1	مرؤوسيك من الموظفين
5	4	3	2	1	المذكرات والنشرات الداخلية
5	4	3	2	1	المطبوعات والتقارير والدراسات الصادرة من المنشأة
5	4	3	2	1	أخرى (أرجو ذكرها)

الجزء السابع: اسئلة تقيس مجالات الاستفادة من المعلومات البيئية

21. ما مدى استخدامكم للمعلومات عن المتغيرات البيئية في المجالات التالية؟

(حيث أن: دائماً = 1   أحياناً = 2   بعض الأوقات = 3   نادراً = 4   أبداً = 5)

5	4	3	2	1	العمل على تطوير المنشأة، وذلك من خلال الدخول في أنشطة جديدة، تحديث البناء التنظيمي، الاستحواذ على منشأة أخرى، برامج العلاقات العامة، مشاريع تطوير الحاسب الآلي وغيرها
5	4	3	2	1	العمل على تحديد وتخصيص الموارد بما في ذلك، تخصيص بنود الميزانية، تحديد أهداف معينة، توزيع العمل، توظيف الموارد وغيرها
5	4	3	2	1	مواجهة الأحداث المفاجأة ومعالجتها، مثل فقد عميل أو مورد كبير، خلاف مع منشأة أخرى، انقطاع مصدر أساسي للتوريد وغيرها
5	4	3	2	1	التفاوض مع أفراد ومنشآت خارجيين بشأن وضع المنشأة، على سبيل المثال الاتفاق على بنود عقد معين
5	4	3	2	1	أخرى (أرجو ذكرها)

٢٢. هل يوجد في منشأتكم إدارة مستقلة أو أفراد مخصصين لمتابعة التغيرات في البيئة الخارجية وجمع المعلومات عن المؤثرات الخارجية؟ **نعم** ———— **لا** ———— (ما هو اسم هذه الإدارة؟ ———————— ، كم عدد الأفراد اللذين يعملون في هذه الإدارة؟ ————)

٢٣. هل تود مناقشة هذا الموضوع بشكل أوسع وأكثر تفصيلاً وذلك من خلال إجراء مقابلة شخصية مع سعادتكم؟

نعم ———— لا ———— (إذا كانت الإجابة بنعـم أرجو كتابة البيانات التالية:

الاسم ————————————— ، رقم الهاتف —————————————

أرجو في حالة رغبة سعادتكم في حضور محاضرة البحث والتحليل البيئي في الغرفة التجارية والصناعية بالمنطقة الشرقية إرسال فاكس يتضمن اسم سعادتكم ورقم الهاتف والعنوان، علماً بان موعد المحاضرة سيحدد لاحقاً. رقم الفاكس: 035800215 ، عناية " محمد الشقاوي"

شكراً جزيلا على الإجابة على هذه الاستبانة ويمكن الاطلاع على مزيد من المعلومات عن موضوع البحث وذلك من خلال موقع البحث على الإنترنت وذلك على العنوان التالي: www.st-and.ac.uk/~ma24

Appendix C: The English Version of the Cover Letters

KINGDOM OF SAUDI ARABIA

Ministry of Higher Education

KING FAISAL UNIVERSITY

المملكة العربية السعودية
وزارة التعليم العالي
جامعة الملك فيصل

المرفقات :   التاريخ :   الرقم :

6 October 2001

Mr. Homoud Alsaleh
The General Manager
Nahil Computer Company
P. O. Box 59205
Riyadh, 11525

Dear Mr. Alsaleh

I am a Doctoral candidate in the Department of Management, at the University of St Andrews. The aim of my research is to explore how top-level executives in the Saudi business community identify changes in their business environment and how they collect and use strategic information.

Events, trends, forces and relationships in the external environment can have a powerful influence over firms' future activities and success. A firm's success depends on the ability of its strategic decision-makers to accurately predict and respond to changes in the external environment. Attached to this letter you will find a survey designed to collect data on environmental scanning practices in the Saudi private sector. It is easy to complete and requires about twenty minutes of your time. Your assistance is essential to the success of this project and I would be most grateful if you could complete the survey and return it to me in the enclosed envelope. In return for your valuable time I will provide you with 1) a summary of the survey findings pertinent to your company and 2) an invitation to attend, free of charge, a seminar on Environmental Scanning at Eastern province chamber of commerce.

All the information that you will contribute will remain **STRICTLY CONFIDENTIAL**. Participants' names and the names of their organizations will not be used. Data collected will be analysed to produce aggregate statistics only.

Thank you for your assistance.

Yours sincerely,

Mohammed Alshagawi

Address: P.O. Box 252
Alhassa, 31982
Phone: 035800215
Mobile: 055915283
Email: ma24@st-and.ac.uk

مطبعة جامعة الملك فيصل بالا

الأحساء - ص. ب. ٤٠٠ - تلكس ٨٦١٠٢٩ فيصل أس جي - تلفون ٥٨٠٠٠٠٠ فاكس ٥٨٠١٢٤٣ الدمام ص ب ١٩٨٢ تلكس ٨٧١٣٠٢ فيصل اس جي - تلفون ٨٥٧٧٠٠٠ - فاكس ٨٥٧٨٠٤٨

Al-Ahsa, P. O. Box 400 Telex 861028 Faisal S. J Tel 5800000- Fax 5801243 - Dammam, P O Box 1982 Telex 870020 Faisal S. J. Tel. 8577000 - Fax 8578048

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KINGDOM OF SAUDI ARABIA

Ministry of Higher Education

KING FAISAL UNIVERSITY

الملكة العربية السعودية
وزارة التعليم العالي
جامعة الملك فيصل

المرفقات :	التاريخ :	الرقم :

4 November 2001

Mr. Homoud Alsaleh
Nahil Computer Company
P.O. Box 59205
Riyadh, 11525

Dear Mr. Alsaleh,

About four weeks ago, I wrote to you seeking you participation in a survey designed to collect data on environmental scanning practices in the Saudi private sector. The aim of the research is to explore how top-level executives in the Saudi business community identify changes in their business environment and how they collect and use strategic information.

If you have already completed and returned the survey please accept my sincere thanks. If not, could you please complete and return the attached survey. It is easy to complete and requires about twenty minutes of your time. Your assistance is essential to the success of this project. I will provide you with 1) a summary of the survey findings pertinent to your company and 2) an invitation to attend free of charge, a seminar on Environmental Scanning at the Eastern province chamber of commerce.

Thank you for considering my request.

Your sincerely,

Mohammed Alshagawi

Address: P. O. Box 252
Alhassa, 31982
Phone: 035800215
Mobile: 055915283
Email: ma24@st-and.ac.uk

مطبعة جامعة الملك فيصل بالا

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وزارة التعليم العالي
جامعة الملك فيصل

المرفقات :	التاريخ :	الرقم :

18 November 2001

Mr. Homoud Alsaleh
Nahil Computer Company
P.O. Box 59205
Riyadh, 11525

Dear Mr. Alsaleh,

Six weeks ago, I wrote to you seeking you participation in a survey designed to collect data on environmental scanning practices in the Saudi private sector. The aim of the research is to explore how top-level executives in the Saudi business community identify changes in their business environment and how they collect and use strategic information.

If you have already completed and returned the survey please accept my sincere thanks. If not, could you please complete and return the attached survey. It is easy to complete and requires about twenty minutes of your time. Your assistance is essential to the success of this project. I will provide you with 1) a summary of the survey findings pertinent to your company and 2) an invitation to attend free of charge, a seminar on Environmental Scanning the at Eastern province chamber of commerce.

Thank you for considering my request.

Yours sincerely,

Mohammed Alshagawi

Address: P. O. Box 252
Alhassa, 31982
Phone: 035800215
Mobile: 055915283
Email: ma24@st-and.ac.uk

مطبعة جامعة الملك فيصل بالأ

الأحساء - ص. ب. ٤٠٠ - تلكس ٨٦١٠٢٩ فيصل اس جي - تلفون ٥٨٠٠٠٠٠ فاكس ٥٨٠١٢٤٣ الدمام ص ب ١٩٨٢ تلكس ٨٧١٣٠٢ فيصل اس جي - تلفون ٥٨٧٧٠٠٠ - فاكس ٥٨٧٨٠٤٨
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Appendix D: The Arabic Version of the Cover Letters

KINGDOM OF SAUDI ARABIA

Ministry of Higher Education

KING FAISAL UNIVERSITY

المملكة العربية السعودية

وزارة التعليم العالي

جامعة الملك فيصل

المرفقات :	التاريخ :	الرقم :

6 أكتوير 2001

شركة النهل للكمبيوتر

ص.ب. 59205

الرياض، 11525

سعادة الأستاذ حمود الصالح المدير العام   المحترم

السلام عليكم ورحمة الله وبركاته وبعد

أهدي لكم التحية متمنياً لكم التوفيق ولمنشأتكم النجاح. وأفيدكم أنني مبتعث من جامعة الملك فيصل لنيـل درجــة الدكتوراه في إدارة الأعمال من جامعة سانت أندروز بالمملكة المتحدة. ولقد اخترت تحليل التغيرات البيئية موضوعاً لرسالة الدكتوراه.

لايخفى عليكم التغير الهائل والسريع في القوى البيئية المختلفة (من قوى اقتصـادية واجتماعية وتغيـرات فـي التركيبة السكانية ومعرفة أذواق العملاء وتحركات المنافسين والتطورات التقنية الخ..) والتي ربما لم تشهد البشرية لها مثيل. إن لهذه التغيرات تأثير كبيراً على مقدرة المنشآت على النجاح والاستمرار.

وبناءً عليه أرفق لكم استبيان يحاول قياس واقع التحليل والبحث البيئي في القطاع الخاص السعودي، مؤكـداً أن مساهمتكم في تعبئة الاستبيان سيكون لها تأثير على نجاح البحث. تعبئة الاستبيان لن تستغرق أكثر مــن عشـرين دقيقة. وأفيدكم أنني ساقوم بالعمل على رد جزء من جميلكم من خلال 1) إرسال نسخة من نتائج البحث لكل مجيـب 2) و اتاحة الفرصة لكم لحضور محاضرة حول موضوع البحث والتحليل البيئي بالمشاركة مـع الغرفـة التجاريـة والصناعية بالمنطقة الشرقية.

ونظراً لضيق الوقت المتاح لي لإتمام هذا الجزء من البحث في المملكة، لذا ساكون شاكراً لو تكرمتم بسرعة الإجابة على الاستبيان وإعادته إلينا في الظرف المرفق. أخيراً أود التوضيح على أن جميع المعلومات التي سوف تساهمون بها سوف تعامل بسرية تامة. ولن تستخدم لغير غرض البحث العلمي.

وتقبلــــوا خالـــــص التحية والتقدير، شاكراً لكم حسن تعاونكم،،

الباحث

محمد بن ناصر الشقاوي

العنوان: ص.ب. 252 ، الأحساء 31982

تلفون وفاكس 035800215، جوّال 055915283

البريد الالكتروني: ma24@st-and.ac.uk

موقع البحث على الانترنت: www.st-and.ac.uk/~ma24

مطبعة جامعة الملك فيصل بالأ

الأحساء - ص. ب. ٤٠٠ - تلكس ٨٦١٠٢٩ فيصل أس جي - تلغون ٥٨٠٠٠٠٠ فاكس ٥٨٠١٢٤٣ الدمام ص ب ١٩٨٢ تلكس ٨٧١٣٠٢ فيصل أس جي - تلفون ٨٥٧٧٠٠٠ - فاكس ٨٥٧٨٠٤٨

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KINGDOM OF SAUDI ARABIA

Ministry of Higher Education

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المملكة العربية السعودية
وزارة التعليم العالي
جامعة الملك فيصل

المرفقات :	التاريخ :	الرقم :

4 نوفمبر 2001
شركة النهل للكمبيوتر
ص.ب. 59205
الرياض، 11525

سعادة الأستاذ حمود الصالح المدير العام   المحترم

السلام عليكم ورحمة الله وبركاته وبعد

أهدي لكم التحية متمنياً لكم التوفيق ولمنشأتكم النجاح. قبل أربعة أسابيع تقريباً قمت بإرسال استبيان يحاول قياس واقع التحليل والبحث البيئي في القطاع الخاص السعودي كجزء من رسالة الدكتوراة والتي أقوم بالاعداد لها في أحد الجامعات البريطانية.

وبما أنني لم أستقبل من سعادتكم أي رد، وحيث أن مساهمتكم في تعبئة الاستبيان سيكون لها تأثير على نجاح البحث فأرفق مرة أخرى نسخة جديدة من الاستبيان راجياً من سعادتكم سرعة الإجابة علية.

تعبئة الاستبيان لن تستغرق أكثر من عشرين دقيقة. وأفيدكم أنني سأقوم بالعمل على رد جزء من جميلكم من خلال 1) إرسال نسخة من نتائج البحث لكل مجيب 2) و اتاحة الفرصة لكم لحضور محاضرة حول موضوع البحث والتحليل البيئي بالمشاركة مع الغرفة التجارية والصناعية بالمنطقة الشرقية.

إن كنتم قمتم بالرد على الخطاب السابق وإرسالة فأود أن يكون هذا الخطاب بمثابة شكر لكم على تجاوبكم.

وتقبلوا خالـــص التحية والتقدير، شاكراً لكم حسن تعاونكم،،

الباحث

محمد بن ناصر الشقاوي

العنوان: ص.ب. 252 ، الأحساء 31982

تلفون وفاكس   035800215 جوّال 055915283

البريد الالكتروني: ma24@st-and.ac.uk
موقع البحث على الانترنت: www.st-and.ac.uk/~ma24

مطبعة جامعة الملك فيصل بالأ

الأحساء - ص.ب. 400 - تلكس 861029 فيصل أس جي - تلفون 5800000 - فاكس 5801243 الدمام ص ب 1982 تلكس 870020 فيصل أس جي تلفون 8577000 - فاكس 8578048
Al-Ahsa, P. O. Box 400 Telex 861028 Faisal S. J Tel 5800000- Fax 5801243 - Dammam, P O Box 1982 Telex 870020 Faisal S. J Tel. 8577000 - Fax 8578048

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المملكة العربية السعودية

وزارة التعليم العالي

جامعة الملك فيصل

المرفقات :	التاريخ :	الرقم :

18 نوفمبر 2001

شركة النهل للكمبيوتر

ص.ب. 59205

الرياض، 11525

سعادة الأستاذ حمود الصالح المدير العام   المحترم

السلام عليكم ورحمة الله وبركاته وبعد

أهدي لكم التحية متمنياً لكم التوفيق ولمنشأتكم النجاح. قبل ستة أسابيع تقريباً قمت بإرسال استبيان يحاول قياس واقع التحليل والبحث البيئي في القطاع الخاص السعودي كجزء من رسالة الدكتوراة والتي أقوم بالاعداد لها في أحد الجامعات البريطانية.

وبما أنني لم أستقبل من سعادتكم أي رد، وحيث أن مساهمتكم في تعبئة الاستبيان سيكون لها تأثير على نجاح البحث فأرفق مرة أخرى نسخة جديدة من الاستبيان راجياً من سعادتكم سرعة الإجابة علية.

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إن كنتم قمتم بالرد على الخطاب السابق وإرسالة فأود أن يكون هذا الخطاب بمثابة شكر لكم على تجاوبكم.

وتقبـــلوا خالـــــص التحية والتقدير، شاكراً لكم حسن تعاونكم،،

الباحث

محمد بن ناصر الشقاوي

العنوان: ص.ب. 252 ، الأحساء 31982

تلفون وفاكس   035800215، جوّال 055915283

البريد الالكتروني: ma24@st-and.ac.uk

موقع البحث على الانترنت: www.st-and.ac.uk/~ma24

مطبعة جامعة الملك فيصل با!

الأحساء - ص. ب. ٤٠٠ - تلكس ٨٦١٠٢٩ فيصل اس جي - تلفون ٥٨٠٠٠٠٠ فاكس ٥٨٠١٢٤٣ الدمام ص ب ١٩٨٢ تلكس ٨٧١٣٠٢ فيصل اس جي - تلفون ٨٥٧٧٠٠٠ - فاكس ٨٥٧٨٠٤٨

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References

The Holy Quran. Ali, A. Y. (1990). *The Holy Quran: Text, Translation and Commentary*. Birmingham: Islamic Propagation Centre International.

Aaker, D. (1983). Organizing a Strategic Information Scanning System. *California Management Review, 25*(2), 76-83.

Abdel-halim, A. A., & Al-Tuhaih, S. M. (1989). In Search of a New Form of Management: The Case of the Joint Sector in Kuwait. *International Studies of Management and Organisation, 19*(2), 38-57.

Abdul-Gader, A. H. (1996). Usage Pattern and Productivity Impact of Computer-Mediated Communication in Developing Countries: An Exploratory Study. *International Journal of Information Management, 10*(1), 39-49.

Abdul-Gader, A. H. (1997). Information Systems Strategies for Multinational Companies in the Arab Gulf Countries. *International Journal of Information Management, 17*(1), 3-12.

Adams, G., & Schvaneveldt, J. (1991). *Understanding Research Methods* (2nd ed.). New York, NY: Longman.

Adegbite, O. (1986). Planning in Nigerian Business. *Long Range Planning, 19*(August), 98-103.

Agor, W. H. (1989). The Logic of Intuition: How Top Executives Make Important Decisions. In W. H. Agor (Ed.), *Intuition in Organisations: Leading and Managing Productivity* (pp. 157-170). Newbury CA: Sage.

Aguilar, F. J. (1967). *Scanning the Business Environment*. New York, NY: Macmillan Co.

Al-Aali, A. (1995). Obstacles Facing Saudi Arabian Food and Chemical Exporters. *International Journal of Commerce and Management, 3*, 17-31.

Alarfaj, A. H. (1996). *Acquisitions and Mergers in Saudi Arabia: Reasons and Effects*. Unpublished Ph.D. Theses, University of St. Andrews, St Andrews.

Al-Baqami, M. (2001, 8 January). Manpower Fund Approves New Schemes to Create Jobs. *Arab News,* pp. 6.

Al-Baqami, M. (2002, 7 January 2002). Dramatic Jump in Inflow of Foreign Capital. *Arab News,* pp. 6.

AlDoghan, M. (2001). An Investigation into the Effectiveness of Management Training and Development in the Saudi Government Sector and Selected Public Corporation. Unpublished Ph.D., University of Bradford, Bradford.

Aldrich, H. E. (1979). *Organizations and Environments.* Englewood Cliffs, NJ: Prentice-Hall.

Alfalah, K. A. (2002). *An Empirical Study of World-Class Manufacturing Implementation.* Unpublished Ph.D., University of Bradford, Bradford.

Al-Faleh, M. (1987). Cultural Influences on Arab Management Development: A Case Study of Jordan. *Journal of Management Development, 6*(3), 19-33.

Al-Farsi, F. (1990). *Modernity and Tradition: The Saudi Equation* (1st ed.). London: Kegan Paul International Ltd.

Al-Furaih, I. (2002). *The Actual Situation Evaluation to the Internet Service in Saudi Arabia* [World Wide Web]. King Abdulaziz City for Science and Technology; Internet Services Unit. Retrieved April 15, 2002, from the World Wide Web: http://www.isu.net.sa/newsite/Library/Internet%20Status-Mars-2002.pdf

Al-Fwzan, A. (2001, February 19). The Left over Report. *Alwatan,* pp. 14.

Al-Fwzan, R. (2002, March 21). The Invitation to Attract the External Saudi Investments is not Always Positive One. *Alriyadh,* pp. 14.

Al-Ghafis, A. (1999). *The Future Direction of Vocational Education and Training in the Gulf Region.* Paper presented at the V.E.T. 99 Conference, Dubai, UAE.

Alhajji, A. F. (2000, June). Investment in Saudi Arabia Needs Patience and More Patience. *World Oil.*

Alhayat. (2002, March 14 2002). The influence of September 11 on The Investment Movement in The Saudi Arabia. *Alhayat,* pp. 11.

374

Al-Humaid, A. (2002, 23 March). Our Accumulative Problems: What the Value of Planning Without an Execution. *Alriyadh*, pp. 9.

Ali, A. J. (1985). Managerial Value Systems for Working in Saudi Arabia: An Empirical Investigation. *Group and Organisation Studies, 10*(2), 135-151.

Ali, A. J. (1988). A Cross-National Perspective of Managerial Work Value Systems. *Advance in International Comparative Management, 3*, 151-169.

Ali, A. J. (1989). Decision Style and Work Satisfaction Of Arab Gulf Executives: A Cross-National Study. *International Journal of management and organisation, 19*(2), 22-37.

Ali, A. J. (1995). Cultural Discontinuity and Arab Management Thought. *International Studies of Management and Organisation, 25*(3), 7-30.

Ali, A. J., & Camp, R. C. (1995). Teaching Management in the Arab World: Confronting Illusions. *International Journal of Educational Management, 9*(2), 10-17.

Ali, A. J., Krishnan, K., & Azim, A. (1997). Expatriate and Indigenous Managers' Work Loyalty and Attitude toward Risk. *The Journal of Psychology, 131*(3), 260-270.

Ali, A. J., & Shakis, M. (1991). Changing Managerial Values in Saudi Arabia. In R. Farmer & E. McGoun (Eds.), *Advances in International Comparative Management* (Vol. 6, pp. 81-102).

Al-kathiri, M. (1999, 31 August 1999). Why Do We Need A Supreme Economic Council?, pp. 14.

Al-kathiri, M., & Al-awadh, M. (1998). *The Extent of Unambiguity of Strategic Management Concepts in Saudi Companies.* Paper presented at the Conference On Administrative Sciences: New Horizon and Roles in Development, Dhahran, Saudi Arabia.

Allen, R. (2000a, June 23). More and More Saudis Find Fewer and Fewer Jobs: Riyadh's Royal Family is Alarmed by the Spectre of Mass Unemployment Among Youth. *The Financial Times*, pp. 14.

Allen, R. (2000b, December 20). Saudi Budget Focuses on Job Creation Schemes. *The Financial Times*, pp. 12.

Allen, T. J. (1977). *Managing the Flow of Technology: Technology Transfer and the Dissemination of Technological Information within the R&D Organisation*. Cambridge, Mass.: MIT Press.

Almalik, S. (1989). Strategic Decision Makers: A Study of Business and Government Top Executives in Saudi Arabia Unpublished PhD These, Georgia State University, Atlanta.

Al-Mulhem, S. A. (2001). The Transferability and the Applicability of Marketing Know-How to Developing Countries: An Empirical Study in the Saudi Manufacturing Sector. Unpublished Ph.D., University of St Andrews, St Andrews.

Al-Mutrif, A.-M. (2001, May 19). $25b Gas Initiative is a Dream Come True. *Arab News*, pp. 7.

Alreck, P. L., & Settle, R. B. (1985). *The Survey Research Handbook*. Homewood, Illinois: Richard D. Irwin, Inc.,.

Alriyadh. (2000, 10 October 2000). Council of Minister Decided to Change the Prices of the Electricity. *Alriyadh*, pp. 1.

Al-Saed, M. (2001, April 29). KACST to Block 200,000 New Internet Sites. *Arab News*, pp. 9.

Al-Sahlawi, K. (1997). The Role of Industrial Development Banks in Financing and Promoting Technological Change. Unpublished Ph.D., University of Wales at Bangor, Bangor.

Al-Saleh, M. A. (1994). A Study of the Foreign Investment Regulation in the Kingdom of Saudi Arabia: Low and Policy. Unpublished Ph.D., University of Warwick, Warwick.

Al-Shaikh, S. A. (2000). The Economic Outlook for the year 2000: Demographic Transitions in Saudi Arabia and their Impact on Economic Growth and the Labor Market. Jeddah: National Commercial Bank.

Alshoaibi, A. A. (1998). *The Impact of Information Technology on Organisations: The Case of Saudi Arabia*. Unpublished Ph.D., St Andrews University, St Andrews.

376

Al-Yassini. (1985). Religion and State in the Kingdom of Saudi Arabia. Boulder: Westview Press.

Al-Zamel, K. M. (1993). *The Need for Marketing Training in Saudi Arabia – An Overview*. Paper presented at the Sixth Bi-Annual World Marketing Congress, Istanbul.

Al-Zobidy, O. (2001, May 19). Eight Firms Chosen to Develop Gas Fields. *Arab News*, pp. 1.

Al-Zobidy, O. (2002a, April 16). Cabinet Takes Steps to Curb Unemployment. *Arab News*, pp. 1.

Al-Zobidy, O. (2002b, April 10). Investment Law Set to Undergo Radical Changes. *Arab News*, pp. 18.

Analoui, F. (2000). What Motivates Senior Managers? The Case of Romania. *Journal of Managerial Psychology, 15*(4), 324-329.

Analoui, F., & Karami, A. (2002). How Chief Executives' Perception of the Environment Impacts on Company Performance. *Management Development, 21*(4), 290-305.

Anastos, D., Bedos, A., & Seaman, B. (1980). The Development of Modern Management Practices in Saudi Arabia. *Columbia Journal of World Business, 15*(Summer), 81-92.

Andrews, K. (1991). The Concept of Corporate Strategy. In H. Mintzberg & J. B. Quinn (Eds.), *The Strategy Process: Concepts, Contexts, Cases* (2nd ed.). Englewood Cliffs, N.J.: Prentice Hall.

An-Nawawi, A. Z. Y. *Riyad-us-Saliheen* [World Wide Web]. Wponline.org. Retrieved August 22, 2003, from the World Wide Web: http://www.wponline.org/vil/hadeeth/riyad/00/chap005.htm

Ansoff, H. I. (1965). *Corporate Strategy*. New York: NY: McGraw-Hill.

Ansoff, H. I., & McDonnell, E. J. (1990). *Implanting Strategic Management* (2nd ed.). New York; London: Prentice Hall.

Ansoff, I. H. (1991). Critique of Henry Mintzberg's the 'Design School': Reconsidering the Basic Premises of Strategic Management. *Strategic Management Journal, 12*(September), 449-461.

Arab News. (2001, 22 April 2001). Seven million expats send out SR70b a year. *Arab News*, pp. 2.

Arab News. (2002, 22 July 2001). Saudisation of Retail Trade Stepped Up. *Arab News*, pp. 1.

Asharq Al-Awsat. (2001, 13 November). The Establishment of The Regulatory Authority for The Power Sector Prepares the Climate for The Investment in The Sector. *Asharq Al-Awsat*, pp. 23.

Asharq Al-Awsat. (2003, May 29). A New Report Reveals a Striking Results about Applying IS in Saudi Firms. *Asharq Al-Awsat*, pp. 1.

Astley, W. G., & Van De Ven , A. H. (1983). Central Perspective and Debates in Organization. *Administrative Science Quarterly, 28*, 245-273.

At-Twaijri, M. I. (1989). A cross-Cultural Comparison of American-Saudi Managerial Values in US-Related Firms in Saudi Arabia: An Empirical Investigation. *International Studies of Management and Organization, 19*(2), 58-73.

Auster, E., & Choo, C. W. (1993). Environmental Scanning by CEOs in Tow Canadian Industries. *Journal of American Society For Information Science, 44*(4), 194-203.

Auster, E., & Choo, C. W. (1994). CEOs, Information, and Decision Making: Scanning the Environment for Strategic Advantage. *Library Trends 43, no. 2 (Fall 1994): 206-225., 43*(2), 206-225.

Ayubi, N. (1995). Over-Stating the Arab State: Politics and Society in the Middle East (1st ed.). London: I.B Tauris & Co Ltd.

Azzam, H. (1993). Saudi Arabia, Economic Trends, Business Environment and Investment Opportunities. London: Euromoney Books.

Azzam, H. (2001, June 10). Arab Banks Face Challenge of Online Banking. *Arab News*, pp. 14.

Babbar, S., & Rai, A. (1993). Competitive Intelligence for International Business. *Long Range Planning, 26*(3), 103-113.

Babbie, E. R. (1990). *Survey Research Method.* Belmont, CA: Wadsworth Publishing.

Badawy, M. K. (1980). Styles of Mideastern Managers. *California Management Review, 22*(2), 51-58.

Badri, M. A., Davis, D. L., & Davis, D. F. (1995). Decision Support for Global Marketing Strategies: the Effects of Country of Origin on Product Evaluation. *Journal of Product and Brand Management, 5*(49-64).

Ba-Isa, M. Y. (2001, June 24). Online Banking Gradually Becoming Popular. *Arab News,* pp. 6.

Bakr, M. A. (2001). A Model in Privatization: Successful Change Management in the Ports of Saudi Arabia (1st ed.). London: The London Center of Arab Studies.

Baldwin, N. S., & Rice, R. (1997). Information-seeking Behaviour of Securities Analysts: Individual and Institutional Influences, Information Sources and Channels, and Outcomes. *Journal of American Society for Information Science, 48*(8), 674-693.

Barney, J. B. (2002). *Gaining and Sustaining Competitive Advantage* (2nd ed.). Upper Saddle River, NJ: Prentice Hall.

Bashir, A. W. (2001). Women and Saudisation. *Arab News, pp. 12*

Bashir, A. W., & Hanware, K. (2001, April 17 2001). SAMBA Economist Sees Robust Non-oil Growth in Kingdom. *Arab News,* pp. 3.

BBC News. (2002, October 15 2003). *Saudi Bid for Foreign Investment* [World Wide Web]. BBC News. Retrieved 17 March, 2002, from the World Wide Web:http://news.bbc.co.uk/hi/english/business/newsid_1776000/1776036.stm

BBC News. (2003). *Saudi Stock Exchange Approved* [World Wide Web]. BBC News Web Site. Retrieved October 20, 2003, from the World Wide Web: http://news.bbc.co.uk/1/hi/business/2998086.stm

Beal, R. M. (2000). Competing Effectively: Environmental Scanning, Competitive Strategy and Organizational Performance in Small Manufacturing Firms. *Journal of Small Business Management, 38*(1), 27-47.

Bell, J. (1999). *Doing Your Research Project* (3rd ed.). Buckingham: Open University Press.

Benedict, R. (1992, 3 March). Oil Experts: Saudi Reforms Won't Erase Instability. *Oil Daily,* pp. 1-2.

Ben-Horim, M., & Levy, H. (1983). *Business Statistics: Fundamentals and Applications* (1st ed.). New York: Random House Business Division.

Bennett, R. (1997). Export Marketing and the Internet: Experience of Web Site Use and Perception among UK Business. *International Marketing Review, 14(5), pp.324-344., 14*(5), 324-344.

Boodai, B. M. (2001). *Factors Influencing Export Performance: The Case of Saudi Arabia.* Unpublished Ph.D., St Andrews, St Andrews.

Bourgeois, L. J. (1980). Strategy and Environment: A conceptual integration. *Academy of Management Review, 5*(1), 25-39.

Bourgeois, L. J. (1985). Strategic Goals, Environmental Uncertainty, and Economic Performance in Volatile Environments. *Academy of Management Journal, 28,* 548-573.

Bourland, B. (2000). *Samba Chief Economist: Saudi Arabia's New Foreign Investment Law* [World Wide Web]. Saudi American Bank. Retrieved August 14, 2002, from the World Wide Web: http://www.samba.com.sa/investment/economywatch/pdf/foreigninvlaw254.pdf

Boyd, B., & Fulk, J. (1996). Executive scanning and Perceived Uncertainty: A Multidimensional Model. *Journal of Management, 22*(1), 1-21.

Bryman, A. (1988). Quantity and Quality in Social Research. London: Routledge.

Bryman, A. (1989). *Research Methods and Organization Studies.* London: Unwin Hyman.

Burkhart, G. E., & Goodman, S. E. (1998). The Internet Gains Acceptance in the Persian Gulf. *Communications of the ACM, 41*(3), 19-24.

Burns, T., & Stalker, G. (1961). *The Management of Innovation*. London: Tavistock.

Burt, G., Wright, G., Bradfield, R., Cairn, G., & Van der Heijden, K. (2003, 12-13 June). *Limitations of PEST and its Derivatives to Understanding the Environment: The Role of Scenario Thinking in Identifying Environmental Discontinuities and Managing the Future*. Paper presented at the Workshop on Understanding Organisational Context, St Andrews.

Business Week. (2000, July). Saudi Arabia. (Saudi Economic Policy Changes Direction). *Business Week, July*, 70.

Butter, D. (2001, 23 November). Keeping Up the Momentum. *The Middle East Business Weekly, 45*, 4-5.

Byman, D. L., & Green, J. D. (1999). The Enigma of Political Stability in the Persian Gulf Monarchies. *Middle East Review of International Affair, 3*(3), 20-37.

Calof, J. (1993). The Mode Choice and Change Decision Process and its Impact on International Performance. *International Business Review, 2*(1), 97-119.

Carmines, E. G., & Zeller, R. A. (1979). *Reliability and Validity Assessment*. Beverley Hills, CA: Sage Publications.

Carter, R. (1996). *Information Technology Made Simple*: Butterworth-Heinemann, Oxford.

Chakravarthy, B. S. (1982). Adaptation: A Promising Metaphor for Strategic Management A. *Academy of Management Review, 7*(1), 35-44.

Champion, D. (1999). The Kingdom of Saudi Arabia: Elements of Instability within Stability. *Middle East Review of International Affair, Volume 3*(4), 49-73.

Chan, T. S. (1994). Developing International Managers: A Partnership Approach. *The Journal of Management Development, 13*(3), 38-46.

Chandler, M. J. (1962). Strategy and Structure: Chapters in History of the Industrial Enterprise. Cambridge, MA: MIT Press.

Child, J. (1972). Organisation, Structure, Environment and Performance: The Role of Strategic Choice. *Sociology, 6*(1), 1-22.

Chisnall, S. (1991). *The Essence of Marketing Research*. London: Hertfordshire: Prentice Hall International (UK) ltd.

Choo, C. (1993). Environmental Scanning: Acquisition and Use of Information be Chief Executives officers in the Canadian telecommunications industry. Unpublished Ph.D., University of Toronto, Toronto.

Choo, C. (1996). The Knowing Organization: How Organizations Use Information To Construct Meaning, Create Knowledge, and Make Decisions. *International Journal of Information Management, 16*(5), 329-340.

Choo, C. (1998). The Knowing Organization: How Organizations Use Information to Construct Meaning, Create Knowledge, and Make Decisions. New York, NY: Oxford University Press.

Choo, C. (1999). The Art of Scanning the Environment. *ASIS Bulletin, 25*(3).

Choo, C. (2000). Information Management for the Intelligent Organisation: the Art of Scanning the Environment. Medford, NJ: Information Today, Inc.

Choo, C. W., & Auster, E. (1993). Scanning the Business Environment: Acquisition and Use of Information by Managers. In M. E. Williams (Ed.), *Annual Review of Information Science and Technology* (Vol. 28). Medford, NJ: Learned Information, Inc.

Churchill, G. A. J. (1979). A Paradigm for Developing Better Measure of Marketing Constructs. *Journal of Marketing Research, 16*(February), 64-73.

Clark, D. N. (1997). Strategic Management Tool Usage: A Comparative Study. *Strategic Change, 6*(7), 417-427.

Clarke, I., & Mackaness, W. (2001). Management 'intuition': An Interpretive Account of Structure and Content of Decision Schemas Using Cognitive Maps. *Journal of management studies, 38*(2), 147-172.

Clover, V., & Balsley, H. (1984). *Business Research Methods* (3rd ed.).

Converse, J. M., & Presser, S. (1986). *Survey Questions: Handcrafting the Standardized Questionnaire*. Newbury Park: Sage Publications.

Cooper, D. R., & Schindler, P. S. (1998). *Business Research Methods* (6th ed.). Singapore: The McGraw- Hill.

Cooper, J. (1995). New Figures Clear a Path for Reform. *Middle East Economic Digest, 39*(44), 30-32.

Cooper, J. (1996). Putting the kingdom to work. *Middle East Economic Digest, 40*(14), 55-58.

Cordesman, A. H. (2001). *Saudi Arabia Enters The 21st Century: Politics and Internal Stability*. Washington, DC: Centre for Strategic and International Studies.

Crimp, M., & Wright, L. (1995). *The Marketing Research Process* (4th ed.). London: Prentice Hall.

Cronin, M. J. (1995). Doing More Business on the Internet: How the Electronic Highway is Transforming American Companies ([2nd] ed.). New York: Van Nostrand Reinhold.

Culnan, M. J. (1983). Environmental Scanning: The Effects of Task Complexity and Sources Accessibility on Information Gathering Behaviour. *Decision Sciences, 14*, 194-206.

Cyrert, R., & March, M. (1992). *A Behavioural Theory of the Firm* (2nd ed.). Englewood Cliffs, NJ: Prentice Hall.

Czaja, R., & Blair, J. (1996). *Designing Surveys: A Guide to Decisions and Procedures*. Thousands Oaks: Pine Forge Press.

Daft, R. L., & Lengel, R. H. (1986). Organisational Information requirements, media richness and structural design. *Management Science, 32*(5), 554-571.

Daft, R. L., Sormunen, J., & Parks, D. (1988). Chief Executives Scanning, Environmental Characteristics, and Company Performance: An Empirical Study. *Strategic Management Journal, 9*(2), 123-139.

Daft, R. L., & Weick, K. E. (1984). Toward a Model of Organizations as Interpretation Systems. *Academy of Management Review, 9*(2), 284-295.

Davidson, W. H. (1991). The Role of Global Scanning in Business Planning. *Organizational Dynamics, 19*, 4-16.

Day, G. S. (1986). *Analysis for Strategic Market Decisions*. St. Paul: West Pub. Co.

de Chernatony, L. (1990). Exhuming the Low Response Rate Fallacy of Postal Research. *Marketing Intelligence and Planning, 8*(1), 34-39.

De Vaus, D. (1996). *Surveys in Social Science*. London: University College London.

De Woot, P., Heyvaert, H., & Martou, F. (1977). Strategic Management: An Empirical Study of 168 Belgian Firms. *International Studies of Management and Organisation, 7*(3/4), 60-75.

Dess, G. G., & Beard, D. W. (1984). Dimensions of Organizational Task Environments. *Administrative Science Quarterly, 29*, 52-63.

Devereux, S., & Hoddinott, J. (1993). *Fieldwork in Developing Countries*. Boulder, Colo.: Lynne Rienner.

Diffenbach, J. (1983). Corporate Environmental Analysis in Large U.S. *Long Range Planning, 16*(3), 107-116.

Dill, W. R. (1958). Environment as an influence on Managerial Autonomy. *Administrative Science Quarterly, 2*(March), 409-443.

Dillman, D. A. (2000). *Mail and Internet Surveys: The Tailored Design Method*. New York: NY: John Wiley and Sons.

Dillon, A., & Morris, M. G. (1996). User Acceptance of Information Technology: Theories and Models. *Journal of American society for Information science, 31*, 3-32.

Downes, L., & Mui, C. (1998). *Unleashing the Killer App: Digital Strategies for Market Dominance*. Boston, Mass.: Harvard Business School Press.

Downs, P. E., & Kerr, J. R. (1986). Recent Evidence on the Relationship Between Anonymity and Response Variables for Mail Surveys. *Journal of the Academy of Marketing Science, 14*, 72-82.

Drucker, P. F. (1969). *The Practice of Management*. New York: Harper and Row.

Drucker, P. (1995). The Information Executives Truly Need. *Harvard Business Review, 73*(1), 54-62.

Duncan, R. B. (1972). Characteristics of Organisational Environments and Perceived Environmental Uncertainty. *Administrative Science Quarterly, 17*(3), 313-327.

Dyson, R. G. (1990). *Strategic Planning: Models and Analytical Techniques.* Chichester: Wiley.

Easterby-Smith, M., Thorpe, R., & Lowe, A. (2002). *Management Research: An Introduction* (2nd ed.). London: Sage Publications.

Ebrahimi, B. P. (2000). Perceived Strategic Uncertainty and Environmental Scanning Behaviour of Honk Kong Chinese Executives. *Journal of Business Research, 49*, 67-77.

Eisenhardt, K. M. (1989a). Building Theories from Case Study Research. *Academy of Management Review, 14*(4), 532-550.

Eisenhardt, K. M. (1989b). Making Fast Strategic Decisions in High-Velocity Environments. *Academy of Management Journal, 32*(3), 543-576.

El Sawy, O. (1985). Personal Information Systems for Strategic Scanning in Turbulent Environments: Can the CEO Go ON-Line? *MIS Quarterly, March.*

Elenkov, D. S. (1997a). Environmental Scanning Systems and Performance: An Empirical Study of Russian Companies. *Journal of Management Development, 16*(2), 111-124.

Elenkov, D. S. (1997b). Strategic Uncertainty and Environmental Scanning the Case for Institutional Influences on Scanning Behaviours. *Strategic Management Journal, 18*(4), 287-302.

El-Mallakh, R. (1982). *Saudi Arabia: Rush to Development.* London: Croom Helm.

Emery, F. E., & Trist, E. L. (1965). The Casual Texture of Organisational Environment. *Human Relations, 18*(February), 21-32.

Emory, W. (1980). *Business Research Methods* (Rev. ed.). Homewood, Ill.: R. D. Irwin.

Erdos, P. L. (1970). *Professional Mail Survey*. New York: McGraw Hill.

Evans, P. B., & Wurster, T. S. (1997). Strategy and the New Economics of Information. *Harvard Business Review, 75*(5), 71-82.

Fahey, L., & King, W. (1977). Environmental Scanning for Corporate Planning. *Business Horizons, 4*(August), 61-71.

Fahey, L., & Narayanan, V. (1986). *Macroenvironmental Analysis for Strategic Management*. St. Paul, MN: West Publishing.

Fandy, M. (1998). *Saudi Arabia and the Politics of Dissent*. London: Basingstoke : Macmillan.

Fandy, M. (2000). Information Technology, Trust, and Social Change in the Arab World. *The Middle East Journal, 54*(3), 378-388.

Farh, J. L., Hoffman, R. C., & Hegarty, W. H. (1984). Assessing Environmental Scanning at the Subunit Level: A Multitrait-Multimethod Analysis. *Decision Sciences, 15 (2)*, 197-220.

Field, A. (2003). *Discovering Statistics Using SPSS for Windows*. London: Sage Publications Ltd.

Fink, A., & Kosecoff, J. (1985). *How to Conduct Survey: Steps by Steps Guide*. Thousands Oak: Sage Publications, Inc.

Flores, F. (1972). The applicability of American Management Practices to Developing Countries: A Case Study of Philippines. *Management International Review, 12*(1), 83-98.

F Fombrun, J. (1992). Turning Point: Creating Strategic Change in Organizations. New York: McGraw-Hill.

Foster, R. L. (1997). Addressing Epistemological and Practical Issues in Multi-Method Research: A Procedure for Conceptual Triangulation. *Advances in Nursing Science, 10*(1), 1-12.

Fowler, F. J. (1989). *Survey Research Methods*. Newbury Park, CA: Sage Publications Inc.

Frankfort-Nachmias, C., & Nachmias, D. (1996). *Research Methods in the Social Sciences*. London: St Martin's Press Inc.

Frazer, L., & Lawley, M. (2000). *Questionnaire Design and Administration*. Milton: John Wiley & Sons Australia, Ltd.

Frederickson, J. W., & Mitchell, T. R. (1984). Strategic Decision Processes: Comprehensiveness in an Industry with an Unstable Environment. *Academy of Management Journal, 27*(2), 399-423.

Friedman, T. L. (2002, February 20, 2002). The Saudi Challenge. *The New York Times*, pp. 21.

Fry, J. H. (1974). Contribution of Personalization to Mail Questionnaire Response as an Element of Previously Tested Method. *Journal of Applied Psychology, 59*, 297-301.

Gable, M., & Topol, M. (1987). Planning Practices of Small-Scale Retailers. *American Journal of Small Business, Fall*, 19-32.

Galbraith, J. R. (1973). *Designing Complex Organization*. Reading, MA: Addison-Wesley.

Gardner, F. (2000a). *Saudi Economy Opening Up* [World Wide Web]. BBC News. Retrieved 19 March, 2002, from the World Wide Web: http://news.bbc.co.uk/hi/english/world/middle_east/newsid_772000/772891.stm

Gardner, F. (2000b). *Saudis 'Defeating' Internet Porn* [World Wide Web]. BBC News. Retrieved April 15, 2002, from the World Wide Web: http://news.bbc.co.uk/hi/english/world/middle_east/newsid_742000/742798.stm

Garg, V. K., Walters, B. A., & Priem, R. L. (2003). Chief Executive Scanning emphases, Environmental Dynamism, and Manufacturing Firm Performance. *Strategic Management Journal, 24*(8), 725-744.

Gause, G. (2000). Saudi Arabia over a Barrel. *Foreign Affairs, 79*(3), 80-94.

Geroski, P. A. (1999). Early Warning of New Rivals. *Sloan Management Review, 40*(3), 107-122.

Gerstberg, P. G., & Allen, T., J. (1968). Criteria Used by Research and Development Engineers in the Selection of an Information Source. *Journal of Applied Psychology, 52*(4), 272-279.

Ghauri, P., Gronhaug, K., & Kristianslud, I. (1995). *Research Methods in Business.* New York, N.Y.: Prentice Hall.

Ghoshal, S., & Kim, S. K. (1986). Building Effective Intelligence Systems for Competitive Advantage. *Sloan Management Review, 19*(1), 69-86.

Goll, I. a. R., A. M. A. (1997). Rational Decision-making and Firm performance: The Moderating Role of Environment. *Strategic Management Journal, 18*(583-591).

Grant, R. M. (1998). *Contemporary Strategy Analysis: Concepts, Techniques, Applications* (3rd ed.). Oxford: Blackwell.

Greenleaf, E. A. (1992). Improving Rating Scale Measures by Detecting and Correcting Bias Components in some Response Styles. *Journal of Marketing Research, 29*(2), 176-188.

Grinyer, P. H., & Noburn, D. (1974). Strategic Planning in 21 UK Companies. *Long Range Planning, 7*, 80-88.

Haider, Z. (2002, January 27). KACST Should Review Banned Sites Regularly. *Arab News,* pp. 11.

Hakim, C. (1987). Research Design: Strategies and Choices in the Design of Social Research. London: Allen and Unwin.

Haldane, J. (1985, February 25, 1985). U. S. - Saudi Economics. *Washington Report on Middle East affairs,* 6.

Hambrick, D. (1979). Environmental Scanning, Organizational Strategy and Executives Roles: A study in Three Industries. Unpublished Ph.D. Theses, the Pennsylvania State University.

Hambrick, D. C. (1981). Specialization of Environmental Scanning Activities Among Upper Level executives. *Journal of Management Studies, 18(3)*, 299-320.

Hambrick, D. (1981). Environment, Strategy, and Power within Top Management Teams. *Administrative Science Quarterly, 26*(1), 253-276.

Hambrick, D. (1982). Environmental Scanning and Organisational Strategy. *Strategic Management Journal, 3(2)*, 159-174.

Hambrick, D. C., & Mason, P. A. (1984). Upper Echelon: The Organization as a Reflection of Its Top Managers. *Academy of Management Review, 9*(2), 193-206.

Hamel, G., & Prahalad, C. K. (1994). *Competing for the Future*. Boston, MA: Harvard Business School Press.

Hamill, J., & K., G. (1997). Internet Marketing in the Internationalisation of UK SMEs. *Journal of Marketing Management, 13*(9-28).

Hardy, A. P. (1982). The Selection of Channels When Seeking Information: Cost/Benefits vs. Least Effort. *Information Processing and Management, 18*(6), 289-293.

Harris, P. R., & Moran, R. T. (1999). Anxiety and Involvement: Cultural Dimensions Attitudes Toward Computer in Developing Societies. *Journal of Global Information Management, 7*(1), 26-38.

Harvey, L. (1987). Factors Affecting Response Rates to Mailed Questionnaires: A Comprehensive Literature Review. *Journal of the Market Research Society, 29*(3), 342-353.

Hassan, J. (2001a, April 25). Riyadh to Host International Forum on E-Commerce in May. *Arab News*, pp. 15.

Hassan, J. (2001b). Gas Initiative Opens New Vistas. *Arab News*, pp. 6.

Hawkins, D. I., Coney, K. A., & Jackson, D. W. J. (1988). The Impact of Monetary Inducement on Uniformed Response Error. *Journal of the Academy of Marketing Science, 16*, 30-35.

Haynes, P., Becherer, R., & Helms, M. (1998). Small and Mid-Sized Businesses and Internet Use: Unrealised Potential? In. *Internet Research: Electronic Networking Applications and Policy, 8*(3), 229-235.

Van der Heijden, K. (1996). *Scenarios: The Art of Strategic Conversation.* Chichester: John Wiley & Sons.

Henderson, S. (1999). *Oil Prices and the Future of the Middle East.* Washington D.C.: The Washington Institute of Near East policy.

Henry, G. (1990). *Practical Sampling.* Newbury Park: Sage Publications, Inc.

Hill, C. E., Loch, K. D., Straub, D. W., & El-Sheshai, K. (1998). A Qualitative Assessment of Arab Culture and Information Technology Transfer. *Journal of Global Information Management, 6*(3), 29-38.

Hill, T., & Westbrook, R. (1997). SWOT Analysis: It's Time for A Product Recall. *Long Range Planning, 30*(1), 46-52.

Hirst, D. (1999, Tuesday August 3). Educated for Indolence. *Guardian,* pp. 14.

Hofstede, G. (1993). Cultural Constraints in Management Theories. *The Executive, 7*(1), 81-94.

Hoinville, G., Jowell, R., & Associates. (1978). *Survey Research Practice.* London: Heinemann Educational Books.

Houston, M. J., & Ford, N. M. (1976). Broadening the Scope of Methodological Research in Mail Surveys. *Journal of Marketing Research, 13,* 397-403.

Hrebiniak, L. G., & Joyce, W. F. (1985). Organization Adaptation: Strategic Choice and Environmental Determinism. *Administrative Science Quarterly, 30*(3), 336-349.

Hughes, C. I., & Fowlers, V. (1978). *Value Systems Analysis. Theory and Management Application.* Dallas, Texas: Centre for Value Research, Inc.

Husain, K. S. (2001). The Impact of Privatization on Public Employees: What Will Happen to the Employees of Saudi Airlines? Unpublished DSc, The George Washington University, Washington D.C.

Hussey, D. (1997). Glossary of Techniques for Strategic Analysis. *Journal of Strategic Change, 6*(2), 97-115.

Hussey, D. (2001). Creative Strategic Thinking and the Analytical Process: Critical Factors for Strategic Success. *Strategic Change, 10*(4), 201-213.

Huyette, S. S. (1985). Political Adaptation in Saudi Arabia: A Study of the Council of Ministers. Boulder: Westview Press, Inc.

IMF. (2003). *The World Economic Outlook Database for October 2003.* New York: International Monetary Fund.

Jain, S. C. (1984). Environmental Scanning in US Corporations. *Long Range Planning, 17*(2), 117-128.

Jauch, L. R., & Glueck, W. F. (1988). *Business Policy and Strategic Management* (5th / ed.). New York; London: McGraw-Hill.

Jennings, D. F., & Lumpkin, J. R. (1992). Insight between Environmental Scanning Activities and Porter's Generic Strategies: An empirical Analysis. *Journal of Management, 18*(4), 791-803.

Jick, T. D. (1979). Mixing Qualitative and Quantitative Methods: Triangulation in Action. *Administrative Science Quarterly, 24*, 603-611.

Jiyad, A. (1996, 19-22 June 1995). *The Social Balance Sheet of Privatization in the Arab Countries.* Paper presented at the Nordic Middle East Conference on Ethnic Encounter and Cultural Change, Joensuu, Finland.

Johnson, L., & Kuehn, R. (1987). The Small Business Owner/Manager's Search for External Information. *Journal of Small Business management, 25*(3), 53-60.

Kahalas, H. (1976). Decision-Making in the Public Sector-A logical Model. *Long Range Planning, 9*(June), 75-80.

Kassem, S. M. (1989). Strategic Formulation: Arabian Gulf Style. *International Studies of Management and Organisation, 19*(2), 6-21.

Kast, F. E., & Rosenzweig, J. E. (1973). *Contingency Views of Organization and Management.* Chicago: Science Research Associates.

Katz, D., & Kahn, R. L. (1978). *The Social Psychology of Organisations* (2ⁿᵈ ed.). New York: John Wiley and Sons.

Keegan, W. (1974). Multinational Scanning: A study of the Information Sources Utilized by Headquarters Executives in Multinational Companies. *Administrative Science Quarterly, 19*(3), 411-421.

Keegan, W. J. (1983). Strategic Market Planning: the Japanese Approach. *International Marketing Review, 1*, 1-15.

Kefalas, A., & Schoderbek, P. (1973). Scanning the Business Environment- Some Empirical Results. *Decision Sciences, 4*(1), 63-74.

Kennedy, J., Charles. (1984). The External Environment-Strategic Planning Interface: U.S. Multinational Corporate Practices in The 1980s. *Journal of International Business Studies, Fall*, 99-108.

Kerlinger, F. N., & Lee, H. B. (2000). *Foundations of Behavioural Research* (4ᵗʰ ed.). Forth Worth, Texas, USA: Harcourt College Publishers.

Ketchen, J., D. J., & Palmer, T. B. (1999). Strategic Responses to Poor Organizational Performance: A test of Competing Perspectives. *Journal of Management, 25*, 683-706.

Khalaf, R. (2002, February 11). Winds of Change: In the Aftermath of September 11. *The Financial Times*, pp. 22.

Kinnear, P. R., & Gray, C. D. (2000). *SPSS for Windows Made Simple* (4ᵗʰ ed.). Hove: Psychology Press.

Klose, A., & Ball, D. (1995). Using Optical Mark Read Surveys: An Analysis of Response Rate and Quality. *Journal of the Market Research Society, 37*(3), 269-287.

Knipe, M. (2000, Nov 28). A Generation of Entrepreneurs; Education and Employment. *The Times*, pp. 13.

Koberg, C. S. (1978). Resources Scarcity, Environmental Uncertainty, and Adaptive Organizational Behaviour. *Academy of Management Journal, 30*(December), 798-807.

Kourteli, L. (2000). Scanning the Business Environment: Some Conceptual Issues. *Benchmarking: An International Journal, 7*(5), 406-413.

Kurke, L. B., & Aldrich, H. E. (1983). Mintzberg was Right: A replication and extension of 'The Nature of Managerial Work'. *Management Science, 29*, 975-984.

Langley, A. (1991). Formal Analysis and Strategic Decision Making. *OMEGA: International Journal of Management Science, 19*(2/3), 79-99.

Lawrence, P. R., & Lorsch, J. W. (1967). *Organization and Environment.* Boston, MA: Harvard University Press.

Leifer, R., & Huber, G. (1977). Relations among Perceived Environment Uncertainty, Organisation Structure, and Boundary-Spanning Behaviour. *Administrative Science Quarterly, 2*, 235-247.

Lenz, R. T., & Engledow, J. L. (1986). Environmental Analysis Units and Strategic Decision-Making: A Field Study of Selected 'Leading-Edge' Corporations. *Strategic Management Journal, 7*, 69-89.

Lessler, J. T., & Kalsbeek, W. D. (1992). *Non-sampling Error in Surveys.* New York: Wiley.

Lin, I.-F., & Schaeffer, N. C. (1995). Using Survey Participants to Estimate the Impact of Non-participation. *Public Opinion Quarterly, 59*, 236-258.

Lorenzetti, M. (2002). US Firms Say Timetable May Slip on Saudi Gas Deals. *Oil and Gas Journal, 100*(3), 2.

Luce, R. D., & Raiffa, H. (1957). *Games and Decisions.* New York: Wiley.

Lyles, M., & Salk, J. (1996). Knowledge Acquisition from Foreign Parents in International Joint Ventures: An Empirical Examination in the Hungarian Context. *Journal of International Business Studies, 27*(5 Special Issue), 877-903.

Lysonki, S., & Pecotich, A. (1992). Strategic Marketing Planning, Environmental Uncertainty &Performance. *International Journal of Research in Marketing, 9*, 247.

MacKay, B., & McKiernan, P. (2002, 11-13th July). *Strategic Reasoning: The Case for Tripartite Thinking.* Paper presented at the Probing the Future: Developing Organizational Foresight in the Knowledge Economy, The University of Strathclyde Graduate School of Business in Glasgow, UK.

Macleod, S. (2002, March 4). How To Bring Change To The Kingdom: An inside look at the problems facing Saudi Arabia--and how the country's de facto ruler, Crown Prince Abdullah, is trying to solve them. *Time, 59,* 24.

Malek, M., & Alshoaibi, A. A. (1998). *Information Technology in Developing Countries: Problems and Prospects.* Paper presented at the Conference on Administrative Sciences: New Horizon and Roles in Development, Dhahran, Saudi Arabia.

Malhotra, N. (1996). *Marketing Research: An Applied Orientation* (2nd ed.). New Jersey: Simon & Schuster.

Mangione, T. (1995). *Mail Surveys: Improving the Quality.* Thousand Oaks: Sage Publications, Inc.

Martin, S. T. (2002, July 21). Inside Saudi Arabia. *St. Petersburg Times,* pp. 1A.

Masten, J., Hartman, G. B., & Safari, A. (1995). Small Business Strategic Planning and Technology Transfer: The Use of Publicly Supported Technology Assistance Agencies. *Journal of Small Business Management, 33*(3), 26-37.

May, B. (1998, Monday, December 14). Gulf Oil Boom Days are Over, Saudi Tells Arabs. *Indian Express,* pp. 12.

May, R., Jr., S., Wayne, H., & Sweo, R. (2000). Environmental Scanning Behaviour in A Transitional Economy: Evidence from Russia. *Academy of Management journal, 43*(3), 403-427.

McCracken, G. (1988). *The Long Interview.* London: Sage Publications Ltd.

McDowall, A. (2001, June 29). Stepping Up the Pace. *Middle East Economic Digest, 45,* 25.

McDowall, A. (2002, March 1). Race Against the Clock. *Middle East Economic Digest, 46,* 4-5.

McGee, J. E., & Sawyerr, O. O. (2003). Uncertainty and Information Search Activities: A study of Owner-Managers of Small High Technology Manufacturing Firms. *Journal of Small Business Management, 41*(4), 358-401.

McKee, D. O., Varadarajan, P. R., & Pride, W. M. (1989). Strategic Adaptability and Firm Performance: A Market-contingent Perspective. *Journal of Marketing, 53*(21-35).

McKiernan, P. (2003). *Business Environment and Strategic Marketing Analysis, Class Notes* [World Wide Web]. Management Department, University of St Andrews. Retrieved 13 November, 2003, from the World Wide Web: http://www.st-andrews.ac.uk/~mn1001/lectures/IE/MN1001_files/frame.htm

McKiernan, P., & Morris, C. (1994). Strategic Planning and Financial performance in The UK SMEs: Does Formality Matter? *British Journal of Management, 5*(Special Issue), 31-41.

MEED. (2000, February 4). Little Progress on WTO Talks. (Saudi Arabia Gaining Membership of the World Trade Organisation). *Middle East Economic Digest, 44,* 25.

MEED. (2001, March). Offsetting Expectations. (Al-Yamamah Economic Offset Programme in Saudi Arabia). *Middle East Economic Digest,* pp. 40.

Messick, B. (1993). *The Calligraphic State.* Berkeley: University of California Press.

Metwally, M. M. (1995). Kuwaiti versus Saudi Arabian Attitudes Towards Foreign Services. *Journal of International Marketing and Marketing Research, 3,* 139-146.

Miles, R., & Snow, C. (1978). *Organizational Strategy, Structure, and Process.* New York, NY: McGraw-Hill.

Miles, R. E., & Snow, C. C. (1984). Fit, Failure and The Hall of Fame. *California Management Review, 26*(3), 10-28.

Miller, D. (1981). Toward A New Contingency Approach: The Search for Organizational Gestalts. *Journal of Management Studies, 18*(1), 1-26.

Miller, D., & Friesen, P. (1983). Strategy-Making and the Environment: The Third Link. *Strategic Management Journal, 4*(2), 221-235.

Miller, J. P. (1994). The Relationship Between Organizational Culture and Environmental scanning: A Case Study. *Library Trends, 43*(2), 170-205.

Miller, K. D. (1993). Industry Country Effects on Managers: Perceptions of Environmental Uncertainty. *Journal of International Business Studies, 24*, 693-794.

Milliken, F. (1987). Three Types of Uncertainty about the Environment: State, Effect, and Response Uncertainty. *Academy of Management Review, 12*, 133-143.

Mills, P. S., & Presley, J. R. (1999). *Islamic Finance: Theory and Practice.* Houndmills England: Macmillan Press.

Ministry of Economy and Planning. (2000). *Achievements of Developments Plans* [World Wide Web]. Ministry of Economy and Planning,. Retrieved October 15, 2003, from the World Wide Web: http://www.planning.gov.sa/PLANNING/INTROe.HTM

Ministry of Economy and Planning. (2003). [World Wide Web]. Central Department of Statistics. Retrieved October 16, 2003, from the World Wide Web: http://www.planning.gov.sa/statistic/sindexe.htm

Ministry of Planning. (1970). *The First Development Plan.* Riyadh: Ministry of Planning Press.

Ministry of Planning. (1985). *The Fourth Development Plan.* Riyadh: Ministry of Planning Press.

Ministry of Planning. (1990). *The Fifth Development Plan.* Riyadh: Ministry of Planning Press.

Ministry of Planning. (1995). *The Sixth Development Plan.* Riyadh: Ministry of Planning Press.

Ministry of Planning. (2000). *The Seventh Development Plan.* Riyadh: Ministry of Planning Press.

Mintzberg, H. (1973). *The Natural of Managerial Work*. New York: N.Y: Harper & Row.

Mintzberg, H. (1990a). Strategy formation: Schools of Thought. In J. W. Frederickson (Ed.), *Perspectives on Strategic Management* (pp. 105-236). New York, NY: Harper Business.

Mintzberg, H. (1990b). The Manager's Job: Folklore and Fact. March-April. *Harvard Business Review, 68*(2), 163-176.

Mintzberg, H. (1994). The Fall and Rise of Strategic Planning. *Harvard Business Review, 72*(1), 107-114.

Mohan-Neill, S. (1995). The Influence of Firm's Age and Size on its Environmental Scanning Activities. *Journal of Small Business Management, 33*(4), 10-21.

Moliver, D. M., & Abbondante, P. J. (1980). *The Economy of Saudi Arabia*. New York, N.Y.: Praeger.

Montagu, C. (1995, April 21). Saudi Subsidies under Review. *Middle East Economic Digest, 39*, 23-33.

Monti, E. J., & Tingen, E. S. (1999). Multiple Paradigms for Nursing Science. *Advances in Nursing Science, 21*(4), 64-80.

Moss, G. M. (1981). Factors Affecting Response Rate and Response Speed in a Mail Survey of Part Time University Students. *The Canadian Journal of Higher Education, XI*(2).

Mudani, A. (1987). *Reducing Production's Cost Through Mergers Between the Gulf Industries*. Paper presented at the Second Industrial Conference of Gulf Countries.

Muna, F. (1980). *The Arab Executives*. London: Macmillan.

Neuman, W. L. (2000). Social Research Methods: Qualitative and Quantitative Approaches (4th ed.). Boston: Allyn and Bacon.

Ngamkroeckjoti, C., & Johri, L. M. (2000). Management of Environmental Scanning Processes in Large Companies in Thailand. *Business Process Management Journal, 6*(4), 331-341.

Nishi, K., Schoderbek, C., & Schoderbek, P. (1982). Scanning the Organisational Environment: Some empirical Results. *Human System Management, 3*(4), 233-245.

Nunnally, J. C. (1970). *Introduction to Psychological Measurement.* New York: McGraw Hill.

Nunnally, J. C. (1978). *Psychometric Theory* (2nd ed.). New York: McGraw Hill.

Obaid, T. A. (2002). *Youth and Population in the Middle East: Expanding Opportunity and Hope* [World Wide Web]. United Nations Population Fund. Retrieved 19 August, 2002, from the World Wide Web: http://www.unfpa.org/about/ed/2002/mideast_opp.htm

O'Connel, J. J., & Zimmermann, J. W. (1979). Scanning the International Environment. *California Management Review, 22*(2), 15-23.

Ohame, K. (1989). Managing in a Borderless World. *Harvard Business Review, 67*(3), 152-161.

Olsen, M., Murthy, B., & Teare, R. (1994). CEO Perspectives on Scanning the Global Hotel Business Environment. *International Journal of Contemporary Hospitality Management, 6*(4), 3-9.

Orndoff, K. (2002). Strategic Tools for RIM Professionals: Three Strategic Competencies--Vision, Electronic Scanning, and Scenario planning--can Work Together to Support an Organisation's Overall Strategic Process. *Information Management Journal, 36*(6), 65-70.

OPEC. (2000). *The 2000 Annual Statistical Bulletin.* Geneva: Organisation of Petroleum Exporting Countries.

Oppenheim, A. (1996). Questionnaire Design, Interviewing and Attitude Measurement. London: Pinter Published Ltd.

O'Reilly, C. A. (1982). Variation in Decision-Makers' Use of Information Sources: The Impact of Quality and Accessibility of Information. *Academy of Management Journal, 25*(4), 756-771.

Pallant, J. (2001). SPSS Survival Manual: A Step by Step Guide to Data Analysis Using SPSS for Windows (Version 10). Buckingham: Open University Press.

Parsons, T. (1960). *Structure and Process in Modern Societies,* . New York: The Free Press of Glencoe.

Peters, T. J., & Waterman, R. H. (1982). *In Search of Excellence: Lessons from America's Best-Run Companies* (1st ed.). New York: Harper and Row.

Pfeffer, J., & Salancik, G. (1978). *The External Control of Organisations.* New York: Harper and Row.

Phillips, J. (1985). *Improving Supervisors Effectiveness.* San Francisco: Jossey-Bass Publisher.

Pineda, R. C., Lerner, L. D., Miller, C., & Phillips, S. J. (1998). An Investigation Of Factors Affecting Information-Search Activities of Small Business Managers. *Journal of Small Business Management, 36*(1), 60-71.

Pinsonneault, A. R., S. (1998). Information Technology and the Nature of Managerial Work: From the Productivity Paradox to the Icarus Paradox?,. *MIS Quarterly, September,* 287-311.

Pitkethly, R. (2003). Analysing the Environment. In D. Faulkner & A. Campbell (Eds.), *The Oxford Handbook of Strategy* (1st ed., Vol. I). Oxford; New York: Oxford University Press.

Porter, M. E. (1990). *The Competitive Advantage of Nations.* New York: The Free Press.

Porter, M. E. (1980). Competitive Strategy: Techniques for Analysing Industries and Competitors. New York, NY: Free Press.

Powell, B. (2001). *Is Saudi Arabia Headed For a Fall?* [World Wide Web]. Fortune.com. Retrieved March 20, 2002, from the World Wide Web: http://www.fortune.com/fortune/articles/0,15114,369834,00.html

Preble, J. F., Rau, P. A., & Reichel, A. (1988). The Environmental; Scanning Practices of U.S. Multinationals in the Late 1980s. *Management International Review, 28*(4), 4-14.

Presley, J. R. (1984). *A Guide to The Saudi Arabian Economy* (1st ed.). London: The Macmillan Press Ltd.

Prokop, M. (2003). Saudi Arabia: The Politics of Education. *International Affairs, 79*(1), 77-89.

Quinn, R., Faerman, S., Thompson, M., & McGrath, M. (1990). *Becoming a Master Manager: A Competency Framework.* New York, NY: John Wiley and Sons.

Ratcliffe, J. (2000). Scenario Building: A Suitable Method for Strategic Property Planning? *Property Management, 18*(2), 127-144.

Ricks, T. E., & Squeo, A. M. (1999, 22 October). Pentagon Urges Caution on Big Defense Mergers. *Wall Street Journal,* pp. A2.

Robson, C. (1993). Real World Research: A resource for Social Scientists and Practitioner-Researchers. Oxford: Blackwell.

Romanelli, E., & Tushman, M. L. (1988). Executive Leadership and Organizational Outcomes: an Evolutionary Perspective. In D. C. Hambrick (Ed.), *The Executive Effect: Concepts and Methods for Studying Top Managers* (pp. 129-140). Greenwich, CT: JAI Press.

Rosenberg, V. (1967). Factors Effecting the Preferences of Industrial personnel for Information Systems. *Information Processing and Management, 20*(1/2),

Rudnick, D. (2000, Nov 28, 2000). Foreign investors get a warm welcome; Privatisation. *The Times,* pp. 11.

Rust, R. T., Danaher , P. J., & Varki, S. (2000). Using Service Quality Data for Competitive Marketing Decisions. *International Journal of Service Industry Management, 11*(5), 438-469.

Sado, R. (1999). Unemployed Female Translators in Saudi Arabia: Causes and Solutions. *Meta, 44*(2), 391-397.

SAGIA. (2002). *The Saudi Arabian General Investment Authority* [World Wide Web]. SAGIA. Retrieved 20 March, 2002, from the World Wide Web: http://www.sagia.org/

SAMBA. (2002). *The Saudi Economy in 2002.* Riyadh: Saudi American Bank.

SAGIA. (2002). *Statute for the Saudi Arabian General Investment Authority* [World Wide Web]. sagia.org. Retrieved April 22, 2002, from the World Wide

Web:
http://www.sagia.gov.sa/innerpage.asp?section=aboutsagia&item=sagiastatu
te

Saudi Arabian Information Resources. (1999). *Supreme Economic Council* [World Wide Web]. Saudi Arabian Information Resources, 1999. Retrieved 19 March, 2002, from the World Wide Web: http://www.saudinf.com/main/e111.htm

Saunders, M., Lewis, P., & Thornhill, A. (2000). *Research Methods for Business Students* (2nd ed.). Harlow: Pearson Education Limited.

Sawyerr, O. (1993). Environmental Uncertainty and Environmental Scanning Activities of Nigerian Manufacturing Executives: A comparative Analysis. *Strategic Management Journal, 14*(4), 287-299.

Sawyerr, O., Ebrahimi, B., & Thibodeaux, M. (2000). Executives Environmental Scanning, Information Sources Utilisation, and Firm performance: The case of Nigeria. *Journal of Applied management Studies, 9*(1), 95-116.

Scarborough, J. (1998). *The Origins of Cultural Differences & Their Impact on Management.* Westport, CT: Greenwood Publishing Group, Incorporated.

Schafer, D. (1990). Level of Entrepreneurship and Scanning Source Usage in Very Small Businesses. *Entrepreneurship Theory and Practice, 14*(2), 19-31.

Schneider, S. C. (1989). Strategy Formulation: The Impact of National Culture. *Organization Studies, 10,* 157-176.

Schneider, S. C., & De Meyer, A. (1991). Interpreting and Responding to Strategic Issues: The Impact of National Culture. *Strategic Management Journal, 12: 307-320., 12,* 307-320.

Schoonhoven, C. B. (1981). Problems with Contingency Theory: Testing Assumptions Hidden within the Language of Contingency "Theory". *Administrative Science Quarterly, 26*(349-377).

Scott, W. R. (1987). *Organizations: Rational, Natural, and Open Systems.* New Jersey: Englewood Cliffs.

Sekaran, U. (2000). Research Methods for Business: A Skill Building Approach (3rd ed.). Chichester: Wiley.

401

Shoemaker, P. J. H. (1995). Scenario Planning: A Tool for Strategic Thinking. *Sloan Management Review, 36*(2), 25-40.

Siddiqui, M. A. (1997). The Use of Information Technology in Academic Libraries in Saudi Arabia. *Journal of Librarianship and Information Science, 29*(4), 195-203.

Siegel, S., & Castellan, J. (1988). *Nonparametric Statistics* (2nd ed.). New York: NY: McGraw-Hill.

Simon, H. A. (1957). *Administrative Behaviour* (2nd ed.). New York: Macmillan.

Simon, H. A. (1989). Making Management Decisions: The Role of Intuition And Emotion. In W. H. Agor (Ed.), *Intuition in Organisations: leading and managing productivity* (pp. 23-39). Newbury Park, CA: Sage.

Sirageldin, I. A., Sherbiny, N. A., & Serageldin, M. I. (1984). *Saudis in Transition: The Challenges of a Changing Labor Market*. London: Oxford University Press.

Slaughter, R. A. (1999). A New Framework for Environmental Scanning. *Foresight, 1*(5), 441-451.

Smeltzer, L. R., Fann, G. L., & Nikolaisen, N. V. (1988). Environmental Scanning Practices in Small Business. *Journal of Small Business Management, 26*(3), 55-62.

Smirich, L., & Stubbart, C. (1985). Strategic Management in an Enacted World. *Academy of Management Review, 10,* 724-736.

Snow, C. C., & Hrebiniak, L. G. (1980). Strategy, Distinctive Competence, and Organizational Performance. *Administrative Science Quarterly, 25*(2), 317-336.

SPA. (2000). *Saudization Measures Enforced Soon* [World Wide Web]. Saudi Press Agency. Retrieved March 25, 2002, from the World Wide Web: http://www.spa.gov.sa/CGI-BIN/spa_e_reslt2.asp?ser=242580

Specht, P. (1987). Information Sources Used for Strategic Planning Decision in Small Firms. *American Journal of Small Business, 11*(4), 21-34.

Specht, P. H., & Trussell, L. (1987, November). *Environmental Analysis for Strategic Planning and Small Firm Financial Performance.* Paper presented at the the 19th Annual Meeting of the Decision Sciences Institute, Boston.

Spector, P. E. (1986). Perceived Control by Employees: A Meta-analysis of Studies Concerning Autonomy and Participation at Work. *Human Relations, 39*(11), 105-115.

Steiner, G. A. (1979). *Strategic Planning: What Every Manager Must Know.* New York: Free Press.

Stephens, C. S. (1993). Five CIO's At Work: Folklore and Facts Revisited. *Journal of Systems Management, 44*(3), 34-40.

Strauss, A., & Corbin, J. (1994). *Grounded Theory Methodology: An Overview.* Thousand Oaks. CA: Sage.

Stubbart, C. (1982). Are Environmental Scanning Units Effective. *Long Range Planning, 15*(3), 139-145.

Subramanian, R., Fernandes, N., & Harper, E. (1993). Environmental Scanning in U.S. Companies: Their Nature and Their Relationship to performance. *Management International Review, 33*(3), 271-286.

Sutton, H. (1988). *Competitive Intelligence.* New York: The Conference Board Inc.

Tabachnick, B. G., & Fidell, L. S. (2001). *Using Multivariate Statistics* (4th ed.). Boston, MA ; London: Allyn and Bacon.

Tash, A. Q. (1999). *Unemployment: A Ticking Bomb* [World Wide Web]. Arab View. Retrieved July 20, 2002, from the World Wide Web: http://www.arabview.com/articles.asp?article=53

Tavakoli, M., & McKiernan, P. (1999). SMEs Strategic Reaction to the 1992 Single Market Announcement: Evidence from Scottish Manufacturing Firms. *Journal of Small Business Management, 37*(1), 79-88.

Tellawi, M. (2003). *The Promotion of Digital Arabic Content* [World Wide Web]. United Nations Economic and Social Commission for Western Asia. Retrieved 9 September 2003, 2003, from the World Wide Web: http://www.escwa.org.lb/wsis/meetings/3-5june/docs.html

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The Economist. (1998, September 26). Putting Saudi women to work. *The Economist, 348,* 48.

The Library of Congress Countries Studies. (1992). *Saudi Arabia: A Country Study* [World Wide Web]. The Library of Congress. Retrieved 2 April, 2002, from the World Wide Web: http://rs6.loc.gov/frd/cs/satoc.html#sa0095

Thomas, P. S. (1980). Environmental Scanning: The State of the Art. *Long Range Planning, 13*(February), 20-28.

Thompson, J. D. (1967). *Organization in Action.* New York: McGraw-Hill.

Thompson, J. L. (1990). *Strategic Management: Awareness and Changes* (1st ed.). London: Chapman and Hall.

Time. (1992, March 16). A Modest Step Forward. *Time, 139,* 42.

Toffler, A. (1985). *The Adaptive Corporation.* New York, NY: McGraw-Hill.

Tosi, J. H. L., & Slocum, J. J. W. (1984). Contingency Theory: Some Suggested Directions. *Journal of Management, 10*(1), 9-26.

Tse, A., Ching, R., Ding, Y.-B., Fong, R., Yeung, E., & Au, A. (1994). A comparison of the Effectiveness of Mail and Facsimile as Survey Media on Response Rate, Speed and Quality. *Journal of the Market Research Society, 36*(4), 349-355.

Tuncalp, S. (1999). Evaluation Of Information Sources In Industrial Marketing: Implications Fro Media Planning In The Arabian Gulf. *Journal of Business and Industrial Marketing, 14*(1), 49-60.

Tyler, B. B., Bettenhausen, K. L., & Daft, R. L. (1989). The Use Of Low And High Rich Information Sources And Communication Channels In Developing And Implementing Competitive Business Strategy. Paper presented at the 48th Annual Meeting of the Academy of Management, Washington D.C.

UNDP. (2002). Arab Human Development Report 2002: Creating Opportunities for Future Generations. New York, NY: United Nation Development Programme.

UNICEF. (2000). *Total Fertility Rate.* UNICEF Statistics. Retrieved 18 March, 2002, from the World Wide Web: www.childinfo.org/eddb/fertility/dbtotal.htm

US-Saudi Arabian Business Council. (2001). *The Saudi Arabian Economy* [World Wide Web]. US-Saudi Arabian Business Council. Retrieved August 20, 2002, from the World Wide Web: http://www.us-saudi-business.org/economy.htm#key

Usunier, J.-C. (1998). *International and Cross-Cultural Management Research* (1st ed.). London: Sage Publications Ltd.

Vandenbosch, B., & Huff, S. L. (1997). Searching and Scanning: How Executives Obtain Information from Executive Information Systems. *MIS Quarterly, 21*(1), 81-107.

Vassiliev, A. (1998). *The History of Saudi Arabia.* London: Saqi Books.

Venkatraman, N., & Prescott, J. E. (1990). The environment- Strategy Co-alignment: an Empirical Test of Its Performance Implications. *Strategic Management Journal, 11*(1-23).

Wack , P. (1985). Scenarios, Uncharted Waters Ahead. *Harvard Business Review, 63*(5), 73-89.

Washington Post. (2001). *Population Growth* [World Wide Web]. Washingtonpost.com. Retrieved 17 March, 2002, from the World Wide Web:http://www.washingtonpost.com/wpadv/specialsales/spotlight/saudi/art 12.html

Watson, H. J., Houdeshel, G., & Rainer, K. R. (1997). Building Executive Information Systems and Other Decision Support Applications. New York: Wiley.

Weir, D. (1994, 5-7 July). *Is There A Basis for a Specifically Arab Approach to Management Development.* Paper presented at the Arab Management Conference, Bradford.

Whitaker, B. (2001, February 26). Losing the Saudi Cyber war. *The Guardian,* pp. 12.

Whitaker, B. (2003, 29 May). Editor Who Fought Saudi Religious Zealots Sacked. *The Guardian,* pp. 5.

Wilcox, J., Philip C. (2001). *The Challenge of Globalisation to the Middle East and Prospects for Arab Israeli Peace* [World Wide Web]. Colorado Springs World Affairs Council. Retrieved April 9, 2002, from the World Wide Web: http://www.csworldaffairs.org/speech.pdf

Winckler, O. (1998). Rapid Population Growth and the Fertility Policies of the Arab Countries of the Middle East and North Africa. *Bulletin Series: Yale School of Forestry & Environmental Studies* (103), 444-446.

Wit, B. d., & Meyer, R. (1998). *Strategy: Process, Content, Context* (2nd ed.). London: International Thomson Business Press.

Woodward, J. (1965). *Industrial Organizations: Theory and Practice*. London: Oxford: University Press.

World Bank. (2000). *World Development Indicator* [World Wide Web]. World Bank. Retrieved October 17, 2003, from the World Wide Web: http://www.worldbank.org/data/wdi2000/pdfs/tab2_1.pdf

Worthington, I., & Britton, C. (1997). *The Business Environment* (2nd ed.). London: Pitman Publishing.

Xu, X. M., Kayeb, G. R., & Duan, Y. (2003). UK Executives' Vision on Business Environment for Information Scanning A Cross Industry Study. *Information & Management, 40*, 381–389.

Yamani, M. (2000). Changed Identities: The Challenge of the New Generation in Saudi Arabia. London: Royal Institute of International Affairs.

Yasai-Ardekani, M., & Nystrom, P. (1996). Designs for Environmental Scanning Systems: Test of A Contingency Theory. *Management Science, 42*(2), 187-204.

Yavas, U. (1997). Management Know-How Transfer To Saudi Arabia: A Survey of Saudi Managers. *Industrial Management & Data Systems, 97*(7), 280-286.

Yin, R. K. (1994). *Case Study Research: Design and Methods* (2nd ed.). London: Thousand Oak: Sage Publications.

Yavas, U., Kaynak, E., & Dibe, M. (1985). The Managerial Climate in Less-Developed Countries. *Management Decision, 23*(3), 29-40.

Yavas, U., Luqmani, M., & Quraeshi, Z. A. (1992). Facilitating the Adoption of Information Technology in A Developing Country. *Information and Management, 23*(2), 75-82.

Zahra, S. A. (1978). Corporate Strategic Type, Environmental Perceptions, Managerial Philosophies, and Goals: An Empirical Study. *Akron Business and Economic Review, 18*, 64-77.

Zikmund, W. (1989). *Exploring Marketing Research*. Orland, Florida: The Dryden Press.

Zmud, R. W. (1978). An Empirical Investigation on the Dimensionality of the Concept of Information. *Decision Sciences, 9*(2), 187-195.