

# Environmental Scanning, Anticipatory Information and Associated Problems: Insight from Kuwait

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## ABSTRACT

*This article investigates the strategic behaviors of Kuwaiti executives from 86 companies with regard to environmental scanning characteristics in the form of eight hypotheses. The main results show that Kuwaiti executives have trouble dealing with environmental scanning and weak signal suggested by Ansoff (1975). Results also suggest that executives must recognize the role of strategic information and begin actively to manage and plan its collection as a corporate resource. It is suggested that a computer-based system for environmental scanning would probably have to be primarily oriented for educating and training purposes.*

## OBJECTIVES & MOTIVATION OF THE RESEARCH

Companies are evolving in turbulent and equivocal environments. This requires companies to be alert and watchful for the detection of strategic information and discontinuities about emerging threats and opportunities and to initiate further probing based on such detection (Rouibah & Ould-Ali 2002). Despite that environmental scanning systems appeared in the 1967 (Aguilar 1967), it continues to be looked at by many western companies as a mean to position the firm to stay abreast of environmental events and trends that threaten its existence, or offer opportunities to exploit (Freeman 1999, Groom & David 2001, Rouibah & Ould-Ali 2002). Although many scholar researchers have investigated environmental scanning in many western companies, few papers have tended to investigate the subject in companies that belong to less developed countries (LCD). Moreover, research papers that investigate the use of strategic information is nearly lacking. This research aims to fill in this gap, and to contribute to literature by examining the environmental scanning practices by Kuwaiti executives. Specifically, the research questions of interest include: are Kuwaiti companies familiar with the concepts of environmental scanning and strategic information? What other alternative concepts do Kuwaiti executives use to refer to environmental scanning? What obstacles Kuwaiti executives are facing to easily assimilate environmental scanning?

This research has several benefits. First, it is expected that the research will help to identify executives' requirements and necessary training programs to overcome environmental scanning obstacles. Second, the paper aims to convince top managers about the importance to manage strategic information as a source of competitive advantage.

This research examines Kuwaiti executives toward strategic information. The next section covers the theoretical foundation and hypotheses of the research. Next section describes the research methodology. A brief summary of the sample characteristics is also presented in this section. Following section discusses the results of the study. Finally, the last section summarizes the findings and discusses the managerial implications and potential use of strategic environmental scanning in Kuwait.

## THEORETICAL FOUNDATION AND HYPOTHESES

### *Environmental scanning & executives' familiarity*

Organization as an open system collects and process strategic information about its external environment on which to base organizational actions (Daft and Weick 1984). This requires firm to be actively involved in environmental scanning. This concept calls for internal and external diagnosis in order to evaluate strengths and weakness, opportunities and threats in the internal and external firm's environment. Environmental scanning refers to the acquisition of information about events, trends and relationships in an organization's environment, the knowledge which will be of assistance to decision makers in identifying and understanding strategic threats and opportunities (El Sawy 1985). Environmental scanning is explicitly recognized as a starting point and vital phase in the strategic management process (Aguilar 1967). According to Wang & Turban (1991), strategic management process can be divided into two phases (see figure 1, adapted from Wang and Turban 1991): the first phase involves scanning information from the external and internal environment, and the interpretation of such information. The output of the first phase "intelligence" feeds the strategic decision-making and implementation phase. This second phase involves four basic activities: strategic formulation, corporate capability planning which attempts to support new strategies, real-time strategic response to various surprises in the environment, and implementation of strategies.

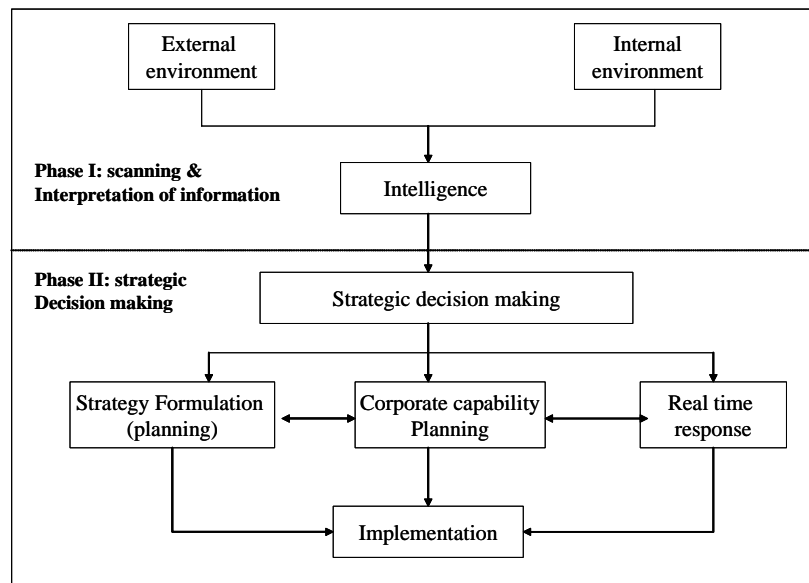


Figure 1. The strategic management process

Although environmental scanning has received substantial research attention in management literature in the West (e.g. see, Lang *et al.*, 1997, Groom and David 2001), there is a paucity of knowledge about how organizations in LDC practice environmental scanning. According to author's knowledge only five research papers were done respectively about Nigeria (Sawyer *et al.* 2000), Bulgaria (Elenkov 1997), Russia (May *et al.*, 2000), China (Ebrahimi, 2000), and Thailand (Ngamkroekjoti and Johri 2000). Beyond their research contributions, they were focused on different research objectives.

Most of Kuwaiti companies belong to private sector where there is a high competition. We therefore expect that these companies may respond by appropriate actions taking into account the fact that they know both environmental scanning and strategic information concepts. This observation leads us to infer the following hypotheses.

*Hypothesis 1: the majority of executives are familiar with environmental scanning.*

*Hypothesis 2: the majority of executives are familiar with strategic information.*

*Hypothesis 3: the majority of executives who are familiar with environmental scanning are also familiar with strategic information.*

### ***Environmental scanning appellations***

There are many different terminologies used to refer to environmental scanning: commercial intelligence, technological scanning, commercial environmental scanning, competitive intelligence, early warning system, strategic environmental scanning, vigilant information system, business intelligence and strategic watch. As there is a scarcity of available research in Arabic countries in general and in Kuwait specifically, we may expect that Kuwaiti executives have trouble to shape the meaning, content and usefulness of these concepts. This observation leads as to the following hypothesis.

*Hypothesis 4: existing terminologies that refer to environmental scanning are not clear enough for Kuwaiti executives who have difficulties dealing with such concepts.*

### ***Type of strategic information***

According to figure 1, both internal and external information should be considered as strategic information. In this paper we define strategic information as pieces of information that have a significant impact on organizational performance, either as threats, opportunities, strengths or weaknesses. "Strategic", is defined by El Sawy (1985) as having potentially large impact on the company's strategies. Strategic information concerns external or internal factors to an organization that may influence the firm during the value chain. These factors include actual and potential competitors and customers in the present time or in the future, processes of producing, and delivering products and service to customers. Martinet and Marti (1995) list six benefits of strategic information: imitate the best competitors in the market, develop new products and services, increase the company's performance, feed decisions-making, better selling, and obtain competitive advantage. With regard to strategic information, there are several existing typologies. Among these, the following: internal versus external information (Aguilar 1967, El Sawy 1985), personal versus impersonal information (Aguilar 1967, El Sawy 1985), strong signal versus weak signal (Ansoff 1975). Lesca & Lesca (1997) has used a

classification that is based on flow of information and type of its use. This typology includes three kind of information: control, influence and anticipatory information.

*Control information* refers to information that is collected, generated, or consumed within an organization. It is produced by the firm and oriented to its internal use, such as financial information (costs, overhead allocation, profit earned), personnel information (training techniques, salary ranges), production control information (inventory management, customer order), or accounting information (balance sheet, bill of customer).

*Influence information* represents internal information that is created for individuals and groups external to an organization. This may include suppliers order, invoice of customer, product catalogue, and job supply.

*Anticipatory information*, also called *weak signal* by Ansoff (1975), refers to pieces of information that are collected from individuals and groups external to an organization and oriented to company internal use. Anticipatory information refers also to fragmented information about developments and trends, which have not been completely realized, or they have potential consequences, or are perceived to have a significant impact on organizational performance, either as threats or opportunities (Rouibah and Ould-Ali 2002). Anticipatory information may include customer concerns (satisfaction, wishes, problems), market concerns (project under development, new product information, strengths and technological advances of new products information about competition), marketing concerns (how aggressively the competition is marketing, a product line, how much international exposure a product has, and strategies to define and develop markets), competition concerns (debriefing job applicants about former applicants, new R&D projects, conducting telephone surveys of the competitors to discover pricing, or new product information) and general conditions (change in the labor market).

Lesca & Lesca's typology is used in this study since it involves the existing ones. In addition, Lesca and Lesca's studies have shown that French large companies are more concerned about anticipatory information. However, this result requires two observations. *First*, empirical research on actual information preference has tended to focus on the leading and large companies. *Second*, there are no empirical results about the executives' preference to Lesca and Lesca's typology, except quotations of interviewed managers. By contrast, this research looks more at how a "normal" and small firm uses a specific kind of information, and thus gives a better guide as to the general level of acceptance and use of strategic information in the Kuwaiti business community. Even though there is a lack of empirical results concerning the use of control, influence and anticipatory information, much research in Western countries provide knowledge on the behavior of small firms with regard to strategic information use (Fann and Smeltzer 1989, Gelb et al. 1991, Ettore 1995, Lang *et al.*, 1997, David and Groom 2001). Fann and Smeltzer (1989) surveyed 48 Canadian small firms. They found that on the whole, small firms did not obtain nor use significant amounts of information about competitors in their long-range or operational planning. Gelb et al. (1991) interviewed 20 executives of American SMEs. They found that they are very systematic scanners. According to Ettore (1995), a survey made by Futures group, found that 50% (among 103 firms) did not have a formal organized approach, did not believe the competition was spying on them, and did not want intelligence of any kind. McKenna (1996) found that entrepreneurs seem to believe

that if any information or intelligence is needed, just ask the owner. Any information or intelligence not controlled by the owner was deemed irrelevant and useless. Lang *et al.*, (1997) examined the scanning behavior of 671 American small businesses. Their research showed positive relationship between information gathering behavior and perceived threats and opportunities. Groom and David (2001) surveyed 44 small USA firms. They found that small firms, with less than 100 employees, are not concerned with gathering competitive information. Julien *et al.* (2002) surveyed 147 Canadian SMEs. They found that high innovative firms use more anticipatory information than low innovative firms. Mohan-Neill (1995) surveyed 68 American firms. He found that large companies are more likely to collect strategic information than small firms. Based on previous findings, the following two hypotheses are established.

*Hypothesis 5: the majority of small Kuwaiti firms gather anticipatory information less than large companies.*

*Hypothesis 6: the majority of small firm will systematically gather control and influence information with greater frequency than anticipatory information.*

Other researchers have examined the relationship between environmental scanning and firm size. Mohan-Neill (1995) found the scanning behavior depends on age and firm size. Groom and David (2001) found the number of employees to affect environmental scanning practices. Organizations with more than 10 employees exhibited a higher tendency to rely on employees for environmental information. Per opposite to on Mohan-Neill (1995) and Groom and David's findings, we want to test whether the involvement of employees in scanning activities has impact on perceive anticipatory information. We therefore infer the next exploratory hypothesis.

*Hypothesis 7: Kuwaiti companies with employees involved in the environmental scanning activities are more likely to gather anticipatory information than companies without employees involved.*

### **Obstacle to strategic information management**

Much of past researches investigated environmental scanning problems decisions-makers have been facing in western companies. Rouibah & Lesca (1996) have identified six major problems: difficulties of gathering and selecting anticipatory information, lack of training and motivation, inability to pull information together, difficulties to perceive positive impact of environmental scanning on company's performance, confusion in the existing of different appellations of environmental scanning, and complexity to understand and shape the meaning of environmental scanning. Some of these problems have been mentioned by several researches (Gelb *et al.*, 1991, Groom and David 2001). This research is an attempt to test their validity in the Kuwaiti business environment. Gelb *et al.*, (1991) found that an important issue facing executives consists in the fact that gathered data were used to confirm decisions already made or to support routine decisions and not for unstructured decision such as grasping market opportunities. Groom and David (2001), cites De Vries' (1989) who studied environmental scanning by entrepreneurship. According to De Vries, while scanning is useful, much of the information or intelligence gathered was unused. Groom and David (2001) found that less than half (36%) of the organization sampled (among 44) only realized benefits from environmental scanning activities. Chouk-Kamoun and

Salles (1998) studied 24 Tunisian SMEs. They found that executives do not perceive the value of strategic information as a factor that contributes to company performance. These results suggest that majority of small companies do not perceive any benefit from environmental scanning. On this basis, the seventh hypothesis is established as follow.

Hypothesis 8: obstacles related to perceived value of anticipatory information on the company's performances will create the greatest obstacle to the Kuwaiti executives in performing environmental scanning.

## RESEARCH METHODOLOGY

Since our interest focuses on attempt to clarify the practices and problems associated with environmental scanning, the survey method, based questionnaire, is chosen as being appropriate to answer the research questions. The designed questionnaire includes four categories. The first one records data related to profile of company (size, annual total revenue, number of total employees and number of employees involved in scanning activities). The second category highlights information related to respondents (position and involvement in scanning activities). The third category includes knowledge of strategic information, environmental scanning and type of collected information. The fourth category includes major obstacles Kuwaiti executives may encounter.

### ***The sample***

We collected data during the spring and summer of 2002. We targeted small to medium-sized companies. We define small companies as having less than 100 employees whilst those with more than 100 employees are considered large. We examined collected data for internal consistency and normality prior to testing of hypotheses. Scale reliability for the questionnaire items was sought calculating Cronbach's alpha. It was found to be ranging from 0.56 to 0.65, which is sufficient for exploratory research (Nunnally, 1978). We examined the normality of all variables, using Kolmogorov-Smirnov test (Daniel 1990). The null hypothesis being tested was that the data are normally distributed. The P-value [0.00] was found to be less than alpha [0.05], indicating that the variables are not normally distributed. In addition, content validity of all measurement instruments was sought for readability and ease of understanding. For this purpose, the aid of two professors and 7 Kuwaiti students, at the same school as the author, were solicited prior to the actual data collection. After reading the survey, they suggested making a number of changes. Consequently, a few items were modified until measurement instruments appeared to adequately reflect what they were purported to measure. Moreover, to ensure that the respondents attached the same meaning to the variables, each was defined in detail and each respondent was provided with a copy of the definitions.

In order to boost the response rate, we have chosen to contact companies through personal visits, using personal network and telephone to solicit participation. Companies were approached as follow. First an appointment was made with executives. During the meeting executives were delivered a letter that describes the research objectives and the questionnaire. Each participant was briefed on the purpose, content, and procedure for completing the questionnaire and provided with a copy of the instrument. A second appointment was made to collect the questionnaire. In addition, we looked at data gathered from several (up to 4) executives within the same organization and treating each

response as an individual data source. This methodology introduces biases but is sufficient to give insights onto a new research area in Kuwait. A total of 468 questionnaires have been distributed to 100 Kuwaiti companies. 382 questionnaires were returned from 86 companies (representing a response rate of 80%), but 347 only were used in the analysis. Companies involved in the survey can be classified into 8 sectors: retail service companies (29%), telecommunication and information technology (14.5 %), manufacturing companies (16%), insurance, finance and banking (12%), transport & tourism (4.8 %), construction (10.8 %), professional service and non profit organizations (8.5 %), and consumer goods (4.8 %). Among the sample, 41 % are involved in up to 3 sectors. The majority of companies (51.1%) had less than 100 employees, \$ 9 millions in annual turnover, and 60.1 % have employees involved in environmental scanning activities.

### **Measures**

Environmental scanning familiarity was measured using the frequency by which executives are familiar with the environmental scanning. The respondents were provided with a definition of environmental scanning and asked to indicate whether they are familiar on a two-point scale (yes / no).

Ten environmental scanning appellations used to refer to environmental scanning, identified from the literature, have been included in the research instrument. Respondents were asked to rank these variables from one to ten according to their knowledge and interest.

Strategic information was split into three types of information: control, influence and anticipatory information. The respondents were provided with a definition of each type and asked to indicate which they systematically collect on a two-point scale (yes / no).

Employees involved in scanning activities: respondents were asked to indicate the percentage of the employees in their organization who are engaged in the environmental scanning activities, according to the following categories: 0 person involved, [1-5], [6-10], [11-25], [26 -40], [41-50] and more than 50%.

Six obstacles to the performance of environmental scanning activities, identified from the literature, were measured using a five-point scale. The respondents were asked to indicate on a scale from strongly disagree (1) to strongly agree (5) whether each of the six factors had been an obstacle to the effort of performing environmental scanning.

## **DATA ANALYSIS & RESULTS**

Table 1 provides the survey responses in percentage form. It shows approximately 64 % of the respondents are familiar with the concept environmental scanning, 77 % with strategic information, and 50 % with anticipatory information. Accordingly, hypotheses 1 and 2 are supported. However, results indicate that a majority of executives is not familiar with the concept of anticipatory information.

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**Familiarity with**

**Percentage of positive answers**

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Environmental scanning	64.1
Strategic information	76.7
Anticipatory information	50.1
<b>Type of collected information</b>	
Control information	54.9
Influence information	65.7
Anticipatory information	58.7

**Table 1.** Familiarity with environmental scanning concepts and type of collected information

Hypothesis 3 enables researcher to test whether there is a significant relationship between two variables “familiarity with environmental scanning” and “familiarity with strategic information”. This has been tested using Pearson’s product moment correlation. We tested the null hypothesis “there is no significant relationship between the two variables”. The Chi-square found the p-value [0] to be less than alpha [0.05], indicating that null hypothesis is rejected. Therefore, knowledge of environmental scanning is positively related to knowledge of strategic information. Accordingly, hypothesis 3 is supported.

Hypothesis 4 tests whether Kuwaiti executives agree with the statement “there is confusion of the existence of different appellations that refer to environmental scanning”.

Table 2 provides the analysis of obstacles executives are facing.

Obstacles to environmental scanning	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
Gathering and selecting anticipatory information	22.3%	20.5%	26.2%	15.6%	15.3%
Training and motivation	43%	20.2%	17.5 %	7.3%	12%
Inability to pulling information together	18.8%	20.5%	25.7%	18.2%	16.8%
Inability to perceive impact of environmental scanning on the company's performance	31%	17.4 %	19.1%	14.8%	17.7
Confusion in the existing of different appellations of environmental scanning	29.9%	14%	19.8%	16.6%	18.9 %*
Inability to shape the meaning of environmental scanning	8.2%	4.7%	18.7%	20.8%	47.7%

**Table 2.** Obstacles facing executives to perform environmental scanning

Results show that 18.9 % of surveyed executives only “strongly agree” with the previous statement. Moreover, table 2 also shows that approximately 45 % either “strongly disagree” or “disagree” with the same statement. Accordingly, this percentage confirms that Kuwaiti executives do not experience difficulties dealing with several concepts related to environmental scanning, and have a clear vision about their content. Hypothesis 4 is therefore not supported.

In order to rank the 10 variables considered as alternatives to environmental scanning, we have used the Friedman test (given that the variables are not normally distributed). This test examines a set of variables to determine whether or not the mean rank of each variable differs significantly from the means of other variables in the set. Results in Table 3 shows that the P-Value [0.00] was found to be less than alpha [0.05], indicating that there is a significant difference between the ten variables. Results also show the rank of the ten variables.

\* Significant at  $p < 0.05$

Alternatives concepts	Mean Rank	2	3	4	5	6	7	8	9	10
1. Environmental scanning	7.06	*	*	*	*	*	*	*	*	*
2. Vigilant information system	6.48		*	*	*	*	*	*	*	*
3. Strategic environmental scanning	6.28			*	*	*	*	*	*	*
4. Early warning signal	6.28				*	*	*	*	*	*
5. Technological environmental scanning	5.58					*	*	*	*	*
6. Commercial environmental scanning	5.37						*	*	*	*
7. Strategic watch	5.31							*	*	*
8. Business intelligence	5.00								*	*
9. Competitive intelligence	4.14									*
10. Commercial intelligence	3.50									

**Table 3.** Multiple comparison tests of the alternatives to environmental scanning

Hypotheses 5 and hypothesis 6 test the relationship between “types of collected information” with regard to “company size” (small versus large firm). Before testing these two hypotheses, we first tested the independence of the three variables (“control information”, “influence information” and “anticipatory information”). The independence test showed that *Pearson Chi-square* was found to be 0.329 (control \* anticipatory) and 0.715 (influence \* anticipatory) both of which are greater than alpha [0.05], indicating

that the three variables are independent. Since the three variables are also not normally distributed, we have used the Mann-Whitney for 2 independent samples to test hypotheses 4 and 5. The null hypothesis tested is “there is no significant difference between type of information collected and company size (less than 100 employees versus more than 100 employees)”. Before testing this hypothesis, all participants were grouped into one of two categories based on the participant's response to the following employee survey item. Those respondents who answered with 2 (more than 100 and less than 500) or 3 (more than 500) were grouped into one category (more than 100 employees).

The Mann-Whitney test in table 4 shows that the p-value of the “influence” and “anticipatory” information [0.760, 0.389] was found to be greater than alpha [0.05], indicating that the test failed to reject the null hypothesis. Accordingly, there is no significant difference in the collect of “influence” and “anticipatory” information among small and large firms. Accordingly, hypothesis 5 is not supported.

In addition, according to table 4, the p-value [0.049] of the “control information” is smaller than alpha [0.05], therefore, there is a significant difference in the collect of control information among small and large companies.

Note: \* Significant at  $p < 0.05$

<b>Type of gathered information</b>	<b>Type companies</b>	<b>Mean rank</b>	<b>Man-Whitney U</b>
Control information	Companies(<100)	154.98	0.049*
	Companies (>=100)	172.83	
Influence information	Companies (<100)	158.83	0.760
	Companies (>= 100)	161.46	
Anticipatory information	Companies (<100)	159.01	0.389
	Companies (>= 100)	166.76	
<b>Type of information</b>	<b>Percentage of employees in scanning activities</b>	<b>Mean rank</b>	<b>Man-Whitney U</b>
Anticipatory information	0%	151.85	0.224
	Availability of people	162.80	

**Table 4.** Differences in the type of gathered information based on company size, and percentage of employees in scanning activities

Hypothesis 6 tests whether “control” and “influence” information are collected with greater frequency than anticipatory information. Table 1 shows that in average 66% of respondents collect “influence information”, 55 % collect “control information” and 59 % collect “anticipatory” information. These statistics reveal that Kuwaiti executives gather “influence information” with greater frequency than “anticipatory information” whilst they collect “anticipatory information” with greater frequency than “control information”. But the small difference in the frequencies (55%, 66%, and 59%) highlights that Kuwaiti companies do not really pay attention to the three types of information. Hypothesis 6 is therefore not supported.

Hypothesis 7 tests whether there is a significant relationship between two variables “anticipatory information” and “employees involved in scanning activities”. Before testing the hypothesis, percentages of employees involved in scanning activities were grouped into one of two categories, based on participant's responses to the employee survey item (either 1: “0 employees involved” or 2 “have people involved”). This has been achieved as follow: respondents who answered with 2 (from 1 to 5 %), 3 (from 6 to 10 %), 4 (from 11 to 25 %), 5 (from 26 to 40 %), 6 (from 41 to 50 %) or 7 (more than 50%) were grouped into a new category 2. Then, we tested the independences of “anticipatory information” and “employees involved in scanning”. The P-value of the Chi-square test [0.58] was found to be greater than alpha [0.05], indicating that the two variables are independent. Since “percentage of employees involved in scanning activities” and “anticipatory information” are not normally distributed and independent, hypothesis 7 was tested using the Mann-Whitney test for 2 independent samples. This examines the difference in the mean rank of two groups in which the scores in the first are tied with the second. We examined the null hypothesis “*there is no significant difference in the collect of anticipatory information among firms with employees involved in scanning activities and those without employees involved in scanning*”. The P-value [0.224], in table 4, was found to be greater than alpha [0.05], indicating that the test failed to reject the hypothesis 7. Accordingly, hypothesis 7 is not supported.

Before testing hypothesis 8, we first tested the dependence among the six obstacles. This was achieved through a multiple comparison procedure by comparing two variables each time. The P-value was found to be less than alpha, indicating that the six problems are dependents. Then we tested whether there was a significant difference among the six variables considered as obstacles to environmental scanning activities. Given that the six variables are not normally distributed and dependent, we used the Friedman test. It tests whether or not the mean of each dependent variable differs significantly from the means of the other variables in the set. Results are depicted in the next

Obstacles to environmental scanning	Mean rank	2	3	4	5	6
1. Complexity to shape the meaning of environmental scanning	4.65**	*	*	*	*	*
2. Inability to pull information together	3.55		*	*	*	*
3. Gathering and selecting anticipatory	3.46			*	*	*

information						
4. Confusion due the several refering to environmental scanning	3.39			*	*	
5. Difficulties to perceive positive impact of environmental scanning on the company's performance	3.21					*
6. Inadequate training and lack of motivating	2.74					

Table 5.

\* Significant at  $p < 0.05$ 

\*\* the greatest obstacle

Obstacles to environmental scanning	Mean rank	2	3	4	5	6
7. Complexity to shape the meaning of environmental scanning	4.65**	*	*	*	*	*
8. Inability to pull information together	3.55		*	*	*	*
9. Gathering and selecting anticipatory information	3.46			*	*	*
10. Confusion due the several refering to environmental scanning	3.39				*	*
11. Difficulties to perceive positive impact of environmental scanning on the company's performance	3.21					*
12. Inadequate training and lack of motivating	2.74					

**Table 5.** Multiple comparison tests of the obstacles encountered by the respondents in performing environmental scanning

We tested the null hypothesis “there is no significant difference between the six obstacles facing Kuwaiti executives”. Results shows that the P-Value [0.00] was found to be less than alpha [0.05], indicating that there is a significant difference between the six variables. Table 5 shows that the obstacle related to complexity to shaping the meaning of environmental scanning constitutes the greatest obstacle to Kuwaiti executives in performing environmental scanning. Since the mean rank of “difficulty to perceive positive impact of environmental scanning on company’s performance” is ranked fifth, hypothesis 8 is therefore not supported. In addition table 5 shows the rank of the six obstacles.

## DISCUSSION AND IMPLICATIONS

This study is an attempt at filling the gaps in the literature between west and LDC. It examines the practices of environmental scanning by Kuwaiti executives. Based on data analysis, some unexpected results surfaced from the study. The majority of Kuwaiti executives claim to be familiar with the concept of environmental scanning and strategic information concept. Those who are familiar with environmental scanning claim also to be familiar with strategic information (hypotheses 3). Results also revealed that Kuwaiti executives do not experience difficulties to deal with many appellations that refer to environmental scanning (hypothesis 4). At the same time, results indicate that the greatest obstacle executives are facing is not related to perceived value of anticipatory information on the company's performance; but it consists in the difficulty to understand the meaning of environmental scanning (hypothesis 8). How to pull anticipatory information together to derive intelligence oriented action and how to select this pieces of information are considered the most challenges for Kuwaiti executives. However, respondents do not consider inadequate training and motivation (ranked last) as an obstacle to the performance of environmental scanning. This is a change from the results of prior study of decision makers in developing countries and specifically Arabic one. Several researchers have cited inadequate management education and training as obstacles to the strategic management function (Anastos et al., 1980, Atiyah 1993, Abdalla and Al-Homoud 1995). Finally, results have shown there is no significant difference in the collect of "anticipatory" and "influence" information among small and large Kuwaiti firms (hypothesis 5). But the study failed to prove that small firms gather "control and influence" information with greater frequency than anticipatory information (hypothesis 6). In addition, this study has failed to prove any statistical significance relationship between collection of anticipatory information and availability of employees involved in scanning activities (hypothesis 7).

Interpretation of previous results leads us to the following new finding from Kuwaiti environment.

*First, Kuwaiti executives do not really understand, or they may have trouble about, what is environmental scanning, anticipatory information and their associated problems.* They claim to be familiar with the content and meaning of environmental scanning, strategic information, and its multitude terminology. However they report that the greatest problem they are facing consist in the difficulties to understand the meaning of environmental scanning. In addition, results show confusion to understand anticipatory information or weak signals. Whilst weak signal is considered to be one kind of information that is subject of environmental scanning (see Ansoff 1975), 50 % of Kuwaiti executives claim to be not familiar and do not know what its meaning is, while 59 % of respondents claim that their companies collect such information. This finding indicates a common blindspot to major Kuwaiti executives who participate in this study. The problem seems to have three main dimensions: (a) *Dissonance*, most managers have to somehow cope with dissonance; the differences between "reality" and their own perceptions of that reality. For example a manager may genuinely hold to the view that "he is informed about events that may occur in his environment," when in reality there is plenty of evidence that shows he does not know whether they are or not. (b) *Ignorance*, Kuwaiti executives do not seem to know much about environmental scanning and

therefore did not care when filling the questionnaire. Either they do not perceive the questionnaire to be a viable research instrument; or questionnaires may have been filled in by non specialists where their job is far from the area of environmental scanning. (c) *Trust*; managers may simply not trust to discuss environmental scanning issues with other people, and prefer to stick with the “information is power” concept, even if their own information is not very good. This is largely a corporate cultural issue, and suggests that management may not have developed or may not have seen the need to develop a culture in the organization suited to rapid systematic collection, analysis, and communication of information.

*Second, terminology that refers to environmental scanning seems to differ from regions and spoken languages.* This study has shown that Kuwaiti executives have chosen “environmental scanning” and “vigilant information system” as the most preferred concepts; whilst “competitive intelligence” is ranked the ninth. This result indicates that concepts used to refer to environmental scanning are little different from those used in Western companies (North America and Europe companies) where “environmental scanning” and “competitive intelligence” are the most used ones. This result implies that concepts used depend much more on the geographical space and language where they are used. In addition, “technological environmental scanning” ranked fifth, leads to the conclusion that technology issues are not much important for Kuwaiti executives. Result also shows that “early warning signal”, ranked fourth, indicates that Kuwaiti executives have problems to deal with “signals” or “weak signals”.

*Third, degree of awareness toward the use of strategic information is very low.* Weak score related to type of collected information (55 % for control information, 66 % for influence information, and 59 % for anticipatory information) indicates that information itself is not seen as an important factor by Kuwaiti executives. Whilst information in general, and strategic information is continue to be looked by proactive firms, in well developed countries, as an important resource at same level as internal resources, Kuwaiti executives do not perceive its value. This result requires convincing Kuwaiti companies first on the potential use of information in general before that of strategic information and environmental scanning. Much investment should be also spent by high managers to train, convince and propagate the “culture of see and hear” advocated by environmental scanning scholars.

Previous results should be examined in light with the study shortcoming, which might limit to extend the results’ generalizability. This study particularly suffers from two limitations. First, as mentioned previously, questionnaires have been filled by more than one executive in the same company with the study using a non probability sample which raises the external validity of the research findings. Second, results are not an industry specific since many companies from different sectors contribute to the study.

Results have implications for both practitioners and researchers. From a practical view, results of this study will be useful for consulting companies who are expected to help Kuwaiti companies to move in the right direction, to better assimilate environmental scanning. There is also a need to develop an efficient environmental scanning system, regardless of formality, for training executives to improve skills of environmental scanning. Due to the importance of assessing and analyzing the external environment, environmental scanning is essential to the strategic management process. Companies,

regardless of size and performance, must have the means to assess the external environment to maintain competitive edge. Results of this study may also enable firms to effectively scan changing customer needs, competitive forces, and the macro economy. It is our desire that findings from this study will encourage additional research in Arabic countries.

The paper closes with proposing further research questions. Many researches in well developed countries advocate that there is a positive relationship between environmental scanning activities and companies' performance (see Analoui and Karami 2002); is this relationship still valid in companies that belong to less developed countries? Is there any difference in the scanning frequency of different sectors of the environment (political, economic, societal, competition, customers, and suppliers)? Which kind of information sources do executives frequently scan?

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