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# Perception of the Characteristics of External Environment of Organizations and Its Effect on Managers' Environmental Scanning in Using Information Resources

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## Abstract:

**Purpose:** The purpose of the present study is to investigate the characteristics of external environment of companies in the second industrial area of Ahvaz and its effect on managers' environmental scanning behavior in using information resources.

**Method:** An analytic survey method is used to analyze the relationship between variables.

**Findings:** The findings showed that managers' perception of various external environment is influenced by variability factors (economic sector, M=3.96), complexity (economic sector, M=3.77) and importance (customers' sector, M=4.38). also the findings showed that managers' environmental scanning can match managers' perceived characteristics of various sectors of external environment, and from this aspect, they do the greatest scanning in economic environmental sector (M=7.4). The highest perceived strategic uncertainty (M=33.239) and environmental uncertainty (M=7.73) belonged to economic sector. Testing research hypotheses proved that managers' perceived strategic uncertainty and environmental uncertainty from environmental sectors of companies has a direct relationship with environmental sectors in those parts; and there is a direct and significant relationship between perceived environmental uncertainty and the frequency with which information resources is used in environmental scanning.

**Keyword:** Managers of Second Industrial Area of Ahvaz, External Environment, Environmental Scanning, Rate of Scanning, Uncertainty, Information Resources.

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**Statement of the problem:**

Great social changes are principally based on organizational activities; therefore, the problems societies face and deal with today cannot be understood without perceiving organizational content. Organizations both affect societies and their surroundings, and are affected by them. They are not born in vacancy rather their existence is based on a need originated from the community as an environment with various environmental factors and items, which indicate their dependence on environment and the necessity to interaction with the environment and its items. According to Mirshahvelayati and Nazarizadeh (2010) external environment includes 2 general classification: work environment (competitors, customers, and technology), and common environment (legislation, economic, and socio-cultural). In fact, environmental characteristics are the ones that in addition to determining the scope of organizational activities, the amount and type of its products are also defined (Hall, 1997). In other words, organizational environment and the intensity of dependence and interaction between an organization and its environmental sectors is unique, which may be influenced by various variables such as goals, prophecy and mission, size, scope of activities, diversity of products and services, etc. In the world today, environment is absolutely unstable and the organizations in this era have noticed the chaotic and unpredictable atmosphere of the world. It's quite clear that in an environment characterized with quick changes, complexity, and wonders, management cannot decode measure and predict the external and internal content of an organization by using traditional methods, or even control them (Daft, 1999). To put it simply, complexity and great diversity in environmental factors, complicates the decision-making equation and removes certainty from making decision which is called uncertainty. That is a condition an individual experiences while facing a new phenomenon and feels lack of knowledge. According to Ivanov (2009) uncertainty is a characteristic of a system that describes deficiency of human knowledge about a system and the process of its development. Duncan (1972) considers it a characteristic of external environment of organizations; and Yanse-Este'ves (2006) believes that it is lack of information about the world of an institute, the way decision-makers perceive it.

An environment of this type that directs managers toward uncertainty, affects organizational decision-making and its success (Ingwersen, 2011). Whenever senior managers receive false information about the environment, or fail to acquire information in the due time to perform a task, or when fail to apply appropriate approach due to lack of expertise, then their decisions may bring about negative and harmful effects (Schoderbek et al., 2008). Hence, environmental scanning is a behavior to acquire information from various information resources and is a process to remove the uncertainty resulted from environmental characteristics (rate of change, importance and complexity) and its use in making decisions.

Aguilar (1976) defines environmental scanning as the processes of searching for information about the relationships and events in the surrounding environment and the knowledge and awareness of the cases that contribute to the senior management of the organization in adjusting future attempts. Babutunde and Adebisi (2012) believe that environmental scanning is the monitoring, evaluation and publication of information from external and internal environment to key individuals in an organization or institute. Environmental scanning is the

process of collecting, analyzing, and distributing information for tactical or strategic purposes. Environmental scanning entails both real and concrete information, and mental information about commercial environments in which an institute functions or tends to import them.

Therefore, due to the quick changes in the external environment of an organization in addition to senior managers' decisions effect on organizational strategy and long-term goals, it is essential to scan the external environment of organizations, identify the opportunities and threats collect necessary information about them and use them in senior managers' decisions in organizations.

In the world today, not only information is known as one of the sources and major properties of an organization, but also it is taken a means of effective management of other sources and properties; therefore, it is of great importance and value. Information is a means of connection among organizations and their internal components, and necessitates the alignment and competition in organizations. Coordination and cooperation in an organization are possible only through distribution and exchange of information between individuals, between units of organizations and between an organization and the environment. Information resources of organizations are diverse and vast. Division of information resources has been discussed from different points of view. Sadegzadeh et al. (2013) have divided information resources according to organizational views into 4 groups including written sources, unwritten sources, audio-visual material, and electronic material. Farhadpoor (2012), Hosseini (2010), Choo (1993), and Rasuli (2013) have identified 16 information resources in their studies, and have classified them in the framework of internal/external and personal/impersonal information resources, which is in accordance with managers' and organization's environmental scanning behavior and information resources in relevant studies to environmental scanning reflect the events in environmental sector of an organization which a manager has to interact with to make decisions. Thus environmental scanning is knowing managers' information seeking behavior.

Managers' environmental scanning behavior has been studied in the context of various organizations and within different studies. Managers' perception of different sectors of external environment can vary based on activity context of different companies. Hosseini's study (2010) entitled "study of environmental scanning in collection and use of information by managers of private publications in Tehran" showed that there was a significant relationship between environmental scanning and, environmental uncertainty, information resources, accessibility and the quality of information. Farhadpoor's study (2011) investigated managers' environmental scanning behavior in academic libraries and found that sectors such as addressees and customers, technology, and socio-cultural were the important sectors with the highest variability rate and complexity and they possessed a high level of perceived strategic uncertainty and environmental uncertainty. Rasuli's study (2013) evaluated managers' environmental scanning behavior among private electronic publishers in Tehran and stated that economic sector was the most important environmental sector and possessed the highest variability rate and complexity; and that there was a significant meaningful

relationship between perceived environmental uncertainty and the frequency of information resources use and the amount of environmental scanning by manager.

Jain (1984) studied managers in large corporations of the U.S and showed that scanning was directed in 4 economic, technological, political and social fields, and scanning in economic environment and then technological environment was more than others. Daft et al. (1988) introduced a new concept in the field of perceived strategic uncertainty as the scout activity, and showed that based on partial uncertainty in different environmental sectors, customers, economic and competitors' sectors compared to technological, legislative and socio-cultural sectors created more perceived strategic uncertainty. Managers responded to perceived uncertainty with a high frequency of scanning in all cases. Finally, senior managers in institutes with high workload compared to institutes with low work load, in case of perceived strategic uncertainty, did scanning with higher frequency by using various media. Choo (1993) studied industrial managers' network in Canada and showed that perceived strategic uncertainty was high in technological, customers, and competitors environmental sectors, and managers perceived them very important and strategic, with high variability rate and complex; such that the amount of environmental scanning for each environmental sector had a direct relationship with perceived strategic uncertainty in that sector. Popoola (2000) studied environmental scanning to identify environmental sectors from the view point of industrial banking managers and showed that information resources used in environmental scanning included coworkers, customers and private files. Customers and competitors' sectors were perceived very uncertain strategically. The purpose of environmental scanning was to gain competition advantages in the relevant industry. Nkongolo-Bakenda (2003) studied small businesses and stated that managers' need of systematic scanning in an environmental sector and a information resource used by a business is influenced by the level of uncertainty in that environmental sector, the rate of information relevance and accessibility. The results of Jorosi's research (2006) on information needs and information seeking behavior of managers in small and medium-sized companies showed that managers in his study believed information about customers and competitors was the most important information related to their company; they dedicated much of their time to active search for information and got use of personal (customers, trade, association) and impersonal (newspapers, news media, and governmental publications) sources. Zhang's (2010) study entitled "Environmental scanning: an application of information literacy at the workplace" proved that environmental scanning is an up-to-date alarm system that helps a company to develop and correct business strategies according to variations of external environment and improvement in competition. Environmental scanning provides various and applied channels for development of information and far-distance communication in the process of data analysis. Babutunde and Adebisi's study (2012) entitled "Strategic environmental scanning and organization performance in a competitive business environment" showed that there was a significant relationship between strategic environmental scanning and organization performance, and that the inconsistency and variability in on organization's effective and efficient performance is due to variability and diversity in external environment factors which indicates external environment powers of an organization have a positive effect on its performance.

Review of the related literature show that the analysis and evaluation of external environment is very crucial for an organization. Environmental scanning provides managers with appropriate information about economic factors, competition, governmental rules, suppliers, technology and market to determine opportunities and threats for organization and let them acquire the knowledge for planning future affairs of the organizations.

Therefore, regarding the importance of understanding and knowing external environment, the main problem in this study is to investigate managers' perception of various external environment sectors and the effect of these characteristics in creating perceived strategic uncertainty and perceived environmental uncertainty by managers in addition to amount of environmental scanning and the frequency with which information resources are used in environmental scanning based on perceived uncertainty.

### **The Purpose and Significance of Research:**

In order to investigate the characteristics of external environment based on complexity, variability rate, and importance from the view point of managers in the second industrial area of Ahvaz and their effect on managers' environmental scanning in using information resources the following research question and hypotheses and posed:

- 1- How is managers' perception of various external environment sectors based on variables such as variability rate, complexity and importance?

### **Hypotheses:**

H<sub>1</sub>: Perceived strategic uncertainty by managers from environmental sectors of companies studied has a direct relationship with amount of scanning in that sector.

H<sub>2</sub>: Perceived environmental uncertainty by managers from environmental sectors of companies studied has a direct relationship with environmental scanning in those sectors.

H<sub>3</sub>: Perceived environmental uncertainty by managers in companies studied has a direct relationship with the frequency with which information resources are used in environmental scanning.

### **Research Method:**

The present study is an analytic survey. The population included managers of 60 active companies in second industrial area of Ahvaz (21 metallic and 39 nonmetallic). Managers of all 60 companies were included in the study as samples, a researcher-made questionnaire was distributed among managers. It was prepared using items in questionnaires of previous studies (table 1). After the formal validity confirmation, the reliability was calculated to be ( $r=0.918$ ) by Cronbach's  $\alpha$  coefficient. Then the questionnaire was given in person to the managers in the study of which 48 (return rate= 80%) were returned. After collecting data,

they were analyzed using SPSS software to answer the research question and test the hypotheses.

**Table 1- Variables, Relevant Questions in Questionnaire and Sources Used in Preparing Items**

<b>Variable</b>	<b>The number of relevant questions in the questionnaire and its items</b>	<b>Resource/resources used in preparing items</b>	<b>Relevant hypothesis or question</b>
<b>Characteristics of External Environmental of Organizations</b>	A <sub>1</sub> : To what extent the tendencies and events of each environmental sector are important for your company? A <sub>2</sub> : How much is the variability rate in each environmental sector? A <sub>3</sub> : How much complexity is there in each environmental sector?	Dunken (1972); Daft, Surmuten and Parks (1988); and choo (1993)	Research questions 1 First, second, and third hypotheses
<b>Amount of Scanning</b>	B <sub>1</sub> : with what frequency and interval information of each environmental sector is at center of your attention? B <sub>2</sub> : How aware are you of the development in each environmental sector? B <sub>3</sub> : How many hours do you work on a workday?..... hours How many hours do you spend on scanning? ..... hours	Humirick (1979); Choo (1993); Farhadpoor (2011)	First and second hypotheses
<b>Frequency of Use of Information Resources</b>	B <sub>1</sub> : with what frequency and interval information of each environmental sector is at center of your attention?	Farhadpoor (2011)	Third hypotheses

### **Findings:**

Q<sub>1</sub>: How is managers' perception of various external environment sectors regarding importance, complexity and variability rate indicators?

A question was prepared in order to identify the characteristics of the external environmental sectors of companies in second industrial area of Ahvaz according to managers which are answered in 3 different parts. The first priority for this question is to provide importance, variability rate and complexity as a subscale of the characteristics of environment from the view point of managers within 2 table, and in the second step frequency distribution of various external environmental sectors were illustrated within 3 table for variability rate,

complexity and importance from managers view point. In the third step, the results of one-tailed t-test were presented in table 4 for this question.

**Table 2- The Condition of Various External Environmental Sectors from the View Point of Managers in the Second Industrial Area of Ahvaz for importance, Variability Rate and Complexity**

Environmental sector	Importance		Variability rate		Complexity	
	Mean	SD	Mean	SD	Mean	SD
Customers	4.38	0.761	3.54	1.11	3.58	1.027
Competitors	3.9	0.928	3.18	1.024	3.41	0.895
Technological	4.08	0.82	3.48	1.129	3.56	0.943
Supervision	4	0.743	3.48	1.051	3.68	1.013
Economical	4.3	0.874	3.96	1.009	3.77	1.134
Socio-cultural	2.77	1.096	2.25	1	2.43	0.965
Ecological	3.02	0.999	2.43	1.201	2.73	1.124

Importance of each environmental sector: The results of findings show that customers (M=4.38), economic (m=4.3), technological (M=4.08), and supervision (M=4) sectors were considered important by managers, and competitors (M=3.9), ecological (M= 3.02) and socio-cultural (M=2.77) sectors were ranked lower based on importance.

Variability rate in each environmental sector: Variability rate is the sum to indicate how institutes, issues, tendencies, problems or opportunities change over time in external environment of organizations. . A low variability rate shows that the above-mentioned terms are constant from one year to another. The results of findings show that economic (M=3.96), customers (M=3.54), supervision (M=3.48), and technological (M=3.48) sectors were perceived to have the highest variability by managers while competitors (M=3.18), ecological (M=2.43), and socio-cultural (M=2.25) sectors were in lower ranks based on variability.

Complexity level of each environmental sector: In the complex environmental sector, there are plenty of factors to be taken into account while making decision. There are many individual and organizational players with complex relationship, such that causative and effective ties are not constant all the time. The results of findings show that economic (M=3.77), supervision (M=3.68), customers (M=3.58), and technological (M=3.56) sectors were perceived complex by managers while competitors (M=3.41), ecological (M=2.73) and socio-cultural (M=2.43) were in lower ranks based on complexity.



**Table 3- Frequency Distribution of Various External Environmental Based on Importance, Variability Rate, and Complexity from Managers' Point of View**

External Environment Factors	Number	Mean	SD	Standard Error of Mean (SEM)
Importance	48	3.78	0.488	0.070
Variability Rate	48	3.19	0.691	0.099
Complexity	48	3.31	0.633	0.091

Table 3 shows that the Mean of importance for various external sectors equals 3.78, variability rate of each sector equals 3.19, and the complexity level of each sector equals 3.31. Accordingly, the highest Mean belongs to the importance of external sector and the lowest Mean belongs to variability rate in each environmental sector.

**Table 4- Results of One-tailed t-test for Various Sectors of External Environment from Managers' Point of View in Second Industrial Area of Ahvaz for Importance, Variability Rate, and Complexity**

Theoretical Mean=3						
Confidence level 95%		Difference of mean	Significance Level (sig)	Degree of freedom (df)	t	
Higher	Lower					
0.919	0.635	0.777	0.000	47	11.01	Importance
0.39	-0.010	0.190	0.060	47	1.909	Variability Rate
0.128	0.496	0.312	0.001	47	3.42	Complexity

The t calculated for importance and complexity in each environmental sector equals (11.01) and (3.42), respectively and the degree of freedom is 47 at  $p < 0.05$  which is greater than critical t. Thus there is a significant difference between calculated Mean and the theoretical Mean (3) based on importance and complexity in each environmental sector; therefore; it is concluded that with 95% confidence, from managers' point of view, the events of each environmental sector were important for managers at a higher-than-average level and the complexity level of each environmental sector is at higher-than- average level. But based on variability rate, since the calculated significance level is greater than 0.05; it is concluded that the variability rate of various external environmental sectors were not perceived as important as complexity by managers.

H<sub>1</sub>: Strategic perceived uncertainty by managers from environmental sectors of companies studied has a direct relationship amount of scanning in that sector.

In order to test this hypothesis, the samples relied the following 3 questions whose results are presented in table 5. Then the Mean of various environmental sectors were calculated for estimating perceived strategic uncertainty variable according to the formula below.

A<sub>1</sub>: To what extent the tendencies and events of each environmental sectors are important for your company?

A<sub>2</sub>: How much is the variability rate in each environmental sector?

A<sub>3</sub>: How much complexity is there in each environmental sector?

Managers were required to select one of the following choices to reply the 3 questions: very little, little, to some extent, much, very much.

$$PSU=PI*(PV+PC)$$

PSU= Perceived strategic uncertainty

PI= Perceived importance

PV= Perceived variability

PC= Perceived complexity

**Table 5- Calculation of Perceived Strategic Uncertainty by Managers' Companies of Second Industrial Area of Ahvaz**

Environmental sector	Mean of perceived importance	SD	Mean of variability rate	SD	Mean of perceived complexity of resources	SD	Mean of perceived strategic uncertainty
Customers	4.38	0.761	3.54	1.11	3.58	1.027	31.186
Competitors	3.9	0.928	3.18	1.024	3.41	0.895	25.701
Technological	4.08	0.82	3.48	1.129	3.56	0.943	28.723
Supervision	4	0.743	3.48	1.051	3.68	1.013	28.64
Economical	4.3	0.87	3.96	1.00	3.77	1.134	33.239

		4		9			
<b>Socio-cultural</b>	2.77	1.09 6	2.25	1	2.43	0.965	12.963
<b>Ecological</b>	3.02	0.99 9	2.43	1.20 1	2.73	1.124	15.583

Results of table 5 indicate that perceived strategic uncertainty in economic (M=33.239), customers (M=31.186) and technological (M=25.723) sectors was higher than ecological (M=15.583) and socio-cultural (M=12.963) sectors was lower.

**Table 6- Results of Pearson's Correlation Coefficient for the Relationship between Perceived Strategic Uncertainty and Amount of Managers' Environmental Scanning**

		Amount of scanning
<b>Perceived strategic uncertainty</b>	<b>Pearson's correlation coefficient</b>	0.432
	<b>Significance Level (P-Value)</b>	0.002
	<b>Number</b>	48

R=0.432 ,  $R^2=18.66\%$

According to results of table 6  $r=0.432$  and  $\text{sig}=0.002$  which means that there is a positive direct relationship between perceived strategic uncertainty of environmental sectors of companies studies and the amount of scanning conducted there. In other words the more perceived strategic uncertainty by managers of second industrial area of Ahvaz, the more scanning they do.

H<sub>2</sub>: Perceived environmental uncertainty by managers from environmental sectors of companies studied has a direct relationship with environmental scanning in those sectors.

To clarify the relationship between managers' perception of uncertainty and the amount of scanning in those sectors, environmental uncertainty and the sum of the Mean of variability rate, and complexity level in each environmental sector the following formula is used (table 7), and then this hypothesis, was tested using Pearson's Correlation coefficient.

$$\text{PEU} = \text{PV} + \text{PC}$$

PEU= Perceived Environmental Uncertainty

PV= Perceived variability

PC= Perceived complexity

**Table 7- Managers' Perceived Environmental Uncertainty in Companies of Second Industrial Area of Ahvaz**

<b>Environmental sector</b>	<b>Mean of variability rate</b>	<b>SD</b>	<b>Mean of perceived complexity of resources</b>	<b>SD</b>	<b>Mean of environmental uncertainty</b>
<b>Customers</b>	3.54	1.11	3.58	1.027	7.12
<b>Competitors</b>	3.18	1.024	3.41	0.895	6.59
<b>Technological</b>	3.48	1.129	3.56	0.943	7.04
<b>Supervision</b>	3.48	1.051	3.68	1.013	7.16
<b>Economical</b>	3.96	1.009	3.77	1.134	7.73
<b>Socio-cultural</b>	2.25	1	2.43	0.965	4.68
<b>Ecological</b>	2.43	1.201	2.73	1.124	5.16

Table 7 showed that perceived environmental uncertainty in economic (M=7.73), supervision (M=7.16) and customers (M=7.12) sectors was high and in ecological (M=5.16) and socio-cultural (M=4.68) sectors it was low.

**Table 8- Results Pearson's Correlation Coefficient for the Relationship between Perceived Environmental Uncertainty and Environmental Scanning**

		<b>Amount of scanning</b>
<b>Perceived environmental uncertainty</b>	<b>Pearson's correlation coefficient</b>	0.283
	<b>Significance Level (P-Value)</b>	0.05
	<b>Number</b>	48

According to the results of table 8, Pearson's correlation coefficient is 0.283 with a significance of 0.05 close to critical area which means that the perceived environmental uncertainty in different environmental sectors of companies studied has a meaningful and significant relationship with the amount of scanning in that sector at a weaker level.

H<sub>3</sub>: Perceived environmental uncertainty by managers in companies studied has a direct relationship with the frequency with which information resources are used in environmental scanning.

In order to calculate the frequency with which information of a source in environmental scanning, managers were required to answer the following question: "How many times did you use each information source for environmental scanning?" They were required to select one of the following choices: never, less than once a year, several times a year, at least once a week, and at least once a day.

**Table 9- The Frequency with which Information of each Source Are Used by Managers in Environmental Scanning.**

Information Resources	M	SD
<b>Customers</b>	3.44	0.92
<b>Competitors</b>	3.17	0.93
<b>Work experts</b>	3.69	0.776
<b>Official Staff</b>	3.29	0.967
<b>Periodicals and Newspapers</b>	2.89	0.831
<b>Governmental Publications and Reports</b>	2.94	0.977
<b>Radio, Television</b>	3.02	0.786
<b>Trade Associations</b>	3.02	0.945
<b>Conferences and Visits</b>	2.88	1.002
<b>Counselors and Members of Subordinate committees</b>	3.27	1.026
<b>Subordinate Managers or Assistants</b>	3.73	0.791
<b>Subordinate Staff</b>	3.5	0.989

<b>Internal Regulations and Directives</b>	2.96	0.874
<b>Internal Reports and Research Projects</b>	2.81	1.044
<b>Library Sources</b>	2.73	1.005
<b>Electrical Information Services</b>	3.15	1.148

As the results of table 13 shows, subordinate managers and assistants (M=3.73), work experts (M=3.69), subordinate staff (M=3.5), and customers (M=3.44) were used more frequently in environmental scanning while conferences and visits (M=2.88), internal reports and researches (M=2.81), and library sources (M=2.73) were in lower ranks and were used with less frequently in environmental scanning.

**Table 10- Results of Pearson's Correlation Coefficient for the Relationship between Perceived Environmental Uncertainty by Managers from an Information Resource and the Frequency with which It Is Used for Environmental Scanning**

		<b>Frequency of the Use of Source</b>
<b>Perceived Environmental Uncertainty</b>	Pearson's Correlation Coefficient	0.425
	Significance level (p-value)	0.003
	Number	48

As table 10 shows, Pearson's correlation coefficient equals 0.425 with significance of 0.003 which means that there is a direct relationship between managers' perceived environmental uncertainty in companies studied and the frequency with which each information resource is used in environmental scanning.

### **Conclusion:**

In the present study, managers perceived customers section important and uncertain. Based on perceived environmental importance, the economic, technological, and supervision sectors were ranked lower based on importance, respectively. Variability rate in environmental, supervision, and technological sectors was higher than other sectors, respectively. Also the

findings show that economic, supervision, customers and technological sectors were perceived complex by managers, respectively. Generally, in the present study, importance, variability and complexity rate of economic environmental sector are resulted from great importance of this sector in organizational activities. In the previous studies on academic libraries (Farhadpoor, 2011) addressees and customers sections; electronic publications (Rasuli, 2013) economic sections; communication industries (Choo, 1993) technological sectors were known as the most uncertain ones.

Results of environmental perception in the present study show that the external environment of companies in the second industrial area of Ahvaz is a troubled environment based on complexity, variability rate and importance whose factors are variable, complex and important and a manager is expected to constantly monitor the environment to be able to predict various environmental events and their effectiveness on organization and decisions. Prediction and perception of environment and its events enables managers to show the best reaction in various conditions. Another considerable issue is competitors section. While competition among organizations is one of the research concerns in the field of organizational management and theories, the low score of competitors' environmental sector based on importance, complexity and variability rate on the other hand indicates competition, which is not a major concern and challenge for managers in second industrial area of Ahvaz; on the other hand it can be due to economic problems resulted from sanctions against our country; therefore, no real competition exists. As competition basically takes place in conditions contributing to accessing raw materials or development of market or accessing new markets, the third point is that managers in the second industrial area of Ahvaz, have enough market to launch their products and have access to lots of raw materials.

Also the results show that managers have greater interest in awareness of development in economic environmental sector, and the information about economic environmental sector is in their center of attention with more frequency. In previous studies on large companies (Jain, 1984) economic sector; small and medium-sized companies (Jorosi, 2006) customers and competitors sector; and academic libraries (Farhadpoor, 2011) addressees and customers sectors were more scanned by managers. To put it in simple words, it can be stated that regarding importance, variability rate and complexity perceived by managers from economic environmental sector in second industrial area of Ahvaz, greater scanning was conducted in this sector to be aware of the type and intensity of events occurring in this environment and make the best decisions against the challenges of this environmental sector compared to other environmental sectors.

The findings of testing the first hypothesis show that there is a significant relationship between perceived strategic uncertainty and the amount of scanning in external environmental sectors. In other words, from the view point of managers in this study, the more uncertainty is perceived strategically, the more scanning is conducted by managers in their environment to remove emerging uncertainty. Results of previous studies such as Daft et al. (1988), Choo (1993), Popoola (2000), Farhadpoor (2011), and Rasuli (2013) emphasized the significant relationship between perceived strategic uncertainty and amount of scanning which is in accordance with the present study.

Testing second hypothesis showed that there is a significant relationship between perceived environmental uncertainty and the amount of conducted scanning in external environmental sectors. In other words, the increase of perceived environmental uncertainty increases scanning in external environment. Daft et al. (1988), Choo (1993), Popoola (2000), Farhadpoor (2011), and Rasuli (2013) emphasized the significant relationship between perceived environmental uncertainty and the amount of scanning which justifies findings of the present study. In other words, the existence of environmental uncertainty makes managers start to scan environment to access necessary information to remove environmental uncertainty. If managers' perceived environmental uncertainty is investigated together with strategic responsibilities of senior managers, it reveals that managers face unstructured decisions in performing strategic responsibilities that faces long-term planning ahead and needs concise information with external out-of-organization nature. The main purpose of environmental scanning is collecting information of this type.

The results of third hypothesis showed that there was a significant and direct relationship between perceived environmental uncertainty and the frequency with which information resources were used for environmental scanning. Uncertainty can be a starting point of one's information-seeking behavior, knowing that environmental uncertainty itself is an equation of complexity and variability rate in environmental sectors. Therefore, it is concluded that the more perceived environmental uncertainty by managers, the more environmental scanning will be done to remove environmental uncertainty. Using information resources in environmental scanning is affected by perceived environmental uncertainty. In previous studies communication industries (Choo, 1993), academic libraries (Farhadpoor, 2011), a significant relationship was observed between these variables. Information on event of various environmental sectors are reflected in a wide spectrum of information resources. Managers' use of these sources are influenced by factors such as usability, accessibility, validity, relevance, interaction, up-to-datedness, and ease of feedback. Based on the findings of the present study, managers got use of personal information sources more than impersonal ones, also non-written (oral) sources were used more frequently than written sources (library sources, periodicals, reports, ...) as information resources in environmental scanning, which is stated as an information behavior regarding characteristics of sources.

## **References:**

- Aguilar, F.J. (1967). *Scanning the business environment*. New York: Macmillan Co.
- Babutunde, B.O., & Adebisi, A.O. (2012). Strategic environmental scanning and organization performance in a competitive business environment, *Economic Insights Trends and Challenges*, Vol. LXIV: pp. 24-34.
- Choo, C.W. (1993). *Environmental scanning: acquisition and use of information by chief executive officers in the Canadian Telecommunications Industry*. Ph.D. dissertation, University of Toronto, Totonto.



Daft, R. (1999). Principles of organization theory and design. Translated by Parsaeyan, A. &Arabi, M. .Tehran: Office of cultural research.

Daft, R., Sormunen, J., & Parks, D. (1988). Chief executive scanning, environmental characteristics, and company performance: An empirical study. *Strategic Management Journal*, 9(2), 123-139.

Duncan, R. B. (1972). Characteristics of organizational environments and perceived environmental uncertainty. *Administrative Science Quarterly* 17(3) , 313-327.

Farhadpoor, M. R. (2011). Evaluation of environmental scanning factors for the collection and use of information by managers of Islamic Azad University Central Library.A PhD thesis of Azad University, Science and Research Branch of Tehran, Department of Library and Information Sciences.

Hall, R. (1997). Organization (structure, process, and outcomes). Translated by Parsaiyan, M. &Erabi, M. . Tehran, Cultural Research Office.

Hosseini, A. (2010). Study of environmental scanning in the collection and use of information by managers of private publishers in Tehran. An M.A. thesis of Islamic Azad University Science and Research Branch. Islamic Azad University of Tehran Faculty of Humanities and Social Sciences.

Ingwerson, P. (2011). Interaction data recovery. Translated by Sutudeh. Tehran: Ketabdar Publications.

Ivanov, D. , & Sokolov, B. (2010) Adaptive supply chain management, London et a l.Springer.

Jain, S.C. (1984). Environmental scanning in the UScorporations. *Long Range Planning*, 17, 117-128.

Jorosi, B.N. (2006). The Information needs and information seeking behaviors of SME managers in Botswana. *LIBRI*, 56(2), 97–107.

Mirshahcelayati, F. & Nazarizadeh, F. (2010). Environmental scanning (monitoring and observation of external environment of an organization). Tehran: Training and Research Institute of Defense Industries. Future Research Center of Defense Science and Technology.

Popoola, S.O. (2000). Scanning the environment for competitive advantage: a study of corporate banking managers in Nigeria, *LIBRI*,5: pp. 210-216.

Rasuli, L. (2013). Factors influencing environmental scanning in the collection and use of information by managers of private in Tehran electronic publishing. An M.A. thesis of Payam Noor Mashhad, Mashhad.

Sadegzadeh, A., Hasanzadeh, M., & Najanghlinezhad, A. (2013). Information and information flow in organization. Tehran: Ketabdar Publicatins.

Schoderbek, P., Schoderbek, C.H., & Kefalas, A. (2000). Management system (MIS-decision – making and cybernetics). Translated by Brumand, z. Tehran, Jangal publication.

Yanes-Estevens, V. (2006). Mapping preceived environmental uncertainty. Rasch Measurement Transaction, *16*(3), 1033-1034

Zhang, X., Majid, S., & Foo, S. (2010). Environmental scanning: an application of information literacy skills at the workplace. Journal of Information Science, No. 36 (6): pp. 719–732.