PERCEIVED ENVIRONMENTAL SECTOR IMPORTANCE AS A DETERMINANT OF MANAGERIAL INFORMATION SEARCH BEHAVIOR

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ABSTRACT

Several prior studies have examined aspects of purposeful information search behavior as a necessary component of the formulation of business policy and strategy. This study used a sample of credit union managers to assess how the managers' information search behavior related to various environmental sectors was affected by their perceived importance of those sectors. The study measured the use of five different types of information sources related to each of six environmental sectors. The five types of information sources included internal and external personal and written sources and the Internet. The six sectors were equally divided between the task and general environments. The hypothesized positive relationship between perceived sector importance and search behavior, measured by the frequency of information source usage, was supported for sectors related to the general environment, but not for sectors related to the task environment.

INTRODUCTION

The strategic management process is traditionally described as a continuous, proactive process where key decision-making personnel regularly seek information in order to assess the environment and, as a result, make necessary changes to the manner in which the organization operates in order to achieve strategic objectives (Aguilar, 1967; Hambrick, 1981; Hambrick, 1982). Alternatively, some recent researchers have found this process to be somewhat more intermittent and reactive. Various explanations for why the process has often more intermittent and less proactive have been offered. For example, Forbes (2007) views the process as controlled by practical considerations such as the "quantity" and "determinacy" of available information that is used in environmental assessment. Nadkarni & Barr (2008) describe the process as being driven by managerial perceptions of the relevancy of environmental sectors to performance and the degree a causal relationship between the environmental factors and their potential effects on the organization's performance are determinable. Thus, these studies support the premise that a manager's perceptions regarding the quantity, quality and relevancy to performance of available environmental information would influence their decision as to whether to invest the time and effort required to seek that information. Consistent with the expectation that relevancy to performance would be a motivating factor in the information search process, the present study tests the degree managers' information seeking behavior involved in scanning the environment is related to their perception of a particular environmental sector's importance.

In addition, the study avoids some of the methodological issues involved with previous studies that aggregated perceived environmental sector importance with other variables such as perceived environmental sector complexity and environmental sector rate of change into a single latent predictor variable, perceived strategic uncertainty. The study focuses on the more direct relationship between perceived environmental sector importance and scanning frequency using five different information sources for each of six sectors encompassing both the task and general environment. The relationships between perceived sector importance and source usage for both task environment sectors and general environment sectors can then be compared to determine if the relationship is uniform for the various sectors of the environment.

LITERATURE REVIEW AND HYPOTHESES

Perceived environmental importance as a predictor of scanning behavior originated from prior research that examined how persons, primarily managers in large businesses, scan the environment. These researchers (e.g. Daft, Sormunen & Parks, 1988; Sawyerr, 1993; Elenkov, 1997; May, Stewart & Sweo, 2000) have tested relationships between "perceived strategic uncertainty" and scanning behavior. The latent predictor variable "perceived strategic uncertainty" in these studies was comprised of three individual predictor variables (perceived rate of environmental change, perceived level of environmental complexity and the level of importance in obtaining the organizational goals). Specifically, the latent predictor variable perceived strategic uncertainty was calculated as follows (Daft et al., 1988:130):

$$PSU = I (C + R).$$

Where
PSU= Perceived Strategic Uncertainty
I = Perceived Sector Importance
C=Perceived Sector Complexity
R=Perceived Sector Rate of Change

These studies typically differentiated between the task and general environments pursuant to typologies developed by Bourgeois (1980) and Dill (1958).The task environment consisted of the environment closest to the organization including the customer sector, supplier sector and competitor sector. These sectors in the task environment are differentiated from those in the general environment, consisting of the social, demographic and economic sectors, because the task environment sectors more frequently involve direct contacts with the organization and the contacts between the general environment and the organization tend to be more indirect.

The Daft et al. (1988) study found the correlation between scanning frequency and perceived strategic uncertainty was higher for the personal modes than the written modes. Sawyerr (1993) studied the relationship between the perceptions of environmental uncertainty and environmental scanning behavior for a sample of CEOs in 47 Nigerian manufacturing firms. The results indicated there was a significant positive relationship between perceived environmental uncertainty scores and scanning interest scores in all environmental sectors. However, such a positive relationship between perceived environmental uncertainty scores and scanning frequency scores was not found for all sectors. Elenkov (1997) sampled 141 Bulgarian company executives. While the scanning mode results in Bulgaria were similar to the results in the United States based Daft et al. (1988) study, he did not find evidence to support the

hypothesized positive relationship between strategic uncertainty and scanning found in the United States sample.

May et al. (2000) sampled of Russian executives. In contrast to the results of the Daft et al. (1988) U.S. sample, the sector rate of change and sector complexity were not significant predictors of scanning behavior in the Russian sample. The researchers speculated the persistence of a turbulent economic environment and other factors faced by Russian executives, might result in decision-making that is more centralized and based on substantially less information compared to decision-making in the United States.

The differences in the results between these subsequent international studies and the original Daft et al. (1988) domestic study could be attributable to many factors investigated in other strategy studies involving information search. Forbes (2007) expressed certain caveats regarding the decision-making utility of scanning in certain contexts such as exist in these international scanning studies. Building on the ideas of Huber & Daft (1987), he proposes that in order for information gained from the scanning process to be useful in decision-making it must sufficient in both quantity and determinacy on order to achieve a satisfactory level of comprehensiveness. Information must be available in sufficient quantity to portray an environmental situation correctly. For example, if a firm has competitors that are privately held or report as part of a large conglomerate financial information about them may be scarce and scanning may be of reduced value. Similarly, information may be anecdotal, subject to conflicting interpretations or inconsistent. This lack of determinacy may also diminish the value of scanning and therefore affect the degree management engages in search activity. These conditions may account for some in the variance in results from the scanning studies in different countries where the information varies greatly as to its comprehensiveness.

Other streams of scanning research have investigated the process of environmental scanning and identified additional individual, organizational and industry level factors that influence scanning behavior. All organizational leaders have individual limitations as to the scope of information they can monitor (Cho & Hambrick, 2006; Cyert & March, 1963). Bogner & Barr (2000) describe cognitive frameworks that develop during the process of sensemaking (Daft & Weick, 1984) as managers interpret their environment from information gathered during scanning and then act based on their interpretations. Managers develop these frameworks based on past experiences with events and interactions with the environment, and then use these frameworks as an interpretive tool to make sense of current events and to decide what actions are appropriate responses to them (Reger & Palmer, 1996). As such, these frameworks that are developed are subject to the cognitive biases and values of the members of the dominant coalition in the organization (Hambrick & Mason, 1984), the perception by managers that alternatives can be developed to frameworks that are controllable (March & Shapira, 1987) and managerial judgments that they fit the social economic and cultural structures of the organization (Ocasio, 1997).The utility of these frameworks diminish as changes in the competitive environment become more frequent (Nadkarni & Barr, 2008). As a result, managers have to devote more time to those events in order to develop new cognitive frameworks that more relevant to the new environment.

Organizational level factors can also affect scanning behavior. Daft & Weick, (1984) suggested that many organizations have developed a culture of passive acceptance of environmental change and actively seek information on its environment only in response to a crisis. Other higher performing organizations have developed organizational competencies specifically designed to address rapidly changing environments such as the ability to rapidly acquire knowledge through the development of professional networks and through collaboration

once those networks are established (Eisenhardt & Martin, 2000; Teece, Pisano, & Shuen, 1997). Managers in the same organization tend to share a higher level of commonality of views regarding their environment than they do with their counterparts in other organizations which suggests that institutional forces tend to exert an isomorphic force with respect to directing scanning efforts (Sutcliffe & Huber, 1998).

At the industry level, Nadkarni & Barr (2008) found an interesting relationship between the context of an industry, particularly with respect to its amount of change and the focus of environmental scanning activity. They found managers in relatively stable industries tended to focus their scanning efforts more on the general or general environment. Managers in more unpredictable industries tended to focus their scanning efforts more on the task environment. This finding is particularly relevant in the present study as the industry is somewhat stable.

Several studies have explicitly studied the scanning-performance relationship to establish that scanning is relevant to organizational level outcomes. Daft et al. (1988) found executives in higher performing firms scan the environment more frequently and tailor their scanning to the degree of perceived strategic uncertainty better than CEOs in lower performing firms. In addition, CEOs in higher performing firms used more types of information sources than their counterparts in lower performing firms. More recent studies have reported results consistently supporting a relationship between scanning and performance. In a study of single industry manufacturing firms Danneels (2008) found significant positive relationships between scanning activity and development of second order competencies in marketing and research and development using frequency of participation by employees at trade shows, conferences and professional association activities together with frequency of contact with members of the scientific and research community and reading of specialized journals and magazines as measures of scanning activity. However, the relationship between scanning and performance may not only be a direct one, but also may be mediated by the many factors involved with sensemaking and decision-making (Narayanan, Zane & Kemmerer, 2011).

 The use of latent variables in the prior studies originating with the Daft et al. (1988) study utilizing the latent variable "perceived strategic uncertainty" can be problematic for several reasons. One definition of a latent variable is a "hypothetical variable" (p. 607) derived from academic supposition (Nunnally, 1978). Another definition is a variable that is unmeasurable or unobservable (Jöreskog & Sörbom, 1979). An argument can be made that the three variables comprising Perceived Strategic Uncertainty in these prior studies are no more observable or measurable phenomenon than the proposed latent variable itself. A third definition describes results from data reduction such as factor analysis (Harman, 1960: Bollen, 2002). Performing factor analysis on the combined items of the component variables would have possibly yielded a latent variable that is distinct from the mathematically derived latent variable used in the prior studies. Another "formal definition" (Bollen, 2002, p.614) is that the measured variables forming the basis of the latent variable are uncorrelated. The component variables in the Strategic Uncertainty latent variable were indeed highly correlated in the May et al. (2000) study results.

Finally, aggregating these variables into the perceived strategic uncertainty latent variable makes the role of environmental sector importance in motivating information seeking behavior less clear than if each component variable were assessed individually with respect to information seeking behavior. The present study therefore assesses the relationship between one of the component variables in these previous studies, perceived environmental sector importance, and information source scanning frequency:

Hypothesis 1.   There will be a significant positive relationship between perceived environmental sector importance and information source scanning frequency for elements of the task environment.

Hypothesis 2.   There will be a significant positive relationship between perceived environmental sector importance and information source scanning frequency for elements of the general environment.

METHODS

Sample

This study sampled Credit Union managers attending multiple executive training programs conducted in the Southeastern United States. Attendees were sent the survey instruments to complete before attending the program and those that had not completed the instrument by the end of the sessions were contacted and reminded to return the completed surveys. Participants were given a small cash award for the return of completed surveys. Although the identities of the respondents were recorded for purposes of compensating respondents, the responses were kept anonymous. A total of 143 instruments were provided to attendees and 109 usable surveys were returned. A 76% response rate was achieved using this protocol.

The majority of the respondents were early to mid career women. Specifically, 61% of the respondents were women and 73% were between the ages of 26 and 46. Over 70% of the respondents had been with their employer greater than 7 years. The respondents were well educated with 67% having achieved a bachelors or masters degree. Credit Union managers at the career stage of the majority of respondents in the present study are not customarily involved in the formulation of corporate or business level strategy. Their managerial roles generally involve the management of a specific branch of the Credit Union or a major functional area within a particular branch or the operational headquarters of the Credit Union rather than top level management of the organization. Credit Union managers at this level are more commonly involved in implementing corporate or business level strategy formulated at a higher managerial level and formulating and implementing functional level strategy that is consistent with those strategies formulated by higher level management. However, the information scanning behavior related to the strategic roles assumed by these respondents is an important area of study because of the sheer number of decisions related to their strategic roles and the significance of these roles with respect to the maintenance of positive relationships with important outside stakeholders. The salience of these relationships to this level of management should be reflected in the degree these managers seek information in environmental sectors that pertain to these stakeholders.

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Measures

The predictor variable, perceived environmental sector importance, was measured using a portion of a scale designed to measure executive scanning behaviors (Daft, Sormunen & Parks, 1988). The scale identifies six environmental sectors. These sectors include the competitive, customer, technological, regulatory, economic & socio-cultural sectors. Respondents were asked to rate each sector's importance in affecting the performance of their firm on a five point Likert-type scale with "not important" and "very important" as anchor points.

The criterion variable, scanning frequency, was measured using a different portion of the same Daft, Sormunen & Parks (1988) scale. Their scale measured the respondents scanning frequency by asking them to describe how often they used various information sources to get useful information regarding each of the six environmental sectors. The information sources included written external sources, written internal sources, personal external sources and personal internal sources. Written external sources included the Wall Street Journal, other periodicals, and trade magazines. Written internal sources included special studies, reports, and memos produced by the firm. Personal external sources included business associates, customers, vendors, officials and trade shows. Personal internal sources included subordinates, superiors, coworkers and staff. In contrast to the approach taken by Daft et al. (1988) in their instrument, the technology sector was categorized in the present study as a task environment sector and the regulatory sector was classified as a general environment sector. In addition, the Internet was included as an additional distinct information source. This source was not included in the Daft et al. (1988) study.

Perceived importance of each environmental sector constituted a different predictor variable for determining the scanning frequency criterion variable for each of the information sources. Therefore, scanning frequency was measured for each of the five types of information sources and for each of the six environmental sectors. Consequently, the significance of 30 bivariate relationships between perceived environmental sector importance and scanning frequency were assessed. The patterns of significance of these bivariate relationships were intended reflect the degree of support for the hypotheses.

RESULTS

Descriptive statistics for the predictor and criterion variables are shown in Tables 1 through 7. The significance of relationships between the predictor and criterion variables are shown in Table 8. The patterns of relationships were distinctly different between the elements of the task and general environments. As shown by Table 8, here were 10 positive significant relationships out of a possible 15 relationships between perceived sector importance and scanning frequency for sectors in the general environment. The relationships between Perceived Sector Importance and Frequency of Information Source usage were particularly strong for the sociocultural environmental sector. This evidence tends to support Hypothesis 2. However, there was only 1 positive significant relationship between perceived sector importance and scanning frequency for sectors in the task environment. This evidence tends not to support Hypothesis 1.

Table 1
DESCRIPTIVE STATISTICS
Predictor Variable
Sector Importance
Low=1 High=5

Sector	N	Mean	S.D.
Competitive Sector	106	4.32	.79
Customer Sector	106	4.68	.61
Technology Sector	106	4.37	.71
Regulatory Sector	106	4.07	.83
Economic Sector	106	4.26	.77
Sociocultural Sector	106	3.27	1.29

Table 2
DESCRIPTIVE STATISTICS
Criterion Variable
Scanning Frequency
The Competitive Sector
Daily=1 Weekly=2 Monthly=3 A Few Times a Year=4 Less Than Once a Year =5

Scanning Source	N	Mean	S.D.
Written External Sources (e.g. trade magazines)	107	3.33	.94
Written Internal Sources (e.g. reports, memos)	107	3.13	1.12
Personal External Sources (e.g. customers, vendors)	107	3.15	.95
Personal Internal Sources (e.g. superiors, coworkers, subordinates)	107	3.87	.89
The Internet	106	3.56	.95

Table 3
DESCRIPTIVE STATISTICS
Criterion Variable
Scanning Frequency
The Customer Sector
Daily=1 Weekly=2 Monthly=3 A Few Times a Year=4 Less Than Once a Year =5

Scanning Source	N	Mean	S.D.
Written External Sources (e.g. trade magazines)	107	3.25	1.06
Written Internal Sources (e.g. reports, memos)	107	3.40	1.17
Personal External Sources (e.g. customers, vendors)	107	3.23	1.07
Personal Internal Sources (e.g. superiors, coworkers, subordinates)	107	4.02	.91
The Internet	105	3.66	1.10

Table 4
DESCRIPTIVE STATISTICS
Criterion Variable
Scanning Frequency
The Technology Sector
Daily=1 Weekly=2 Monthly=3 A Few Times a Year=4 Less Than Once a Year =5

Scanning Source	N	Mean	S.D.
Written External Sources (e.g. trade magazines)	106	2.84	.98
Written Internal Sources (e.g. reports, memos)	106	2.71	1.00
Personal External Sources (e.g. customers, vendors)	107	2.79	.87
Personal Internal Sources (e.g. superiors, coworkers, subordinates)	107	3.39	.93
The Internet	105	3.41	1.03

Table 5
DESCRIPTIVE STATISTICS
Criterion Variable
Scanning Frequency
The Regulatory Sector
Daily=1 Weekly=2 Monthly=3 A Few Times a Year=4 Less Than Once a Year =5

Scanning Source	N	Mean	S.D.
Written External Sources (e.g. trade magazines)	105	2.83	.99
Written Internal Sources (e.g. reports, memos)	107	2.76	.99
Personal External Sources (e.g. customers, vendors)	107	2.64	.86
Personal Internal Sources (e.g. superiors, coworkers, subordinates)	107	3.08	.96
The Internet	106	3.23	1.06

Table 6
DESCRIPTIVE STATISTICS
Criterion Variable
Scanning Frequency
The Economic Sector
Daily=1 Weekly=2 Monthly=3 A Few Times a Year=4 Less Than Once a Year =5

Scanning Source	N	Mean	S.D.
Written External Sources (e.g. trade magazines)	106	3.51	1.12
Written Internal Sources (e.g. reports, memos)	107	3.16	1.27
Personal External Sources (e.g. customers, vendors)	107	3.07	1.01
Personal Internal Sources (e.g. superiors, coworkers, subordinates)	107	3.70	2.02
The Internet	106	3.70	1.14

Table 7 DESCRIPTIVE STATISTICS Criterion Variable Scanning Frequency The Sociocultural Sector Daily=1 Weekly=2 Monthly=3 A Few Times a Year=4 Less Than Once a Year =5			
Scanning Source	N	Mean	S.D.
Written External Sources (e.g. trade magazines)	106	2.25	1.04
Written Internal Sources (e.g. reports, memos)	107	2.06	.99
Personal External Sources (e.g. customers, vendors)	107	2.34	1.11
Personal Internal Sources (e.g. superiors, coworkers, subordinates)	107	2.64	1.32
The Internet	106	2.82	1.40

Table 8 PATTERNS OF RELATIONSHIPS BETWEEN SECTOR IMPORTANCE AND INFORMATION SOURCE FREQUENCY OF USE						
Bivariate Pairwise Correlations N = 104-106 *<.05 **<.01	Competitive Sector	Customer Sector	Technology Sector	Regulatory Sector	Economic Sector	Sociocultural Sector
Written External Sources (e.g. trade magazines)	.10	.05	-.04	.07	.15	.51**
Written Internal Sources (e.g. reports, memos)	.12	.12	.03	.20*	.28**	.47**
Personal External Sources (e.g. customers, vendors)	.00	.21*	.09	.24*	.18	.53**
Personal Internal Sources (e.g. superiors, coworkers, subordinates)	-.02	.18	-.02	.28**	-.05	.63**
The Internet	.06	-.01	-.03	.23*	.09	.53**

DISCUSSION

The purpose of this study was to assess the relationship between the perceived importance of an environmental sector and the frequency that managers utilize various information sources to get useful information regarding that sector. Managers presumably access information sources to reduce uncertainty which, in turn, results in better managerial decisions and organizational performance. The results indicated that the effect of perceived importance of each environmental sector did affect the frequency of use for various information sources related to that sector, but only for certain sectors. Significant relationships between perceived environmental sector importance and scanning frequency were not observed for sectors of the task environment, but were observed for sectors of the general environment. There are several possible explanations for these results.

One possible explanation for the lack of significant relationships between the perceived importance of the task environment and the frequency of information search related to the sectors in that environment is that the task environment for the respondent's industry in this study were deemed to be less important so that it would not necessary to frequently gather information regarding them. However, as shown in Table 1, the mean scores for perceived importance of the environment sectors were higher for the task environment than for the general environment which did show significant relationships with scanning frequency. The frequencies of use of information sources were generally higher for the task environment sectors than the general environment sectors, but the standard deviations of responses for the predictor variable, deemed importance, were lower than in the task environment sectors than in the general environmental sectors. This apparently resulted in stronger relationships between deemed sector importance and frequency of information source usage for the general sectors than the task sectors. Therefore, when managers routinely access information of certain sectors of the environment in the regular course of their duties it reduces the possibility that a single predictor variable related to information search behavior, such as deemed importance of a particular sector, will affect the frequency in which information about the sector is sought.

The Nadkarni & Barr (2008) finding with respect to the relationship between the characteristics of an industry, particularly with respect to its amount of change, and the focus of environmental scanning activity suggests another possible explanation for the findings in this study. Their findings suggest that managers may tend to focus scanning efforts on based on the relative stability in an environmental sector. The stable nature of the Credit Union industry task environment could be expected to result in more scanning related to the general environment. However, in the present study the deemed importance of environmental sectors was higher in the task environment sectors, but there were not significant positive relationships with information source usage for those sectors.

Another possible explanation may be a function of the type of information that would be deemed useful by a manager in assessing each sector. Compared to task environment information, information related to the general environment tends to be more widely available, easier to access, written in less technical language and whose correct interpretation is less critical to the success of the manager and the organization. Therefore, information on these sectors may be more likely to be accessed. This possibility is consistent with prior research on the dual process theory of decision-making.

Many recent descriptive decision-making models are based on two distinct systems of reasoning (Sloman 1996).   Although the terminology used to describe these two systems varies, the characteristics of the two systems are described in a similar manner. Epstein (1994) described the two systems as experiential and rational; Sloman (2002) characterized them as associative and rule-based, Stanovich and West (2000) and Kahneman (2003) have labeled them as System 1 and System 2. The System 1 or the experiential system describes a fast, effortless, intuitive process that is subject to emotional influences and is utilized to make many decisions in a near simultaneous manner. The System 2 or the rational system describes a slow, effortful, rational process that results in decisions that are made sequentially rather that simultaneously.   The underlying assumptions regarding the use of the two systems are that System 2 reasoning requires a greater use of appropriate information and analysis (Kahneman 2003) and that System 2 or logic-based reasoning by the decision maker will result in better solutions to more complex problems than a greater use of System 1 or intuitive reasoning (Stanovich and West 2002). Therefore, in the present study information seeking activity for the general environment may be more frequent because it is quicker and easier to access.

The results in Tables 2 through 7 provide some support for this explanation. The two most frequently accessed information sources for all six environmental sectors were personal internal sources, which included subordinates, superiors, coworkers and staff, and the Internet. Presumably, managers access these sources regularly and gathering information regarding environmental sectors from these sources requires very little additional effort. Gathering information from written external and internal sources and from personal external sources such as business associates, customers, vendors, officials and trade shows would likely require substantially more effort and planning. However, information that is the easiest to access may not be the most accurate. Information from the Internet may not always be reliable. Information gained from within the organization may be subject to institutional forces that result in a degree of isomorphism with respect to how information is expressed and interpreted (DiMaggio & Powell, 1983). The relatively less frequent use of personal external sources to monitor all environmental sectors suggests that this information source, which may often be more objective, may be underutilized.

LIMITATIONS AND SUGGESTIONS FOR FUTURE RESEARCH

The length and scope of survey instruments are limited due to the general reluctance of individuals to participate in complex or time consuming survey-based data collection efforts (Newby, Watson, & Woodliff , 2003; Markman, Balkin, & Baron, 2002). This limits the ability to assess the relationship of large numbers of variables. Unfortunately, many relationships involved in assessing cognitive behavior can be quite complex and can involve many variables. As a result multiple studies may be necessary to fully assess these types of relationships. These limitations often also preclude the desirable use of multiple measures of a single construct. An additional bias resulting from obtaining the data using a single method is possible (Avolio, Yammarino & Bass, 1991; Spector, 1987). Spector (1987) found this bias was of minor consequence in an analysis of employee self-report measures. Relative rankings of similar items were used for analysis. In the present study, any common method bias would similarly affect those items and be less influential with respect to individual rankings.

Collecting cognitively based data from managers related to decision-making behavior often requires the use of self-report measures and reliance on the recollection of past behaviors or attitudes. However, Brewin, Andrews and Gotlib (1993) have determined the retrospective

recall of specific events or facts is quite accurate. The study involved only one industry. This methodology eliminates any industry effects on the results, but also imposes possible limits on the generalizability of the findings to managers in other industries. Designing studies addressing these additional research questions that simultaneously include managers from two or more industries should increase the generalizability of their findings.

While providing evidence to support the differential frequency of use of various information sources by managers based on their perceived importance of environmental sectors in which their organization operates, this study raised issues to be resolved in future studies. The study assessed the quantity of information seeking behavior by measuring the number of times information sources, identified in numerous previous studies, were judged to be helpful.   A future study that includes an expanded list of information sources within each information source category should prove additional insights although constraints on data collection may require multiple studies in include numerous potential information sources. For example, identifying the hierarchical position of respondents within an organization should add a higher level of understanding whether internal information exchanges regarding environmental sectors is primarily among peers or among personnel at different hierarchical levels. The type of data might determine the extent the information gathering from personal internal sources is a byproduct of normal social interaction or the result of a strategy driven quest. Seeking information from external information sources often requires considerable effort and expense. Therefore, soliciting the opinions of respondents regarding what they perceive as the most helpful external personal and written sources might not only provide useful directions for future research, but also provide guidance to organizational leadership seeking to allocate resources to seek this information and to provide training to its managers in directing information search efforts. Because the Internet was consistently rated as a frequently used source, further research is warranted to identify sites are the most frequently visited to provide information on each environmental sector and which are perceived to be the most helpful by managers. Organizational leaders can use this information to assess whether to encourage or discourage the use of particular websites.

Finally, because one possible explanation for the lack of relationship between perceived importance of task environmental sectors and frequency of scanning relates to possible difficulty in obtaining information future studies could include an assessment of respondents perceived effort associated with obtaining information related to each of the sectors and the various information sources related to them.

PRACTICAL IMPLICATIONS

The results of this study suggest many managers do not perform scanning activity related to environmental sectors based on how important they perceive the sectors are to organizational performance. The decision-making processes of managers should consider changes in the environment to the extent those changes bear on those processes if optimum decision outcomes are to be achieved. That objective may not be achieved if an improper scanning process omits important information about such changes. Scanning related to the task sector is arguably more important to organizational performance than the general sector, but is less influenced by the perceived importance of the sector. One possible explanation for this phenomenon is that the scanning related to the task environment requires more time and effort. This suggests that organizations do not sufficiently encourage managerial scanning behavior by allocating sufficient resources or incentives.

Organizational leaders have the potential to improve the scanning performance of their lower level managers in many ways. First, the creation of an organizational culture that encourages managers to regularly seek information, particularly from personal external sources, can be encouraged by providing resources to meet with these sources on a frequent basis and by recognizing superior performance in seeking and obtaining information from them. Second, organizational leadership can clearly articulate the strategic direction of the organization and what environmental factors are critical to the success in executing the preferred strategic direction. Finally, managers can be provided training in which information is the most helpful in monitoring changes in the environmental sectors and where that information can be found.

Thus, the information seeking behavior of managers can be greatly influenced by not only the perceived importance of an environmental sector to organizational performance, but also their perceptions of the importance of the information seeking process to their organizational leaders as well. An organization where managers do not sufficiently recognize the importance of obtaining information regarding changes to environmental sectors and how that lack of information may impede organizational performance will likely be at a significant competitive disadvantage compared to an organization that articulates a strategic direction to its managers, describes what environmental information relates to that direction and facilitates an going quest for that relevant environmental information.

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