Chapter VIII
Awareness and Assessment of Strategic Intelligence:
A Diagnostic Tool

François Brouard
Carleton University, Canada

ABSTRACT

This chapter discuss the need for organizations to raise the level of awareness about strategic intelligence. It argues that improvement of awareness and scanning practices could be done by developing a diagnostic tool. The diagnostic tool is an expert system that makes the existing strategic intelligence practices and underlying processes more explicit and contributes to improved awareness of strategic intelligence practices. Furthermore, the author hopes that presenting a diagnostic tool will help increase the level of awareness and provide an assessment framework about strategic intelligence practices.

INTRODUCTION

Organizations are affected by every facet of their external environment (Aguilar, 1967; Garg, Walters & Priem, 2003; Peteraf, 1993; Raymond, Julien & Ramangalahy, 2001). They need to be more conscious of their external environment and of how it may affect them. Management relied on many systems including management board, organizational systems, and strategic systems. One such strategic systems, strategic intelligence, is a recognized way of anticipating changes. Strategic

intelligence could be defined as the output of the informational process by which an organization stays attuned to its environment in order to make decisions and then act in pursuit of its objectives. Even if strategic intelligence is around for many years (Aguilar, 1967; Sun-Tzu, 1994), it is still an abstract and a relatively unknown concept.

A managerial problem faced by managers and consultants is how internal and external participants can help organizations with their strategic intelligence practices. Intervening with organizations could take place in different

settings. The organization is aware or not of the benefits resulting from strategic intelligence. The organization can or cannot describe their actual strategic intelligence practices. The organizations on those settings have different needs regarding their strategic intelligence.

The general perspectives of this chapter is on awareness and assessment of strategic intelligence practices. The paper is based on the assumption that an organization will be better off if it uses strategic intelligence as a management tool. Before setting up those strategic intelligence practices, managers should be aware of the benefits. They should be able to evaluate how their existing practices and where to focus their resources for improvement.

The objective of the chapter is to underline that strategic intelligence need a level of awareness from managers and external consultants to fulfill its role and that an assessment could improve awareness and scanning practices. More specifically, the chapter will identify the problem of awareness and assessment face by organizations, define the awareness and assessment concepts, state the importance of both awareness and assessment of strategic intelligence practices, describe a solution to adress both problems, and propose some future trends on the issues discussed.

The remainder of this paper is organized as follows. The second section provides some background information with definitions and conceptual frameworks for strategic intelligence. The third section summarizes both awareness and assessment concepts of strategic intelligence practices. The fourth section presents a possible solution, a diagnostic tool developed in the small and medium-sized enterprises (SME) context. The fifth section proposes some future trends on the issues discussed, and the final section presents conclusions.

BACKGROUND ON STRATEGIC INTELLIGENCE

A strategic intelligence system is an important tool for managing the future (Tsoukas & Shepherd, 2004). The main issue is the survival of the organization, which is threatened by uncertainties created by the changing environment. Strategic intelligence can be defined as the result of the informational process by which an organization stays attuned to its environment in order to make decisions and then acts in pursuit of its objectives. Through strategic intelligence, an organization monitors information from its external environment that is relevant to its internal environment (Aguilar, 1967; Bourgeois, 1980; Daft, Sormunen, & Parks, 1988; Elenkov, 1997; Fleming, 1998; Thomas, Clark & Gioia 1993). Terms used to describe concepts similar to strategic intelligence are business intelligence, competitive intelligence, environmental scanning, and strategic scanning. As the terminology is still in flux (Brouard, 2000), in this chapter "strategic intelligence" and "strategic scanning" are used interchangeably as comprehensive terms that include both results and process.

Strategic intelligence or strategic scanning can be viewed as a global process that is divided into four more specific processes (Brouard, 2000; Martinet & Ribault, 1989):

- **Technological scanning** is concerned with the technological dimension of an organization's product, service, or production process.
- **Competitive scanning** is related to actual and potential competitors.
- **Commercial scanning** involves the clientele and supplier dimensions.
- **Socio scanning** is concerned with all other elements, including demographic, economic, socio-cultural, political, and others.

Since strategic intelligence is a relatively new area of research (approximately 40 years old), no generally accepted conceptual framework exists (Bergeron, 1997; Choudhury & Sampler, 1997; Ganesh, Miree & Prescott, 2003; Zou & Cavusgil, 1996). Ganesh et al. (2003) describe the need for a conceptual framework to facilitate progress in this emerging field of research. Other research proposes some conceptual frameworks (Choo, 1999; Ganesh et al., 2003; Jacob, Julien & Raymond, 1997; Liu, 1998). Based on the previous research studies since Aguilar (1967), it is possible to articulate a vision of strategic intelligence.

Strategic intelligence is a system that includes subsystems. These systems are influenced by information flows coming from the macroenvironment, stakeholders, and the organization itself. The macroenvironment has many dimensions, including demographic, economic, technological, political, legal, ecological, physical, and sociocultural. Stakeholders are clients, suppliers, employees, unions, partners, competitors, governments, media, lobby groups, and networks. An organization's internal environment includes its resources, culture, strategies, management leadership, and structure. All these internal dimensions influence scanning subsystems such as scanning resources, scanning culture, scanning management, and scanning structure. Figure 1a broadly illustrates strategic intelligence systems and influences that affect them.

The strategic intelligence process itself includes three components: input, cycle, and output. The inputs are the needs of the information users. The outputs are the products resulting from the scanning activities. Those products will influence decisions and actions. Depending on the cycle phases, these products can be data, information, or knowledge. The scanning process itself, called the intelligence cycle could be divided in two subcycle: the gathering cycle and the protection cycle (see Figure 1b).

The gathering cycle has four phases: planning, collection, analysis, and dissemination (Kahaner,

1996; Ghoshal & Westney, 1991; Hambrick, 1982; Miller, 2000; Peyrot, Childs, Van Doren, & Allen, 2002). In the planning phase, the organization identifies the intelligence needs of its management team. Collection is the acquisition of relevant data. Analysis creates information by linking data together and identifying patterns and trends. During the dissemination phase, results are transmitted to decision makers.

The intelligence cycle also included the protection cycle (Nolan & Quinn, 2000; Pattakos, 1997), which is shown in Figure 1b. During the planning phase of this cycle, organizations, knowing that it is impossible and costly to protect everything, identify critical assets and determine their protection requirements. Vulnerability analysis assesses the weaknesses that may exist in relation to protection needs. Risk and threat assessments estimate the potential effects of vulnerabilities on organizational activities and serve as a basis for designing protection and security measures. Protection includes counterintelligence to safeguard information from others (including terrorists), and security to enforce the laws and protect against criminal attacks (Francq, 2001). Both the gathering cycle and the protection cycle include a learning component at the end to evaluate past actions and react accordingly for the future.

This global strategic intelligence process, comprising the gathering and protection cycles, can cover offensive or defensive actions. Examples of offensive action include collecting data oriented towards identifying opportunities and using disinformation as a means of protection. An example of a defensive action that applies to most protection and safeguarding measures is collecting data oriented towards identifying existing threats. These two dimensions are linked in their application and create a continuous, dynamic flow. They may be viewed as two sides of the same coin, or as the yin and yang of the strategic intelligence process. For example, increased dissemination within an organization provides more information to competitors unless

Figure 1. (a) Strategic intelligence process and flows, (b) intelligence cycle
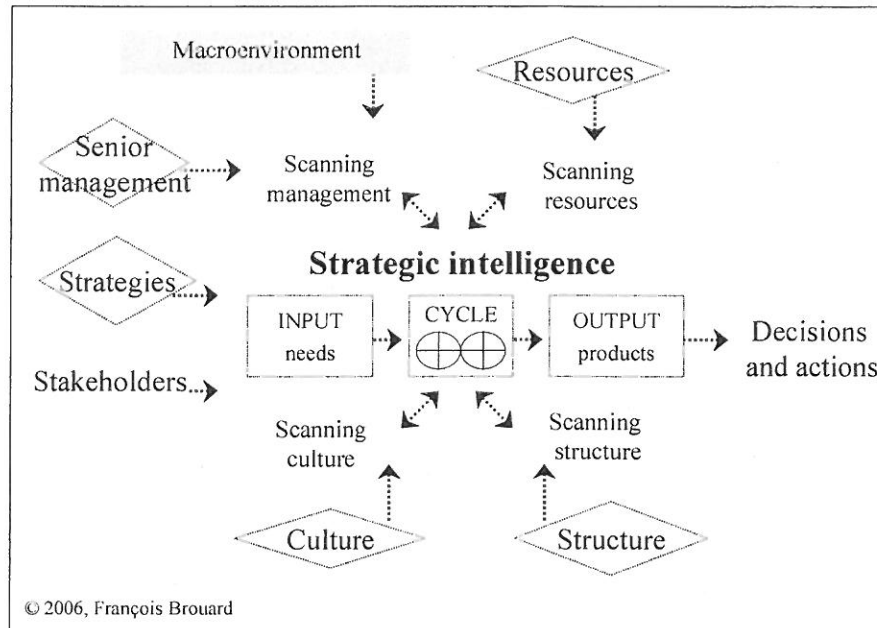
(a)
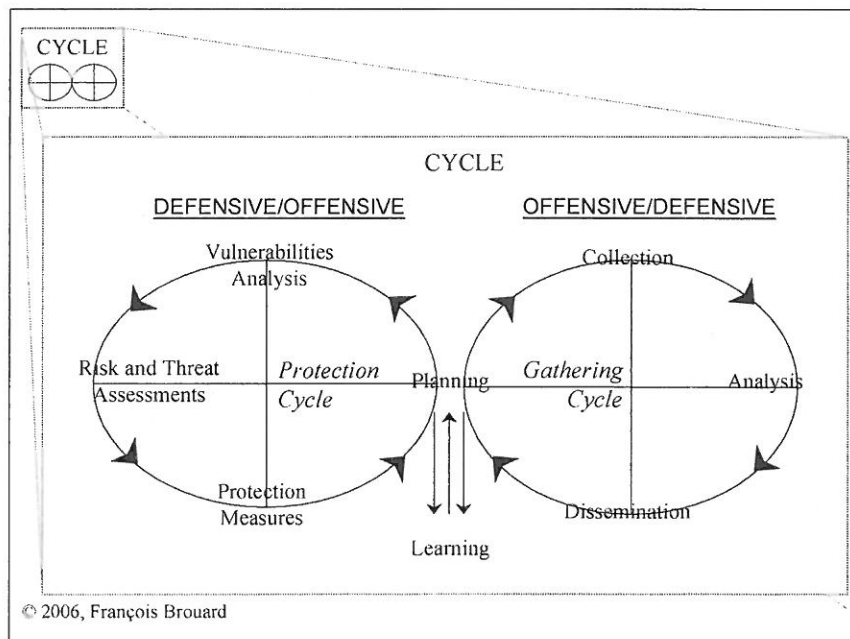
(b)

protection measures are in place to control or limit this information dissemination.

This conceptual framework illustrated in Figures 1a and 1b is a synthesis of previous research and of other frameworks proposed by Auster and Choo (1994), Choo (1999, 2001), Elenkov (1997), Julien, Raymond, Jacob, and Ramangalahy (1997, 1999), Liu (1998), and Vandenbosch and Huff (1997).

CONCEPTS OF AWARENESS AND ASSESMENT

Both internal managers and external consultants want to help organizations with their strategic intelligence practices. Intervening with organizations could take place in three different broad settings (Brouard, 2004a). First, the organization is not aware of the benefits resulting from strategic intelligence. Second, the organization pretend practising strategic intelligence but they cannot describe their actual practices. Third, the organization practices strategic intelligence and they can describe their practices.

The first setting indicate a need for a general awareness of the strategic intelligence concept. The first two settings require an assessment to make the underlying processes inherent in strategic intelligence more explicit. Therefore, those two issues, awareness and assessment, are important enough to discuss their importance and to briefly explain both concepts. The third setting could be useful for theory building and for best practices examination.

Concept of Awareness

Facing different settings, organizations should be aware of the strategic intelligence activities and their benefits (Bulinge, 2002, 2003; Larivet, 2002). Awareness refers to a better knowledge of a topic. It refer to a conscious state of the underlying concept by accumulating some knowledge.

Being more sensitive is an essential condition to proceed with investment and implementation decisions of strategic intelligence practices. Without the awareness, organizations will probably not decide on the resources to allocate for those activities and will probably neglect those types of activities and will lose their benefits.

Strategic intelligence is a very abstract concept. SME managers are not very aware of the importance of strategic intelligence and prescriptive discourse are not very effective (Lesca & Raymond, 1993). Research results show that organizations, especially small and medium-sized enterprises (SMEs), should be aware of and sensitive to strategic intelligence and its benefits (Bulinge, 2002, 2003; CNRC-ICIST, 1999; Larivet, 2002; Lesca & Raymond, 1993; Raymond & Lesca, 1995). They benefit from investing in and implementing effective strategic intelligence practices, and they need tools to help them to assess their existing practices.

Concept of Assessment

With all the environmental changes, there is a need for organization pilotage. Based on Selmer (1998) and Genelot (1999a, 1999b), there are four levels of pilotage: exploitation, management, evolution, mutation. Strategic intelligence can be described as a tool used at the evolution and mutation levels—it supports the development of strategy, provides a medium- and long-term perspective, and focuses on external activities. As such, strategic intelligence is a distinct information system. It could be compare with another well known information system: accounting. Accounting can be described as a tool used at the management level to achieve more control, gain a short- or medium-term perspective, and focus on internal activities.

Assessment is not new and could be included in the larger movement of organizational performance (Eccles, 1991; Garstka & Goetzmann, 1999). An organization needs to know where it

stands on different practices, so they can improve. Improvement will mean continuing and contributing to increased use of suitable practices. Without assessment, organizations will not be able to focus on activities they need to achieve their strategic goals.

Assessing the strategic intelligence practices will allow an organization to compare their actual state and a desired state. The comparison will target specific activities and will prioritize the action needed. The desired state could be an ideal state based on the best practices or based on the fit between the strategic intelligence activities and the specific needs of an organization. The assessment scope could be more global or more specific.

Need for a Solution

As discussed, intervening are faced with at least two problems (Lesca, 1994; Lesca & Rouibah, 1997). Looking at both problems, it is possible to develop a solution that will provide help for both issues mentionned, on one hand, awareness problem and on the other hand assessment problem.

The solution proposed is the development of a computerized diagnostic tool. The tool will cover both problems. Using the tool will increase the awareness of strategic intelligence practices and will report an assessment of the practices.

The idea of computer tools to help strategic intelligence is not new. The difference is the depth of the diagnosis produced. Lesca and Rouibah (1997) and Lesca (2003) present some computer tools developed by the Lesca research team in Grenoble, France. We could mention PERTINENCE on the relevance, CIBLE on targets, SELECT and OASIS on selection, PUZZLE on sense creation and FENNEC on diagnosis. Consultants have also developed some tools or methodologies. The availability of these tools varies.

EXAMPLE OF A DIAGNOSTIC TOOL

In the context of the management of strategic intelligence, some techniques are needed. Those techniques could use or not available technologies, for example, a manual or computerized system of dissemination. The solution developed is a diagnostic tool using an expert system to evaluate strategic intelligence practices of SMEs. The tool is only at the prototype stage at this point and still in development. The following discussion will only provided a brief overview of the tool (see Brouard, 2002, 2004a, 2004b, 2005, 2006 for more information on the development).

Expert System

An expert system is a computer program that creates solutions to problems using the human knowledge integrated in a knowledge base. A prototype is a preliminary version whose development is not complete. An expert system has four main components: a knowledge base, an inference engine, a user interface, and a knowledge-acquisition interface (Benfer, Brent & Furbee, 1991). When an expert system is being developed, the primary focus is on elaborating the knowledge base and rules that will govern the system, and, in this case, a questionnaire to bring data into the system.

The tool developed is an expert system that performs a diagnosis of strategic intelligence practices in SMEs. Figure 2 illustrates the expert system on intelligence scanning architecture. A firm, in our case an SME, filled a questionnaire. The data in the questionnaire are included in a database programmed with Microsoft Access. The expert system process the data and provides a report to the firm.

The expert system architecture described uses a questionnaire to collect data on a specific organization, in our case SMEs. A 32-page questionnaire covering all strategic intelligence themes was developed. The questionnaire was based on

the concepts and variables identified and included sections representing the components identified (see Figure 3). Answer formats were mostly 5-point Likert-style questions (1, 2, 3, 4, 5), dichotomous (yes/no), or multiple-choice. The questionnaire is designed to take approximately 60 minutes to fill. Examples of some questions could be seen in the appendix A. The complete questionnaire is available upon request to the author.

Methodology

The research method used for the development of the diagnostic tool is action research, specifically prototyping of an expert system. Action research can be defined as follows:

Action research simultaneously assists in practical problem-solving and expands scientific knowledge, as well as enhancing the competencies of the respective actors, being performed collaboratively in an immediate situation using data feedback in a cyclical process aiming at an increased understanding of a given social situation, primarily applicable to the understanding of change processes in social systems and undertaken within a mutually acceptable ethical framework. (Hult & Lennung, 1980, p. 247)

"Prototyping is an approach to building information systems which uses prototypes" (Beynon-Davies, Tudehope & Mackay, 1999, p. 108). A prototype is a preliminary working model of an information system (or part of it). Prototyping is a relevant approach for expert systems when problems are unstructured, like strategic intelligence (Zahedi, 1993).

Using action research, the development of the prototype could be conceived as a spiral which is circular and a perpetual process (Baskerville, 1999; Susman & Evered, 1978). Five steps are suggested by Susman and Evered (1978), namely diagnosis, planning, action, evaluation, definition of new knowledge. With multiple iterations, it is possible to refine the prototype as we go along.

Figure 2. Expert system on scanning architecture
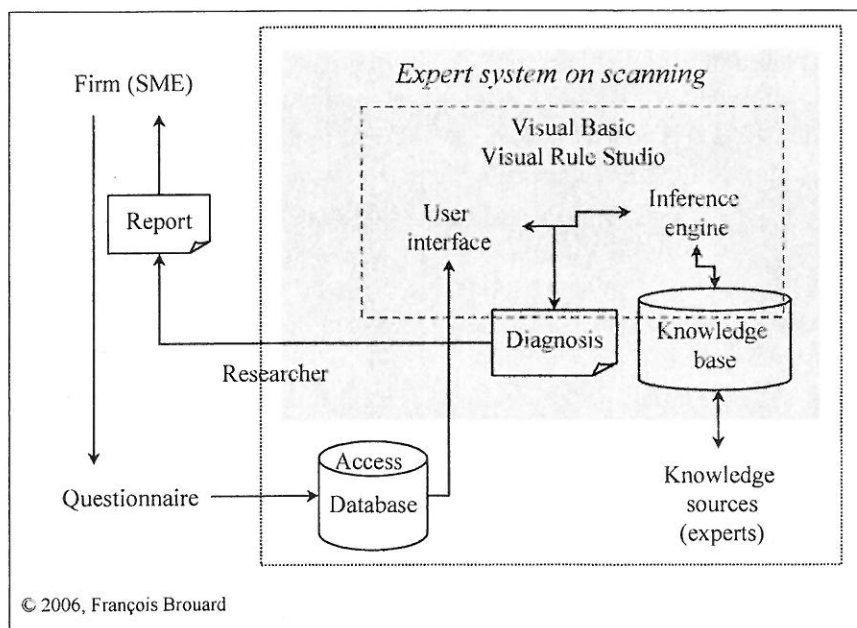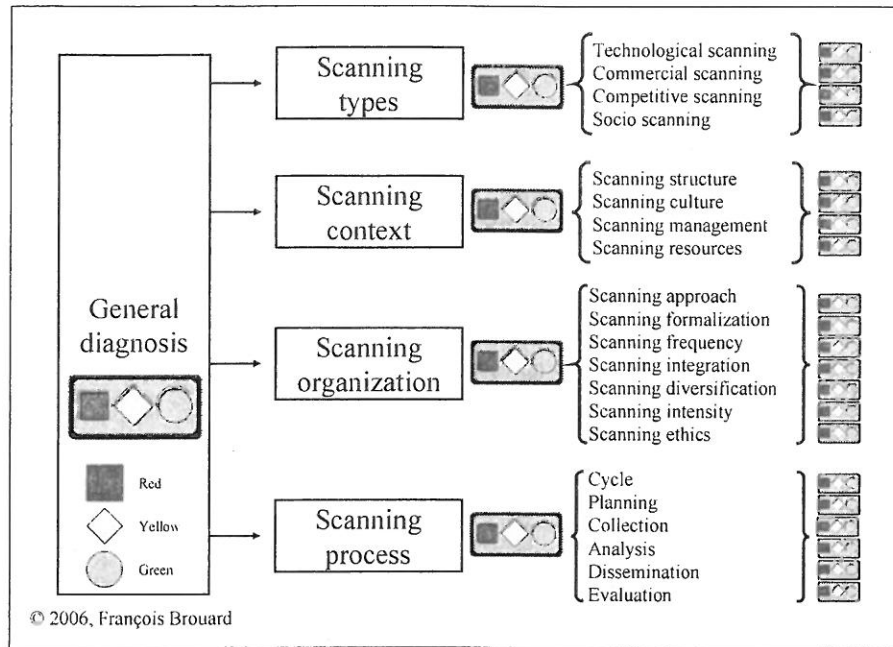

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Figure 3. Strategic intelligence diagnostic structure

The research method used required two different samples, organizations (SMEs) and experts. In the study, SMEs are defined as firms with between 50 and 500 employees. Organizations were used to develop case studies of their current practices and to evaluate those practices. Experts contributed to the validation of the tool developed and refined during the development. During the prototype development, 6 Canadian SMEs and 33 international experts (academics and practitioners) were involved to prepare the final version of the prototype.

Because of their characteristics, SMEs were used in this study. Each of the six SMEs was the subject of an individual case study. Three SMEs are service organizations—medical analysis, personnel placement services, chartered accounting firm - and three SMEs are manufacturing organizations—small electrical appliances, metal products, specialized machinery. The number of employees involved varied from 60 to 410 employees. Another firm also participated in the development of the initial questionnaire.

Table 1. Steps of the expert system development

1	Knowledge base development
2	Preliminary development and validation
3	Development and validation of the prototype
3a	Approach with the organizations
3b	Approach with the experts
4	Trial of the prototype
5	Analysis of the prototype

The diagnostic tool developed uses an expert system shell, Visual Rule Studio 2.5 by Rules Machine Corporation, and the programming language associated with it, Visual Basic 6.0 by Microsoft. Programming involves the development of a set of rules. A rule is a statement about knowledge that links a condition and an action. For example, a rule could look like: "IF condition happens THEN action X appears ELSE action Y appears" (IF-THEN-ELSE) (Turban & Aronson, 1998).

The development of the expert system could be divided into five steps, all of them repeated as needed following the action research spiral. The five steps are described in Table 1.

In step 1, the knowledge base is created and it is the foundation of the expert system; it also includes rules. Globally, the prototype version of the expert system on scanning developed has 588 rules, so far. Development of the knowledge base is done using a literature review and the knowledge of experts in the field. This task involved the identification of management problems specific to the strategic intelligence practices of SMEs. Knowledge representation uses a semantic network (Muhr, 1997) and rules production. Systematic analysis of empirical studies yielded an inventory of 150 studies related to strategic intelligence. In addition to completing the semantic network, this analysis allowed a look at the operationalization of strategic intelligence variables. In total, 418 concepts and 539 relationships were listed in the semantic network. Concepts and variables were included in the questionnaire development and in the expert system rules. Relationships between concepts were also included in the rules. The variables in the questionnaire were chosen based on the expertise collected at this stage.

In step 2, during the preliminary development and validation, we looked at the validation of the research process and create the first working version of the prototype. More specifically, we could mention design of the questionnaire, the rules and the screens, and programming.

Step 3 is the heart of the development and validation of the prototype. Organizations (SME) and experts are involved in two parallel processes for testing and evaluation. On one hand, participating organizations were asked to fill the questionnaire. The questionnaire served as a basis to write a case study. The case study was validated by the organization.

On the other hand, experts were asked to look at a written case study and to evaluate the scanning practices of that organization using their own frame of reference. Comments were also asked on missing or irrelevant data. Using the researcher frame of reference (Figure 3), a second evaluation was asked. After receiving the two evaluations from the expert, the report prepared with the expert system was sent to experts and comments were asked.

Steps 4 and 5 involved the trial and analysis of the prototype. A report was prepared using the expert system and comments were collected from the management team of the organization involved.

Report

The diagnostic report on environmental scanning practices is the main output of the expert system. This 22-page report includes a general description of strategic intelligence and the tool being used in this study, a summary of the traffic light signals, a brief description of the organization being analyzed, sections on each diagnostic component (general, scanning types, scanning context, scanning organization, scanning process), an action plan that includes prioritized recommendations, an outline of the perceived benefits of and barriers to environmental scanning, an appendix explaining the diagnostic process, and a table of contents. Appendix B provides a view of the summary and the action plan sections.

Using traffic lights that combine the use of geometric forms and colors (square for red, diamond for yellow, and circle for green) allowed the report

to be printed in black and white. These signals, which are three-level codes (red, yellow, green), are well recognized and understood. All rules and decisions were calculated on a scale of 100. On a scale of 100, green represent a score between 65 and 100, yellow represent a score between 35 and 65 and red represent a score between 1 and 35. The analysis of each diagnostic component includes general comments, facts and specific recommendations, including some suggestions for implementation. The report was prepared using Microsoft Word, so managers/consultants can modify the report based on their own assessment and format.

Based on the conceptual framework developed, this expert system diagnoses four main components of environmental scanning: scanning types, scanning context, scanning organization, and scanning process. These components are subdivided to bring a total of 26 indicators (see Figure 3).

Scanning types present an analysis of the four scanning types identified and described in a previous section. Scanning types includes technological scanning on new technology, competitive scanning on competitors, commercial scanning on clientele and suppliers and socio scanning on other elements of the external environment.

Scanning context refer to the internal environment of the organization, mainly structure, culture, resources and management. Each component of the internal environment of the organization is linked with a corresponding scanning component: scanning structure, scanning culture, scanning resources, and scanning management (see Figure 1a). The strategy is used to analyze the fit between the level of practices and the organization.

Scanning organization refer to how the strategic intelligence is organized. Scanning organization included: approach, formalization, frequency, integration, diversification, intensity, ethics.

Focusing on the gathering cycle, scanning process analyzed the different phases of the intelligence cycle (see Figure 1b), namely: cycle in general, planning, collection, analysis, dissemination, evaluation.

Preliminary Results from the Diagnostic Tool

The strategic intelligence practices of all the SMEs studied needs improvement. Two organizations were found to be at the red level, four at the yellow level, and none at the green level. Previous studies have found that SMEs vary in their strategic intelligence practices; the results of this study are in accord with those findings. Variations have been found (although not in this study) among organizations at the green level, with some SMEs using advanced practices. The results of the CNRC-ICIST (1999) study on strategic intelligence practices of Canadian organizations found that some Canadian firms had world-class strategic intelligence practices.

Overall, the general action plan and prioritized recommendations pertain to scanning organization, scanning process, and scanning context. Scanning types does not seem to pose a priority problem. The specific action plan and the prioritized recommendations vary among organizations, but the areas that most frequently require action are scanning formalization, and scanning resources. Four of the SMEs used in this study judged strategic intelligence as very useful, and another judged it useful.

As an example, a firm have decided to change their scanning process following a comment on the security risks. Even if the managers were already knowledgeable about the risks, the report underline a specific risks with information dissemination.

Experts found the 32-page questionnaire to be comprehensive. However, the time constraint (one hour only) imposed for answering the questionnaire restricted response to nuances. The research process was well accepted by both SME executives and experts. This study provides a tool

that allows internal and external consultants to consider a new methodology and compare it to the one they currently use.

FUTURE TRENDS

As the diagnostic tool is a prototype, there is some need for more development on the diagnostic tool. A number of research opportunities could be mentionned to improve the proposed tool.

By increasing the number of small and medium-sized enterprises (SME), it is possible to refine the tool. A greater number of organizations in the database could also allow for examination of some relationships between strategic intelligence variables. Many variables could also explained other management variables and practices.

So far, all the materials (questionnaire, menus, and report) are developed in French. Translation and adaptation in English should provide a broader use of the tool.

It is possible to expand the diagnostic tool with other types of organization (larger organizations, nonprofit organizations, public sector entities). Some parameters are already included but could be enhanced. For example, specific weight are included to differentiate manufacturing and service business. More specific weight could be included for specific industries.

It is possible to compare strategic intelligence diagnosis with a longitudinal perspective. Adapting the tool could allow to compare many respondents from the same organization. In our research, one manager or a small group may have completed the questionnaire. Many respondents could underline differences between various employees.

Another possibility is the development of a Web-based application of the questionnaire and the possibility to obtain the report. A web application will allow accessibility of the tool for a larger population even at the international level.

Finally, the tool could include the protection side of strategic intelligence practices in addition to the gathering cycle. As mentionned in the Figure 1b, the protection side is another promising area of research.

CONCLUSION

All organizations should scan their environment in order to be aware of the next threats and opportunities and to be prepared to react quickly. As discussed by Bulinge (2002, 2003) and Larivet (2002), awareness represent a challenge for SME. It is probably true for all organizations. The proposed diagnostic tool provokes a dialogue and interest toward an abstract concepts, strategic intelligence. The tool provides a real artifact to visualize a methodology. The tool allows an examination and a critic to improve it.

By using the diagnostic tool, organizations could assess their strategic intelligence practices. SME feedback indicates that organizations find the prototype very useful. The data elicited by the questionnaire were useful with regard to the overall management of the businesses as well as to their strategic intelligence practices. The diagnostic tool makes the existing strategic intelligence practices and underlying processes more explicit and contributes to improved awareness of strategic intelligence practices. The report balances the needs of the SME executives by targeting important information, providing concrete examples of action, and explaining the evaluation results. The four main components of this expert system are scanning types, scanning context, scanning organization, and scanning process. These components are broken down to form a total of 26 indicators. Those indicators provide a framework for organizing recommendations and actions.

A mature expert system could provide reliable assessment of the scanning practices and will

provide it for a wide range of firms, industries, and types of organizations. Even if an expert will probably always be necessary, the expert system provide a structure to describe strategic intelligence and therefore help the awareness of the need for such management practices.

Given that this expert system is only a prototype, and in light of its complexity, the time required and the limited sample size, it is far from being a mature expert system (Delisle & St-Pierre, 2003). This prototype is a first step towards developing better strategic intelligence practices for small and medium-sized enterprises and large corporations. Further development is needed. These efforts will increase our knowledge in this area of expertise and provide executives with a management tool that helps them deal with uncertainties.

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APPENDIX A : QUESTIONNAIRE (EXTRACTS)

Among the following elements of the external environment, circle on a scale of 1 (low) to 5 (high) the level of importance for each element of the organization.

	Low				High
	1	2	3	4	5
- Technology	O	O	O	O	O
- Clients	O	O	O	O	O
- Suppliers	O	O	O	O	O
- Competitors	O	O	O	O	O
- Social context (demography, ecology, political, legal, socio-cultural, economical)	O	O	O	O	O

For each statement regarding the scanning frequency, circle the appropriate answer.

-	Scanning process is a continuous one.	O no	O yes
-	Scanning process is done punctually.	O no	O yes

If yes : - The punctual frequency is: O low
                                         O medium
                                         O fast

Indicate the importance of your needs for specific information. For each information, circle the appropriate answer.

	Not important				Very important
Information on:	n/a	1	2	3	4	5
- new process	□	O	O	O	O	O
- new equipments	□	O	O	O	O	O
- materials	□	O	O	O	O	O
- new products	□	O	O	O	O	O

Indicate the importance of some decisions for your organization. For each decision, circle the appropriate answer.

Decisions regarding :	n/a	Not important 1	2	3	4	Very important 5
- strategic orientations	❏	O	O	O	O	O
- partners and suppliers search	❏	O	O	O	O	O
- mergers and acquisitions	❏	O	O	O	O	O
- crisis management	❏	O	O	O	O	O
- recruiting	❏	O	O	O	O	O
- financing	❏	O	O	O	O	O
- cost control	❏	O	O	O	O	O

Indicate if your organization use the following source of information. For each source, circle the appropriate answer.

Sources of information:	n/a	Not important 1	2	3	4	Very important 5
- management or advisory board	❏	O	O	O	O	O
- managers	❏	O	O	O	O	O
- organization personnel	❏	O	O	O	O	O
- clients	❏	O	O	O	O	O
- suppliers	❏	O	O	O	O	O
- professional accountants (example. : CA)	❏	O	O	O	O	O

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APPENDIX B - REPORT TO FIRM (EXTRACTS)

SUMMARY

STRATEGIC SCANNING		yellow	50
SCANNING TYPES		green	90
Technological scanning		green	90
Commercial scanning		green	90
Competitive scanning		green	90
Socio scanning		green	90
SCANNING CONTEXT		yellow	50
Scanning structure		green	90
Scanning culture		yellow	50
Scanning management		green	90
Scanning resources		red	10
SCANNING ORGANIZATION		green	90
Scanning approach		yellow	50
Scanning formalization		green	90
Scanning frequency		green	90
Scanning integration		green	90
Scanning diversification		green	90
Scanning intensity		yellow	50
Scanning ethics		red	10
SCANNING PROCESS		yellow	50
Cycle		green	90
Planning		yellow	50
Collection		yellow	50
Analysis		yellow	50
Dissemination		yellow	50
Evaluation		yellow	50

Note: Square = Red level (Action); Diamond = Red level (Improve); Circle = Green level (Pursuit)

DIAGNOSIS SCANNING TYPES

Notes and recommendations :

In general, scanning types for the organization are at the green level (90).
It is a strength of your scanning activities. It is important to continue the existing practices.

The TECHNOLOGICAL SCANNING of the organization is at the green level (90).
It is important to continue the existing practices regarding technological scanning.

If needed, you could consider the following suggestions:

- Prepare a table of technological changes.
- Update regularly the table of technological changes.
- Recognize the importance of technology which could bring innovation.

The COMMERCIAL SCANNING of the organization is at the green level (90).
It is important to continue the existing practices regarding commercial scanning.

If needed, you could consider the following suggestions :

- Prepare a table to follow clients.
- Update regularly the table to follow clients.
- Recognize the importance of clients information.
- Prepare a table to follow suppliers.
- Update regularly the table to follow suppliers.
- Recognize the importance of suppliers information..

ACTION PLAN / PRIORITY INTERVENTIONS

The GENERAL PRIORITY INTERVENTIONS are the following.
General intervention No I : SCANNING PROCESS (51)
The organization could improve his scanning process.

General intervention No II: SCANNING ORGANIZATION (59)
The organization could implement practices to organize more efficiently strategic scanning.

The SPECIFIC PRIORITY INTERVENTIONS are the following.

Specific intervention No 1: Scanning ethics (19)
Strategic intelligence activity should emphasize on ethics elements.

Specific intervention No 2: Scanning approach (26)
An effort should be done to adapt the approach to needs.

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Managing Strategic Intelligence:
Techniques and Technologies

Mark Xu
University of Portsmouth, UK

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