

# THE GLOBAL STRATEGIC INTELLIGENCE MANAGEMENT

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Skills covered: “Learning and thinking skills”

Estimated number of lectures / teaching sessions needed: 13  
academic hours

**Aims:**

- Train the students to advice in the decision-making processes in organizations and public and private institutions through global strategic intelligence production.
- Knowing the theoretical background of the conceptual strategic intelligence as well as the fundamentals of research problems and their applications.
- Train the students in the use of research methods and data analysis techniques for the production of strategic intelligence, considering the interaction of multidimensional, multidisciplinary and multi-organic processes that occur in different domains and levels of analysis.

**Brief abstract:**

The current world is being impacted by a series of changes that are occurring at an unprecedented rate. This is a true paradigm shift in which the vision and projection strategies, tactics and operations are severely affected by many unforeseen social, economic, cultural, technological and political events. The environment, where companies interact with organizations and institutions, is substantially different from what has been known before and has to face intense changes from all areas, strongly amalgamated related demographic field, the system of principles and values, production systems, educational systems, labor systems and social protection, global competition, science and technology, energy resources, geo-box political and economic, etc.

In this respect, it has been shown that the functions of prevention, early, early warning and early assessments of threats, risks and opportunities are the main functional strategic attitudes that seek to improve individual and organizational performance in complex and uncertain environments, with highly critical factors and to develop strategies that reflect reality, but which allow the production of high value-added results to facilitate effective and efficient decision making.

This impact is most notable in the areas of senior management where processes are required to be fully appropriate, rigorous, and transparent and with credible decisions due to the increasing demands of citizens, customers and the general public. In this situation, the resource information has become not only commoditized, but has also implied the need for specific methodology for their production, processing and distribution, as previously established goals, in order to build future scenarios, anticipate conflicts potential and critical situations, assess future threats, reduce risks, identify early warning indicators and identify future opportunities, which are the basic elements of what we call intelligence.

Strategic intelligence has a proactive nature. It is produced as part of the vision of what is possible and desirable. The finding and discovering of opportunities in difficulties, creating added value and calculating risks based on recognizing that technology is an element that not always guarantees success. Dimensions are components of international strategic intelligence, among others, the geographical, sociological, political, economic, identity, technology, individual leadership, etc.

In this context, formal skills, acquired by the managers in relation to the management of global strategic intelligence, gain great relevance facing the exclusivity of information technology, with the need to have a trained professionals to analyze information visually as well as a strategic direction in business administration.

This learning material was made following largely the work developed by L.C. Seitovirta which is cited in the bibliography. It was very appropriate for the purposes proposed its theoretical and conceptual review as well as its structure. We mean our sincere and deep gratitude to her.

**Methods applied:** For the theoretical parts of the course, lecturing based on multimedia material encouraging student participation and creating concerns. For the practical sessions, collaborative learning based on exercises that the students will have to elaborate in groups.

**Type of students (Engineering & Computer/Business/Both):** Both

**Type of classes:** This module will be applied within an academic course (degree and/or master), or applied in a workshop or in a seminar.

**General competences and skills:**

- Team work.
- To work with pressure.
- Ability to manage time and to plan and organise the work.
- Ability to resolve problems.
- Moral engagement at work.
- Quality motivation.
- Ability to apply knowledge to practice.

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## THE GLOBAL STRATEGIC INTELLIGENCE MANAGEMENT

### 1. CONCEPTS OF INTELLIGENCE AND STRATEGIC INTELLIGENCE: MISSION, TYPES AND OBJETIVES

#### 1.1 Data, information and intelligence

To begin with, the most elementary types and the base of the strategic intelligence are the data, the information and the intelligence.

First of all, in general the *data* relate basic descriptions of things, events, activities and transactions recorded, classified and stored but are not organized according to any specific meaning. They can be numeric, alphanumeric, figures, sounds and images.

Second, the *information* corresponds to the data that has been organized and has estimated the level of quality, so that they have meaning and value to the receiver. This actor interprets the meaning and draws conclusions and implications.

Finally, for some years there has been a growing demand in the areas of senior management to the decision-making process to be fully effective, efficient, timely, rigorous, transparent and credible in response to rising demands of citizens, customers and public opinion in general.

In this situation, the information resource has not only crowded, but has also evolved as decision support, with a specific methodology for their production, processing and distribution, as previously stated objectives, in order to build future scenarios, anticipate potential conflicts and crisis situations, assess future threats, reduce risks, identify early warning indicators and identify future opportunities, which are the basic elements of what we call *intelligence*. It conducts to gain a competitive advantage in whichever fields worked in.

#### 1.2 Business intelligence

According transcribed and expressed L.C. Seitovirta, Ghoshal and Kim (1986) and Gilad and Gilad (1985) define *business intelligence* as a managerial tool that is used to manage and enrich business information and to produce up-to-date knowledge and intelligence for operative and strategic decision-making. Pirttimäki (2007) asserts that the concept refers to information and knowledge describing the business environment, a company itself, and its state in relation to its markets, customers, competitors, and economic issues, as well as the process of producing insights, suggestions, and recommendations for the management and decision-makers. Ghoshal and Kim (1986) view business intelligence as an activity that gathers and analyses information about competitors, customers, markets, new technologies, and broad social trends. According to Pirttimäki (2007), business intelligence is about identifying information needs and processing the data and information gathered into useful and valuable managerial knowledge and intelligence. She asserts that through gaining more knowledge of the company itself and its external environment, business intelligence improves proactive decision-making, business planning, and strategy.

### 1.3 Competitive intelligence

Following to L.C. Seitovirta again, Fleisher and Bensoussan (2007) determine *competitive intelligence* as the process by which organizations gather actionable information about competitors and the competitive environment and apply it to their planning processes and decision-making. Pirttimäki (2007) considers that competitive intelligence main use is to help a company assess its competitive and market conditions. McGonagle and Vella (1996) observe that competitive intelligence gathers information from external sources concerning the competitive situation, market, and strategy.

Fleisher and Bensoussan (2007) assert that competitive intelligence combines signals, events, perceptions, and data into visible patterns and trends concerning the business and competitive environment. In their view, analysts are central members of the function as they use their skills, knowledge, abilities and instincts to uncover these relationships, thereby enabling their organizations to compete more effectively. This activity can either be simple scanning, such as analysing a company's annual report and other public documents, or elaborate, like performing a fully digitalized war gaming experience.

Competitive intelligence can be viewed as a progression from raw inputs to finished outputs. It begins with scattered bits of raw, basic data that are then organized by competitive intelligence practitioners and becomes information. This information develops into intelligence when it is put into a format useful to a decision maker's intelligence needs. Competitive intelligence's objective can be to proactively detect opportunities or threats; eliminate or reduce blind spots, risks, and/or surprises, and reduce reaction time to competitor and marketplace changes. The aim is to ensure that decision makers have accurate, current information about the organization's competitive environment, and a plan for using that information. In this sense, effective competitive intelligence helps the decision-maker to make a better decision (Fleisher and Bensoussan, 2007).

Fleisher and Bensoussan (2007) state that competitive intelligence contributes to the foundation on which strategy and tactics are built, assessed, and modified. It runs across and overlaps other functions, in particular, those associated with marketing, planning, and strategy. Competitor intelligence is a narrower level of competitive intelligence that focuses on competitor information and aims to facilitate decision-making at the tactical level. However, it can also be utilized in strategic decision-making.

### 1.4 Strategic intelligence

The term strategy is related to some concepts whose meanings refer to goals, objectives, policies, programs, plans, patterns, assignments, sequence of actions, tactics, maneuvers, logistics, synchronizing forces, operational approaches, selection of positions, models, power, attitudes, processes that ensure optimal decisions, purpose, vision, etc. All those terms that applied to the strategy, have different meanings, so this concept is multifaceted, multidimensional and with many meanings, and are defined based on which attribute emphasis is made. Mintzberg (1994) generically defined strategy as *"The pattern or plan that integrates the main goals and policies of an organization and, in turn, provides a coherent sequence of actions to be taken"*.

Under different conceptualization criteria linked to its object and scope, various definitions appear on *strategic intelligence* that can integrate in our opinion in order to obtain your own definition:

*""It is the result of a simple or complex assembly and analysis of information to draw conclusions about a particular problem to be solved in connection with other problems or as part of a final resolution process ...""*

*""Organization designed to collect information transforming into a useful product for making decisions for a user to solve a current situation or future ...""*

*""It aims to reduce the levels of uncertainty that exist in a given for adopting a particular strategic decision, opening viable alternatives that ensure greater likelihood of success in achieving the objectives set time ...""*

The aim of *strategic intelligence* is to gather, analyze and disseminate signals that assist decision making on a strategic level.

Following to L.C. Seitovirta again, Miller (1996) and Liebowitz (2006) observe that *strategic intelligence* is a term used for intelligence activities in the context of strategic planning and strategic management. Strategic intelligence addresses the needs of high-level decision-makers and it is mainly focused on proactive activities. It is possible to observe that strategic intelligence can support strategic management especially by contributing to the collection, analysis and distribution of information. They find that the higher the level of decision making, the more consolidated the information must be and the more conclusions and suggestions should be added to it. Pirttimäki (2007) argues that strategic intelligence is about having a realistic situational understanding and using it to develop a strategy that is appropriate, suits the circumstances and works.

Thierauf (2001) asserts that the goal of strategic intelligence is to understand where a company is going and how it can maintain its long term competitiveness in the face of future challenges and changes. McGonagle and Vella (1996) assert that strategic intelligence should act as radar that alerts the company to threats and opportunities in its external environment. Gilad (2004) also emphasizes strategic intelligence's role in providing early warnings. Moreover, Herring (1992) points out that strategic intelligence should contribute to challenging the underlying assumptions that affect a company's strategic thinking, to implementing the strategy and adjusting it to changes in the competitive environment and also to determining when a strategy is no longer sustainable. Liebowitz (2006) adds that strategic intelligence aims at making the best strategic decisions for maximizing a company's success.

It is clear that the existing literature on business intelligence does not sufficiently consider the requirements for strategic information. They observe that the type of information used in strategic decision making often appear as weak signals. This means that they are often qualitative, their information content may not be evident and separate fragments of signals need to be put together in order for them to make sense. Moreover, it is impossible to define information needs precisely.

Consequently, this kind of information cannot be processed in the same way as explicit quantitative data. In our opinion, we have to assume that all levels of intelligence activities

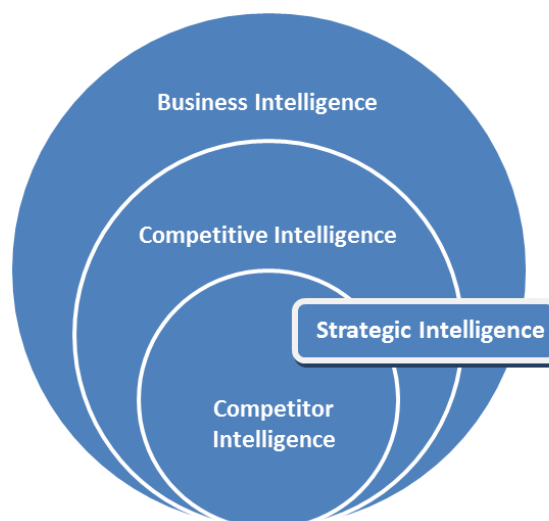
can contribute to strategic intelligence. Business intelligence produces the kind of information that is used in strategic, long-term decisions.

The concept entails the whole relevant environment of a company, not just the company itself. The scope of competitive intelligence is narrower and it includes elements of the external environment, such as competitor, industry and market information. Competitive intelligence is sometimes defined as an alternate concept for business intelligence in the literature (Gilad, 1996) and McGonagle and Vella (1996) introduce competitive intelligence as a concept that has been previously known as business intelligence. However, Mintzberg (1994) and Choo (2002) consider competitive intelligence as a part of business intelligence because the last has a broader scope than the first.

Mintzberg (1994) views competitive intelligence as a synonym for competitor intelligence. Choo (2002) and Fleisher and Bensoussan (2007) argue that as an organizational function, competitive intelligence ranges in scope between the broader area of business intelligence and the narrower version of competitor analysis. It is a roof concept for competitor intelligence because competitive intelligence focuses on competitive and market information in addition to competitor information.

In our opinion, competitive intelligence is a part of business intelligence and extends its scope beyond competitor intelligence, to cover competitive and market information as well. We situate strategic intelligence as an overarching concept that covers signals coming from all of the levels of intelligence – business intelligence, competitive intelligence and competitor intelligence.

The Figure I illustrates the relationship between the concepts:



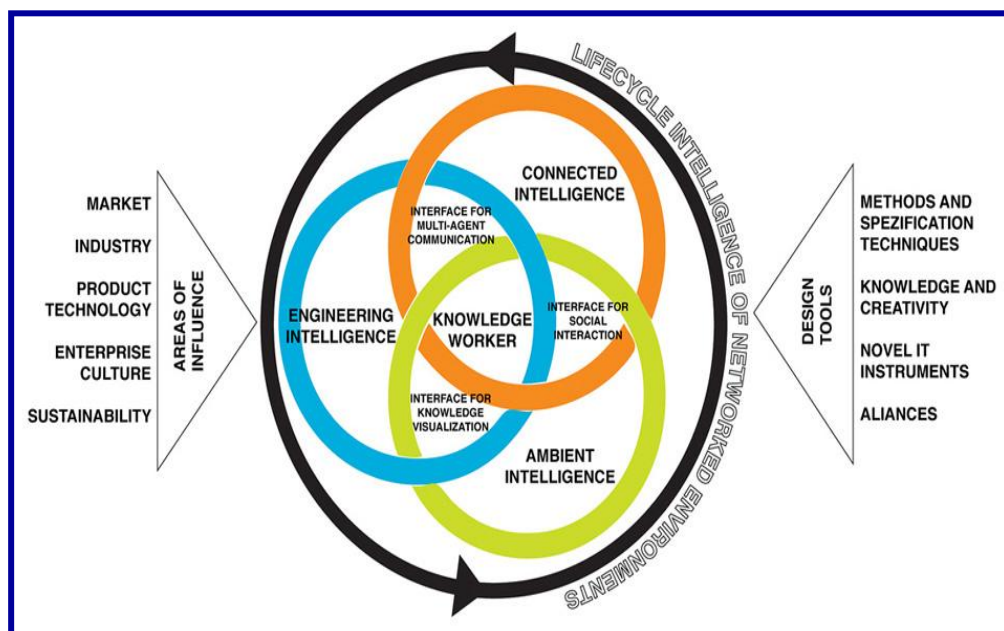
**Figure I: The relationship between the different levels of intelligence**  
(Source: L.C. Seitovirta work)

### 1.5 Intelligence activities

The *lifecycle intelligence* is a circular and repeated process to convert data into intelligence useful to meeting a goal of a user or customer. The Figure II show the different areas of



influence, tools and elements that participate in the generation of the knowledge of the worker, with the interface among engineering intelligence, connected intelligence and ambient intelligence:



**Figure II: Elements integrated in the lifecycle intelligence**

Fleisher and Bensoussan (2007) assert that the first stage of the intelligence cycle is to plan the intelligence actions. This translates into determining client needs, establishing requirements and developing a plan. The second stage is to collect and process data. In this stage, data is collected from within and outside the firm and the initial classification of the collected data and data reduction are performed. The third stage is to analyze the data. After the analysis stage come the fourth stage where intelligence is disseminated. Here the generated insights are presented or provided to the customer or client. The final stage is to evaluate and control the process. This can be done through gathering feedback and assessing whether the process has satisfied the client's needs and possibly restarting it if it has failed to do so. Intelligence activities can be summarized into the cycle of intelligence process.

Fuld (1991) points out that only when managers analyze information compare what they hear with industry models and with their own experience, does information become intelligence. Thus, putting scattered bits of raw data together to form competitor profiles, for instance, adds value and enables managers to make strategic decisions based on true knowledge of the marketplace. It is the task of intelligence activities to provide managers with implications and assessments on which managers can make decisions.

### 1.6 Intelligence analysis at differing organizational levels

According transcribed and expressed L.C. Seitovirta, Fleisher and Bensoussan (2007) assert that intelligence analysis can take place at multiple levels within an organization. Commonly, it is grouped into strategic, tactical and operational levels. Strategic

intelligence analysis is arguably the most important level of intelligence because it creates a framework within which other forms of intelligence collection and analysis take place.

It helps to discover and understand important trends, to identify patterns and to provide an overall picture of the opportunities and threats in the environment. It also provides guidance for tactical and operational assessments and, reciprocally, the work performed on the tactical and operational levels helps to shape the focus of Strategic intelligence analysis. As the analysis performed at strategic level matures, it offers a basis for predictive assessments that can provide a warning of potential high-impact activities.

Fleisher and Bensoussan (2007) considers Tactical intelligence analysis as a necessary and important link between the macro and micro level analysis as it conducts assessments that aid Strategic intelligence analysis.

The lowest level of intelligence analysis is Operational intelligence analysis, which is concerned with specific events and single cases. Helping the analyst understand particular events in real-time, the benefits of Operational intelligence analysis are more immediate, but also short-lived.

### **1.7 Information analysis**

Fleisher and Bensoussan (2007) argue that the task of business and competitive analysts is to make sense out of the often ambiguous, complex and challenging matters that are relevant for decision makers. This requires a good analyst to have a robust and healthy repertoire of methods, tools and techniques to help answer important questions on the enterprises' ability to compete at present and in the future. Analysts have to weigh up the odds, work through the scenarios, and find out what they know and what their competition knows, and take action.

This practically means making sense of, or creating meaning from a typically constrained sample of data and information. Wilson (1999) points out that managers, when faced with volatile situations, tend to draw on their past experiences and intuition and to use decision rules based upon these. He emphasizes that planning techniques need to be employed in order to challenge these traditional company perspectives and priorities.

Fleisher and Bensoussan (2007) find that analysis is the part of the intelligence process where the greatest value is generated. Analysis interacts with data classification and synthesis to produce finished outputs such as charts, graphs, tables, text, summaries and visual or other communicative aids that are appropriate for dissemination. It aims to provide answers to decision makers on questions that are critical for the business. This includes, for instance, information on the current situation, on options available, on the direction the company wants to go to, should go to, how to get there and how to know whether it has arrived there.

You have to take into account that directing organizations is much like navigating a ship through treacherous waters. Icebergs appear in the form of competitors, but only a small portion of the iceberg can be seen above the waterline. The most valuable and, often times, most damaging information can be found below the waterline.

The fact is however, that most entities are not receiving *below the waterline* intelligence. Strategic intelligence provides both *above and below the waterline* intelligence.

*Above the waterline* is information that your competitors don't mind you seeing as press releases, website announcements, industry newsletters or analyst reports, etc.

But below the waterline is information that your competitors don't want you to see as pricing details, sales prospect lists, strategic partners, marketing programs, top sales people, R&D plans, reseller channels, acquisition targets, competitive threats, patent submissions, unhappy customers, product deficiencies, trademark infringement, etc.



**Figure III: Iceberg Model – “Above”, “Below” and “On” the waterline**

## 2. GLOBAL STRATEGIC INTELLIGENCE

In recent years the general environment has changed, has become turbulent, there has been a so-called "structural change", characterized by globalization, complexity, hostility, dynamism, technological advance, competition, intercommunication, speed relationships and major consumer demands.

As a necessary response to the phenomenon of *structural change*, the functions of prevention, anticipation, early warning and early assessments of threats, risks and opportunities are the main functionality of a strategic approach. The global strategic intelligence try to provide an effective and efficient decision-making, search trying to optimize individual and organizational performance in complex and uncertain global environments, with highly critical factors, as well as for developing adjustments to reality but produce results that allow high value-added strategies.

The concept of global strategic intelligence is the thorough understanding of the problems. It is oriented to discern the causes of the effects within a global context, trying to make

visible and understandable, the more hidden and intangible elements. It tries to know in depth the major transnational currents of a globalized world. Among the multitude of ways that can contribute to meeting this demand, two in particular stand out clearly. First is a new emphasis on the anthropological, cultural and social dimensions of contemporary problems in general, for purposes of full understanding. Second way relates to the ability to perform analyzes that go beyond the short-term situation and to project into longer horizons.

### **3. APPLICATION OF STRATEGIC RESILIENCE IN GLOBAL MANAGEMENT**

In less turbulent times executives could afford to assume that their business models were more or less eternal. Companies had to always strive to improve, but rarely become different, at least not at its core. Today, the imperative is to become different. The continued success no longer depends on the impulse, but of resilience, that is the ability to reinvent business models and strategies dynamically as circumstances change. There is the ability to react to a single crisis or recover from a setback. It is continuously anticipate and adapt to the profound and long-term trends that may interfere with the ability to generate good results. It is having the capacity to change before the need for it to become obvious. To thrive in turbulent time companies must become as efficient in the renewal as producing their current products and services.

Strategic resilience is continuously anticipating and adapting to the underlying and long-term trends that may interfere with the ability to produce the expected results. It is trying about having the ability to change the situation before it becomes extremely demanding. For its achievement should remember five principles:

- *Be proactive rather than reactive.*
- *Bet on the forecast, confidence and positivism.*
- *Learning to generalize by "pilot projects".*
- *Reallocate resources where they are most efficient.*
- *Learn to renew is as important as optimizing.*

### **4. THE GENERAL SYSTEMS THEORY AND ORGANIZATIONAL BEHAVIOUR**

The explanatory variables of the current problems are: a highly coupled, since the relationships outweigh the states; correspond to very dynamic phenomena; they behave atypically and are resistant to align with generalizing, obvious and simplistic policies; there are causal - not casual - since cause and effect behavior changes over time; it is difficult to extrapolate long-term. So what do we do to solve them, if the use of classical and conventional tools is not possible? You need to try other tools, concepts and theories to change behavior in a structural way, and generate events and results according to an integrated, holistic and systemic environment. The approach can cope with these situations is known as systemic.

General Systems Theory was originally proposed by biologist Ludwig von Bertalanffy in 1928. Since Descartes, the "scientific method" had progressed under two related assumptions. A system could be broken down into its individual components so that each component could be analyzed as an independent entity, and the components could be added in a linear fashion to describe the totality of the system. Bertalanffy proposed that both assumptions were wrong. On the contrary, a system is characterized by the interactions of its components and the nonlinearity of those interactions.

One common element of all systems is described by Kuhn. Knowing one part of a system enables us to know something about another part. The *information content* of a "piece of information" is proportional to the amount of information that can be inferred from the information.

Systems can be either controlled (cybernetic) or uncontrolled. In controlled systems information is sensed, and changes are effected in response to the information. Kuhn refers to this as the *detector*, *selector*, and *effector* functions of the system. The detector is concerned with the communication of information between systems. The selector is defined by the rules that the system uses to make decisions, and the effector is the means by which transactions are made between systems. *Communication* and *transaction* are the only intersystem interactions. Communication is the exchange of information, while transaction involves the exchange of matter-energy. All organizational and social interactions involve communication and/or transaction.

Kuhn's model stresses that the role of *decision* is to move a system towards equilibrium. Communication and transaction provide the vehicle for a system to achieve equilibrium: "*Culture is communicated, learned patterns... and society is a collectively of people having a common body and process of culture.*" A *subculture* can be defined only relative to the current focus of attention. When society is viewed as a system, culture is seen as a pattern in the system. Social analysis is the study of "*communicated, learned patterns common to relatively large groups (of people)*".

The study of systems can follow two general approaches. A *cross-sectional* approach deals with the interaction between two systems, while a *developmental* approach deals with the changes in a system over time.

There are three general approaches for evaluating subsystems. A *holist* approach is to examine the system as a complete functioning unit. A *reductionist* approach looks downward and examines the subsystems within the system. The *functionalist* approach looks upward from the system to examine the role it plays in the larger system. All three approaches recognize the existence of subsystems operating within a larger system.

Descartes and Locke both believed that words were composed of smaller building blocks. Both thought that one could strip away all terms of ambiguity and be left with the clarity of comprehension. Kuhn argues for clear definitions in science. The criteria that Kuhn uses to evaluate system terminology, is that it provides "analytic usefulness and consistency with other terms".

Kuhn's terminology is interlocking and mutually consistent. The following table summarizes his basic system definitions:

- *Element* is any identifiable entity.
- *Pattern* is any relationship of two or more elements.
- *Object* a pattern as it exists at a given moment in time.
- *Event* is a change in a pattern over time.
- *System* is any pattern whose elements are related in a sufficiently regular way to justify attention.
- *Acting system* is a pattern where two or more elements interact.
- *Component* is any interacting element in an acting system.
- *Interaction* is a situation where a change in one component induces a change in another component.
- *Mutual interaction* is a situation where a change in one component induces a change in another component, which then induces a change in the original component.
- *Pattern system* is a pattern where two or more elements are interdependent.
- *Interdependent* a situation where a change in an element induces a change in another element.

Systems can be identified by their structure. A *real system* is any system of matter and/or energy. An *abstract or analytic* system is a pattern system whose elements consist of signs and/or concepts. Unlike the real system, which can only exchange information, abstract systems are information. A *non-system* is one or more elements that show no pattern of change. Since change is measured relative to a reference, something can be viewed as both a system and a non-system depending on the researcher's purpose.

A *system variable* is any element in an acting system that can take on at least two different states. Some system variables are dichotomous, and can be one of two values, yes or no. System variables can also be continuous. The condition of a variable in a system is known as the *system state*. The *boundaries* of a system are defined by the set of its interacting components. Kuhn recognizes that it is the investigator, not nature that bounds the particular system being investigated.

A *controlled* (cybernetic) system maintains at least one system variable within some specified range, or if the variable goes outside the range, the system moves to bring the variable back into the range. This control is internal to the system. The field of *cybernetics* is the discipline of maintaining order in systems.

A system's *input* is defined as the movement of information or matter-energy from the environment into the system. *Output* is the movement of information or matter-energy from the system to the environment. Both input and output involve crossing the boundaries that define the system.

When all forces in a system are balanced to the point where no change is occurring, the system is said to be in a state of *static equilibrium*. *Dynamic (steady state) equilibrium* exists when the system components are in a state of change, but at least one variable stays within a specified range. *Homeostasis* is the condition of dynamic equilibrium between at least two system variables. Kuhn states that all systems tend toward equilibrium, and that a prerequisite for the continuance of a system is its ability to maintain a steady state or steadily oscillating state.

*Negative equilibrating feedback* operates within a system to restore a variable to an initial value. It is also known as deviation-correcting feedback. *Positive equilibrating feedback* operates within a system to drive a variable further from its initial value. It is also known as *deviation-amplifying feedback*. Equilibrium in a system can be achieved either through negative or positive feedback. In negative feedback, the system operates to maintain its present state. In positive feedback, equilibrium is achieved when the variable being amplified reaches a maximum asymptotic limit. Systems operate through differentiation and coordination among its components: "*Characteristic of organization, whether of a living organism or a society are notions like those of wholeness, growth, differentiation, hierarchical order, dominance, control, and competition*" (Bertalanffy, 1968).

A *closed system* is one where interactions occur only among the system components and not with the environment. An *open system* is one that receives input from the environment and/or releases output to the environment. The basic characteristic of an open system is the dynamic interaction of its components, while the basis of a cybernetic model is the feedback cycle. Open systems can tend toward higher levels of organization (negative entropy), while closed systems can only maintain or decrease in organization.

A *system parameter* is any trait of a system that is relevant to an investigation, but that does not change during the duration of study. An *environmental parameter* is any trait of a system's environment that is relevant to an investigation, but that does not change during the duration of study.

Systems theory provides an internally consistent framework for classifying and evaluating the world. There are clearly many useful definitions and concepts in systems theory. In many situations it provides a scholarly method of evaluating a situation. An even more important characteristic, however, is that it provides a universal approach to all sciences. As Bertalanffy (1968) points out: "*There are many instances where identical principles were discovered several times because the workers in one field were unaware that the theoretical structure required was already well developed in some other field. General Systems Theory will go a long way towards avoiding such unnecessary duplication of labour*".

Organizational development makes extensive use of general systems theory. Originally, organizational theory stressed the technical requirements of the work activities going on in the organizations. In the 1970's, the rise of systems theory forced scientists to view organizations as open systems that interacted with their environment. Although there is now a consensus on the importance of the environment, there is still much disagreement about which features of the environment are most important.

Meyer and Scott (1983) identified three dominant models for analyzing the relationship between organizations and the environment. The *organization-set* model (often called resource-dependency theory) focuses on the resource needs and dependencies of an organization. The *organizational population* model looks at the collection of organizations that make similar demands from the environment and it stresses the competition created by limited environmental resources. The *interorganizational field* model looks at the relations of organizations to other organizations, usually within a localized geographic area.

Five major themes of organizational change were examined by Goodman (1982):

- *Intervention methods* represent alternative approaches to organizational change at the individual, group, and organizational levels. Most studies attempt to ascertain the effectiveness of these approaches by using survey feedback. Some utilize long-term longitudinal approaches to examine the impact of intervention methods. The cataloguing of intervention methods is still the dominant way of thinking about planned change.
- *Large-scale multiple system intervention methods* have been gaining in popularity since the late seventies. The interest in the quality of working life is primarily responsible for this popularity. This approach places strong emphasis on designing innovative techniques that serve as a catalyst for change. Its most important application is that it stresses the relationships between the individual, company, community, state, national, and international systems.
- *Assessment of change* is a major theme that has emerged as a result of the large-scale multiple system intervention methods. These include models of assessment, instruments for measuring organizational change, the development of time-series models, and an overall increase in the use of multivariate analysis for the testing and evaluation of change.
- The *examination of failures* provides us with valuable information about organizational change. It forces us to focus on the theoretical constructs of change. By comparing successful and unsuccessful attempts at implementing change, we can evaluate the effectiveness of various techniques.
- The *level of theorizing* about organizational change has seen significant improvements in recent years. Of particular importance is broad-systems orientation. These theories propose a model of organizational change that examines inputs, transformational processes, and outputs. Inputs refer to the environmental resources. Transformation refers to the tasks and the formal and informal system (organizational) components. Outputs include changes in both the individual and organization. The advantage of this approach is that it forces us to look at the broad spectrum of variables that need to be incorporated into the model.

Organizational and social systems must change in order to remain healthy. Both are open systems, and are sensitive to environmental changes. A change in the environment can have a profound impact on an open system. The overall health of an organization is strongly linked with its ability to anticipate and adapt to environmental change. Furthermore, the health of the environment is related to the matter-energy transactions taking place in the



social and organizational systems. A bilateral relationship exists between the environment and the components of all subsystems operating within the environment.

Planned organizational or social change is an attempt to solve a problem or to catalyze a vision. A change is introduced into an organization or social system with the specific intent of affecting other system variables. Knowledge of the nonlinear relationships between variables gives planners the potential to effect large changes in a desired variable with relatively small changes in another. Systems theory forces planners to broaden their perspective, and to consider how their decisions will affect the other components of the system and the environment.

In relation with the General System Theory we have to use other important area of study, the Organizational behaviour studies the impact individuals, groups, and structures have on human behaviour within organizations. It is an interdisciplinary field that includes sociology, psychology, communication, and management. Organizational behaviour complements organizational theory, which focuses on organizational and intra-organizational topics, and complements human-resource studies, which is more focused on everyday business practices. So, Organizational Behaviour is the study of the way people interact within groups. Normally this study is applied in an attempt to create more efficient business organizations. The central idea of the study of organizational behaviour is that a scientific approach can be applied to the management of workers. Organizational behaviour theories are used for human resource purposes to maximize the output from individual group members.

There are a variety of different models and philosophies of organizational behaviour. Areas of research include improving job performance, increasing job satisfaction, promoting innovation and encouraging leadership. In order to achieve the desired results, managers may adopt different tactics, including reorganizing groups, modifying compensation structures and changing the way performance is evaluated.

While Organizational Behaviour as a field of academic study wasn't fully recognized by the American Psychological Association until the 1970's, it's roots go back to the late 1920's when the Hawthorne Electric Company set up a series of experiments designed to discern how changes in environment and design changed the productivity of their employees.

Their various studies, conducted between the years of 1924 and 1933, were broad and meticulously measured over large periods of time. The studies included the effect of various types of breaks (lots of small breaks, a few long ones, etc.) on productivity, productivity in isolation, and productivity in varying levels of light. The most famous finding resulting from the Hawthorne Studies is what is now called the *Hawthorne effect* the change in behaviour of a test subject when they know they're being observed.

To focus on that one finding, some have argued, is to ignore a wider set of studies that would become credited for the development of organizational behaviour as a field of study and the human resources profession as we now know it. The idea of looking scientifically at behaviour and productivity in the workplace with the goal of increasing the amount and quality of work an employee can get done, along with the idea that workers were not

interchangeable resources but were instead unique in terms of their psychology and potential fit with a company.

Organizational behaviour has focused on various different topics of study. In part because of the Second World War, during the 1940's the field focused on logistics and management science. During this period the emphasis was on using mathematical models and statistical analysis to find the best answers for complex problems. Studies by the Carnegie School of Economics in the 1950's and 1960's furthered these rationalist approaches to decision making problems.

In the 1970's, theories of contingency and institutions, as well as organizational ecology, resource dependence, and bounded rationality, came to the fore as the field focused more on quantitative research. These findings and sets of theories helped organizations better understand how to improve business structure and decision making.

Since the 1970's, a good deal of the work being done in the field of organizational behaviour has been on cultural components of organizations, including topics such as race, class, gender roles, and cultural relativism and their roles on group building and productivity. These studies, a part of a shift in focus in the field towards qualitative research, and among other things, take into account the ways in which identity and background can inform decision making.

Academic programs focusing on organizational behaviour are usually found in business schools, and schools of social work and psychology. They draw from the fields of anthropology, ethnography, and leadership studies and use quantitative, qualitative, and computer models as methods to explore and test ideas. Depending on the program one can study specific topics within organizational behaviour, or broader fields.

The topics covered by Micro organizational behaviour include cognition, decision making, learning, motivation, negotiation, impressions, group process, stereotyping, and power and influence. Macro Organizational Behaviour covers organizations as social systems, dynamics of change, markets, relationships between organizations and their environments, as well as identity in organizational process, how social movements influence markets, and the power of social networks.

Findings from Organizational behaviour's body of research can be used by executives and human relations professionals better understand a business' culture, how that culture may facilitate or hinder productivity and employee retention, and how to best evaluate candidates skill set and personality during the hiring process.

The application of theory and knowledge from the field of Organizational behaviour can be broken down into sections of personality, job satisfaction and reward management, leadership, authority, power, politics and decision making. There is rarely one correct way to assess the right way to manage any of these things, but Organizational behaviour research can provide a set of guidelines and topics to follow:

- Personality, essentially a series patterned behaviour, plays a large role in the way a person interacts with groups and produces work. Knowing a person's personality, either

through a series of tests, or through conversation can give a better idea of whether they're a fit for the environment they'd be hired into, and how best to motivate that person.

- Theories around job satisfaction vary widely, but some argue that a satisfying job consists of a solid reward system, compelling work, good supervisors, and satisfactory working conditions.
- Leadership, what it looks like and where it is derived from is a rich topic of debate and study within the field of organizational behaviour. When one view is connected to management, it can be either broad, focused, centralized or de-centralized, decision-oriented, intrinsic in a person's personality or a result of a place of authority.
- Power, authority, and politics all operate inter-dependently in a workplace. Understanding the appropriate ways, as agreed upon by a workplace rules and general ethical guidelines, in which these elements are exhibited and used are key components to running a cohesive business.

Following we analyze the main aspects of the decision making progress.

## 5. THE DECISION MAKING PROCESS

Intelligence activities aim to provide support for decision making, and information analysis forms an important part of that work. Ungureanu and Avramescu (2008) assert that strategy is the main connection between a company's organizational structure and the external environment. Previously we have reviewed the field of intelligence activities, but in order to find out how they assist in decision making, it is necessary to have a look at the way decisions are made. Then, the aim of this part is to map out the field of strategic decision making through introducing different approaches to strategy.

According transcribed and expressed L.C. Seitovirta, with another point of view, it could be consider that strategy starts with a vision of what one desires to be at a definitive time in the future. This vision evolves to the development of specific actions necessary to reach the stated vision. These actions, moves or allocations are strategies. Fleisher and Blenkhorn (2003) define strategic management as a way of conducting an organization that aims to develop values, managerial capabilities, organizational responsibilities and administrative systems to link strategic and operational decision making.

Porter (2008) views strategy formation as an analytical process. In his view, strategy work is about understanding the industry structure and claiming a position in the industry that is more profitable and less vulnerable to attack. This may include positioning the company to better deal with the current competitive forces, anticipating and exploiting shifts in the forces, and shaping the balance of forces to create a more favorable industry structure to the company. The best strategies exploit more than one of these possibilities:

- *Positioning the company:* A strategy can focus on building defenses against competitive forces, or on finding a position in the industry where the forces are weakest.
- *Exploiting industry change:* If a strategist has a good understanding of the competitive forces and their underpinnings, it is possible to spot and claim promising new strategic positions as the industry changes.

- *Shaping industry structure:* In addition to recognizing and reacting to the inevitable, a company may also lead the industry towards new ways of competing that change competitive forces to the better. While many participants can benefit from industry transformation, the innovator can benefit most if it can shift the competition in directions where it can excel.

In the analytic approach, strategy comes into being when it is formulated – thus it is something that is done somewhere and then implemented (Fleisher & Blenkhorn 2003). Viitala and Pirttimäki (2006) discover that although there are several models to describe the process of strategic management, certain elements are included in nearly all of them: analyzing both internal and external environment, strategy formulation, strategy implementation and evaluation and control.

Fleisher and Blenkhorn (2003) assert that the objective of strategic management is to position the company so that it can achieve the tightest fit with its competitive environment. Competitive intelligence aims to assist in generating this form of understanding. However, there is criticism regarding the usefulness of strategic planning. Fleisher and Blenkhorn (2003) assert that in today's fast-changing, fast-paced and competitive world, a lock-step strategic planning approach impedes dynamic and innovative decision making and required marketplace action. Viitala and Pirttimäki (2006) claim that instead of being performed in certain intervals the strategy planning process should be continuous. It is necessary that a company should always be able to adjust the strategy on an ongoing basis.

In contrast to the analytical approach to strategic planning represented by Porter (1980), Mintzberg (1994) argues that strategy formation can also be emergent. In his view, there is more to strategy than analysis – strategy can be a synthesis drawing from multiple sources of information. The strategy making process should capture what the manager learns from all sources, including soft insights from personal experiences and the experiences of others throughout the organization, in addition to hard data from market research and the like. This learning should then be synthesized into a vision of the direction that the business should pursue, which is called strategic thinking.

In the analytical approach, Porter (1980) argues that analyzing the industry's underlying structure can form the basis for actionable, set plans. Mintzberg (1994), however, asserts that rather than creating strategies, planners should make their greatest contribution around the strategy making process: planners can supply the data, help managers think strategically, and program the vision. They can produce the formal analyses and hard data that strategic thinking requires, but only in order to broaden the consideration of issues rather than to discover the one right answer. Thus, instead of positioning the company based on a clear, structural picture of the environment (Porter, 1980), the emerging approach employs a more broader brush that allows for picking up, and acting upon, a wider range of signals that can have an impact on the strategy. Brown and Eisenhardt (1998) assert that strategy cannot be regarded as a permanent guideline to a company's long term goals. It is rather about creating a flow of competitive advantages that, taken together, create a semi-coherent strategic direction (Viitala & Pirttimäki, 2006).

Mintzberg (1994) considers that strategic thinking, in contrast to strategic planning, involves intuition and creativity. The result of strategic thinking is an integrated perspective of the enterprise, a vision of direction that is not too precisely articulated. These kinds of

strategies cannot be developed on schedule; they must be free to appear at any time and at any place in the organization and they cannot be forced to a cyclical framework of strategic management (Fleischer & Blenkhorn, 2003). They typically arise through messy processes of informal learning; carried out by people at various levels of the organization who are deeply involved with the specific issues at hand. Mintzberg (1994) points out how formal strategic planning is dependent on the preservation and rearrangement of established categories – the existing levels of strategy, the established types of products, overlaid on the current organizational structure.

In contrast to Porter's (2008) approach, Mintzberg (1994) argues that real strategic change requires not merely rearranging the established categories but inventing new ones. Strategy making needs to encourage informal learning that produces new perspectives and combinations. Furthermore, he considers that strategic planning cannot be applied to problem solving without judgment and intuition. Strategic planning represents a calculating style of management, aiming to reduce the power of management over strategy making, in a world that needs a more committing style of management where management engages people and everyone contributes and helps shape the course of the company. He introduces three fallacious assumptions that undermine strategic planning: the fallacy of prediction, the fallacy of detachment and the fallacy of formalization. Thus, even though formal systems offer a way to process more information, they can never internalize it, comprehend it, or synthesize it. Formal procedures will never be able to forecast discontinuities, inform detached managers, or create novel strategies.

Mintzberg (1994) observes that planners and managers have different advantages in the strategy making process. Planners lack management's authority to make commitments and can access soft information critical to strategy making. Managers, in turn, pressed with time, tend to favor action over reflection, and the oral over written, which may cause them to overlook important analytical information. Even though strategies cannot be created through analysis, they can be developed with it. As planners have the time and will to analyze, they have critical roles to play alongside line managers, but not as conceived in the past. Planners should work as *soft analysts*, whose purpose is to pose the right questions rather than to find the right answers. That way they open up complex issues to thoughtful consideration instead of their being closed down hastily by snap decisions.

Hamel and Prahalad (1989) infer that all kinds of strategy recipes limit competitive innovation. In their view, strategy is too often seen as a positioning exercise (Porter, 2008) where options are tested by how well they fit the existing industry structure. The current industry structure reflects the strengths of the industry leader and playing by the leader's rules is usually competitive suicide. Assuming a more inward approach to strategy, they argue that a strategist's goal is not to find a niche within the existing industry space, but to create a new space that is uniquely suited to the company's own strengths. They named this approach strategic intent and it aims to force companies to operate more innovatively.

Hamel and Prahalad (1989) find that the value of traditional industry analysis, represented by Porter (1980), for instance, has been undermined by unstable industry boundaries, rapidly changing technology, deregulation and globalization. However, they see that an industry in turmoil presents opportunities for ambitious companies to draw the map in their favor, providing that their thinking extends outside traditional industry boundaries.

Managers cannot restrain themselves by simply playing the same game better. Instead, they must fundamentally change the game in ways that disadvantage the incumbents.

This way of thinking extends beyond Porter's (2008) analytical approach to strategy. Instead of searching for opportunities in the existing structure, the strategic intent approach aims to find a more unique solution. This can be seen to comply more with the emerging approach to strategy, represented by Mintzberg (1994). The strategic intent approach has a different way of analyzing of the business environment than Porter's (2008) five forces framework, but the analysis is still structured. Hamel and Prahalad (1989) assert that in order to guide actions in the medium term, specific corporate challenges should be determined in the business environment. These challenges can be determined through analyzing competitors as well as from the foreseeable pattern of industry evolution. They reveal competitive openings and help to identify the skills an organization will need in order compete with better-positioned players. These strategies employable can be divided into four approaches to competitive innovation:

- *Building layers of advantage:* The wider a company's portfolio of advantages, the less risk it faces in competitive battles.
- *Searching for loose bricks:* Analyzing the competitor's definition of its served market and its most profitable activities, determining which geographic markets are too challenging to enter and so forth. The objective is not to find a desert niche in the market territory that the industry leaders occupy, but to build a base of attack just beside it.
- *Changing the terms of engagement:* Companies do not have to accept the front runner's definition of industry and segment boundaries.
- *Competing through collaboration:* Competitive collaboration can, for instance, be used to hijack the development efforts of potential rivals or to calibrate competitors' strengths and weaknesses.

Furthermore, Hamel and Prahalad (1989) stress that in the strategic intent approach the whole organization needs to be engaged to focus on the specified corporate challenges. This is consistent with the emergent approach to strategy (Mintzberg, 1994). It is no longer seen that strategy can be planned somewhere at the top and then communicated, as implied by Porter (2008) and the planning school of strategic management. Hamel and Prahalad (1989) assert that in order to engage the whole organization, top management needs to do the following:

- *Create a sense of urgency:* Weak signals in the environment should be amplified to emphasize the need to improve, instead of allowing inaction to precipitate to a real crisis.
- *Develop a competitor focus at every level through a widespread use of competitive intelligence:* Every employee should be able to benchmark his or her efforts against best competitors in order for the challenge to become personal.
- *Provide employees with the skills they need to work effectively:* Employees should be trained, for instance, in statistical tools, problem solving, value engineering, and team building.

- *Give the organization time to digest one challenge before launching another:* Even when competing initiatives overload the organization, they should be carried through.
- *Establish clear milestones and review mechanisms to track progress:* The challenge should be made inescapable for everyone in the company.

Hamel and Prahalad (1989) consider that the strategic intent assures consistency in resource allocation over the long term, clearly articulated corporate challenges focus individuals' efforts in the medium term and competitive innovation helps reduce competitive risk in the short term. This structure is more flexible than Porter's (2008) analytical approach to strategy, seeing that it allows for some fine-tuning, but as there are guidelines for every time frame, the strategic intent approach can be seen as a bit more structured than the emerging approach to strategy (Mintzberg, 1994).

### **5.1 Utilizing strategic intelligence in decision making**

Successful strategic decisions and actions require proactive information and knowledge that provides a view of possible futures. This information is partly produced in the strategic intelligence process. The literature on strategy reviewed above suggests that gaining a picture of the business environment is important in strategic decision making, regardless of the approach to strategy employed.

Following to L.C. Seitovirta again, the analytical approach to strategy (Porter, 2008) builds upon an understanding of the industry structure and strategic intelligence can be seen to assist in building this understanding. For instance, Gilad and Gilad (1985) assert that the goal of the business intelligence process is to produce information that can be utilized in the strategic positioning of the company. The focus is more on the external environment, and thus the level of intelligence employed could be assumed to be more on the competitive intelligence side. Competitive intelligence aims to ensure that decision makers have accurate and current information about the competitive environment and a plan for using that information (Fleisher and Bensoussan, 2007). It could help provide information to support the positioning of the company in the light of current competitive forces, anticipate shifts in the forces, exploit them and shape the balance of the industry structure (Porter, 2008).

Following Mintzberg's (1994) view of strategic decision making in the emergent approach, intelligence activities could provide assistance by assuming some of the responsibilities of planners: it could help gather information, both hard data and soft insights, from a wide range of sources in order to broaden manager's consideration of issues. In this sense, seeing that both internal and external information is needed, emergent decision making can be seen to require intelligence on the broadest, business intelligence level, covering both internal and external information (Ghoshal & Kim, 1986; and Gilad & Gilad, 1986). Mintzberg argues that strategy emerges through messy, uncyclical processes of informal learning carried out by various people in the organization. SI could help in the process by, for instance, leveraging company internal information through consulting experts in the company (Choo, 2002; Gilad & Gilad, 1985; and Viitanen & Pirttimäki, 2006). Extending the scope of information gathering beyond public sources to include internal information would also ensure that the information would be early and more profound (Viitanen & Pirttimäki, 2006).

The strategic intent approach, in turn, has a more inward view of competitiveness (Hamel & Prahalad, 1989) and, consequently, it could be assumed that strategic intelligence could help by producing more internal information on the company's own strengths, for instance. Hamel and Prahalad (1989) question the value of traditional industry analysis as boundaries are becoming more unclear and the environment is characterized by rapid change, deregulation and globalization. Instead of analyzing opportunities in the existing industry structure (Porter, 2008), they argue for finding a more unique solution, a space that is off the map. As the strategic intent approach builds upon the definition of specific corporate challenges; strategic intelligence could help by producing information on competitors and industry evolution (Hamel & Prahalad 1989).

However, Fleisher and Bensoussan (2007) point out that analysis is not always recognized as critical-mission; it is often called something else or the process is embedded in other activities. Viitala and Pirttimäki (2006) observe that business intelligence literature mainly focuses on the collection of information but its integration to support existing business processes is rarely studied – no integrated process models of business intelligence and strategic management exist in the literature.

Viitala and Pirttimäki (2006) argue that instead of regarding business intelligence and strategic decision making as separate processes, they should be integrated into a continuous cycle that fosters strategic learning. Business intelligence should be organized in a way that leverages the advantages of both formal organization and informal networks. This can be done through recognizing the people who play critical roles in the informal business intelligence network and supporting the network with a defined structure. They suggest establishing a global coordination function connected to decentralized information collection networks that have their own local coordinators. Their proposed business intelligence structure consists of five roles. The people who have access to non-public external information are internal gatekeepers. Boundary spanners are intelligence coordinators of the regional or functional network they belong to, possessing specific understanding and knowledge of their area. Global coordinators, in turn, coordinate the intelligence network and activities at the corporate level, using their wide access to information from several areas. Furthermore, experts are utilized in analyses, and strategic decision makers are seen as the end users of the information processed in business intelligence.

In their framework, Viitanen and Pirttimäki (2006) propose that internal gatekeepers should forward the information they receive either to their network's boundary spanner or directly to the global coordinator. Analysis is conducted in cooperation with boundary spanners and the global coordinators so that both the local and functional aspect of the issue as well as the global view is taken into account. This cooperation is further facilitated by establishing a business intelligence forum that serves the company level strategic decision making by regularly going through external information from human sources, comparing it with public information, considering its implications and giving proposals for action for strategic decision makers who, in turn, further discuss them and make decisions. The forum also consults experts on the issues and one or two strategic decision makers are also present in order to have valid suggestions for actions. The forum is concerned with strategic level issues. It combines the information flows to a condensed whole of analyzed, actionable



information that is made available for strategic decision makers. Ideally, information would also flow backwards between the actors: strategic decision makers would give feedback on received information and communicate the strategy and the assumptions that it is built on to the rest of the company. Global coordinators can facilitate this communication of strategy through passing it on to boundary spanners. Consequently, boundary spanners can, in addition to passing on information from the business intelligence network, also share this strategic information received from the global coordinators. Fleisher and Bensoussan (2007) infer that in an ideal situation, analysts are deployed on-site and have regular contact with managers, negotiating teams and front-line decision makers. This kind of interaction helps to better target the intelligence efforts and ensures that analysts understand shifting agendas, prime movers and receive quick feedback on their outputs. However, it is important to note that there is a lack of models describing the integration of strategic intelligence in strategic management, and Viitala and Pirttimäki's (2006) framework is one of the few that exist.

## **6. COMPLEMENTS TO AID THE STUDY OF THIS LEARNING MATERIAL**

There are two Power Point presentations attached to this report "THE GLOBAL STRATEGIC INTELLIGENCE MANAGEMENT" (I) and (II), and the corresponding case studies, which show the links connecting Internet videos that have been selected to be projected. These presentations include the main "force ideas", and are very easy for self-study and are a complement to the writing learning material. This material comes from a revision of the thoughts and theoretical works of some specialized authors, whilst the presentations collect practical approaches with knowledge and experiences oriented to the application.

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