International Journal of Applied Business and Management Sciences
Vol. 1, No. 1, 2020, pp. 23-102

ARF INDIA
Academic Open Access Publishing
www.arfjournals.com

BUSINESS MODELS IN MODERN COMPETITIVE SCENARIOS:
The Role of Information in the Formulation of the Strategy

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Received: 27 January 2020	Revised: 26 February 2020	Accepted: 11 March 2020	Publication: 15 May 2020

Abstract: *The purpose of this article is to contribute to a better understanding of the role of information in the process of strategy formulation, based on the aggregation of existing literature. Is a descriptive research, with the goal of identifying and characterizing the role of information in strategic decision making.*

The structure of the article synthesizes the existing academic work, seeking to generate new knowledge. The strategy of any organization can be defined from the outside to the inside, according to the schools of the positioning, or from the inside out, according to the schools of the movement, in which the organization influences the surroundings with its offer of products and or innovative services, since it has competencies and capabilities that competitors do not have and that are difficult to imitate or to buy.

Hence the importance that weak and strong signals play as information of anticipation in the definition of the strategy and so, our goal is to treat the issue of the role of information in the process of formulation of the strategy in the context of strategic decision making. Based on research and practical experiences carried out by the investigator in strategic consulting in small, medium and large companies for about 20 years, we will propose a model of the role of information in the process of formulating the strategy and its operationalization.

Keywords: *information science, Signs; information, strategy; imperfections of information.*

INTRODUCTION

Society is living in a time when the stage of development can be classified as modern, but it has taken on such a large, unexpected and complex character that it can be distinguished from modernity itself, surpassing it by what we may call the post.

What characterizes our contemporary definitely is, *roughly speaking*, the narcissism of the people, the superficiality, recovery of appearances at the expense of the essences, the high technological sophistication, especially in electronic and virtual appliances design, instant and integrated communication (sound, image, text), usually transmitted via internet and captured on screens (tiny or on the contrary huge) of liquid crystal, the hyper-realism, that is, the transformation and the treatment given to artistic achievements enshrined so far and many others.

However, the great mark of this strange and stunning time is the fragmentation of everything and everyone. If modern man "*stresses*" faced with multiple activities in which unfolds almost to infinity, the Post modernity disrupts the human being by means of an internal Division, often schizophrenic, in multiple subjectivities and identities.

Man has forgotten history eventually denies it and his main concern is focused solely on material aspects of existence and in the attachment to the pleasures of the senses, almost childlike way extolling the present moment and undermining everything and scattering by a thousand possibilities and spending the best human energies.

It is in this human, political and socio-cultural environment where everything is "hyper and hippo", confused and undefined, that, the information science, endowed by while theoretical conceptualizations and limited resources on its own identity and affirmation, is called to intervene and forward the issues that are not a glitch, such as production, storage, organization and circulation of knowledge (the information feeds the knowledge), as well as the formulation of the organizations strategy.

The proposed work is to provide a reflection on the role of information in the formulation of the organizations strategy, considering the context in which they are inserted. To understand the theme is necessary at first, knowledge of their origins and their story. So, it presents first a small history of the evolution of information, information science and its relationship with other areas of knowledge, including with the business sciences.

The consolidation of a particular field of knowledge is, among other things, the existence of a scientific community. This in turn consists of several researchers and scientists anxious to discuss and resolve the problems that arise in the area. Thus, the existence of a shared paradigm by members of a community will result in consolidation of the scientific community.

METHODOLOGICAL APPROACH

As to its nature, the survey is quantitative and qualitative, since it does not claim only to quantify events nor privileges the statistical study of instrumental schools of strategic management. Its focus is to obtain descriptive data, that is, the incidence of topics of interest in two fields, information sciences and business sciences. Consequently, as far as the ends are concerned, the research is exploratory in nature and descriptive in character, as well as, as far as the technique used, is categorized, consensually, as a direct documentation study, which provides for consultation with the sources allied to the study in different media, print or electronic, with content related to the theme.

INFORMATION SCIENCE

Concept of information science

The information science is born in a panorama which provides on the one hand the production and the Organization of information and on the other, the transfer/dissemination of information technology-mediated by preservation and recovery.

According to Borko (1968) the information science "is the discipline that investigates the properties and informational behavior, the forces that govern information flows and the meanings of information processing, aiming the accessibility it is concerned about the body of knowledge related to the origin, collection, compilation, storage, retrieval, interpretation, transmission and transformation".

According to Ingwersen (1992) the information science focuses on five main areas, through its disciplines:

- Information transfer (information flows);
- Desired information (relationship between production and the needs of the individuals, groups, institutions or society);
- Systems efficiency (efficient technology to make the quality of the information);
- The relationship between the information and the generator (knowledge generation and their representation);
- The relationship of information and the decision maker (relevance, value and use of information).

The structure of information science is based on the Permanent link of the relationship between empirical research and professional practice. This feature is justified at the source of the field, in response to the problem of information overload. Its relationship with other interdisciplinary areas of knowledge is justified and necessary, insofar as the problem of the excess of information becomes increasingly complex.

The information science has become a rigorous social science that relies also on rigorous techniques and aims to study the general properties of information (nature, genesis and effects), that is:

- The analysis of the processes of production, storage, communication and use of information
- The design of products and systems that enable its production, communications, storage and use;

The information science is a science with precise origins, an object and a well-defined content (the information) and experts easily identified. Has about a quarter-century of existence, time of a generation and an adulthood that has a definition of the object of study, its methods, some basic concepts and fundamental laws and increasingly refers to its own history which is a sign of maturity.

Its object is a field, the information that permeates the space. Is a vital resource which is still not sufficiently measured the extent of its use or non-use, for lack of attention of their users.

Its content is characterized by interdisciplinary between different Sciences, such as the social sciences and Humanities, mathematics and physics. It uses techniques and audacious technologies that make it pass irreversibly from the paper universe to the electronic universe that allows the storage and the transmission of digital form. Once scanned information can be conveyed by different means in, communication networks.

The different stages of technical and economic maturity of the components provided (voice, text, image), the center of gravity of informational practices shifts from a pole made up of paper to an electronic pole where the oral and the visual take the place that the textual left them, predicting the emergence of a new information culture.

Future generations will be more demanding about these media, especially the audiovisual ones, which are less formal than the textual ones: they will probably have less time and will be less interested in obtaining the information through a constant reading, and the text may be presented orally.

This science is at the origin of an industry, a market and trade information which will grow very quickly. The information market diversifies, and customers change rapidly. The trade of information is struggling with the problem of copyright and intellectual property rights, the sale of informational products of significant added value.

Information science specialists and professionals in the sector, such as publishers, booksellers, document list, librarians, archivists, museum list are concerned with the creation, storage, communication and use of information that will be closer to information and more distant from the book, the document and the object.

RELATIONSHIP WITH OTHER AREAS OF KNOWLEDGE

Interdisciplinary

The interdisciplinary can be understood as the "dialogue between the areas of knowledge" in the words of Japiassu (1976), or "mutual ownership of methodologies, principles, theories, concepts and constructs among two or more areas of knowledge. The concept of interdisciplinary is linked to that of complexity. The convergences between these two ideas have significant consequences for understanding the nature of knowledge, the solution of scientific problems and dialogue between the sciences and the humanities.

The nature of complex systems offers a comprehensive rationality for interdisciplinary studies, seemingly divergent approaches and unifies serves as a criterion for directing the process of integration. The ultimate goal of interdisciplinary research is the understanding of the portion of the world modeled by a complex system. Interdisciplinary is characterized by the exchange of knowledge, the transformation of fields of knowledge and the sharing of objectives.

Inter-disciplinarily is not a simple appropriation of concepts, theories and methods from one area of knowledge to another. It only materializes from the concrete dialogue between the different areas of knowledge. The effective inter-disciplinarily is one that is updated in the field of theoretical abstractions, the establishment of methodologies, but also in the interventions that the different areas of knowledge promote in the social.

The information science and Economics

The world reality is evolving faster than the ability of scientific demonstration can systematize its understanding. In the center of the globalization is the technological development. With all respect due to Weber (1864-1920) and by force of certain ideologies, it must be recognized that when Adam Smith

(1968) (Division of labor) or Marx (productive forces) put the evolution of the techniques as the engine of social change, were strictly certain.

In the last years more technological knowledge has been accumulated than in all the history of mankind. This has a positive side to the significant advances in productivity that have been achieved, advances in health, information and so many others. The technological advance did not have a corresponding advance in institutional terms, reason why it becomes explosive for the society.

Industrial fishing is done with huge boats that clean the seas without worrying about tomorrow, the modern transport led to the establishment of a worldwide network of production and distribution of drugs which destroy thousands of people. The laboratories rehearse genetic manipulation without any control or regulation, and so on. Improve the management capacity has become a survival issue for organizations. The technologies redefine the concepts of time and space.

The planet has become a global village. Communications now make it easier and quicker to carry out an operation on the New York or Tokyo stock exchange than to walk a short distance. International financial markets transfer daily more than one trillion dollars without any control of central banks. The Chinese textiles close factories in Europe or in any other country in the world.

The economy has become global, while the regulatory instruments continue to be national or regional in scope. International regulatory institutions, such as the United Nations, the GATT, the IMF and the World Bank, articulate nations rather than supra-national space. The capitalism of Nations reaches today a precarious balance between business efficiency and social justice. Global capitalism is not accountable to anyone. This absence of regulatory instruments of the global economy aggravates world polarization between rich and poor (Murteira, 2001).

Companies must take their social and environmental responsibility. The reality is that, while the planet "shrinks", everything becomes closer, the people "are straddling" increasingly in urban spaces, the cliff between the economic and social population increases rapidly, there is a close proximity between the wealth and the poverty, the luxury and the deprivation and it became an explosive mixture and unsustainable in the medium term. The balance of terror is no longer at the level of countries, but at the door of our homes.

Another axis of the institutional transformation is given to us by the process of urbanization that is radically changing the way of life of the populations worldwide, in a few generations. Urbanization is over with the time that

Government decisions could be taken by the central Government. Today, with the widespread urbanization, large, medium or small cities have to respond to simple problems of citizens ‘ everyday life (school, health, small production, etc.) and becomes increasingly absurd wait endless times in different State bodies. Another axis of transformation is the structural transformation of the work.

The unemployment is not the result of the absence of economic growth, but economic growth itself. Who are waiting for the situation to improve probably will lose the train. It will be of little importance the Division of activities into primary, secondary or tertiary sector, once this technical division complicates understanding the hierarchy of the social and economic system in different subsystems (Murteira, 2001).

No more work for life. Large companies began to work with multiple spaces. Hire Russian and Indian investigators, transfer the software programming for India, outsource production in Indonesia or Thailand, but keep the overall system organization services, the coordination of marketing services and similar, in Europe or the United States. With this reduced the space of formal employment and increase the informal employment and the black economy.

While on the one hand the democratization of global management and the world is moving into a process of apparent modernization, on the other hand society will be disaggregated by the base. In terms of completion may be five fundamental trends in this process of globalization: technological development, economic polarization, urbanization and work transformation. Society urgently needs to pull the reins on its development and establish institutional instruments capable of capitalizing the scientific advances for human development.

The information science and management

In recent years we have witnessed a major transformation in society, that is, we went from a society based on industry and transport, to another based on information and knowledge. A major challenge for managers is to understand what information is, how it is managed, interpreted and what decision (s) allows us to take, in an era of communications on a world scale, since information is the link that unites us.

To be able to transmit in large quantities quickly from continent to continent, we transform the world into a global metropolis, by that in the global economy, information and knowledge can be the biggest competitive advantage of organizations (Davenport & Prusak, 1998, p. 13). Another of the challenges facing the managers is the abundance of information today society, whose most obvious sign of the emergence of this kind of society; it is the combination of the production of large amounts of information, the intensive use of information and communication technologies and the process of permanent learning.

The articulation of these three aspects suggests that from the information society we passed quickly to the knowledge society. The symbolic culture of this society implies new forms of learning, of organization and management and information management. In the information and knowledge society there are several hierarchical levels or progressive stages directly related to the learning process of this knowledge, we can consider three stages: data, information and knowledge.

Many people in organizations spend their day-to-day work to gather, analyze and process the information; some industries have developed, based on the information resource, to produce technologies (process technology – the computer, product technology-software and communication technology-communications equipment and software), that is, to store, process, transmit and easy access to information. Managers cannot open a newspaper without reading the term information. Many books have the term information. Many people in organizations have engaged the term information. It seems that it will be easy to say what is.

However, when we started thinking about the term information we have some difficulty in defining it. Part of the difficulty for managers in understanding information lies in the fact, that they are so accustomed to dealing with it on a day-to-day basis that they do not realize the complexities involved. Only managers realize the difficulties when faced with a new language. The potential for misinterpretation is always present. Given the importance of communication in organizations who are involved in decision making, whether manager or operational, need to find ways to reduce the possibility of error.

To do this you need to understand how communication takes place – how information is transmitted from person to person, from computer to computer and between the person and the computer. The need to understand the information – what it is and how it flows – is not limited only to large organizations. Whenever a person communicates with another, we have a flow of information, because communication is a means to provide information from one person to another.

The information that top managers need is of two types: information to identify new business opportunities (built-in on the skills and capabilities of the Organization and external information about the global and immediate surroundings). This is not structured and remains merely of data, to have meaning needs to be structured, given that not all the information makes sense and it is important. External information is that which each time is more important to support strategic decision-making, but it needs to be watched and organized for the work of the strategic managers.

INFORMATION AS A RESOURCE FOR ORGANISATIONS

Resource concept

A resource is anything that can be thought of as strength or a weakness for an organization, so this gets a competitive advantage if it acquires or develops superior resources or a combination of superior resources "(Wernerfelt, 1985, in: Nelson António, 2003).

Teece, Pisano and Shuen (1997) define how resources ' specific assets of a company are difficult if not impossible to imitate ' (in: Nelson António, 2003). In turn Prahalad and Hamel (1990) define resource as a "nuclear powers".

A resource incorporates several strategic management skills as a way to explain how some organizations have superior performance to their competitors. This vision means organizations as a set of features and capabilities where the first task of management is to maximize the value of existing resources and capacities, while developing the resource base of the future "(Grant 1991, p. 110).

The distinction between features and services, it is not their lifetime, but the fact that the resources consist of a set of services and potential that can be set regardless of their usage, while the services cannot therefore be defined (Penrose, 1959 p. 25). The capabilities of an organization at any given time are those that are tangible or intangible assets and that are connected to the Organization as the capital, equipment, skills and knowledge of employees, the marks and the technological systems (Wernerfelt 1984, p. 172).

However, few resources are productive, but require cooperation and coordination together. This capacity of the set of features to perform some tasks or activities is referred to as a capacity. In order to make productive use of this set of resources, organizations acquire resources that are called market factors, such as the labor market or capital.

Strategic market factors are defined as those markets in which organizations acquire the resources needed to market its strategic products (Barney 1986, p. 1231). Organizations acquire resources such as market factors, work and develop capabilities that make use of these resources, in order to complete the products and services that are sold in one or more markets.

The information economy and knowledge

Businesses went through transition from an industrial economy to an information economy and knowledge, i.e. an environment where information adds value to the products and services. Companies that were used to succeed by size are losing ground to more agile competitors in the use and management of information.

In this context, the information is treated as a strategic resource that needs to be managed on a daily basis, with the same attention to the human and financial resources of the organizations (Mcgee and Prusak, 1994).

The economy is growing in the production of goods, services and information, and that can be generally characterized by the following assumptions:

- The perception that industries and economic sectors will become dependent on a workforce that has access and can share the information;
- The recognition that the information needs to be organized, structured, systematized, stored, managed and be easily accessible;
- He recognition that the skills of creating, searching, analysis, evaluation and interpretation of information are essential for individuals and for groups, inside and outside of organizations;
- The perception that information needs (which information) become increasingly complex and dependent on different and multiple sources - whose correct evaluation and quality is a crucial factor for decision-making processes;
- That the growing development of information and communication technologies challenge both the skills of lay people and information professionals in terms of their understanding, mastery and management;
- Recognition that the information sector is a substantial part of the country's economy.

Economic Profitability

For economics the need is the sensation of a certain lack attached to the desire to be eliminated. Necessity is thus the desire to have a means capable of preventing or ceasing an unpleasant sensation or of causing, preserving or enhancing a pleasant sensation (Sabaté, 1989).

The media that serve people to meet their needs are designated by economists like goods. A *good*, all that we recognize as able to satisfy a need, regardless of any other judgment (for example moral judgment). The goods can be classified in several ways. The first one that interests us is the one that distinguishes the so-called free goods (eg, the air we breathe, water) from economic goods. An economic good is one characterized by its scarcity that is, it is one that exists in smaller quantities than required, given the felt need (Sabaté, 1989).

The usefulness of a good refers to the quality and capacity of that good in satisfying the needs that are proper to that good. The usefulness of a good is the aptitude of that good to satisfy the needs that are subjective sensations, it results that the same good may have different utility for different people, depending on the intensity with which they can experience or feel the needs that can satisfy with that good (Sabaté, 1989).

Closely associated with the concept of utility is the concept of "*economic value*" of which we can say that it is the quality of everything that is given importance, because it is considered that deserves esteem. So, the value of a given good also depends on each person, since each can feel distinct appreciation for that good (Sabaté, 1989).

The organizations are seeking the economic return through the sale of their products or services. In a competitive environment, an organization can achieve better performance than their competitors, because it has better features or because the Organization makes better use of their distinctive skills (Penrose, 1959 p. 54). A distinctive competency is defined as a distinguished qualification, complementary assets and routines of the organization which together allow the company coordinate a specific set of activities that provide the basis for competitive advantage (Dosi and Teece, in: Williamson 1999, p. 1094).

Competitive advantage is referred to as economic profitability (Porter 1980). Subsequently the resource base sees the strategy as a continuous research of profitability. Profitability is then defined as the excess return of a resource that that is the owner of an opportunity cost (is the return that can be generated when placed in alternate use or the price at which it can be sold, (Grant, 1991). In other words, profitability can be measured as a normal financial return.

In order to differentiate the possible sources of profitability, some types are distinguished. For example, the return can be performed by ((Mahoney and Pandian 1992):

- Superior ability to manage for coordinate the resources (Penrose 1959);
- Possession of a valuable resource which is rare;
- Government protection when barriers to entry of new competitors are high;
- Running risk and business acumen in uncertain and complex surrounding environments risks and business acumen in uncertain and complex immersive media;
- Make better use of the resources of the Organization, of any of the physical assets and human capital.

The resource base is an attempt to explain why the organizations differ in terms of features and capabilities and how these differences can lead to positions of sustained profitability, producing superior financial return. Base resources therefore serve the purpose of focusing explicitly the function of resources and the capacity of organizations, such as the origin of strategy and organizational performance. This exploration of the relationship between resources, competition and profit includes, among other issues, the role of imperfect information in the creation of differences in profitability between competitors (Grant 1991, p. 3).

Profitability of Information

The information is a complex concept, ubiquitous since the emergence of life and inherent in any evolutionary process and thus served and continues to serve as a framework for reflection so much in biology, physics, psychology, in management, in Linguistics, as in several other branches of science.

The power of information resulted from the development of information and communication technologies during the twentieth century, such as occurred two centuries ago with the concept of energy, key factor of the industrial revolution.

Information imperfections are some of the competitive imperfections that clash with the economic ideal of the perfect market. The perfect market is characterized by numerous customers and suppliers of homogeneous products whose price mechanism determines the most efficient market organization. Looking at the information, all customers and suppliers are fully and perfectly informed about all relevant aspects of commercial transactions.

While the ideal market serves as the most important neoclassical economic theory, appropriations of the contemporary economic theories tend to allow this unlike the appropriation of unrealistic theories. Therefore, we assume that the perfect market and perfectly informed customers and vendors is a myth. For this reason, it is proposed that the markets are characterized by imperfect competition and that the imperfections of information are an important trend.

The amount of return that the organization can perform depends on the cost of resources, of the cost of acquisition of new resources and their economic value when sold the products. In the case of being perfectly competitive markets, customers and vendors both will have the same thrilling expectations about the value and the cost of resources and products.

Consequently, suppliers never sell the resource or their product, if the total value is not reflected in the price, or customers will pay a higher price than the cost. Under these circumstances of the perfect market, the strategy can only produce the normal return, as opposed to the above referenced return, i.e. profitability.

Imperfections of information

To understand how economic profitability can be identified and appropriated by strategic information, it is through knowledge of the origin of information imperfections. The costs of economic transactions (CTE) describe these origins and three types of imperfections of information resulting from them.

The transaction costs theory assigns two behavioral appropriations to the man: the limits of rationality and opportunism. We assume that men are intentionally rational but are limited by this. The limits of rationality are out of the inability of the human brain. This involves neuron-psychological boundaries of a skill on the one hand, and on the other, the limits of language. Physical limits take the form of value and the storage limits of the power of individuals to receive, store and process the information without errors.

Human cognitive abilities are as a rule insufficient to understand particularly complex tasks, to recognize the need for relevant information and to render completely all relevant information. It explains the limited rationality of rational information behavior. Instead of a full search of relevant information, the only decision maker attempts to get a subjective satisfaction, the incomplete information level. This type of behavior is known as “satisfactory”: looking for a solution which meets the aspirations of the decider level and therefore the acceptable.

Humans are not only rational; they also assume some opportunistic behavior. Williamson (1975) describes opportunism as "the pursuit of self-interest with astuteness" involving "disbelief of the threats and opportunities", in order to perform the individual advantages. These advantages are also suitable for "select and distort the information discovery or discredit the opportunities that lead to future" (Williamson, 1975, p. 26). The claim is that, although not all humans behave opportunistically, is difficult to predict in advance whether they will behave or not, as such.

These two types of behaviors reflect the relationship between suppliers and customers. The combination of opportunistic and rational behavior is the main cause for the three types of information imperfections in the market of transactions:

Asymmetric information - an asymmetric distribution of information from the parties involved in a transaction causes a strategic opportunity. The critical impact of information on optimal allocation of risk is not merely its presence or absence, but its economic agents' inappropriateness joins two conditions under which the asymmetry of information provides a strategic opportunity in transactions:

I. High costs to obtain equality of information;

II. Propensity of parts for opportunistic behavior. In other words, the asymmetric information occurs when one of the parties has information that is unknown by the other and difficult to obtain by the other party and an opportunity to exploit this advantage of information through strategic alternatives.

The asymmetric information may result in a favorable situation for suppliers or customers depending on the one that has that information. The opportunity is caused by hidden information for the current transaction. One of the parties in a commercial transaction is better informed about a relevant variable than the other. Is the invisibility of this private information which constitutes the essence of the imperfections of information and introduces the risk for the other party.

Considering the possibility of opportunistic behavior, the part that has the hidden information, has no incentive to reveal the information, if it is detrimental to her. As a result, any vendor who enters the market with a product or service that is particularly suitable for a specific market segment, with the major benefits of competitors who benefit from this hidden information. The imperfections of information are known as enemies.

- **Ambiguous Information** - information ambiguity in a business transaction may cause a strategic opportunity. Although in the case of complete information, different interpretations on the same information may occur. As a result of opportunism, these representations can be opportunistic in the sense that it can lead to a single advantage to any supplier or customer.

The strategic opportunity for one of them is discovered, when such an opportunistic interpretation is not recognized by the other and results in:

(i) Customer Will pay a high price for a product;

(ii) Supplier's willingness to offer a low-priced product.

As a result of this opportunistic behavior, the part with the opportunistic interpretation has no incentive to share this information, if it becomes a disadvantage to it.

- **Incomplete Information** – The strategic opportunity of incomplete information is tightly related to the assumption of rationality. The limits of rationality are interested certainly in the extension of the limits of rationality achieved-I mean under conditions of uncertainty and complexity. In the absence of any of these terms of ownership of the shares can be quite specific quotas of this principle.

In an environment characterized by a high degree of complexity and uncertainty, the possibility of certain events occurs, quickly become numerous. Under these circumstances, it is impossible for humans to acquire and analyze complete information relevant to the strategic decision-making. As explained before, this inability leads to satisfactory behavior. The opportunity of incomplete information occurs when a client is not fully informed about the range of possibilities of the transaction about the products offered and vice versa.

Therefore, a client that allows an incomplete comparison of suppliers and their mutual differences can start a transaction with the worst supplier. For the supplier this opportunity could be exploited by the establishment of a brand and advertising, in order to become part of the subset of suppliers in incomplete comparison of clients.

The quality of the information

Not all information is good, so that information is better than another. It is therefore necessary to assess its quality. The criteria to evaluate the quality of information are the following:

- **Relevance** -The information must be *relevant*, i.e., must relate to the facts, be available and be important to the person who requires it. The information will help people make decisions.
- **Opportunity** -The information must be *timely,* that is should be available to the right person, at the right time. If for example, a person does not know the departure time of the train, you risk losing it.
- **Accuracy-** The information must be *accurate*, this means that if the information is not accurate, loses interest*;*
- **Reduction of uncertainty** -Just think in decision-making with and without information; good information reduces uncertainty. Good information involves difference that *makes a difference;*
- **Element of surprise** -The information can be used to obtain competitive advantages;
- **Accessibility** -The information is only useful if people have access to it; the *accessibility* is within reach of those who can get the information in time to be used efficiently and in the format that makes it useful. Electronic storage makes the information more easily accessible than pencil and paper technology.

THE STRATEGY

Strategy concept

The notion of strategy has been the subject of increasingly frequent recognition in business sciences. Numerous works have emerged in relation to the term product line strategy, marketing, and diversification strategy of company/organization. These must have a well-defined action field and a growth orientation and clear objectives, even in the process of choosing the most attractive opportunities and the ability to anticipate the changes.

The concept of strategy has its origin in military art, where is a broad concept, loosely defined, a military campaign for implementation of large-scale forces against an enemy. The strategy opposed to that tactic is a specific scheme for employment of available resources.

The concept of strategy is different and distinct from politics, to the extent that a policy is a conditioned decision, whereas strategy is a rule for decision making. The implementation of a policy can be delegated to lower levels, the same does not happen with the implementation of the strategy, since it requires the judgment of the strategists until the last minute.

Strategic decision making is made on total or partial ignorance of the future, in which the alternatives cannot be sorted and evaluated in advance, while in a position of risk (the alternatives are known, the same happened to its odds) or uncertainty (the alternatives are known, but not their odds).

A strategic decision concerns the relationship between the company/organization and its ecosystem, namely decision-making under conditions of ignorance. The decision can be distinguished into three types: the strategic decision (future), coordination (management of educational available resources) and operational (day to day decisions). Strategic decisions are taken based on the partial ignorance tend to the future, but not other types of decision.

Weak and strong signals

Ansoff (1975) introduced the theme of weak signals in order to identify possible discontinuities, and threats or opportunities from global and immediate surroundings so early. In the face of economic instability, socio-political, technological, Ansoff (1965; 1984) maintained that the strategic planning based solely on quantitative data, logical, historical and trends, does not contemplated the discontinuities and strategic surprises.

In an increasingly turbulent universe, the very notion of planning, as an objective set beforehand, becomes maladaptive, so that the capacity to react and adapt to changes in the surrounding environment is decisive and thus goes from planning to strategic management.

Weak signals, initially used in military strategies, broadcast since then in several areas of knowledge, such as in studies focused on the exploration of the future; the prevention of catastrophes or natural disasters, medicine, and in organizational studies, in the fields of strategy, management and information systems.

In all the areas mentioned, the main purpose of the study of weak signals is identical: to anticipate the uncertain events, unexpected, with potential significant impact in organizations, to be better prepared to decide or act when the same occur (Choo 2009).

But what are weak signals? Weak signals are defined by Rossel (2012) as perceptions of possible changes (the distinction between perception and definition-definition is what characterizes the phenomenon defined, whereas the perception (concept) is the process of looking at the phenomenon), essentially hypothetical, within a process of construction of socially relevant knowledge. Detailing a little more, Schoemaker and Day (2009) describe weak signals as part of the information, apparent, random or disjointed, which at first glance looks like a background noise, but it can be significant, if seen from other perspectives, or regarding other information.

In economic theory considering the perception of the environment, by managers, was successively ruled by the function of the information leading to corresponding anticipations and underlying beliefs. On the theory of managing these same concepts were gradually introduced and acquired around the strategy, because the environment is composed of other "actors" acting similarly.

The belief of managers is increasingly formalized on help from cognitive science, as well as on epistemic logic (tiered beliefs) and in cognitive psychology (review of beliefs). The exchanges of information between the managers are also studied in conjunction with the cognitive sciences, regarding the coordination that allow (distributed cognition) and how the dynamics that they induce (learning process). To deepen the definition of weak signals, Lesca and Blanco (2002) consider aspects that characterize these signals, which were picked up later by Janissek detailed-Muniz, Freitas and Lesca (2007) and Lesca and Lesca (2011).

The qualification of weak signals is related to signal strength: weak. If, on the one hand, there are signs categorized this way is because there are also more intense, strong signals, which according to Ansoff (1984) are visible and concrete information that enable assessment of the impact and the conception of plans and actions.

According to Ansoff (1965) a sign will strengthen as the information becomes more specific. This implies, according to Marie, Cardoso and Caraça (2012), a sense of distance from the event is being signaled. Weak signals differ from strong signals because they are less visible and have a greater distance from the impact of future changes. Strong signals emerge whenever there is strong evidence of change, who's ID can also be perceived through a group of weak signals.

It is important to note that the authors do not suggest irrelevance of strong signals for strategic decision making. Lesca and Lesca (2011), as well as Mendonça et al. (2012) only emphasize the strategic importance of weak signals, or rather the importance of what weak signals can incite, impel, warn and anticipate; beyond the inherent dangers of ignoring them, leaving little or no time for decision or action, and may have negative consequences for business continuity.

Mendonça et al. (2012), and Lesca and Lesca (2011) argue that a weak signal alone is not significant. The value of weak signals is the result of a process of interaction between the observer and what is observed, that is, it is dependent on the perspective of each. Hence a weak signal may be relevant to some, while for others it is completely negligible, hence the need for interpretation or creation of meaning from them, especially if done collectively.

In order to highlight the importance that those weak signals can stimulate, Lesca and Lesca (2011) cite possible results from the interpretation of weak signals: a new product or a new use for an existing product; a new potential customer; a new potential supplier; a new potential competitor for whom attention needs to be directed; a new potential partner; a new technology, which can result in opportunities or threats.

In practical terms the weak signals can be compared with the faint and distant clouds that can dissipate or on the contrary can approach the place where we meet and become more charged clouds (strong signals) which may cause rainstorms (quantifiable information), floods, *tsunami*, etc.

Ansoff assigns Weak signals an anticipatory character. According to the author, the *Weak signals* are elements that may arouse, in the attentive and sensitive strategic decision maker, a sense that something important seems to be initiated or might happen (discontinuities/opportunities and/or threats) in the relevant environment of the organization. It should be noted, however, that the intuition in this case is enabled by information that has been perceived and examined carefully. Ansoff calls this *"graduated response through amplification and response to weak signals"*.

According to Kärkkäinen et al. (2001), about the anticipation of future needs and hidden from customers, he claims that they have difficulty in recognizing and interpreting weak signals, and it is therefore necessary to develop specific methods for the formation, the detection of weak signal type information.

These expressions allow us to show that the notion of weak and strong signals, although devoid of greater definition and operational criteria, raises interest both in the middle of the academic research, as in the professional context. By ignorance, weak signals are often misunderstood, and may even give rise to nonsense.

It is clear that the word ' weak ' is misunderstood and induces some managers. In fact, a signal may be weak for their appearance and understanding, but potentially very strong in the sense that it can identify something very important (and opportunities or threats) to the organization that is able to capture them and interpret them.

A signal may be rated weak when it has the following characteristics, because it is:

- Fragmented-means that we do not have complete information, we have only one piece of information from which it is possible to predict something. Weak signals there are usually in small quantities.
- Disseminated-is mixed with useless information that prevent its identification. A weak signal has low visibility. It passes unnoticed to most people.
- Meaning-apparently weak and ambiguous. Weak signal type information says little by itself is too ambiguous, unclear, ambivalent, and wrong.
- Unexpected-unexpected, unfamiliar, repetitive and, therefore, may not be realized. The characteristic of non-familiarity with information makes it harder to its distinction.
- Of apparent low usefulness-the same information can be heavily interpolative to a Manager and totally without apparent interest to others, even if they are part of the same industry/sector. A weak signal is apparently devoid of operational significance. The utility is not your ‘ jumps ‘ eyes, and the consequences of the phenomenon discussed do not happen by themselves.
- Difficult-to-detect-weak ID. In metaphorical terms, it can be said that a weak signal escapes easily between the fingers.
- Relevance-weak, in other words, it is not known what the information is related to this signal, or how to sort the information in relation to the concerns and current activities of the organization.
- Reliability – apparent, normally a weak signal «announces» a future event, subjective, potentially wrong, and not verified (opportunity or threat).

Weak signals constitute the central point of the anticipation of strategic decision making, due to your potential relevance and usefulness for managers prepared and with appropriate cognitive style, since according to Ansoff (1965), this type of information may contain assumptions of ruptures (discontinuities), opportunities and or relevant threats (competitors, customers, suppliers, etc.).

Weak Signals versus Evidence/Anticipative Alerts

In the field of strategic management and pre-emptive interpretation, the difference between sign and sign/alert lies in the intention of the issuer of the information and, therefore, the meaning and the reliability of the same. The word "sign" sub understands a deliberate intention on the part of the issuer to communicate that information. This form approaches the idea of signaling such as the analysis of competition through public demonstrations (similar to market signals).

Porter (1981) indicates that market signals allow knowing the intentions and the future actions of competitors. In the case of information anticipation in the field of strategic management, is not what the issuer wishes to explicitly communicate what most interests us: it may be fake or common information. Conversely, what we could potentially be of interest is not always a deliberate emission of object. It may interest us most and of greater importance are the emissions and involuntary, unintended, manifestations of the "authors" of change which we anticipate. In this case, we can say that this is **evidence/alerts**.

The word ' sign ' signal theory described by Shannon and Weaver (1949) would be applicable to weak signals of Ansoff, allowing the possibility of establishing exhaustive lists of signs, it would be possible to identify channels of communication to be observed, and define the limits of receptivity which should be alert. This analogy would be dangerous because it would lead to focus on selection criteria of weak signals-adapted.

The criteria of Shannon and Weaver, such as confidence, sufficiency, completeness, controllability, etc., are not usable in case of weak signals of Ansoff, for what we are facing a situation where we don't know in advance what the signs and what sources of information. Thus, we focus our interest only in signs, we can obtain relevant information and anticipative, so we speak in **signs / anticipative alerts**, which have no meaning immediately clear, on the contrary, their meaning is constructed during their interpretation. When interpreting a weak signal we have the possibility of reaching the "anticipating clues / alerts".

"Clue/anticipative alert" is information whose interpretation allows us to think that an event likely to have a very useful and a great impact in organizations will be to occur (discontinuity, and opportunity or threat). Such evidence may have come from two main sources: the documented sources (databases, publications, internet, etc.) and relational sources, as well as the informal or formal sources, internal or external.

According to Leszczynska and Lesca, (2004) the relational source information is often accessible primarily by employees with external organizations activities, although the organization employees, through their contact and relations with the environment (customers, suppliers, competitors, researchers, meetings, congresses, fairs, seminars, etc.), also may be able to be fit and attentive to the informal information, qualitative, subjective, etc.

STRATEGY MANAGEMENT SCHOOLS

The Harvard School 65/Design (Andrews et al)

The strategy as a design process

The logic of the model of Andrews (1971) comprises a double dichotomy between, on the one hand, what is inside (the company) and what's out (your context) and, on the other, what is said (the strategy formulated) and what is done (the implementation of the strategy). It is about making a diagnosis (model SWOT-Strengths-Weaknesses-strengths, weaknesses, Opportunities – opportunities and Threats – threats) what were the strengths and weaknesses of the company, in order to identify its competitive competence or is to identify key variables on which it had an interest in basing its strategy, in the face of competition. Outside the company was important analyze the threats and opportunities that may affect the company, to identify strategic variables.

Crozier (1977) by analyzing the problem the decision focuses your attention on the role of the Manager as decision-maker, neglecting the rules of decision-making. The standards that an individual uses are the result of cultural learning, i.e. of a socialization reinforced by the sanctions of the surroundings.

The decision maker does not seek the good, the best solution in the absolute, which is anyway outside of his reach; however he always tries a rational solution. What is it? It is the first solution that responds to the criteria of rationality. The man is not an animal that seeks rationalization, but the satisfaction.

Crozier (1977) says we need to know the principles, practices and the actual behaviors in order to understand the role and significance of the social set and measure the resistance force and the capabilities of evolution. Only in this sense is that the analysis of organizations can bring a decisive contribution to the establishment of a new way of perceiving human relationships.

The model is based on coexistence between key variables (information), that is, on the one hand the formal structure, the system of relationship and the individual freedom of the actors and on the other in information flows between units and members. The strategy is set based on rationality and experience of decision-makers, while actor in the system.

The lack of rigor in the definition of the term strategy takes the author only as reference variables in the definition of the strategy the company's capabilities and balancing relations between the different actors. The strategy is presented more as a result of this balance than a determinant.

By iterative approach of internal and external analysis can then define the field of possible, that is, the set of alternatives open to the company. This step is subject to the values of managers, a kind of moral filter through which the alternatives should be judged. The decision of the choice of strategy is expressed in terms of objectives to be achieved in the market and product pairs in mobilizing resources to achieve this.

A second filter was added to the model in the last stage of reflection (Andrews, 1982, cit. In Christensen et al., 1982), when passing to consider the company's social responsibility – specifically the ethics of society in which the organization operates and how it is interpreted by the managers. Another dichotomy present is the distinction between strategy formulation and implementation, drawing attention to the inner workings and diversions that often separate the intentions of acts.

Once certain alternative strategies the next step in the model is evaluate and choose the best, which presupposes that the various alternative strategies have been designed and should be evaluated through a series of tests:

- Consistency – the strategy should not introduce inconsistent objectives and policies;
- Line - the strategy should represent an adaptative response to the surroundings and the critical changes;
- Advantage – the strategy should provide for the creation and maintenance of one or more competitive advantages;
- Validity – the strategy should not overwhelm the available resources, or create new problems.

The strategy maintains with the other facets of the company's multiple relations policy, in which is the one that most often presents itself as a result of that as a determinant, i.e. it is a complex system, made of iterations that is developed in all directions.

The Harvard School 65 model, also known as school of *Design,* is based on several assumptions, some fully evident and other implied (Andrews, 1982, cit. In Christensen et al., 1982):

- The formulation of the strategy should be a deliberate and conscious process;
- The responsibility for this control and this perception should be the main top Manager (the quarterback);
- The model of strategy formulation should be kept simple and informal;
- The strategies must be unique: the best result of a *design* process.
- The *design* process is complete when the strategies are fully formulated as perspective;
- The strategies should be explicit and so need to be kept simple;
- After being totally formulated and explicit strategies can be implemented.

In summary terms, the model introduces new analytical variables that relate to the environment, but still in a very tenuous because at that time the objectives of the companies were focused on operational problems.

It considers two types of key variables (information): the outer is the most influential and the most explicit and the interns that are the most sensitive to the surroundings. So, the key variables of the model that lead managers to take the strategic decision are mainly economic and financial variables as well as personal values and aspirations of managers.

The objectives are financial managers define, i.e. they are quantitative objectives. The information that the model references, is especially formal information to respond to the Organization and structure of their relations.

There are a number of important contributions that encourage managers to use the model of the school of *Harvard 65 or Design*:

- The brain of a manager can handle all information relevant to the formulation of the strategy. This involves a rich knowledge base and intimate during a substantial period of time that can be covered by a single head, the Manager/decision maker;
- The Manager is able to get full, detailed and intimate knowledge of the situation in question;
- The relevant knowledge must be acquired before formulating a new strategy, namely, the situation should remain stable or at least predictable;

- The organization needs to be equipped to deal with a centrally coordinated strategy.

The contribution of this school as informative idea was profound and developed a vast vocabulary to discuss the strategy and provided the notion that the strategy represents a fundamental adequacy between external and internal capacity building opportunities.

The Carnegie School (Ansoff et al)

Igor Ansoff (1965) summarized the problem of formal strategy to respond to the needs of companies, the overall level of direction and management. This problem has contributed decisively to progressively accelerated and never finished for the construction and consolidation of scientific management.

Traditionally and even today in the common sense, it appears that the measure for the performance of a company's profit. Ansoff (1965) considers that the criteria of profit or cost are not sufficient to explain the social and human organization of the company. Long-term profitability is the goal that every business should seek to achieve, and it is necessary to reach other dimensions that not just the profit.

The Ansoff model (1965) provides the confrontation between the capabilities and potential of the company, in relation to the surroundings in which the definition of objectives, only determines the level of performance that the company seeks to achieve, through the range of products and markets, in the context of its field of action.

Ansoff (1965)defines the concept of strategy as being the best positioning of the products and markets of the company, in the systemic and competitive environment and the operational **strategy** through the following elements:

- **The set of products and markets** -choice of the set of products and markets**;**
- **The vector of growth** - direction on the following stance in terms of products and markets (penetration, development, diversification)**;**
- **The competitive advantage** - specific properties and individual combinations of products and markets that give a strong competitive position**;**
- **The synergy** - the combined performance is higher than the sum of its parts, in terms of products and markets (2 + 2 = 5), i.e., is the ability to take advantage of the entry in a new line of product and market**;**

- **Buy or make.**

The set of *products and markets* focuses the search process in well-defined areas. The *growth vector*indicates the direction of the company in terms of products and markets. The third element of the strategy deals with *competitive advantage,*which aims to "identify specific properties and individual combinations of products and markets that give the company a strong competitive position".

The set of *products and markets, vector of growth and competitive advantage*describes the trajectory of the company in your external environment, in which the first describes the scope of the search, the second indicates the direction and the third the characteristics of the most attractive opportunities.

There is also a fourth component- *synergy*-which is the ability of the company to take advantage of your entry into a new product and market area and is particularly useful as a common link in new growth areas, IE. is a **key variable** in choosing a diversification strategy . Diversification knows the best days in a context of high economic growth, while specialization is presented to many as more prudent in a time of austerity.

Conceives a comprehensive model of strategic analysis and strategic decision making where searches show that companies cannot just have economic objectives, having developed a measure of efficiency-the profit-which is common and unique company. The model shows that there are other companies beyond profit objectives.

The model is divided into clearly delineated steps, articulated and with a checklist and of techniques and gives special attention to the setting of objectives at the beginning and the preparation of budgets and plans at the end:

- Fixing of objectives – procedures to quantify the goals of the Organization in the short, medium and long term;
- Analysis of environment - procedures for assessment of external conditions, in order to make predictions about future conditions, as well as the construction of alternative scenarios in order to show alternative States of the future situation Organization;
- Internal analysis - the study of the strengths and weaknesses, with the distinctive skills assessment;
- Strategy assessment - evaluation of alternative strategies to be selected, using various assessment techniques such as: the return on investment, risk analysis, value curve and the value for the shareholder. All techniques are geared to the financial analysis;

- Implementation/operation of the strategy – detail the model for implementation, i.e. While the wording is an inconsistent and open process in which the imagination can flourish, the implementation is a process closed and to submit the new convergent restrictions of the strategy implementation.

The entire set of strategies, objectives, budgets and programs comes together in a system of operational plans. The objectives address the formulation of strategy in its turn evokes the programs, the results that influence the budgets for control purposes.

In *Carnegie* school also known as School of planning the Chief Executive must remain as the architect of the strategy, but in practice it should not devise strategic plans, but to approve them. The premises can be summarized in the following:

- The strategy should result from a conscious and controlled process of formal planning, broken down into distinct steps, each outlined by a *checklist* and supported by techniques;
- Responsibility for the whole process is from the main Manager (decision maker); in practice the responsibility for implementation is of the planners;
- The strategy should be explicit so that it can be implemented through budgets and plans of various types.

Strategic planning suffers from seven sins that can be summarized in the following:

- The assessors assume the process of strategy formulation, due to the indifference of senior management;
- The strategy formulation process dominates the aides since the methodologies are becoming more elaborate, being given too much emphasis to the analysis and insufficient emphasis to the real strategic criteria;
- Planning systems were practically designed not to produce results, namely those who decide to forget the running;
- The prediction of a single strategic alternative is an inadequate basis for planning in a phase of uncertainty and change;
- The planning process can not develop true strategic options, namely the planners rush to adopt the first strategic option "to be liked" by the decision-makers;

- Planning neglects the organizational and cultural requirements of the strategy, namely the process focuses on the environment, to the detriment of the inner which is decisive in implementing the strategy;
- The prediction of a single strategic alternative is an inadequate basis for planning in an era of uncertainty and change.

Develop a model that provides the confrontation between the capacities and capabilities of the company's performance in relation to the surroundings, by defining the strategy as the company's liaison with the surroundings. It defines a typology of decision of managers in: administrative or strategic and operational coordination.

The Decade of 70 introduces the variable **turbulence** and relates the strategy with the following internal and external factors: technical-economic dimension; socio-political dimension; cultural dimension; competitive dimension; potential size of the organization.

In a universe increasingly rowdy, the very notion of planning, while this objective *necessarily* becomes outdated, so the ability to react and to adapt to the changes of the surroundings is crucial and so passes from planning to **strategic management**.

The model makes an approach of the strategy from the outside in. Initially forgotten need for transformation of the internal configuration of the structure to implement the strategy, by which some authors from the same school completed the model with some additional reflections.

Recent progress in implementing more than designing was found in the construction of scenarios and in control of the strategy. The construction of scenarios assumes that if you cannot predict the future, speculating about a variety of futures, can open up your mind and hopefully get the future right. But change the world view of managers is a task far more difficult than the construction of any scenario. The control of the strategy aims to keep the strategy on track of the desired strategy.

The model references as driving and dependent variables (key variables) information on the macroeconomic, technological, political-legal and socio-cultural evolution on the environment and the internal information on the capabilities and competences of the company.

In summary the model focuses on a comprehensive list of key variables (information) about the global environment, IE, those that impact on all organizations and forgets the variables that only have impact in some organizations (industry or sector), that is, the immediate environment.

The Harvard Post 80 School (Porter et al)

The premises of the *Harvard Post 80 school*, also known as positioning, are based on the fact that strategic analysis is based for many years on the concepts developed until then: growth, internationalization and diversification. The study of competition was the distribution of market shares and the rule of thumb was to make the dominant firm in the fast-growing sectors.

Porter (1980) developed the five forces model, based on the analysis of the competitive context that is the entrance of the industrial economy in strategic thinking. Competitive analysis makes use of the term and industry or sector and not the domain. The entire industry is part of a row of transformation from the raw material to the finished product purchased by the customer, that is, each sector is brought between a supplier and a customer sector and performing several pressures that sharpen the fight intra-industry competition or an intra-sector.

This is influenced by the greater or lesser difficulty in or out of the industry or sector. The number of companies that have access to this (and) is one of the determinants of the competitive game. The arrival of a possible replacement product constitutes another dimension of your model.

The *Harvard Post 80* School or of positioning imposed limits on the number of strategies that were possible in any situation since in the opinion of Porter (1980) few strategies – as positions in the market – are desirable in a given industry: those that can be defended against current and future competitors. Ease of Defense means companies occupying a dominant position which have more profits than the others.

So according to the model of Porter (1980) organizations can gain competitive advantages based on three generic strategies:

- **The leadership by cost** – emphasizes the production of standardization products at low cost to customers who are price sensitive;
- **The differentiation** - target strategy for the products and services considered to be unique in the industry and aimed at customers who are relatively insensitive to price;
- **Focus (niche)** - means to produce products and services that satisfy the needs of small groups of customers.

The generic strategies involve different organizational adjustments, monitoring procedures and intensive systems. Large companies, with great ease in access to resources, typically compete for leadership in cost or differentiation, while small businesses often compete in niches.

Porter (1980) emphasizes the need to examine the cost-benefit performance and evaluating "sharing opportunities" between existing businesses and the potential of business units. The sharing of activities and resources increases the competitive advantages at low cost or differentiation. In addition to market share, stresses the need of companies to transfer skills and capabilities between business units, to obtain competitive advantages. The focus depends on factors such as the type of industry, the size of the company and the nature of the competition.

The school was able to create and refine a set of analytical tools dedicated to adjusting the correct strategy to current conditions, also seen as generic, as for example the maturity or the fragmentation of the industry. The key to the strategy is the use of analysis to identify the correct relations.

The process of formulation of the strategy remains to be seen as a controlled and conscious process, which produces deliberate strategies fully developed and be made explicit before its implementation. The notion that the strategy determines the structure is maintained, but another form of "structure", the industry has been added, so that the structure of the industry drives the strategic position that, for its time, drives the organizational structure.

The main risks of this strategy include the possibility of numerous competitors recognize the success and copy the strategy or consumer preferences; also tend to change the characteristics of the products.

The value chain is described as the total revenue minus costs (margin) of all activities from the acquisition of raw materials to the purchase of products by customers. All companies in each industry have a similar value chain which includes activities such as the acquisition of raw materials, the *design* of the products, the production, distribution and after-sales service. The company will be more cost effective if you get a top edge over their competitors.

The interest in competitive analysis lies, first of all, in the initiative that proposes and allows highlighting the factors of evolution of an industry or sector. Key success factors are identified in dynamic that facilitates understanding and anticipation of change. The analysis is based on **information** of an economic nature and psycho sociologist which enables a precise inventory of the potential threats and the possible responses of the counter, as well as allows you to better understand the behaviors competitive observed.

This model is a fertile source of reflection, allowing assessing the soundness of the current positioning of the company in the industry or sector and identifying the alternatives that offer development, measuring their chances of success and the risks of failure. It is also an instrument of calculation in the framework of a strategy of diversification since it allows a precise evaluation of the profitability that can be expected of a new industry and finance to be made, that is, makes it possible to determine the value of an industry. In summary the main assumptions underpinning the school are as follows:

- The strategies are generic, common positions and identifiable;
- The economic and competitive market;
- The strategy formulation process is the selection of generic positions and is based on analytical calculations;
- Analysts play an important role in the process of formulating the strategy, passing the results of calculations the decision-makers that formally control the options;
- The strategy comes naturally from the process to be articulated and implemented: the market structure directs the strategy positioned deliberately that, for your time, drive the organizational structure.

The *Harvard -Post 80 School* of positioning was tailor-made for consultants that can get "cold", with no knowledge of a business, analyze the data, define a set of generic strategies, write a report, and send the bill and leave. So, from the years 70 and 80, there were several companies of consultancy in the area of strategy, each with his model, attacking a conceptual niche market to promote their own concepts of positioning.

The focus of this school is narrow and is mainly oriented to the quantifiable economic aspects as opposed to social, political and economic aspects unquantifiable, and the selection of the strategy may be biased because the strategy deliberates on costs, with more factual data to corroborate than for example the strategy of differentiation by quality.

Has limitations to ignore the political context in the definition of the strategy, since the Government can limit or even prevent the entry of new competitors in industries with control, as for example the limit to the number of competitors, limitations on access to certain raw materials.

The school context leans more towards traditional companies in which market power is greater, less effective competition and the potential for political manipulation is more pronounced. Fragmented industries are the battleground for small enterprises that is, have a penchant for big, established and mature, and also reflects a penchant for conditions of stability.

The message of the school related to the process of formulation of the strategy is to go out there and learn, but rather stay home and do calculations, i.e. can prevent not only learning, creativity and personal commitment. On the other hand, tends to have a narrow focus in the definition of the strategy. It is seen as a generic position, not a unique perspective, but the limit can be reduced to a formula in which the position is selected from a restricted list of conditions.

Some risks in pursuit of leadership by cost are the ease of imitation by competitors' strategy, which leads to a drop-in in profitability and technological changes, the industry can make ineffective strategy or customers interested can change to other factors, in addition to the price differentiation.

The risks of differentiation consist in the fact that the single product may not be rated highly by customers to justify the high price. When this happens the cost of leadership would damage its further differentiation. Another risk in pursuit of a strategy of differentiation is that competitors may develop fast copy paths of differentiation factors.

The success of a focus strategy depends on the particular segment of the industry that is big enough, has a high potential for growth and is not crucial to the success of most other competitors. This strategy is most effective when customers have distinct preferences or requirements and when the rivals do not have conditions for specialization in this market segment.

It presents some implementation difficulties. The first lies in the proper choice of the field of analysis, since we do not need the geographic dimension variable of the analysis to be carried out. The precision of the analysis depends on the extent of the field under consideration and analysis must be applied to an industry or a homogenous sector. The competitive analysis is also a way to segment the company's activities, considering particularly the strategic groups to which it belongs and the competitive universes with which it is confronted.

The second difficulty lies in the amount of information to be collected, which implies adoption by the company of a real *Centre for competition*. This means that must be created in the enterprise a surveillance process of competition, in order to identify the **strategic variables (information)** which affect the performances in a particular industry or sector.

Its main contribution was the one that led to the conduction of strategic analyzes to support the process of formulating the strategy, making the process much richer, confusing and dynamic. Thus the role of the positioning is to support the process and not to be it, that is, it changed the role of the person in charge of the planning to the one of analyst. Analysis techniques can inform the strategy formulation process significantly.

Has made an enormous contribution to strategic management, once opened huge "avenues" to research and provide a powerful set of concepts to practice.

The School Based on the resources

This school began in the 80s due to the lack of competitiveness of American firms when compared with that of the Japanese and European, through the creation and support of competitive advantages of the capabilities and organizational skills (R. Hayes, 1985).

This dimension of the strategic analysis shows us that one of the extremes is the outside-in approach, that is, based on the positioning of the set of product-market opportunities and the other is inside-out orientation, in which the competition is based on creating and sustaining competitive advantage through continuous improvement of organizational resources, that is, the capabilities and skills.

According to this school companies should invest in the development of their abilities, qualifications and competence of its human resources, so that the opportunities that appear can be identified, whenever occurring, and if so in competitive advantage, that is, the resources and skills that are distinct or superior to competitors are the basis for competitive advantage.

The resource-based approach is a reaction to the determinism proposed by the approaches of the schools of positioning, in which G. Hamel and C. Prahalad (1990) proposed a strategy conception radically opposed to the strategies of suitability to the surrounding environment. The emphasis of the strategy is on the supply side rather than the demand side.

The fundamentals of the theory based on resources conceptualize the company as "a set of productive resources", in which the distinctive skills are based on the resources and capabilities that are represented by tangible assets, such as the system productive, economies of scale or intangible assets, such as the brand, the image (Penrose, 1959).

The basic assumptions of school based on resources are based on the concept that the resources of the organizations can create and maintain sustainable competitive advantages through the use of these resources, capabilities and competencies, that is, the strategy should focus on the creation and support of these competitive advantages.

Wernerfelt (1985) defines as feature "anything that can be thought of as a strength or a weakness of a company", by organizations to manage competitive advantages over their competitors, if they acquire or develop superior resources or a combination of superior resources.

The heterogeneity of the market factors is a fundamental condition to sustain the competitive advantage, since in any industry the capacities and skills are heterogeneous with respect to organizations and product factors adopted have different efficiency levels, leading to some organizations being more successful in relation to the other, thus enjoying higher profits.

The support of these competitive advantages is a decisive market factor for success and it is therefore necessary to ensure that the capabilities and distinctive competences to cope with changes in the environment, thus becoming the imitation and not substitutability of those resources, in the formulation and implementation of the strategy.

It is important to ensure that resources and capacities are not easily transferable to other competitors. The transfer of powers is difficult in the following situations:

- When an organization reaches a top position with regard to the use of resources;
- When the result of the operation skills of resources as a whole, that is, are in whole and not in parts.

The skills are assets that may grant to the company a competitive advantage. The global environment conditions, the long-term activities of the company (Ansoff, 1965, 1990). The immediate surroundings are composed of elements that interact directly with Porter industry (1980).

The skills and capabilities required for success in any industry. Some of them are easy to get and other difficult to achieve (e.g. the product innovation). There are, however, some skills and competencies that are crucial and without which companies cannot be credible to customers and make a difference to their competitors.

Skills and capacities are distinguishing features vis-à-vis customers and competitors, as for example:

- Are difficult to buy or to imitate;
- Are scarce, lasting hardly replaceable;
- Are complementary with other and vice-versa, so as to add value to the products;
- Are specific to the company (difficult to transfer);
- Are in tune with industry trends;
- Create value for the *Stakeholders*.

As a general rule the most valuable skills and abilities are difficult to buy, sell, imitate or replace. For example, intangible assets such as organizational tacit knowledge, trust between managers and employees, the establishment of a strong research team cannot be bought or easily copied by competitors once they are extremely deeply rooted in history and organizational culture.

It is no exaggeration to say that the competitive strategies are the art of creating or exploring the advantages that are harder to copy and imitate. Competitive strategies, in contrast to the generic strategies, focus on the differences between the companies more than a common mission. For example, a chain of supermarkets represents the success of generic strategies. The competitive advantages can be based on the following factors: Superior *Skills*; Exceeding resources; Top position in the market (e.g. market share, price, quality, design, r & D).

Examining the potential of competitive advantages, the critical question is *"What supports these advantages protected from copy and / or imitation by competitors*?"The *Skills* can be the source of the benefits if they are based on their own history of *learning-by-doing* and if they are rooted in behavioral coordination of employees. In contrast the *Skills* that are based on scientific principles of training that can be purchased and copied by competitors are not a source of benefits.

The resources that constitute advantages are specific to the company and were built over the years, through the accumulation of higher *Skills* or were obtained due to innovative knowledge input or through a one-time plan.

The top position of the company comes from products that offer its clients a particular segment or niche market. The positional advantage can be achieved by anticipation, *Skills* and or higher features. Once you win good defensive position. This means that the value of the return is enough to ensure the maintenance of the position and be costly for competitors to overcome the economies of scale, experience and range obtained by the company (BCG, 1969, ADL, 1974-79, Mckinsey, 1978).

The advantages can also be caused by factors such as: sources of raw materials; geographic location; leadership in quality of services; range of high quality products; reputation on meeting the needs of customers.

The strategy based on resources

The strategy for school based on resources is that the organization is capable of doing and not in terms of the needs that it is seeking to satisfy, that is, the Organization has to consider first what can do and then identify industries and the strategies that can be adopted by the development and exploitation of its skills and competencies.

The strategy is the balance an organization carries out among its internal resources, that is, between their skills and competencies and the opportunities and risks in your environment.

The competitive advantages of organizations are achieved using of its resources which in turn generate capacities. In terms of features, can relate to the following types:

- Financial resources (e.g., financial flows, financial autonomy);
- Physical resources (e.g., equipment, facilities);
- Human resources (e.g., engineers, managers, salesmen);
- Organizational resources (e.g., the financial system, the quality control system, the information system, the organizational routines – economies of scale and experience);
- Technological capabilities (e.g., high-quality products, low production costs, loyalty of customers in relation to brands);
- The reputation/image of the organization.

To Grant (1991b) capacities are distinctive competencies and are the consequence of the joint operation of different resources. The concept of organizational routines (e.g., production processes, performance measurement, monitoring of activities) is the result of coordinated actions by individuals in the context of an organization.

The competition is becoming more and more a ‘ war of movement ‘ in which the success depends on the ability of organizations to predict market trends and response capabilities to changes of customer needs. The essence of strategy is not the structure of products and markets, but the dynamics of the behavior of organizations. The aim is the identification and development of organizational capabilities difficult to imitate and that distinguish an organization of their competitors in the eyes of customers. The basic principles of facilities-based competition are:

- The basis of the corporate strategy is not the set of products-market, but the processes;
- Competitive success depends on the ability of processing of key processes in strategic capabilities that add value to customers;
- Organizations create capacity through investments in infrastructure;
- The champion of the strategy based on capabilities is the President of the Organization, since the powers intersect functions.

Prahalad and Gary Hamel (1990) developed the concept of '*nuclear competence*», IE, the rivalry among competitors should be seen in two perspectives: a short-term, in which competitiveness is based on price and performance current products that tend to have similar standards and quality and the other refers to the long-term competition, the winners will be those who have greater ability to produce faster at the lowest cost.

The nuclear powers of the organizations the ability of collective learning, communication and employee involvement in the integration of the productive capacities and technologies, to have an excellent performance when compared with the competitors. The identification of the nuclear powers is based on the following assumptions:

- Nuclear competence gives the opportunity to have access to a variety of markets;
- Nuclear powers must significantly contribute to add value to customers;
- A nuclear competence is difficult to imitate by competitors.

The growing turbulence in the environment led to consider the resources as the primary source of sustainable competitive advantage and as the basis for the formulation of the strategy. It is hence having emerged knowledge as the most important strategic resource for organizations. The set of available opportunities to an individual or an organization is a function of your knowledge.

The knowledge of decision-makers is limited to technologically practicable knowledge that reflects the limitations of human knowledge about the physical laws and physical limitations of the knowledge of decision-makers, who March and Simon (1958) named "limited rationality ". Mental and sensory limitations of humans mean that the activities of storage, processing, transmission and receipt of knowledge have a cost.

Knowledge transfer involves not only the use of the storage and processing capacity, but also the input and output channels of the human brain, it is not instantaneous, and it takes time to absorb the information. These delays have a cost and can lead to irreversible loss of opportunities (Nelson António, 2003).

The investigation of the determinants that enable a sustained competitive advantage, is based largely on economic theory, once the most valuable resources have an offer less than the demand, and so are rare, and may lead to a different and return that is related to the fact that the appeal be rare and valuable.

The resource-based school should be understood as a reaction to the positioning school. While it bases all its instruments in the analysis of the surroundings despising the company, the school based on the resources bases the analysis inside the company, without rejecting what is happening in its exterior.

Despite some confusion in terminology terms, contributes to the theoretical development of some fundamental concepts, such as:

- Factors of production – are the undifferentiated *inputs* available and broken down in markets (e.g. land, unskilled labor);
- Resources – are assets of the organizations that are difficult, if not impossible to imitate (e.g. trade secrets, accumulated experience);
- Capabilities-materialize at what organizations produce and result of the joint work of several features;
- Skills-are the distinctive activities that result in *clusters* (e.g. quality systems);
- Vital or nuclear skills – skills that define the business companies (ex: collective learning);
- Dynamic capabilities – are the capacity of organizations to integrate, develop and reconfigure internal and external skills to survive the change;
- Products – are the final goods and or services produced by the companies using the skills they have (the price and quality are the result of the performance of the company's products which in turn depend on your skills).

To define the strategy based on features, organizations must first identify and assess their resources and find out what are the resources in which they can develop their competitive advantages in the future.

The Entrepreneurial School

The entrepreneurial school was born out of the economy, such as positioning, once the entrepreneur has a prominent role in economic theory. Its role was limited to decide what were the quantities to produce and at what prices. Competitive dynamics took care of the rest. The rise of big business has forced economists to change the economic theory giving rise to the theory of oligopoly, which forms the basis of positioning.

However, some economists consider this vision of the entrepreneur. Karl Marx praised entrepreneurs as agents of economic and technological change, but criticized their impact on society. However, Joseph Schumpeter (1959) placed the entrepreneur in prominence in economic thought. For Schumpeter the entrepreneur is not the capitalist, but the one with the ideas of business, namely, the entrepreneur has vision and creativity.

The entrepreneurial school focuses on the process of strategy formulation on the leader, but also emphasizes the intuition, judgment, wisdom, experience and discretion. This promotes a vision of strategy as a perspective, associated with the image and sense of direction, i.e. *vision*.

The strategic perspective is less corporate or cultural, but is more personal, that is, is the work of the leader. The central concept of this school is the *vision*: a mental representation of the strategy created or at least expressed in the leader's head. This view serves as inspiration and also as a sense of what needs to be done – an idea guide or counselor. The main assumptions underpinning the school are as follows:

- The strategy exists in the mind of the leader as perspective, i.e., it is a vision of the future;
- The process of strategy formulation is at best chance semi-conscious, rooted in experience, intuition and knowledge of the leader;
- The leader promotes the vision resolutely, even obsessive, keeping personal control in the implementation;
- The strategic vision is malleable, that is, tends to be deliberate and emerging;
- The organization is also malleable, a simple structure responsive to the guidelines of the leader;

- Entrepreneurial strategy tends to take the form of niche.

The formation of the strategy is focused on a single person, the behavior of the leader; however, you cannot say much about the process. This remains largely a black box, buried in human cognition. So, the company is in difficulty, the solution is to find a new visionary leader.

All vital decisions are concentrated in the leader's Office. This centralization can ensure that the strategic response reflects the full knowledge of the operations. It encourages also the flexibility and adaptability to new situations. On the other hand, the leader can be attached to operational issues and lose sight of the strategic considerations.

It perpetuates the myth that the organizations are dependent on the leader, i.e. perpetuates the culture of dependency and the conformity to the detriment of permanent questioning and learning and does not encourage innovation on the part of other members of the organizations.

The entrepreneurial school emphasized the critical aspects of the formulation of the strategy especially its proactive nature and the role of leadership and strategic vision of the leader, benefiting organizations with a sense of direction and integration.

The Cognitive School

The Cognitive School uses the field of cognitive psychology. The process of strategy formulation is a mental process, that is, the strategy is formulated in the sphere of human cognition, i.e., the strategist develops his knowledge structures and his thought processes, primarily through the direct experience. This experience gives form to what he knows, which in turn shapes what he does, thus shaping his experience subsequently.

This duality has a central role, giving rise to two different wings. A more positivist that handles the processing and structuring of knowledge as an effort to produce, some kind of *objective* of the movie world. The other side sees it all as subjective: the strategy is a kind of *interpretation* of the world.

Herbert Simon (1947, 1957) popularized the notion that the world is large and complex, while in comparison, the human brain and your ability of information processing are highly limited. Thus, the decision becomes less rational and more an effort to be rational.

The predisposition of trial has obvious consequences in strategic decision making, since they include, for example, the search for evidence to support their beliefs, instead of denying them, the favoring of recent information more easily remembered previous information, the tendency to see a causal effect between two variables that can be simply related, the power of wishful thinking.

The distortions can affect the decisions of acquisition and disposal:

- Reasoning by analogy – can lead to entry into business not related to the present;
- Illusion of control – those responsible may underestimate the results of an acquisition that are under your control against the reduction of anxiety, but this can lead to an increase of the problems;
- Increase the commitment involves continuing and increasing investments – in the face of weak and declining performance results.

The change in strategy creates psychological resistances. Even beneficial it changes facing resistance on the part of the loyal members who want what is best for the organization.

The characteristics of human behavior as "cognitive complexity" or "opening" also help inform strategy generation of strategies which in turn differ in their cognitive styles (Myers-Briggs, 1962). These authors present us four sets of dimensions.

The combinations of these groups take the sixteen types or possible styles, like for example the ESTJs ("Extroverted Thinking with Senses") that are "analytical, logical, objective, critical and hard to be convinced by anything other than the reasoning ... they like to organize the facts ... but they decide too fast ". In comparison the ESFPs ("Extroverted feeling Feelings") are "realistic friendly and adaptable ... relying on what they can see, hear and know directly ... they solve problems being adaptable ... but are not driven by the need to follow patterns or preferred methods ... " Mintzberg, Bruce Ahlstrand & Joseph Lampel, (1998).

COGNITION AS INFORMATION PROCESSING

The cognition of individual managers suffers the effects of working in a collective system to process information relating to organizations. The managers are information workers, once they satisfy their needs and those of their colleagues and subordinates. Because they have a limited time to manage the business (s), the information they receive must be synthesized, which can accumulate distortions on distortions as the original information were subject to all previously mentioned trends.

A model of "parallel" processing of information on individuals and organizations operate according to the same principles, namely, the processing of information begins with attention, continues with the encoding, storage and recovery and culminates in the choice and ends in the evaluation of results.

- Attention-determines what information are processed and which are ignored;
- The encoding-gives meaning to information, seeking a match between them and existing categories, such as, for example, that a person is "customer" instead of "visitor"; the categories are often the sources of trends because they eliminate the nuances. Everything is put in one category runs the risk of becoming a stereotype. At the center of this process is a kind of common knowledge of group structure, in which a common frame of interpretation becomes dominant;
- Storage/retrieval – cognition begins with memory. In the case of people, memory is a Web of associations between different items of information. In the case of organizations, the information is also contained in maps, rules, procedures, and technologies. The connection between the two is the socialization: the organization works for the individual accepted the existing routines that become part of an individual's memory, tuning so cognition with the Organization;
- The choice-the choice process goes back and forth, from one stage to another and vice versa, before moving to the decision. The decision could lead to the collection of additional information;
- Results – the results Herald the beginning of the feedback process.

COGNITION AS MENTAL MODEL

There are mental structures to organize knowledge. A mental representation wrong is better than no representation, since it encourages and stimulates action (Karl Wieck, 1990, p. 5). Mental models also called "schemes" are bombarded with information and the problem is how to store them and make them immediately available. The schemas do that representing knowledge at different levels, which enables people to create complex frames from rudimentary information to fill in the blanks.

Decision makers have certain expectations associated with a particular schema. What they see adds details to these expectations and produces new questions, such as, what is the likely evolution of the economy or the price?

These questions may emerge almost automatically. This is what makes the efficient processing of information. However, the evidence inconsistencies are ignored.

The school is a school in cognitive evolution about the formulation of the strategy process and presents the following main assumptions:

- The formulation of the strategy is a cognitive process that takes place in the mind of the strategist;
- The strategies emerge as perspectives, in the form of concepts, schemas, or mental models that shape the way managers deal with the information from the environment and internal;
- The information flow through all the misrepresentation filters, before they are decoded by cognitive mental models; are merely interpretations of a world that exists only in terms of how it is perceived;
- The strategies as a concept are hard to perform and when carried out are below the optimal point and subsequently are hard to change, when they are no longer viable.

Cognitive psychology needs to deepen the knowledge on how to form the concepts in the mind of the strategist; on the one hand and on the other it would be useful to know not only how the human mind distorts, but also how it is able to integrate a variety of information complex. Strategy formulation is applied more as an individual process than as a collective process.

The cognitive school is less deterministic than the positioning school and more personalized than the school of planning. It was the first school to recognize that there is an interesting environment out there and that strategists do not reap the strategies of an opportunity tree from the surrounding environment, nor do they follow pre-set conditions when entrepreneurial leaders fail to direct them into visionaries niche markets.

The School of learning

The school of learning is based on the principle that managers and organizations learn over time, in other words, it is based on description rather than prescription. Proponents of this school are a simple, yet very important question: How do indeed are formed strategies in organizations? Not as they are formulated, but rather how they are formed. Claim that people informed on any part of the organization can contribute to the process of formation of strategy (Braybrooke and Charles Lindblom, 1963).

Organizations are made up of a series of "subsystems", such as diversification, reorganization and foreign relations, and the strategic management means looking for "development or maintenance, in the minds of managers of a consistent pattern between the decisions taken in each subsystem, i.e. the strategy is made along the way. Top managers are the architects of the strategy as in the school of *design*. The process is a continuous process, pulsing, dynamic (Quinn, 1980, p. 52). The requirements for the logical incrementalism Quinn (1982) can be summarized as follows:

- Lead the formal information system – rarely, the early signs for the strategic shift from formal systems of exploration of the surroundings or the company. The initial feeling of need for change of strategy is described as "something with which the Manager does not feel well", "inconsistencies" or "anomalies" (Normann, 1977);
- Create organizational attention – in the initial stage of strategy formulation, the process is rarely managerial, since it can evolve studies, questionnaires, listen, talk to creative people outside the common decision-making channels;
- Legitimize new views – create *forums* of debate and reflection in order to obtain a better base of information that allow the new options are evaluated objectively compared with the alternatives;
- Structure the flexibility – no one can predict the shape and the precise moment of all the threats and opportunities that a company can find;
- Crystallize focus and formalize the commitment – to the extent that managers develop information or consensus on desirable impulses can use their prestige or power to force or crystallize certain strategic formulation;
- Recognize that the strategy is not a linear process-the validity of the strategy is not in its clarity or its strict structure, but in its ability to capture initiative, deal with unforeseen events, redistribute and / or concentrate resources as new opportunities and new impulses emerge.

In order to manage a strategy one must know how to model simultaneously, thought and action, control and learning, stability and change. The process of formulation of the strategy involves the interpretation of the surroundings and the consistent development of patterns in the flows of organizational decisions. There is no universally accepted definition of strategy, since the world is full of contradictions and the quarterback is one who lives with the contradictions, appreciates its causes and effects, and reconciles them to the actual action- **emerging strategies** (*Mintzberg,* 1972, 1978, 1985, 1989, 1991, 1995).

Mintzberg started by re-conceive the Manager's tasks. His studies later evolved to the "*design of organizations*" and more recently its work focused on the field of strategy. So, he began by demonstrating that there were four myths, four ideas that Manager's work did not correspond to the practice, IE: managers were almost exclusively oriented towards action and not for reflection; managers carry out repetitive tasks; managers encourage verbal contacts; many of the managers' knowledge stays in their mind.

Take the idea of dividing the human brain in left and right hemisphere and applies it to the management. Thus, the left hemisphere is the logical thinking processes and handles the **information** of sequential mode, while the right hemisphere is a specialist in simultaneous treatments (establishes immediate relations between two or more facts) and has ability to understand visual images.

The planning and management techniques are sequential, systematic and explicit, so I do appeal to the left hemisphere. Manager's plan and using analytical procedures, but the Board effective goes beyond that, that is the important decision-making processes lie in the right hemisphere. Thus, States that manager's plan to the left and run to the right. Propose five definitions of strategy known by the **5ps**:

- *Plan* -The strategy as a plan -is a script that precedes the shares to which it relates;
- *Ploy* -The strategy as a ploy**-** being understood as plans, strategies can be general or specific. A *Ploy* is nothing more than a stratagem to discourage competitors;
- *Pattern-* The strategy as a pattern - once defined strategies have to result in behaviors ie as a set of actions implicitly established;
- *Position-* The strategy as position- the question is "how the company positions itself in its context?". The strategy arises, as a media force between the internal and external contexts. Therefore, position is the way to locate the company.
- *Perspective-* The strategy as perspective- considers that the strategy is something that exists only in the minds of *Stakeholders*, since it is something shared by its members through their intentions and/or

actions. Thus, the perspective is how the company views and justifies the events, reflecting your own culture.

He makes the distinction between deliberate strategy (planned) and emergent strategy. The deliberate implies that the predefined actions (plans) have been fulfilled. Emerging strategy means that has been developed or adopted standards in the absence or in replacement of the plans. Is a concept that is not in line with the strategic planning.

The deliberate strategy focuses on control-certification that the intentions of top managers are or have been carried out, while the emerging strategy focuses on learning – come to understand through the implementation of actions governed by the intentions.

The process of formulating and implementing the strategy becomes a fluid process of learning to develop creative strategies. The emerging strategies emerge in response to changing situations and encourage learning, for what the big problem is to reconcile stability forces with the forces of change and to concentrate efforts for maximum effectiveness, given the changes in the environment.

The deliberate strategy is a set of integrated views of company performance and results of collective involvement, while the emerging strategy is resulting from individual decision of strategists. The deliberate strategy is based on the formal and informal information from the collective knowledge of the Organization and the emerging strategy is reactive and is based on the individual information (formal and informal). The deliberate strategy is proactive while the popup is reactive.

The main base assumptions we have the following:

- The complexity and turbulence of the surroundings, associated with the dissemination of knowledge bases necessary for the strategy, prevents the deliberate control; the formation of the strategy needs above all to take the form of a learning process over time;
- It is the collective system that learns, since there are many potential strategists in organizations, although the leader must also learn;
- Learning proceeds in an emergent way through behavior that stimulates retrospective thinking so that it can understand action. Strategic initiatives are taken by those who have the capacity and resources to learn;
- The leader's role is to manage the strategic learning process, through which new strategies can emerge rather than preconceived deliberate strategies;

- The strategies appear first as patterns of the past, later, maybe as plans for the future and finally as perspectives to guide the General behavior;

A recent and important contribution was given by the "establishment of knowledge", that is, the managers need to recognize the importance of tactical knowledge – what we know implicitly, on the inside, and how it differs from explicit knowledge-what we know formally. Tacit knowledge is personal, context-specific and therefore difficult to formalize and communicate. The explicit knowledge or "coded" refers to knowledge that is transmittable in formal and systematic language.

Particularly crucial is the conversion of tacit knowledge into explicit knowledge, in which the managers have a key role, since they are the people who epitomize the tacit knowledge of employees, making it explicit and incorporating it in products and technologies. The four modes of knowledge conversion are:

- Socialization-describes the implicit sharing tacit knowledge, even without the use of language, such as through experience;
- The Exteriorization-converts tacit knowledge into explicit, through the use of metaphors and analysis;
- The combination-combines and passes formally encoded knowledge from one person to another, as for example through training;
- The Internalization – take the explicit knowledge back to tacit manner, as people internalize, as in "learning by doing".

The essence of the strategy is to develop the organizational capacity to acquire, create, accumulate and exploit knowledge. Knowledge is created only by the developers, the role of the organization is to facilitate learning, supporting and stimulating individual learning, amplifying it, developing it and synthesizing in group level through dialogues, debates, Exchange of experiences and observations.

The basic nature of the learning organization can be summarized in the following:

- Organizations can learn from failure as much as from success;
- It is always possible to improve work processes even when the same seem efficient;
- In organizations that learn, operational managers and employees who closer to work processes, such as commercials, production, and distribution, they often know more than their hierarchical superiors;

- A learning organization actively seeks to internally transfer knowledge from one employee to another to ensure that relevant knowledge is where it is needed;
- Learning organizations spend a lot of energy in the pursuit of knowledge.

The learning organization is the antithesis of bureaucratic organizations, since it is decentralized, encourages open communication and people to work in a team. Collaboration replaces the hierarchy and the prevailing values are risk acceptance, honesty and trust.

On organization learning people must understand that there is a time to learn and there is a time to explore previous learning. In addition, there is a superstitious learning and the "group thinking" that means learning in isolated group. There is also the negative learning progressive commitment, the more one fails more ones will continue to invest in the hope of recovering the losses without acknowledging that the situation may be hopeless.

Learning can be expensive, since it takes time and often results in endless meetings and can be dispersed in the more bizarre directions, potentially leading to invest resources on false initiatives. People must be convinced of the benefits of the initiative at the expense of another. The organization may be forced to disperse and therefore pay a high price for not concentrating resources on essential products. An organization that learns also cares about learning.

Learning seems particularly necessary in professional organizations and operating in highly complex environments where the knowledge required creating strategies is very diffuse. Top managers may be able to formulate the strategy, but the political realities require the implementation to a collective agreement process, if not collective learning.

The learning school brings a reality to the study of strategy formation, since it tells us less what organizations should do and what they really do when confronted with complex and dynamic conditions, reinforcing voluntarism in what appears to be determinism. Within what appear to be reactive or passive responses to external forces, organizations really learn and create – they suggest new and interesting strategies.

Power school

We use here the word *power* to describe the exercise of influence beyond the purely economic, that is, the policy approaches, a term we use broadly. The policy becomes synonymous with exploitation of power in a way that is not purely economic. If the formulation of the strategy can be a planning process and analysis of cognition and learning, can also be a process of negotiation and concessions between individuals and groups.

Fulton and Deal (1997) formulated the following propositions about the world of organizational policy:

- Organizations are made up of various individuals and interest groups, sometimes antagonistic;
- There are long-term differences between groups and individuals in values, beliefs, information and perceptions of reality;
- Most important decisions involve the allocation of scarce resources;
- Scarce resources and lasting differences give the conflict a central role in organizational dynamics and make the *power* the most important resource;
- The goals and decisions emerge from "wars", negotiations and maneuvering in search of positions between the different stakeholders.

Large companies formalize procedures to develop strategic planning and conscious of the growing weight of social variables try to plan your social development. All these procedures are brought into question by the emergence of new problems and are, in theory as in practice, subject to changes.

Martinet (1989) rejects the concept of planning forecast, since planning is not to predict the future, but also in building the future of the company and also rejects the concept of planning decisions table (models of the portfolio of activities) that plan is also in search and want to dominate the evolution of the company. Sub-alternates quantified planning, namely its rigid and static nature, although it is indispensable as a quantitative and operational expression.

Defines the concept of **strategic management** to ensure the time better consistency between the requirements of the environment, of different stakeholders (internal and external) and the objectives of managers, meaning it is global management (the existing management and the creation of potential). Strategic management is interested in the following dimensions:

- Economic-technical-product-market-technology;
- Organizational - organizational architecture that enables the effective implementation of the techno-economic dimension;
- Politics-social structure as a means to achieve the performance of the company.

The model shows that the strategic analysis is transformed over time and that the initial technical-economic analysis is complemented with the integration of complementary dimensions: the account of the company as a social organization and recognition of this as a system politician. Considers as key variables (information) the interdependence of globalization, technological turbulence variables and stagflation, i.e., contemplates only the global environment variables and forgets the variables that have an impact on some organizations (or industry sector).

While different models of strategic analysis based study on competitive analysis, when this does not exist or is assumed very away from free competition, it is necessary to approach new ways of defining the strategy and that can be classified as relational, according to the authors and whose illustration is now known as strategic alliances or cooperation.

The relational approach was explored in a series of empirical work carried out by the school HEC (1994). "*A strategy is relational when it is based not on competition law but on privileged relationships that the company establishes with certain partners in its context* ". The notion of competition is not entirely absent but becomes secondary.

Many multinational corporations have built their power and prestige by focusing on a single area of activity, i.e. through a specialization. Others, especially in the 60s and 70s were based on logic of development of their diversification, supported on economic growth and on the profitability of the activity areas.

The specialization is unique in each field of activity, in which the company concentrated all its efforts to achieve the best possible level of competence and with it a decisive competitive advantage.

Volume strategies follow this logic, since the company bet the effect of experience to improve its position about costs and consequently, a competitive position. The same goes for the differentiation strategy in which the company focuses on a niche market where is expected to find a competitive position, or by the modification of the rules, or by the key factors of success.

The specialization has various forms and depends on the degree of maturity of the activity and the competitive position of the company. Thus, there are moments more conducive to making the expertise of others, i.e. no one specializes in an area of activity that has reached maturity. On the contrary the specialization tracks the growth of activity, given that the winner will be the one company that has known grows faster.

A company can follow two tracks of specialization: the geographical and product/market. The geography consists of making expansion options or restrictions within the market that defines the field of activity of the company. The product/market is to generate, or in select, the set of products/market whose key success factors are identical within the field of activity.

Specialization must be pursued as long as a firm does not achieve a position that gives it a decisive and lasting advantage. Dispersion is the number one enemy of a growing activity. However, the specialization imposes on the companies a great concentration on the activity and the dormant potential of diversification.

Diversification requires companies to use a new set of "*savoir faire*", since it goes beyond the simple enlargement of the field of activity, which corresponds to a new set of key success factors, by companies to throw in diversification seek to take advantage of the synergies (management, commercial and/or operating) with the area of main activity. Companies can adopt three dimensions for diversification:

- The geographic dimension (geographic diversification) -occurs when the get out of the market and your company is heading for another zone/region in which the key factors are different, even if the products manufactured and sold are similar.
- The row dimension (vertical integration and diversification) -translated by acquisition of new skills, upstream and/or downstream, and for a strengthening of the company's competitive potential in your main activity;
- The scale of the activity (horizontal diversification) – the company enters different domains of its main activity, relying often on synergies and complementarities.
- The authors present two privileged modes of development, both in the case of specialization and in diversification:
- Internal Development-is seen to as a strategy of specialization in the growth phase of the field of activity; in the case of the criteria determining diversification are the company's ability to innovate and to learn the new business;
- External Development-is reflected in purchase or in alliance with other companies, whether they are competitors, in the case of specialization either belongs to another domain of activity.

Exist in almost all organizations three systems whose means may be described as legitimate: the formal authority, the established culture and know-how. We can however find a room system, politics, whose means are not formally legitimate:

- The political influences system can act to ensure that the "strong" members of an organization are put in leadership positions;
- The policy can ensure that all sides of an issue are fully discussed, whereas other systems of influence can promote only one;
- The policy may be required to stimulate necessary changes that are blocked by most legitimate influence systems;
- The policy can facilitate the way for implementing the changes.

The formulation of the strategy through networks, alliances, partnerships are part of the new vocabulary of this school, meaning companies do business through a network of relationships, formulating legal strategy. There are clearly parts of planning and positioning in this formulation, but the power and negotiated aspects are great.

- Networks-businesses broaden their relationships with each other, in breadth and in depth each time more, IE, companies do not operate in isolation, but in complex networks of interaction with other companies and organizations;
- Collective strategy – a joint strategy between the members of a network to handle their complex interdependencies, i.e., the "collaboration" going on to dominate the strategy formulation process at the expense of "competition";
- Strategic alliances – are "joint ventures" in which partners take positions (ex: stocks, long-term contracts) in new business that created, as for example the sharing of research and development skills to the development of a new product;
- Strategic outsourcing – is a form of cooperative agreement with regard to the hiring out of what could be done internally (*Outsourcing*).

Collective strategies, alliances, Networks and *outsourcing,* all of this together, more and more, makes it difficult to know where one ends and the other begins organization, namely, the organizations are becoming increasingly vague in that it the networks are replacing rigid hierarchies within and become open markets externally. The school of power is based on the following assumptions:

- The formation of the strategy is shaped by the power and politics;
- Strategies that may result from that process tend to be emerging and assume the form of positions more than prospects;
- Micro power see the formation of the strategy as an interaction, through persuasion and sometimes direct confrontation, in the form of political games, between sometimes conflicting interests;
- The power macro sees the Organization as promoting its own well-being by control or cooperation with other organizations, through maneuvers, as well as collective strategies (e.g., networks or alliances);

The formation of the strategy involves power, but not only. The role of integrative forces, such as leadership and the culture tend to be scorned for this school, as well as the concept itself. By focusing attention on the Division and leave aside fractionation patterns that are formed, even in conflicting situations.

Although the political dimension can have a positive role in the organizations, in particular the promotion of change blocked by established and legitimate forms of influence can also be a source of waste and distortion in organizations. It makes no sense to describe the formation of strategy as a process devoid of power and politics.

Power school introduced a new vocabulary in the field of strategic management, such as "networks", "political games", "collective" strategies. It also stressed the importance that the policy has in promoting strategic changes, when the established agents seek to maintain the *status quo.* Need to be faced, even though politics is also a factor in resistance to strategic changes, but not as effective as the strength of the culture.

The Cultural School

The power takes the entity named Organization and Fragments it while the culture joins a collection of individuals in an integrated entity called organization, i.e. mainly focuses on the power of self-interest, while culture is common interest.

From the point of view of anthropology, culture is present in everything around us and at the same time this is what differentiates an organization to another, one nation from another. The culture was discovered in the 80sthanks to the success of Japanese companies, since they seemed to do things differently from Westerners.

The culture is essentially composed of interpretations of a world of activities and artifacts that reflect the same. Beyond cognition, these interpretations are shared collectively in a social process. Some activities may be individual, but their importance is collective. The organizational culture is associated with collective cognition and becomes the "mind of the Organization", i.e. the common beliefs that are reflected in the traditions and habits, as well as in the more tangible manifestations, such as stories, symbols, buildings and products (Pettigrew, 1985, p. 44).

An ideology is a rich culture of an organization – a strong set of shared beliefs passionately for its members that distinguishes them from the others. Of course, the political systems also have ideologies (e.g. capitalism, socialism), just as there are societies and ethnic groups with cultures (e.g., Japanese, Portuguese, French), industries (e.g., commercial aviation, banking). We summarize the main assumptions of the culture school:

- The formation of the strategy is a process of social interaction based on common beliefs and interpretations of members of an organization;
- An individual acquires these beliefs through a process of acculturation or socialization;
- The members of an organization can describe only partially the beliefs that underpin their culture, although the origins and explanations may remain obscure;
- As a result the strategy takes the form of a perspective rooted in collective intentions and reflected in the patterns by which the resources and or capabilities are used as competitive advantage;
- The culture does not encourage strategic changes, perpetuating the existing strategy; at best it tends to promote changes of position within the Organization's overall strategic perspective.

The links between the concepts of culture and strategy are many and varied:

- Decision-making style – the culture influence the style of thinking, as well as its use of the analysis, as well as the process of strategy formulation. The culture acts as a perceptive filter, which in turn, establishes the assumptions of people's decisions. An organization develops a "dominant logic" that acts as a filter of information, leading to a focus on certain information to the creation of the strategy at the expense of other (Prahalad and Bettis, 1986).

- Resistance to strategic changes – a joint commitment with the beliefs encourages consistency in organization behavior, but discourages the strategic changes. The beliefs rooted in culture act as powerful internal barriers to fundamental changes.
- Overcome resistance to strategic changes – it is necessary to give thought to how to overcome the inertia of the organizational culture, by which managers must accept as main part of company culture, the importance of flexibility and innovation;
- Dominant values – successful companies are "dominated" by key values such as service, quality and innovation that in turn give rise to competitive advantages;
- Clash of cultures – the strategies of mergers, acquisitions and joint ventures have to be examined from the point of view of confrontation between different cultures, that is, although from the "rational" point of view of the product and the market it makes sense, less obvious cultural differences can serve to undo the union.

The cultural school lacks conceptual clarity about what is strategic management. A danger that this school runs is that discourages necessary changes, since it favors consistency to stay on the same strategy, since culture is heavy and established, the resources are installed, rooted, emphasizes tradition and consensus, in addition to characterize the changes as complex and difficult, can encourage a kind of stagnation.

Another criticism of the cultural school which equals leverage is the singularity. Be different with frequency is good, but not in itself, as this may cause a certain arrogance.

It provides managers a set of vocabulary itself to justify the *status quo.* Any organizational practice that may seem incomprehensible can be justified on the basis of inimitability. The ambiguities associated with resources can help explain why successful strategies can remain unquestioned for too long, but don't let the managers know when and how to question them.

The problem with this school and the theory based on resources explain very easily what already exists, instead of taking care of the difficult issues that can come into existence (the future). She is against the individualism of the schools of *design*, cognitive and enterprising, as it brings the important collective dimension of the social process, creating integrated perspectives.

Compared with the trends without historical concerns of school planning and placement-change strategy as if change of clothes — it emphasizes the strategy in the rich culture of the Organization, since the strategy becomes the management of cognition collective. All this applies more easily in nonprofit organizations and certain periods of organizations life.

The Environmental School

The environmental school treats the set of forces outside of organizations, the environment, as an actor, while other schools see it as a factor. This positions the school environment as one of the three central forces in the formulation of the strategy, alongside the leadership and organization. Also, has helped describe different dimensions of environments that strategists have in front of them and suggesting its effects in the formulation of the strategy.

Of course, the environment was never absent from other schools. It is present, for example, in the positioning school, but in a very specific way: as a set of economic forces - representing industry, competition and the market. Similarly, some cognitive school researchers reflect the influence of the environment: it is considered to be a place that transmits confusing signals, too complex to be fully understood.

The environmental school comes from the so-called "contingency theory" which describes the relationships between certain dimensions of environment and specific attributes of organizations, such as the more stable external environment, more stable remains the internal structure. These concepts were later extended to strategic management, as for example, the stable environments favor planning.

The main assumptions on which is based the environmental school can be summed up in the following:

- The environment presents itself to organizations as a set of general forces and is the central agent in the strategy formulation process;
- Organizations must respond to these forces or be "removed";
- Leadership becomes a passive element in the interpretation and analysis of the environment and in the proper adaptation of the organization;
- Organizations are grouped into distinct ecological niches, positions in which they remain until resources are scarce or conditions are too hostile.

THE VISION OF CONTINGENCY

The environmental school has its origins in the theory of contingency, to satisfy the understanding that different situations give rise to different behaviors, so that more systematic descriptions of the differences of the environment have been identified in four groups:

- Stability – the environment of an organization can vary from stable dynamic;
- Complexity – the environment of an organization can vary from simple to complex;
- Diversity – an organization markets can range from integrated diversified;
- Hostility-the environment of an organization can range from favorable to hostile.

The contingency theory has developed a set of concepts, whose main contribution was to the school setting (Pugh et al, 1963-64, 1968, 1969), as for example:

- "entrepreneurs who assume risks tend to be associated with dynamic environments";
- "the strategies will be more comprehensive in environments which present as many opportunities"

POPULATION VISION OF ECOLOGY

The environmental school has a higher expression through the ecology approach of the population. While the contingency theory allows adaptations, the ecology of the population doubts that the main features of the world of organizations, arising through learning or adaptation, since the basic structures of the organizations are fixed shortly after the birth and their subsequent actions make them more rigid and less able to make decisions that are truly strategic.

Innovation gives the Organization an advantage, but survival depends on its ability to acquire an adequate supply of resources, although each environment has a finite volume of resources. Organizations can get the most out of their environment, maximizing the fitness or can maintain the resources in reserve for future emergencies.

The ecology of the population has become a search for what has the effect of raising or reducing the conditions of survival of an organization. The ecology uses the variance-selection-retention larger organizations are more endowed with resources and therefore have lower odds of failure.

The "disability to be new" in an industry means that new companies in an industry are more likely to die than those that there are longer. The "deficiency of aging" tells us that the initial advantages have become a source of inertia as organizations Are aging the "deficiency of adolescence" indicates to us that the biggest danger is in the transitional phase between childhood and maturity. The birth is accomplished with innovative ideas and entrepreneurial energy and maturity is characterized by the use of resources and considerable power.

The environmental school has a very restricted view of strategic alternatives, since the dimensions related to the environment are abstract, vague and aggregated. The strategy has to do with the selection of specific positions, so differentiation is a very important concept, because it describes how organizations differ in seemingly similar environments.

In fact, no organization faces a generous, complex, hostile, or dynamic (turbulent) "environment," so strategists need "thin" polls that provide "dense" descriptions containing nuances regarding time, application, and context.

The learning school also emphasized the complexity of the environment, but as a place less to react than to feel, experiment and play, as well as learn. As we move through the various schools the quarterback's power waned. In the schools of design and entrepreneurship, the "boss" dominated. The planning and positioning schools introduced the concepts of planners and analysts as supportive strategists, while the cognitive school draws attention to the limitations of the strategic thinker in this complex world.

Additional strategists were being introduced by the schools of learning and power coming to the full collective of the cultural school. Although the concept of strategist it continues to reign, whoever he is - an individual or the collective.

The configuration school

In the configuration school there are two sides, one that describes the Organization and States the context that surrounds it, such as configurations and the other side describes the strategy formulation process, as transformation, i.e. when an organization adopts States of be, so the strategy becomes a process of jumping from one State to another, that is, the transformation is an inevitable consequence of the configuration.

The positioning school groups certain conditions to set "States" or "models" of different sizes of organizations, such as the newly formed organizations, especially in emerging industries, tend to rely on entrepreneurs leaders who use visionary strategies and operate with simple structures.

The school following the different configuration States over time to define "stages" or "periods" or "cycles of life". For example, as an entrepreneurial organization ages and its industry settles on maturity, the initial stage gives way to a formalized structure of professionals who rely on the planning processes.

The configuration school premises cover some of the other schools although in a well-defined context:

- Some organizations adopt stable configurations over a given distinct period of time and adopt a certain structure appropriate in a given context, which causes them to behave in certain strategic options;
- Periods of stability are interrupted by some process of transformation – a leap into another configuration;
- Successive configuration states and transformation periods can be ordered over time in standardized sequences, such as life cycles;
- The key to the strategic management is the support or at least stability of strategic Adaptive changes temporarily, but recognize the need to periodically processing and be able to manage this process, without destroying the Organization;
- The process of strategy formulation can be conceptual design or formal planning, systematic analysis or strategic vision, learning cooperative or competitive policy, targeting individual or cognitive socialization corporate or the simple answer to the forces of the environment in time and proper context.
- The resulting strategies are plans or patterns, positions or perspectives or ways to evade, but each time and appropriate to their situation.

Strategic and structural changes are *quantum*, instead of incremental, whereas the States of strategy, structure, and processes are *transitions* between archetypes (combination and integration of different attributes of organizations). For example, the archetype of the stagnant bureaucracy takes the company to stagnate in some simple and placid surroundings; a giant headless is a set of business with weak central authority; the dominant company is well established and immune to serious challenges, with centralized structure and traditional strategies; an innovative company, generally small niche strategies, simple structure and diverse product line, with a lot of innovation in products.

A *quantum* change means changing many elements at the same time, in comparison with the *gradual* change-one element at a time, for example, first the strategy, then the structure and then the systems. Organizations spend most of their time by following certain guidelines, such as, improving costs and productivity. This suggests that success is achieved not by change in strategy, but exploring strategic options that exist, while the world changes and at some points the setting loses sync with the surroundings needs a strategic revolution during which many things change at the same time.

Emerging strategies are always suppressed until a strategic revolution (change of strategy) and in this case the organization instead of having to develop new strategies from scratch or copy them from competitors, can find new direction of a deliberately within their own emerging standards.

Change as revolutionary in the school of configuration is counteracted by the notion of change as incremental in the school of learning, so it is important to appreciate each school of thought about the process of formulating the strategy as well as to combine it with some kind of comprehensive structure. For example, the cognitive school seeks to tell how the strategists think, the entrepreneurial school as they skip strategy and the cultural school as they land and the configuration school suggests the sequence.

Organizational change is described through a model of "eco-cycle" of crisis and renewal consisting of two arcs that cut themselves to form the symbol of infinity. Human organizations cycles occur around similar phases, between emerging and forced actions. Entrepreneurial action leads to conservation or accommodation, which ends up causing the crisis and confusion, which stimulates creative responses and so begins a new cycle.

Half the "front or performance curve" of the model shown with a solid line is the "conventional" life cycle, being here is the "strategic management". The part of "back or learning curve", shown dotted represents "the cycle of renewal and redesign", less well known, being the domain of "charismatic leadership".

THE TRANSFORMATION OF ORGANIZATIONS

The transformation of organizations can span multiple forms, such as recasting, revitalization, dimension reduction (*downsizing*). Comprehensive change in an organization means the change of strategy and structure, ranging from conceptual to the concrete and formal to informal behaviors. We can consider three methods of change that are distinguished by the size and breadth, for example a small change focuses within the Organization – redefining the structure, a big change involves the entire organization and can pass through a positioning new to the market and for new installations:

- Planned change – is programmed through a set of procedures to be followed, for example, improving the quality, training;
- Conducted change – change is guided by an individual or a small group, usually in an influential position of authority that oversees the change, such as a restructuring;
- Evolved change – is organic and happens or is led by people who do not occupy positions of significant authority in the organization.

On the first two methods for change, this is conducted or somehow "managed" more formally by procedures than for managers, whereas in the latter, this is not managed, not even under the control of managers.

The school setting represents a failed approach of theorizing, because it is very easy to understand and teach. The organizations present many *nuances* of grey and not just black and white, that is, organizations have a wide variety of settings especially the big ones that have multiple business units with different structures and which follow different strategies.

The quantum change is empirical and conceptually wrong to the extent that organizations are not static or are changing rapidly, since most of them spend a great deal of time changing an incrementally.

The contribution of the school of configuration is evident for the formulation of strategy, in as much as it puts "order" in the multiform literature and practice, through ten distinct ecosystems or mental systems, ten configurations imagined from a single world that is not so pleased as it seems.

Summary of Schools

Among the thoughts and ideas expressed by various authors that deal on the topic business strategy it is possible to outline a broad vision about the scientific literature around the theme. Scholars generally feature the evolution of strategic thinking, through 10 schools, scientific paper expounding its formulation of strategies and the process of their management.

Table
Synthesis of schools of strategic thinking

School	*Category that fits*	*Features*
Of Design	Prescriptive	The formulation of the strategy seeks to balance the internal capabilities (strengths and weaknesses) and external opportunities (threats and opportunities).
Of Planning		Is based on the basic model of the School of Design, but defends the strategy formulation as a formal and systematic process Entrepreneur
Positioning	Descriptive	The content of the strategy is a priority and uses techniques for competitive analysis of industries.
Enterprising		The strategy part of mental representation. Born visionary process that takes place in the mind of the leader
Cognitive		The formulation of the strategy represents a mental process.
Of Learning		The formulation of the strategy is an emergent process that arises when people or groups learn about a situation and or organization's ability to deal with certain situations.
Of Power		Consider the formulation of strategy as a process of negotiation, with the use of power and politics to negotiate strategies in favour of certain interests.
Cultural		The strategy formulation process is rooted in the culture of the Organization, being a collective and collaborative process.
Environmental		The formulation of the strategy is a reactive process before the pressures imposed by environmental organizations and is conditioned by three forces: environment, leadership and organization.
The Configuration	Integrative	The formation of the strategy consists of a process of transformation and the relative stability of the strategies within certain States is followed by leaps to new States.

Adaptation of the sources: Duarte and Saints (2011); Mintzberg and Ahlstrand and Lampel (2000).

Are commonly the 10 schools of strategic thinking, which are grouped into categories, such as prescriptive (considers the ideal way of how the strategy should be formulated); descriptive (consider how, in fact, the strategy is formulated, without concern for the ideal way); integrative (integrates aspects of different schools).

ROLE OF INFORMATION IN THE PROCESS OF STRATEGY FORMULATION

Use of the Information on Organizational Management

Managers manage men in addition to other resources-including information that is subject to the filter of the cognitive capacities and to the "game" of influences and alliances. The definition of the strategy tends to take the form of a perspective rooted in the collective intentions and reflecting the patterns of use of resources and capacities as a *competitive advantage*. Managers tend to regard the information as a *"substance"* which can be acquired, stored and possessed.

The **information** gives stability and comfort and managers to internalize turn it into knowledge about the sector and on the surroundings. There are however limitations in forward-looking models used, since was not taken into account the **non-quantifiable information** (the signs of the changes).

When strategy is driven by supply and demand tends to not be set for a period of x years with annual reviews. Managers actively exploit the imperfections of information through product and market factors, as a way to achieve *competitive advantages*.

The sources of information that "analysts" and "strategists" usually use are the macroeconomic forecasts made by credible institutions in world terms, giving priority to quantitative information rather than qualitative information.

The *Information* provides them with wealth creation and value for customers and shareholders; The *Information* allows them to increase the time available for strategic decision-making.

The Importance of Information in Making Strategic Decision

Be well informed means more than having a significant amount of information: means having relevant information, interesting, useful, and selected. To this end, it is essential the predisposition, the pro-action, attention to the environment, organizations looking to hear and meet the market, anticipate movements, observe market needs and expectations (declared or implied). Quantity is not what you're looking for, but rather focuses on attention, speed, selectivity and the quality of information, which must not only be perceived, but also collected, interpreted and disseminated.

The relevance of a piece of information can be set from a series of criteria or characteristics that make particular information can be considered useful: what kind of information? What information? What privilege? How to find? Information for what and for whom? Information obtained where? Why this "information? Information obtained as? Information obtained when? Information delivered? Information to do what? Information for decisionmaking, or decision by information?

How to select relevant information? What is the relevant information? Surrounding complex and turbulent media is not enough for information is interesting if not known, updated, accessible and mostly anticipative way carrier.

According to Straus and Radnor (2004) in the global economy and interdependent world there are large flows of information, and the information is increasingly crucial in the strategy of the organizations and countries for several reasons:

- Be important in strategic decision making;
- It is important to innovate products and higher added value services;
- Be relevant to the competitive advantage of organizations and/or of a country;
- Be synergy factor within the organizations;
- Be influential on the behavior of individuals and groups within and outside of organizations.

Lesca and Almeida (1994) state that the information is still not managed to its strategic potential. According to the same authors the organization can be grouped into three groups regarding information management:

- The managing information as a strategic resource and as a competitive weapon;
- Those who manage the information, but not in a strategic way;
- Those that are insensitive to the issue of strategic management of information and the possible competitive advantages that they could obtain.

According to Lesca (1986) it is hard to say what the information means for organizations and as such divides the information into three types:

- **Operating information** -information necessary to the operation of the daily life of the organization.

  Is information of supervision and control of day to day on daily transactions; is precise and formal and repetitive, is subject to suffer the most varied interpretations by people who use them.
- **Influence information** -information that influences the behavior of agents, internal and external to the organization.

Withthis information the managers of organizations areseeking to maximize the cooperation / relationship between the agents of the company. Does not have an operational character, but seeks to influence the behavior of the employees and the external agents, such as the motivation for promotional campaigns and products or services, with the purpose of achieving certain objectives;

- **Advance information** -information that enables organizations to detect in advance the changes (discontinuities) in the environment (socio-economic, political-legal, technological, environmental and other), allowing you to get some kind of advantage or avoid risks.

It is information about the evolution of the environment (long-term concerns) and that little or no relation has o daily activities (products and / or services offered to the market). Anticipation information (weak and strong signals) can take many forms, from rumors, gossip to scientific articles, etc.

Can be fragmented, of great uncertainty and be characterized by ambiguity and lack of clarity. Advance information is rarely complete and clearly defined, and it is common that is associated with the little things, inserted in an environment shrouded by uncertainty. Generally, the information of anticipation can be produced by social, environmental clues called weak or strong signals.

The information for making strategic decision favors the idea of anticipation and detection of changes or possible discontinuities (*cracks*, *radical changes*) that may occur in the environment of the organization. Aguilar, in 1967, had compared the surroundings of the company to the ship's radar, which can potentially flag regarding immediate or future events.

The continuity of change happens at the level of science, to the extent that innovation depends on the existing accumulated knowledge about that fact. The speed of innovation is more common at the level of technologies especially information and communication technologies, to the extent that today practically it is possible to have access to some information about facts or events that occurred (recent past and or more distant) anywhere in the world. The speed of the changes at the level of political and economic market it is a result of policy decisions of the Governments of the developed countries and are related to the ongoing globalization process.

For managers the changes easier to predict are the economic and demographic policies. This "predictability" is associated with the governmental policies of different countries economic development drivers, as the demographic movements are a result of the shortage of manpower in certain regions and the economic, social and political defense of the countries governments.

The fact that consider themselves as predictable economic changes, are associated to the economic policies of the Governments of the countries of market economy boosters, such as the United States and the European Union and the econometric models (forward-looking industrial economy), which no longer corresponds to the current situation, since such models are no longer able to predict how once the global economic development and the respective countries, since your predictability has become little credible, for what will be necessary to take into account other variables (information) in current models.

The information input before reaching the decision-makers are subject to three filters, the thorough analysis of future opportunities, the perception of the surroundings and the performance prediction filter, which may be clumped together in one that We will call the filter management capabilities, which we call by m. When the performance forecast comes to the decision maker, this is again filtered by perception filter of the Manager, which we will name for k. If M = K so the Manager is very pleased with the forecast, the fact that confirm their beliefs and prejudices, even if this is completely devoid of reality. If K > M considers the forecast too simplistic and restrictive and will seek ways to enrich. If K < M believes that the forecast is unrealistic and will do most of their experiences and perceptions.

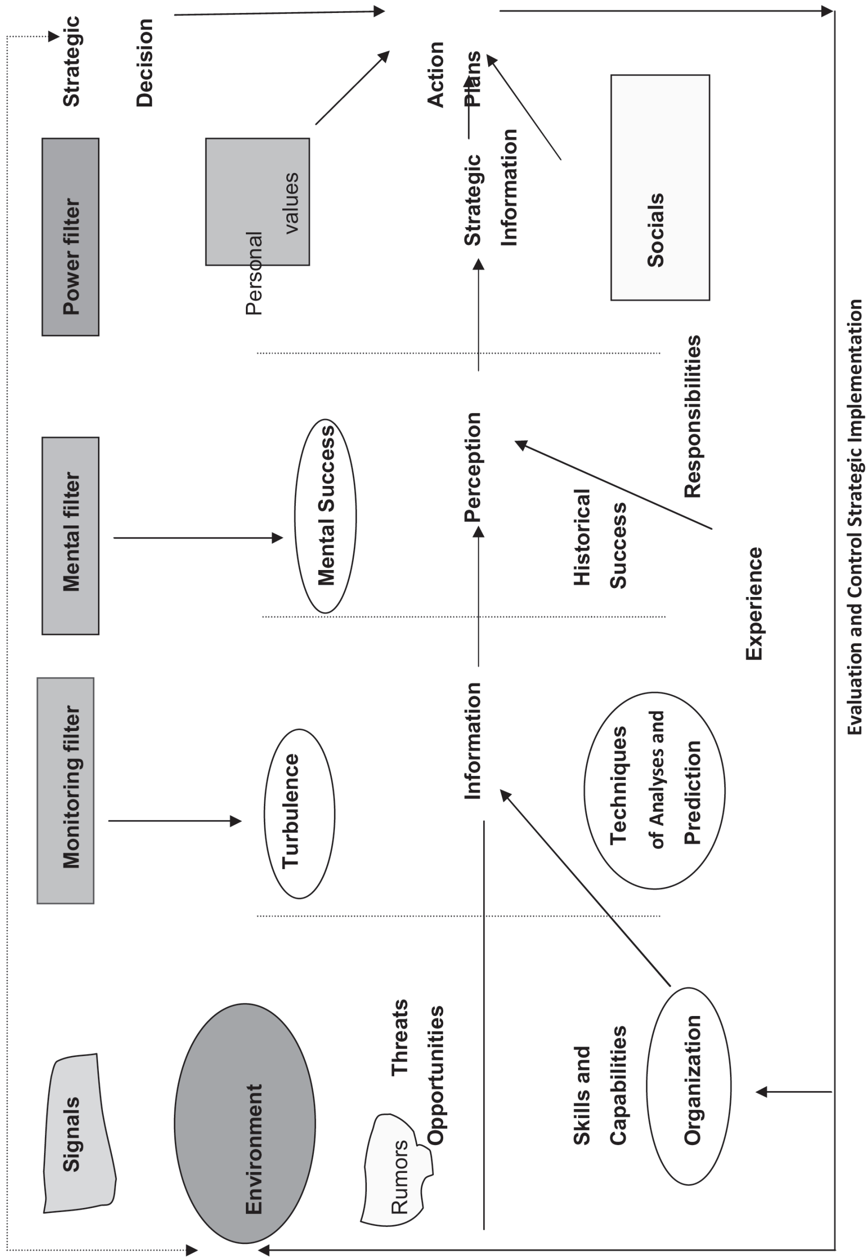
The Information and the Competitive Advantages

The information can be used to create competitive advantages, to change the basis of competition, reduce costs through automation, better coordinate the activities geographically apart, captivate e customers by offering better information on products by your quality and services provided, and create business opportunities. The potential use of information is great; at the same time do not use, can be catastrophic, and the organizations survival will depend on the use of information.

The information and the competitive advantages

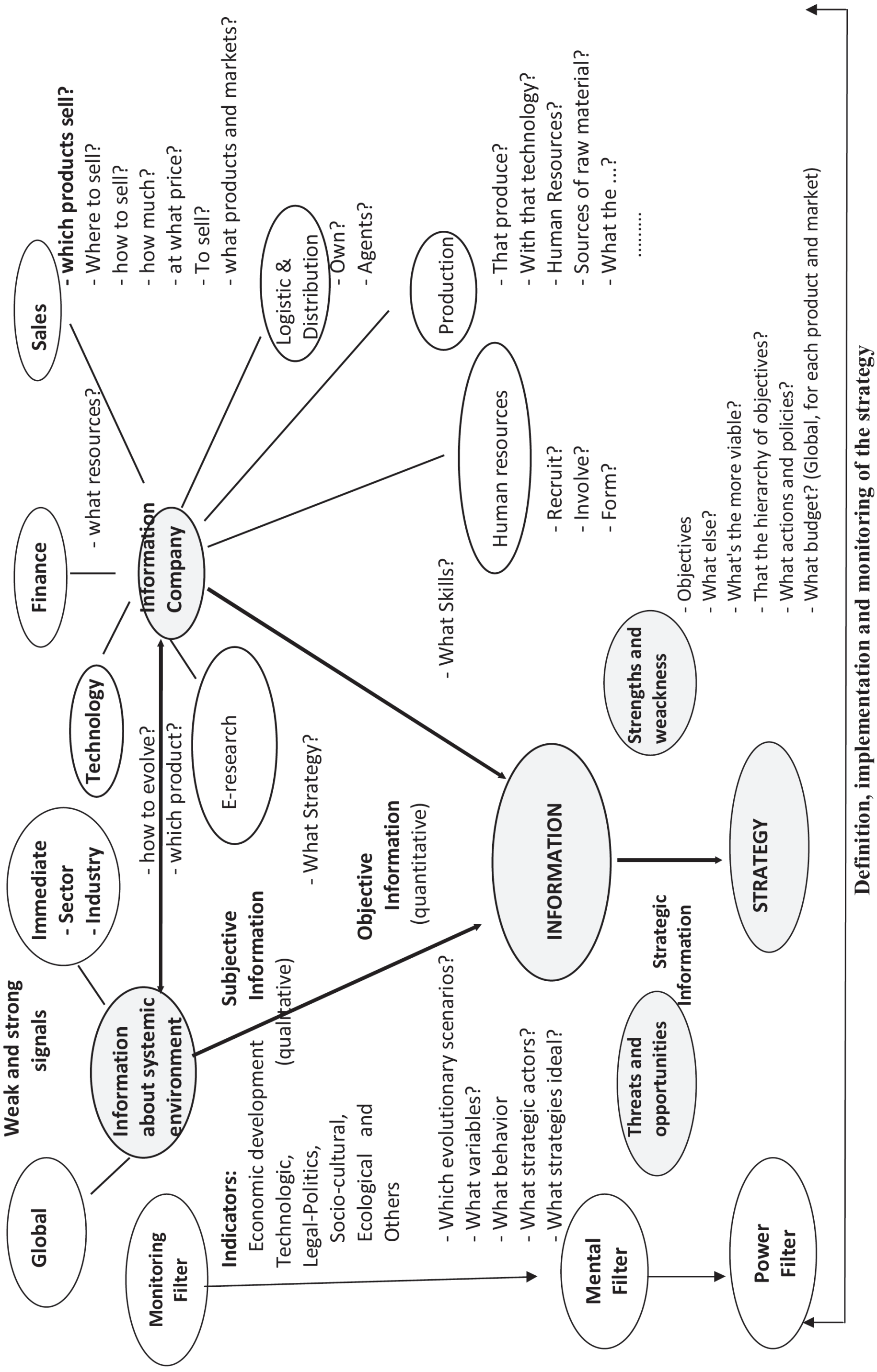
Description	Advantages
Costs	Reduce costs
Products/Services	Differentiate the products and or services
Market	Detect market niches
Offer of products and services	Increase the supply
Innovation	Create new products and processes
Customers	Improve the relationship and satisfaction
Quality	Improve the quality of products and services
Competition	Change the basis of competition

Figure 1: Filtering Process of Strategic Information



Fonte: Adaptado de Ansoff, (1978), *Strategic Management*, Macmillan Press, Uk

OPERATIONALIZATION OF INFORMATION MODEL IN THE PROCESS OF STRATEGY FORMULATION



CONCLUSION

For information to be used, it needs to be valuable. Today managers are flooded with information. This requires a filtering process and conscious management to identify which are the weak, strong signals and relevant information (strategic information) to support strategic decision making.

The information adds value when allows the managers to realize the strategic opportunities and threats by detecting trends or potential problems. The information adds value to the business when its analysis / interpretation come to new ways of doing business of new products (product development or diversification).

Weak and strong signals and relevant information affect the success of organizations since they are a strategic resource of high added value, because they allow the managers to be constantly attentive/informed about the alternative scenarios (external), in addition to consolidate at any time all the important variables for strategic decision making.

To this end, these signs and relevant information must be managed, by a process of surveillance that involves the capacity for perception/interpretation of the tendencies of development of the market (s) (weak and strong signals and information), while useful in appropriate location and time.

Although there is consensus on the strategic importance of information, the literature available covers mainly the electronic treatment of the data and the reflection in its business processes. The effective use of information has not grown at the same rate that the technology, which itself is unable to provide the information that managers need.

Mintzberg, Ahlstrand and Lampel (2000), when you wake in the confrontation between the 10 schools and the respective strategy formulation processes, realize that they present strong relationship with the information (qualitative-weak and strong signals, and quantitative – information available internal and external) .

In the scope of Information Science, there is a gap in the role that information plays in the process of formulating business strategy. In this regard, Rezende e Abreu (2001) relate to the question of the formulation of the strategy of the Information quality available, which allows to infer that no strategy can be better than the information from which is derived the signs (weak and strong) and relevant information available allow the increase of competitiveness of business organizations.

One cannot dissociate the information and business strategy, since it is vital to associate them to achieve an in-depth understanding and respect for the role that information has in the strategy formulation process in any school of strategic management. The narrowing of the interdisciplinary between information science and different fields, such as business sciences, for example, are enriching to deepen knowledge in this respect.

The School of Design, uses information about the internal environment (strengths and weaknesses) and external environment (threats and opportunities) of the Organization, supporting the adoption of the SWOT analysis (intersection of these elements), aiming at the development of the strategy. Hence, it results, the document of Strategic Planning that, after all, consists of information product.

The same fitness occurs in Planning and positioning schools. For example, taking as a basis the Porter model (1986) the strategic formulation makes the five competitive forces analysis, which, to a greater or lesser degree, pressure organizations in certain economic sectors, and, or, industries. These forces are: trading power of the supplier; bargaining power of customers; threat of substitutes; potential new entrants; and rivalry among competitors.

To analyze the industry, these forces are more or less important. The fact is that regardless of this analysis, it is necessary to collect information to be able to not only evaluate what are the forces that are pushing a particular organization (and with which intensity) and which course of action to adopt to counteract the pressure of such forces.

When one think in the formulation of strategy as a formal and systematic process (School of planning), taking as a basis the identification of strengths and weaknesses and external opportunities and threats (School of Design) or make use of techniques for competitive analysis of industries (School of positioning), so it is possible to detect evidence of the role of information in the process of formulation of business strategy.

Whereas Cognitive, Learning, Cultural and Environmental Schools have a close relationship between the knowledge and the strategy, the same can be said about their relationship with the information, because it feeds the knowledge. That is, considering the strategy as the mental representation, from a visionary process that occurs in the mind of the leader (Entrepreneur), is noticeable the close linking between the same and the information, which assists in the generation of new knowledge.

However, if information and knowledge assume strategic contours, one can speak of the role of information in the emergence of the Entrepreneurial

Strategy, in the mental universe of the entrepreneur. In this way, it is concluded that the interdisciplinary study that contemplates the relationship between information and the Strategy of organizations, coming from different areas, represents a great utility for Information Science, since it contributes to the consolidation of the term.

The study of the role of information in the formulation of business strategy under information science recognizes a gap in the set of theoretical publications with potential for enrichment and interdisciplinary knowledge exchange between Information science and other fields of knowledge that focus on strategy.

The scarcity of works focused on this subject in Information Science can be an indicator not only of the potentiality of spaces to deepen the interdisciplinary between Information Science and other areas of knowledge, but also of the potentialities of niches for unpublished and original works in this area of knowledge.

Finally, it is recalled that the expression "role of information in the process of formulation of business strategy", itself is not deeply explored, requiring greater deepening and theoretical reflection about boundaries, demarcations, meetings and singularities.

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