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The Impact of the Perception in the Decision Making of the Directing

Oscar Diego Salgado Guzmán

Athens Institute for Education and Research 9 Chalkokondili Street, 10677 Athens, Greece

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Oscar Diego Salgado Guzmán, Administrator, Mexico

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ABSTRACT

The decision making is essential in the directing work. In this context, the Perception is one of the involved factors more relevant and supposed the interaction of the following aspects: the experience, the intuition, the selective perception, the thought, the mental filters, the beliefs, the expectations, and the needs, among others. For its part, the strategy is the way or the form chosen to carry out certain actions, in searching of one or more organizational goals. The decision-making is influenced by external factors like: economy, politics, society, legal, environment, ethics, technological advances, among others. And by internal factors like: shareholders, employees and boards of directors. In the decision making, it is envolved, both logical and analytical aspects as well as intuitive and visionary aspects. Most of our decisions have a mixture of rational and emotional aspects. Balance between emotions and intellect gives us correct instincts. We seek for an equilibrium between intuition and formal strategic planning in order to make better decision making. Now, talking about the directing, it is important to mention that the directing is an art that contempletes in its process both hemispheres, right and left. The right hemisphere includes: intuition, creativity, imagination, artistic, sensitivity, emotional, sentimental, simultaneity. Geographically we identified it with East. The left hemisphere includes analysis, inference, language, logic, writing, mathematics, numerical aptitudes, scientific concepts, follow-up of administrative processes, sequence. Geographically we identified it with West. Finally, from this theoretical perspective, this article analyzes the decisionmaking mechanism for the particular case of a land passenger public transport company in Mexico City.

Keywords: decision making, perception, strategy, directing

Introduction

The performance of the technology in these times runs very fast. The artificial intelligence is developed in high standars. The world has been globalized while physical barriers seem to be dissipated. In the process, some organizations have become global (with a presence in countries on different continents), with an effect that exceeds commercial and that also reaches the labor sphere. In this way, in the same center of work, people of different nationalities can coexist, with ways of thinking differentiated.

This is how we live in a world influenced by various external factors, that frame directing decision-making, such as: environments (economic, political, social, ecological, legal and ethical), culture and customs. In the same way, we can verify internal factors of influence, such as: employees, shareholders and boards of directors.

In the middle of this context of diversity, the Directing tries to generate a common understanding of ideas and actions to achieve agile and firm decision making on the way to achieving its goals. It is very important that the company alligns the vision, mission and objectives with all internal areas (such as marketing, sales and others) and with directors, managers, supervisors and first line employees.

Taking all these issues into consideration is that the present investigation attempts to present evidence about how perception influences decision-making of the directing, in the specific case of a land passenger public transport company in Mexico City.

In order to detect the Decision Making mechanism, under qualitative perspective, we aplicated interviews to two directors. Also we aplicated two quantitative questionnaires to the same directors. The first questionnaire is related to the thinking process, both right and left hemispheres. The second is related to the particular Decision Making style (analitic, directing, oriented to behavior and conceptual). During the investigation, we considered both planning and intuition elements, in order to find the actions and ideas that guide the decision making of the Directing.

It was considered important to investigate the ideas and the actions that usually guide directors, setting as an objective to elucidate if the way in which they obtain their vision is valid despite the fact that many of their techniques and tools do not match those described in the formal strategic planning manuals.

It should be noted that we are not going to deepen in the psychological aspects of the perception, either in those elements of the environment that have to do with the formation of mental schemes or in aspects of neurology that study the brain in its physical parts and/or functioning.

The objective of this work is focus on the analysis from the Administration area, seeking to establish the cause-effect relationship between the perception and the decision making.

In this context our investigation question focus on established What is the Impact of the Perception in the Decision Making of the Directing?, in the specific case of the company we have analized. Our hypotesis of this investigation is that the Perpection impacts directly the Decision Making, including Directing.

On the other hand, we hope that this writing promotes more investigation related to the Perception, the Strategy and the Decision Making, within different sectors of mexican economic and of course other countries and cities around the World.

Business Context

In the contemporary world, it seems that change is the only constant. Since some time, the phenomenon of globalization has been established, which in a personal words, implies the fall of certain physical and mental barriers and that has allowed the free commercialization of products and services throughout the world, thanks to the technological advances that have propitiated the reduction of costs and optimization of resources. Equally, the globalization has crossed territorial barriers, it has increased international trade especially with the support of technological advances that have diminished considerably the transaction times.

Our new reality invites us using the newest technologies in order to apply them to the companies. We life in times of big data, artificial intelligence, among others.

Now we have start up companies around the world with collaborators of many cultures and countries connected by the internet and videoconferences and of course by phisical presense.

In the middle of this context, the managers live with an environment characterized because of the vertiginous change, because of the growing competition of multinational scope and because of political and economic changes (Guiltinan, 1998: 3), requiring of their part, rapid adaptation to new environmental conditions as a guarantee of subsistence in the time.

From this perspective, it is necessary to carry out analyzes of the environment, both externally and internally, as part of a strategic administration aimed at timely decision making. This situation is verified both in companies with more international exposure as in more limited exposure product companies, as is our case, that of land passenger public transport in Mexico City.

It is important to mention that in Mexico City, the land passenger public transport can be concessioned to private companies and this is the case of the company that we have analyzed.

Literature Review: Theoretical Framework of the Perception and the Decision Making

Entering in the subject of this investigation, we begin with some theoretical aspects that provide us with bases of support to the empirical analysis.

We start with two definitions that we have considered relevant to our point of view. First one, Robbins (2009:139), that said: "the perception is the process through which the persons organized and interpreted the impressions of their senses in order to assign significance to their environment". But, what one perceives could be different from the objective reality".

Second one, Morris (2001: 123-124) that said: "the perception consists in recognize significant patterns in the middle of a disorder mass of sensory information. In the last term, is the brain that interprets the complex information flow that comes from the senses".

We could say that, the senses of each person are the access ways for the perception. Among the senses, we have the eyesight. The look, offers us elements for interpret both our external environment and the observed reality. When the senses can't find an order for the environment complexity, then is more difficult anticipates movements and actions. For that reason it is necessary to challenge the reality and question the territory of the credibility of our mental models (Manucci, 2004: 1).

By this way, access to the complexity through the creation of models and measure structures is the methodology that the human has been used all his life to interpret, to understand and to anticipate the movements of the environment. One of the essential factors that appear linked to the models are the results (Ibídem).

In addition, through the use of certain models, an organization obtains the expected results and these schemes become part of a habit. The ways of "perceiving, interpreting and anticipating" are naturalized. Then the complexity of the environment acquires an order (Manucci, 2004: 1-2).

The perception of the complexity is what determines our actions and movements in the environment. According to our thought scheme we are going to look at reality in a differentiated way. Of the manner more or less complex. From this point of view, there is an essential difference in the attitude of those who direct and plan the destinies of the organizations. According to the thought scheme, the look will be different and therefore the attitude in the development of the strategy (Ibídem: 2).

Returning to what it means to look, we assume that it was to interpret. Behind each eye that discovers reality there is a labyrinth of beliefs, habits, attitudes, experiences and expectations that process stimuli, generate concepts and determine what we do in the environment. We look at and interpret reality from our mental models. These are the "filters" through which the environment acquires an order. In each situation we never have all the information available to "mark" the terrain of our actions (Manucci, 2004: 2-3). Within this context, however, it is necessary to point out that: "the world we perceive is not the real world, the territory; it is a map made by our neurology. What we look at on this map will again be filtered by our convictions, interests or concerns" (Seymour, 1995: 58).

On the other hand, despite the differences in operating speeds, we can point out that there is a lot of similarity between the network of brain neurons and the circuits of a computer, since both are coordinated by sets of interconnections that transmit data back and forth, order them and reorder them, save them and use them to solve problems; in both examples mistakes are made since receiving wrong information produces wrong results (García, 1998: 38).

In any case, current computers cannot carry out some activities characteristic of the human being, such as those related to the capacity for imagination, as well as other faculties of the mind, such as recovering ideas and feelings from the past to relate them to current ones; it is not possible for them to give meaning and context to the circumstances as they arise and at that moment manage the emotions, product of the combination of sensations, feelings and thoughts (García, 1998: 38).

Continuing with emotions, we could say that they are the wild card of human intelligence and that they can originate both in thought and in sensory perceptions.

At the same time, these can originate other thoughts; for example, when we hear an alarming noise, the mind immediately goes to work trying to find the source of the sound; Once this is done, it plans the actions to follow (García, 1998: 38-39).

In the same way, new responses originate when the person notices a discrepancy, something new or some interruption in the normal course of events (Ibídem: 38-39).

Too, new information is also energy for the mind, since it creates changes in the perception of reality of who acquires said information.

These changes originate new neuronal connections or reinforce some that were already being formed, and all this exchange of energy sets the brain in motion (Ibídem: 39).

In the process of capturing sensations, the mind plays an indispensable role, filters and allows only the passage of information that it considers useful.

Otherwise, the body receives so much information that it would be materially impossible to properly process all the data collected by the five senses. (Ibídem: 39).

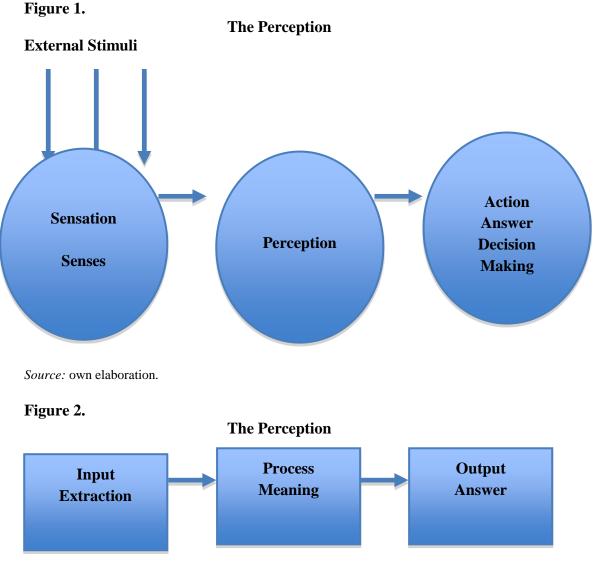
There are millions of perceptions that the human being captures and never manages to process at the conscious level. This same filter of sensations also occurs with thoughts, emotions and experiences stored in the mind or in memory.

The selection helps preserve emotional and physical health. The specialists mention that we remember on average 1 out of every 100 data with which we have contact, while the other 99 remain as unconscious, latent information, waiting to be exploited (Ibídem: 39).

According to what has been stated previously, we can affirm that perception is established through all those stimuli or events from the environment that enter to our brain through our senses. These events are analyzed with the sieve of our beliefs, thoughts, mental models, etc., to subsequently emit a response.

We could think of a model of input, process and output. Our brain is a "machine", in the sense of a precise and structured operation, that processes information, however, as happens with computers, a virus can overflow the data and/or block the system.

Visually we can appreciate what is established in the previous paragraph, with Figures 1-2.



Source: own elaboration.

Now we have the next question in order to continue with the text and make some reflection on it. How do perceptions influence the decision-making process? We consider that the cognitive process of perception is directly related with the decision-making process. According to: intuition, experience, mental filters, selective perception, thinking, beliefs, needs and expectations is that a certain decision is made.

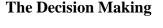
Referring to the selective perception, we can affirm with Simon: "each executive (manager) will perceive those aspects of the situation that relate specifically to the activities and goals" (Simon, 1988: 286).

Equally, in front of a complex stimulus, the person perceives in it what he wants to perceive; the more complex or ambiguous the stimulus, the more the perception decides for what is already "in" the person and less so for what is "in" the stimulus (Ibídem: 286).

It is considered that intuition (which can be fed by experience of each individual), is an important element for decision making. In addition, it is essential to establish a formal strategic planning process; the combination of both aspects leads us along the way of an optimal process of business decision.

In order to exemplify the interaction of both elements in decision making, we transcribe the following (Figure 3).

Figure 3.





Source: own elaboration.

The interaction, between both elements, supposes an equilibrium as we see in Figure 4.



Source: own elaboration.

Next, we have other questions for continuing with the analysis.

How are intuition and analysis processed at the cerebral level? What is the relationship of analysis and intuition with the particular way the brain is used? Taking based on Mintzberg (1991: 52-53), we can interpret that the left hemisphere is in charge of formal strategic planning and the right hemisphere is in charge of intuition, given that the first is logical, analytical, structured, numerical and with rules and the second is creative, artistic, expressive and free. In a way, we could say that analysis and intuition are complementary aspects that enrich decision-making decisions.

At this point it would be necessary to define what we refer to when we use "the decision making" concept. According to Stoner: "it is the process of identifying and select a course of action to solve a specific problem" (1996: 260).

Within this context, decision making involves an interaction between intuition and analysis, to choose the "best" course of action to resolve a situation given, relating the present circumstances with the actions that will take it towards the future. In the process, social interactions and the conception of time are fundamental. The decision making is also based on the past; the experiences of past—positive and negative—play an important part in determining the options that managers consider factible or desirable. Consequently, the goals for the future are based, in part, on past experiences (Stoner, 1996:260).

We have to emphasize that in our Decision Making we use our cerebral hemispheres, the right and the left. The right hemisphere includes: intuition, creativity, imagination, artistic, sensitive, emotional, sentimental, simultaneous. Geographically we identified it with East. The left hemisphere includes analysis, inference, language, logic, writing, mathematics, numerical aptitudes, scientific concepts, follow-up of administrative processes, sequential. Geographically we identified it with West.

The different problems require different types of decisions, both scheduled (routine) or unscheduled by their exceptional character. The routine or little importance matters, for example merchandise returns, can be handled through an established procedure, a kind of programmed decision (Stoner, 1996: 267). Meanwhile, the most important decisions, for example, the location of a new store, require an unprogrammed decision, a specific solution achieved through a less structured process for making decisions and solving problems. Since all

decisions involve future events, managers must also learn to analyze the risks and uncertainty associated with alternative courses of action (Ibídem).

Now, focusing on strategic decisions, we could define that they are those that establish the general orientation of a company and its maximum viability in light of both the predictable and unpredictable changes that, in their moment, may occur in the areas that are of your interest or competence. These decisions are the ones that automatically shape the true goals of the company and those that help delineate the broad limits within which it will operate (Mintzberg, 1997: 7-8).

In this way, a decision becomes the choice of an alternative among a series of options that, as we have already pointed out, can be based on a logical and analytical process, but can also be the result of an intuitive and visionary process or both.

Now, coming back to our original question, what is the impact of intuition in business decision making? Important authors such as Etzioni (2002), Drucker (2002) and Hayashi (2002) have mention the theme. According to Etzioni: "with the run of time, the impact of intuition in scientific decision making within business seems to be modified. It's not just that the world is becoming increasingly complex and uncertain, but also that the old models of adoption of decisions have been failing more and more" (2002: 50).

For that reason a new decision-making model is being developed; a model that fits better with a world that no longer resembles an open book, but rather to a whole library of encyclopedias in constant revision. This new method – in fact, it is an old method with a new face – knows that with Directors often must act with partial information that, further, they have not had enough time to fully process or analyze. (Etzioni, 2002: 51).

According to Etzioni, "I call this model humble decision-making." This new model allows us to act with partial information. It helps us to adapt to the new information as it becomes available. It also helps us to get wide goals and purposes. In reality, this new model is an old model, used by doctors for centuries and by many directors. It's called exploration mixed or adaptive (or humble), and includes two types of assessments: broad basic choices regarding the goals and policies of a company and small experimental decisions based on a detailed analysis of a subgroup of data and options (Etzioni, 2002: 49-50). But how are adjusted these theoretical analyzes in the reality of contemporary company?

According to Drucker (2002), effective executives concentrate on the important, the strategic and the generic, they try to find the constants of the situation, instead of trying to solve routine problems. They assume that what is important in decision making is the appropriate systematic process, rather than the result. They know that the most effective decision is situated between the right compromise and the wrong one, and they have learned to express one in terms of the other. (Drucker, 2002: 1-2).

Luhmann (2010), for his part, points out that in order to be able to decide on an alternative, to be able to choose one variant and not the other, a decision needs information. Beyond the alternative there must be something else, which is presented as a selection from an area marked or unmarked, of possibilities, precisely, a difference that makes a difference, that is, that contributes to deciding the decision (Luhmann, 2010: 219).

In this context of systematic analysis for decision making, what impact plays the intuition in the business world? Hayashi illustrates it with an example: "the intuitive idea that saved Chrysler in the 1990s came of the mind of Bob Lutz (president of the company), while he was driving one weekend" (Hayashi, 2002: 192). From that "intuition", one of the company's most successful models was born. The Dodge Viper became a smash hit and served to transform the public's perception of Chrysler, boosting company morale and providing renewed business momentum, eventually leading to its spectacular 1990s modernization (Hayashi, 2002: 192). With the perspective provided by the run of time, we could agree that the Viper was precisely what Chrysler (then Daimler-Chrysler) needed; It was the right car at the right time. However, how could Bob Lutz (chairman of Chrysler in the 1990s) detect this need? (Ibídem), How did intuition operate in him?

When asking to the same protagonist of the story, Lutz, he points out his difficulty in describe exactly how he adopted one of the most important decisions of his professional career. "It was a subconscious and visceral feeling. And simply it seemed to me adequate" (Ibídem).

According to Hayashi, Lutz was not the only case of decision by intuition that he had knowledge. In his interviews with famous top managers for their intelligent business instincts, none of them had been able to accurately explain how they habitually made important decisions that challenge any logical analysis. To describe that imprecise feeling of knowing something without knowing exactly how or why, these directives used words like "good professional judgment", "intuition", "instinct", "inner voice" and "hunch", but they were not able to describe the process much better (Hayashi, 2002: 192-193).

From this perspective, Hayashi says that leading scientists have analyzed the way how people make decisions. And that recent researches have found amazing track suggesting that our emotions and feelings may not only be important in our intuitive ability to adopt good decisions, but in fact they can be essentials (2002: 193). Same way, he argues that the kind of instinctive genius that allows a CEO creates the perfect strategy to take the position from competitors possibly requires an extraordinary ability to detect patterns, perhaps in an unconscious, that other people overlook or confuse with random behaviors (2002: 193).

According to Herbert Simon:

The real evidence for the two different ways of thinking is essentially the observation that, in everyday affairs, men and women often make competent judgments or come to reasonable decisions very fast – without evidence to indicate that they occupated in systematic reasoning, and without being able to refer to the mental processes which led them to their conclusion. There is also some evidence for the very plausible hypothesis that some people do more use of

intuitive processes, while other people make relatively more use of analytical processes (Simon quoted by Mintzberg, 1991:78).

In order to explain this situation, Simon pointed "the expert intuition", that has been verified, in other scopes like big masters of the chess, who only looking the board identifie very fast which is the best move to undertake.

He argues that the expert recognizes familiar patterns, that "the secret of intuition or judgment of the great master" is the information and previous learning that has been storing over time, in the same way: "also the directive experimented has in his memory a great deal of knowledge, acquiredduring their training and experience, and arranged according to recognizable groups and the corresponding information", and that the essence of intuition lies in the organization of knowledge for a very fast identification (Ibídem:77).

It is from these tracks of empirical reality that Simon concludes "the intuition is not a process that operates independently of analysis; both processes are essentials and complementaries components of effective systems for take decisions". (Ibídem: 77-78). From this context, it is that the author can affirm:

It is a fallacy to contrast "analytical" and "intuitive" styles from directing. The intuition and the judgment – they are simply analyzes crystallized in habit and in ability to respond promptly through the recognition. Every director has to be able to analyze problems systematically (and with the help of the modern arsenal of analytical tools provided by the directing science and the operations research).

Every director also has to be able to respond promptly to situations, a skill that requires cultivating intuition and judgment over many years of experience and training. In case of problems, the effective director does not have the opportunity of choosing between the two approaches "<">">and "<<i nutlive>>". The behavior as a director implies dominating the entire range of directing skills and apply them as appropriate (Ibidem: 77-78).

Paradoxically, Simon's view of intuition as analysis crystallized in habit, it is too limited for Mintzberg by not considering especially the important phenomenon of creative vision. In none of the evidences that he cited, he perceived how persons who have to make decisions deepen into a complex problem, how they captured new situations, how they launched into creative solutions. (Ibídem: 78).

There is remote relief in the implication of Herbert Simon's final conclusion, that indepently of what intuition really is – anything from rapid expert recognition to extrasensory perception of the psychic – obviously has to be combined with analysis when making decisions at the directing. No organization can afford to be purely analytical or purely intuitive. (Ibídem: 79-80). Taking both perspectivas, we could conclude that intuition and analysis complement each other in making decisions.

Research Method

In order to exemplify the decision-making process in the particular case of a land passenger public transport company in Mexico City, an investigation was made. There were interviews to two directors under a qualitative approach. To complement the information, there were two questionnaires, this time, under a quantitative approach.

The format of the questionnaires responded to the formulation made by Arturo Reyes¹ The objective of the questionnaires was to capture the "style" in decision making according to the following categories:

- The first: behavior-oriented style, is characterized by a deep concern for the organization and personal development of its employees. These persons work well with others and want to help their colleagues and collaborators to obtain achievements;
- The second, the conceptual style is supported on a wide variety of alternatives; enjoys of new ideas and is very good at finding creative solutions to problems.
- The third, the analytical style, reflects the desire to obtain more information and considers more alternatives and does not like complex solutions based on ambiguous information.
- The fourth, the directing style, is characterized by preferring the simple, solutions clear to the problems. The persons who use this style are efficient, logical, and seek to decide very fast.

On the other hand, the questionnaire evaluates the "Thinking Process of the Person" measuring four variables: two referring to the left hemisphere (Analysis and Logic) and two referring to the right hemisphere (Intuition and Vision). According to the score obtained, it is defined whether the person is executive (directing) or operational.

Results

The results obtained in the interviews that have done to the directors were next:

- 1. What are the elements to consider in the Decision Making?
 - Director 1: Analysis, Experience, Circumstances, Time, Background, Know about situation.
 - Director 2: Security, Knowledgements, Experience.

¹The questionnaires could be consult in website www.sinergy-consulting.com.mx

- 2. Do you choose between programmed or not programmed Decision Making?
 - Director 1: Both.
 - Director 2: Programmed.
- 3. Do you choose between decision making rapid or not rapid?
 - Director 1: Preferably not rapid.
 - Director 2: It depends on the situation for choosing one of them.
- 4. What is the moment and place to be inspire in the Decision Making?
 - Director 1: At night during first hours of break
 - Director 2: At the beginning of the activities at work
- 5. Do you consider yourself intuitive?
 - Director 1: Yes.
 - Director 2: Yes.
- 6. Do you think that the experience play an important role in the decision Making and in the intuition?
 - Director 1: Yes.
 - Director 2: Yes.
- 7. Do you like mathematics or music?
 - Director 1: Music.
 - Director 2: Mathematics.
- 8. Do you like to be practice or to be philosopher?
 - Director 1: Practical.
 - Director 2: Practical.

Source: own elaboration.

The results of the questionnaries were the next:

- In the questionnaire referring to making decision style, the director 1 presented an analitic style and the director 2 a directing style.
- In the questionnaire of thinking process, the director 1 appeared in ejecutive or directing part with similar score in analytic and logic. With a highes score, the vision. And with the lowest score among the four variables, the intuition.
- The director 2, appeared with similar score in intuition and vision. The highest score with logic then analysis.

If we considered, this particular case of a land passenger public transport company in Mexico City, we can infer the next:

• In according of what the directors have said and with the theory, we have that the important elements for the Perception are next: the intuition, the

experience, the selective perception, the thinking, the mental filtres, the beliefs, the expectations, the needs, the knowledgements, the historical data and the circumstances. Even so, we can observe decion making processes that involve both cerebral hemispheres: the intuitive (right) and the analytic (left). Nevertheless, the visionary element, of a big importante for directors, is assigned regularly to the right hemisphere.

Conclusions

In this particular case of the studied company, we can agree that the analytic and the intuitive are integrated, by establishing a balance in the thinking processes of the directive (balance between cerebral hemispheres) and in the elements that participate in the decision making. In our research, both intuition and vision, as well as the analysis and logic seem to acquire a similar importance, in a balanced process, where each variable contributes complementary elements that in the end put together a scenario or complete puzzle, with which the directive is in a better position to make a decision.

To determine under what circumstances processes are predominantly use of analytical and logical thinking and in which others dominate the intuitive and visionaries, we can conclude that it has to do with the particular development of the thinking processes of their hemispheres and their respective individual characteristics.

The same, according to the environment that is presented and the information that we have at the moment of decision-making, is how one chooses in particular to give greater weight to a characteristic of a given thought process. It is important that the directors be aware of this process, that it has the potential to use certain variable of each thinking process, according to the circumstance that is presented.

To be able to integrate as a single concept the processes of analytical thought and logicals, with the intuitives and visionaries, it is necessary to conclude that more than opposites, these processes are complementaries.

According to the data obtained in our research, we could highlight the naturalness with which the directing makes decisions, however, we believe that a greater reflection on decision-making would be necessary, a greater approach to theory to achieve better results in terms of formal strategic planning without forgetting the importance of intuition in the decision-making process.

We are aware that there is an enormous field on this subject that must be explored, our purpose is to present one more experience that feeds the fascinating decision-making process.

References

Drucker P. (2002), La toma de decisiones. La decisión eficaz. España. Harvard Business Review. Deusto.

- Etzioni A. (2002), La toma de decisiones. La adopción de decisiones humilde. España. Harvard Business Review. Deusto.
- García, J. (1998), Creatividad la ingeniería del pensamiento. México. Centro de aprendizaje organizacional. 19ª ed.
- Guiltinan J. et al. (1998), Gerencia de Marketing, estrategias y programas. Colombia. Mcgraw-Hill. 6a ed.
- Hayashi, A. (2002), La toma de decisiones. Cuándo confiar en el instinto. España. Harvard Business Review. Deusto.
- Luhmann N. (2010), Organización y decisión. México. Universidad Iberoamericana y Herder.2ª ed.
- Manucci, M. (2004), "Azar e incertidumbre en el desarrollo de la estrategia corporativa", Estrategia y Percepción. Junio, Número uno. Barcelona. Intangible Capital, pp. 1-5.
- Mintzberg, H. (1991), Mintzberg y la dirección. Primera Parte. España. Díaz de Santos.
- Morris, C. Maisto, A. (2001), Introducción a la psicología. México. Pearson. 13ª ed.
- O'Connor, J. Seymour, J. (1995), Introducción a la PNL. Cómo descubrir y emplear la excelencia para obtener óptimos resultados personales y profesionales. España. Urano. 8ª ed.
- Questionnaires on making decisions and thinking processes <u>http://www.sinergyconsulting</u>. com.mx [11 November 2010]
- Robbins S. (2009), Comportamiento organizacional. México. Pearson. 13ª ed.
- Simon H. (1988), El comportamiento administrativo: estudio de los procesos de adopción de decisiones en la organización administrativa. Argentina. Aguilar, Altea, Taurus, Alfaguara. 3ª ed.
- Steiner G. (1997), Planeación estratégica, lo que todo director debe saber, una guía paso a paso. México. CECSA.
- Stoner, J. et. al. (1996), Administración, México. Prentice-Hall.4ª.ed.