

CROSS CULTURAL STUDIES MODELING DECISION MAKING – A DISCUSSION OF THE INFLUENCE OF CULTURAL ASPECTS AND BEHAVIORAL PROFILES OVER DECISION IN THE CONTEXT OF IFRS IMPLEMENTATION

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ABSTRACT

This study examines the effect of systematic information search and social affective factors on two distinct dimensions of the decision making process when the decision is related to budget levels: the rational decision and the expertise. A model based on economic and cognitive approaches for the analysis of decision making is proposed. The model was tested using structural equation modeling and data were collected from a sample of 93 large Brazilian companies. The study's findings support the proposed model and it also confirmed the results found in the qualitative phase of the research. The decisions in accounting environment are not completely rational, as it was expected. Social influence is part of both the rational decision and the expertise decision. The systematic information search is not applied in all decision situations. Implications of the results are discussed, providing subsidies for the development of management control systems.

Key-words: Decision Making; Management Accounting; Neuroaccounting.

Área Temática: Controladoria e Contabilidade Gerencial

1 INTRODUCTION

As we study the evolution of Accounting, we notice that this is an area of knowledge whose changes have always been associated to the development of cultural, social, political and trade activities. The advances in Accounting theories and practices were set off right after World War I with the upsurge of large companies, the growth of capital markets, the investor's need to be well-informed, and the granting of resources and incentives by government, universities and professional entities for researches on Accounting principles and procedures.

As an example, in the academic literature the interest in Strategic Management Accounting (SMA) has grown substantially in the last ten years, as it was discussed by Cadez and Guilding (2008, p. 837). Traditionally, management accounting has the role of providing information to assist decision making. However, according to Cadez and Guilding (2008, p. 838) this area is "still under defined" and one of the problems is related to the meaning of the

word “strategic”; the conventional management accounting techniques have a one year time frame; strategy implies a long-term future orientation and an externally focused perspective. Formerly, the accounting professional was called “book keeper” and he was considered a trade assistant agent, prudent and conservative, liable to commercial laws, enacted in Brazilian Commercial Law act dated 1850.

However, the adoption of *International Financial Reporting Standards – IFRS*, according to the norms of *International Standards of Accounting and Reporting (ISAR)*, requires today a global view of the accounting professional profile, and it demands changes and adjustments to these professionals’ education. The simple fact that now the pattern is international, in itself, requires a global approach from the accountant. These professionals will have to bear in mind that the reports they issue may be compared to reports prepared in other countries with the most varied cultures; this means that they will have to know how to deal with local standards to attend to that country’s legislation (income tax, regulating bodies etc.), and to issue reports to headquarters or other company affiliates and financing agents abroad.

The Accountant profile demanded by the current market comprises many more qualifications than simply the knowledge and ability to apply bookkeeping techniques regarding occurred events and to comply with legal and tax regulations, as before. Nowadays, it is required from this professional a role that is rather linked to a managerial profile, such as carrying out budgets, accounting statement forecasts, management and analysis of management reports, pro-activity in decision making at the companies where they perform and/or provide consulting and auditing (internal and external).

As a result, over the past years, there has been a greater involvement of accounting professionals in organization’s strategic issues, along with other outcomes. These professionals have triggered communications with operational managers, enabling the quality optimization of management and this is now based on economical and financial information (Faria & Almeida, 2004)

As commented by Cades and Guilding (2008, 837) the strategic orientation requires a new role from the Accountants related to another ways to make decisions. Traditionally, it is accepted that rationality is the easier way to make decisions using financial reports and not to incur in errors. However, rationality is not the optimal way to make decisions under pressure, uncertainty and in high complexity environments.

Human decisions have been studied in economics for more than fifty years and the general idea is that they are more complex than the models proposed to simulate them. Decisions involve careful considerations regarding risks and benefits related to a choice or they require a variety of behaviors involving several alternatives, possibilities and deductions of possible future consequences. Even when the decision process is apparently rational, it is affected by impulsivity (Franken, Strien, Nijs & Muris, 2008) and by emotional systems (Chambers, Taylor Jr & Potenza, 2003; Naqvi, Shiv & Bechara, 2006), among other aspects.

For example, the judgment required in audit tasks depends on task-specific knowledge and audit experience is used as a proxy for this type of knowledge (Abdolmohammadi, 1999, P.52). Simple routines in audit could be automated but in complex audit tasks sophisticated decision support systems and knowledge-based expert systems are useful. Those systems are generally based on economic mathematical models but models, as the name suggests, are just approximations of reality.

Economic models are based on the observation of the decision maker behavior (descriptive models) or on functions used to find the optimal point for the decision (normative models). As models, they cannot explain with accuracy what happens in a decision making process, since there are several decisions that contradict the expected pattern, as having been discussed in recent studies in neuroeconomics and in cognitive neuroscience areas (Camerer,

2007; Fehr & Camerer, 2007; Werner, 2008; among others). Although decision making have been a recurrent theme in economics and accounting studies, the models proposed to describe the individual decision process in accounting or economic environments do not emphasizes the cultural aspects related to decision.

Culture is a complex concept. Considering Hofstede, Nevijen, Ohayv and Sanders (199, p. 286) the culture construct is: holistic, historically determined, and related to anthropological concepts; it is socially constructed, soft and difficult to change. Organizational changes demand cultural changes.

Organizational changes can be implemented by imposition, but the cultural changes, they cannot. So, the problem is: organizations cannot “don’t change”; as was discussed, they operate in highly competitive markets and in order to survive, they need to create new strategies and change the course of actions planned to reach the strategic goals. The implementation of these strategies depends on the organization of the accounting and non-accounting information to facilitate the decision making process in different organizational levels (Riahi-Belzaoui, 2002, p. 18). But implementation of strategies also depends on humans beings and their judgments, highly related to cultural aspects.

Considering decisions as information processing, the objective of this paper is to discuss the cognitive process of decision making, the cultural aspects related to decision in global organizations and the possibilities to include culture as one of the variables in economic decision models. The discussion will be focused on the challenges to implement IFRS.

This paper is organized as follows. In the first section, the challenge to implement IFRS and to change the Accountants’ profiles is presented. Following this, in the second section the economic and cognitive models for decision making are discussed; in the third section, the cultural aspects of the decision making process are discussed in the context of IFRS implementation; finally, suggestions for future studies are proposed.

2 THE CHALLENGES TO CHANGE ACCOUNTANTS’ PROFILES

There are currently 500,000 active Accountants in Brazil (Conselho Federal de Contabilidade – CFC, 2012). Since Brazilian Law 11.638/07 was passed in 2007, these professionals have been struggling to implement the guidelines of IFRS which has demanded more than the usual competence found among these individuals. There is a clear demand for these individuals to present new profiles, not only in technical terms but also in terms of conduct.

IFRS implementation demands a lot of decisions. The organizational decision making process has a subjective trace; it depends on the demand of each area, on the link among areas, on the level of the responsibility for the decision (Anthony & Govindarajan, 2008, p.11; Riahi-Belzaoui, 2002, p. 27) and on the individual decision making process.

Even though the accounting and financial information are technical, they are collected and made available in an environment created by the organizational behavior and mediated by human behavior (Sorensen, 1990, p. 327). Therefore, the efficacy of the information systems depends on the way that the people react to the captured information and how they interpret the reports based on a set of references and rules.

Recent studies on the implementation of IFRS revealed: (1) there is/was no relation between the amount of foreign investments and the implementation of IFRS in developing countries (Lasmin, 2012); (2) the aforesaid is to be expected since the standardization intended by the IFRS promotes comparative relations and transparency between countries; (3) adopting IFRS for the monitoring of environmental degradation, although practicable, does not increase the credibility of the data published about sustainability (Negash, 2012); (4) although the adoption of IFRS is related to political and economical aspects and the obligation

to place in evidence the foreign investments in developing economies, higher education, taxation, economic policies and inflation are factors which impede the adoption of IFRS, plus, there is the additional factor of the costs and difficulties associated with converting the current accounting systems to international standards (Shima & Yang,2012); (5) the adoption of IFRS increases the amount of information available in the accounting systems, but only in those organizations that are considered transparent (Agostino, Drago & Silipo, 2011); (6) the adoption of IFRS in the analyzed groups of countries within the European Community has revealed to be intensely subject to the influence of local aspects like legislation and culture, which are resistant to the efforts of internationalization (Nobes, 2011); (7) a study of IFRS implementation in China revealed that it does not avoid the manipulation of results, unless the implementation is accompanied by an independent Administration Council, then manipulation is discouraged (Wang & Campbell, 2012); (8) the mandatory adoption of IFRS can increase the content of information made available if there are mechanisms which permit accompanying the levels of foreign investments by analysts who are following the implementation (Landsman, Maydew & Thornock, 2012).

Some of the aspects of these studies are in harmony with the situation found in Brazil: (a) adoption of the IFRS is mandatory; (b) Brazil is a developing country with continually rising foreign investments; (c) Brazilian companies have reached high levels of transparency by way of the mechanisms of Corporative Governance and there is a growing concern with evidence of sustainability; (d) adoption of the IFRS is a reality for accounting professionals in Brazil and its successful implementation is not only dependent on its structural aspects but also on its behavioral style.

The new rules related to IFRS implementation demand a lot of judgments about situations that are not completely defined. That reasoning here is that there is a great difference between what professionals ‘used to do’ and what they are ‘now doing’ in the exercise of their profession. Comparisons must be made between the ‘old and new’ models as well as a definition of the steps and processes of migration within systems and the capacitation of teams which can assimilate the norms, disseminate them among those involved with financial demonstrations (businesses, auditors, teachers, regulators, credit analysts, controlling agencies, and others).

Concerning behavioral styles, a number of theories aim at classifying individuals according to identifiable patterns or categories. Ricco (2004), in her doctoral thesis, proposed a new classification to behavioral styles, nominating them as Mobilization Styles, which reflect preferred behaviors when seeking results. A brief description of those styles is presented: 1) Specialist: Controlling and sharing valid experiences brings safety. Set corroborated challenges through careful actions that produce solid results as well as a concern with exercising reason. Decision making is based on relevant data and information. Seeks to be an *expert* in his field of work. Is persistent, careful and methodic. 2) Collaborator: Gets what is considered valuable by trading with others and tends to stress relationships as the only way to receive positive things and events, like success. Expresses a desire to participate in teamwork. Concerned with people and the quality of the work process. Likes helping others and finding solutions to existing problems. 3) Conqueror: Credits attaining objectives to good judgment and controls what is obtained. Likes competitive situations that can offer a chance of personal growth. Anxious to reach new levels of performance and demonstrates a commitment to achieving results based on processes. Seeks situations where he can present his capacity to perform and achieve what is expected. 4) Maintainer: Most important is to assure the continuance of actions and innovations within the organizational context. Establish relationships which permit controlling and overseeing situational variables while emphasizing follow-up and a concern with the operational processes. Is comprehensive, methodical and persistent. Tends to avoid risks, seeks security. 5) Competitor: Credits good judgment to the

ability to obtain the best things in life, always ready to take a chance and decide what has to be done. Seeks challenges that depend on competitive performance. He/she is obstinate and resolute. Focused on winning and obtaining results, using the processes that guarantee them. Compares self with others when results are obtained, assuming the responsibility for resolving problems. 6) Achiever: Obtaining results is what is important even if it means changing one's attitude. Promotes actions aimed at achieving organizational goals and prefers to deal with situations where he can make things happen. Aimed at achieving personal and organizational results, is flexible, energetic and pro-active. 7) Negotiator: The important thing is to make advantageous trades protecting what has been gained. Adapt to new situations and change opinions do not mean a loss of personal influence. Promotes integration. Demonstrates a capacity to convince and has considerable skill in understanding people's needs and resolving conflicts. Puts self in the position of others and is aimed at acquiring organizational vision.

Recently, Coda, Cesar, Silva and Custodio (2013) analysed 412 Accountants' profiles according to Ricco classification. All the Accountants were participants in *Stricto Sensu* and *Lato Sensu* (MBA) Accounting Graduation Programs, predominantly in the city of São Paulo, Brazil. In this study there was a qualitative phase with the objective to map Accountants' perceptions about what would be the main challenges for IFRS Professionals in Brazil. Data were collected from an open question presented to 60 IFRS professionals extracted from the sample obtained during the quantitative approach. Six categories were identified and most of them belong essentially to the nature of the managerial role and maybe were considered challenges because the development of them was never the target of educational programs for professionals seeking a background in Accounting. The qualitative analyses reveals that suited mobilization styles for Accountants dealing with IFRS would be the Negotiator in order to cope with communication, integration and adaptation of international norms and rules to local contexts, the Collaborator to meet teambuilding and teamwork and the Competitor to assume the responsibility for developing and implementing IFRS standards. However, the quantitative results show that there is predominance of the Maintainer, Specialist and Conqueror styles and absence of the Collaborator, Achiever and Negotiator styles. So, there is a difference between the ideal profile and the real profile found in Brazilian sample.

In this paper, the behavioral styles of accounting professionals are discussed in terms of the individual decision making process and the cultural aspects that can affect them. That is a new approach to the discussion about accountant's profiles.

3 ECONOMIC AND COGNITIVE MODELS FOR DECISION MAKING

3.1 Economic Decision Making Models

In classical economic theory, rational models of decision require: 1) a known set of alternatives to the decision; 2) a set of perceived behavior alternatives; 3) a set of pay-offs (value or utility placed by the decision maker upon each of the outcomes of choice); 4) information about which of the outcomes will occur if the subject chooses a particular alternative; 5) information about the probability that a particular outcome will occur when a particular alternative is chosen (Simon, 1955). In 1955, Simon already discussed that the subject cannot determine what all the possible outcomes are; he/she cannot completely order them; he/she cannot know the probability or certainty related to the outcomes. So, "there is a complete lack of evidence" if human beings can perform the proposed computations (Simon, 1955, p. 104). Therefore, Simon (1955) proposes to change the focus of analysis, considering that the people want satisfaction, not optimization, when making decisions. According to Simon, models of limited rationality are better than models of global rationality.

Another well-known decision making theory is Prospect Theory, proposed by Kahneman and Tversky (1979). It differs from the classical economic decision theories in several aspects: 1) it substitutes utility by value (defined as gain or loss) and it postulates that

the value function for gain is different than the one for loss; 2) it predicts the effect of certainty, showing that people find the right results more relevant than the probable ones; 3) it presents a reflexive effect postulating that the reverse of prospects (gains or losses) reverts the preference order; 4) it discusses the effect of isolation, postulating that decision makers let aside the aspects that are shared by different outcomes, focusing on the aspects that differentiate them (Kahneman and Tversky, 1979). In their first attempt to modify the Expected Utility Theory, Kahneman and Tversky (1979) believed that the decision happens in two phases. The first phase (Edition) in which the options are organized and reformulated to simplify the evaluation and the choice. The second phase (Evaluation) in which the decision maker chooses the result that has the highest value, expressed in two scales: the probability impact of the possible result on the evaluation of that result, and the subjective value of the proposed alternatives. Kahneman and Tversky also discussed the value function in terms of the reference point, where the marginal values of both gains and losses usually diminish in magnitude (Kahneman & Tversky, 1979). This reference point is imaginary and related to hypothetical events (Plous, 1995). There are several articles discussing decision making and most of them were conducted based on Prospect Theory, including the last decade (Tseng, 2006; Tsai & Hsee, 2009; Blinder & Oppenheimer, 2008; Rakow & Newell, 2010; Hogarth, Portell, Cuxart & Kolev, 2011, among others). Kahneman & Tversky are referenced in almost all studies.

3.2 Cognitive Decision Making Models

The linear cognitive decision making model

As discussed earlier in this article, the descriptive economic models for the decision making process are more closely related to the psychological processes that are behind each decision, showing that decisions are subjective, and that people do not make rational decisions most of the time (Camerer, Lowenstein, Prelec, 2005, p. 11). The deviation from the optimal point occurs due to biases related to several aspects, as the following: heuristics applied in the problems resolution related to the decision (Bazerman, 2004); psychological profiles (Naude et al, 2000); the decision maker motivation (Lord, Hanges & Godfrey, 2003); interaction between cognition and emotion (Cohen, 2005); group pressure (Lee, 2008), among other aspects. All these aspects are generically considered as Intuition on the linear model proposed by Pennings, Garcia and Hendrix (2005). According to these authors the decision making process is interactive and simultaneous, in which there are two important phases: 1. The Stimuli-Relay phase (SR), that involves the transformation of stimuli in perceptions, generating a multidimensional perceptual space (MDPS); 2. The Dynamic Cognitive Processing phase (DCP): it involves the transformation of perceptions that are found in the MDPS in behavioral outcomes, i.e., in decisions. Figure 1 presents the integration of the model figures proposed by the authors.

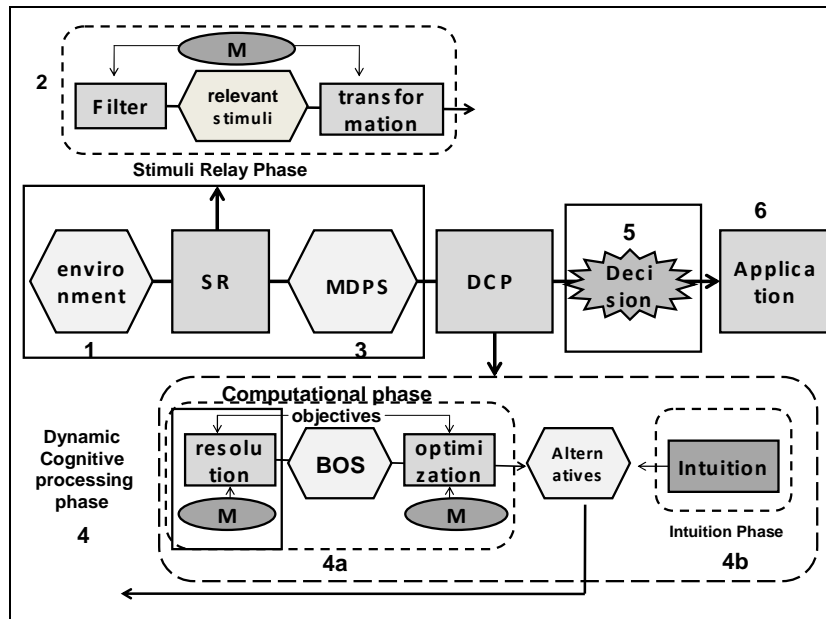


Figure 1: Conceptual Model of individual decision making

Source: Adapted from Pennings, Garcia and Hendrix (2005, p. 115).

Labels: SR (*stimuli-relay*); MDPS (*multi-dimensional perceptual space*); DCP (*dynamic cognitive processing*); BOS (*behavioral outcome space*); M (*memory*)

In the model in Figure 1, the subject captures the information from the environment (represented by number 1) and he/she filters it (using the selective attention), generating the space for relevant stimuli (number 2) (Pennings, Garcia & Hendrix, 2005). These stimuli interpretations as relevant depend on the content stored in the memory. Once these stimuli are selected, they go to the multidimensional perceptual space (MDPS, number 3), a space of available information for the decision maker to develop the potential behavioral outcomes (decisions) that attends to his/her objectives, being MDPS an input to the DCP (number 4).

The DCP phase is divided in two complementary and interactive steps: 1. Computational step (number 4a), in which the stored perceptions are analyzed in the perceptual space (MDPS, number 3) and the possible answers are generated to the decision making, considering the decision maker's goal and the data stored in the long-term memory; 2. Intuition step (number 4b), in which the alternative choices are made without a formal analysis of the available data for the decision making. Pennings, Garcia and Hendrix (2005, p.118) considered that the decision maker's goal is the expected outcome, or utility, in economic models.

The computational step (4a, Figure 1) is an analytical process that involves different factors and requires parallel activities in multiple network connections in the brain. The first step of this process is the problem solving phase, i.e., the phase in which the decision maker evaluates information and analyzes the possible alternatives (number 4a). The outcome of this step is the set of solutions (alternatives for the decision) allocated to the Behavioral Outcome Space (BOS, number 4a). These solutions are analyzed in search of the optimal point (Pennings, Garcia, Hendrix, 2005, p. 120). In the BOS, there are alternatives that demand a long time to be evaluated (since they are too complex and involve several criteria to analyze) as well as the ones that need more information. In the proposed model by Pennings, Garcia e Hendrix (2005, p. 121), the problems that demand complex choices collide against the subject's computational limitation, considered a restriction according to Simon's (1955) concept of Bounded Rationality. Regarding the alternatives that demand more information, this occurs when there is a perception of ambiguity (difficulties in categorizing) of the stimuli

present in the environment, this leads to confusing perceptions in the MDPS and the search for rationality (the analysis of all possible alternatives) is damaged.

When there are computational limitation or ambiguity problems, the decision maker uses less formal processes to choose between the alternatives, processes that create a short-cut to solve the problem. In the Pennings, Garcia and Hendrix's model (2005, p. 121), these processes are denominated Intuition (number 4b), defined by the authors as "a choice made without formal analysis (...) it is the latent process that occurs in the *back-ground* of the decision maker, required less capacity of processing in the computational step" (2005, p. 121). The final decision made by the decision maker (number 5) is the result of the interaction between the computational (4a) and intuitive steps.

According to Pennings, Garcia and Hendrix (2005) the decision is also affected by social interaction among different decision makers. In the stimuli retransmission phase (SR, number 2), the mechanism to filter stimuli is influenced by what the authors call "social intelligence," meaning, the capacity that some people have to manipulate the decision maker's reference schemes (to dictate what is right or wrong, what is important, what is worthwhile or not, among other aspects), which interferes in the decision of which stimuli are relevant to feed the multidimensional perceptual space (MDPS, number 3).

3.3 The bi-dimensional cognitive model

Neuroscience has been contributing to the analysis of the decision making process and studies developed in the last decades show that: 1. the brain acts in a specialized form, but also integrated, therefore, there is no way to accurately determine which area responds to a specific behavior; 2. the brain has plasticity, and answers to the environment in different forms while its cerebral systems become gradually older and installed; 3. the attention and consciousness are not present in all situations that involve reasoning and decision; furthermore, people with automatic ability are capable of demonstrating expertise based on intuition (which is subconscious) and in recognizing the patterns (Bear, Connors, Paradiso, 2007). These discoveries are very important to modeling the decision making process and a lot of studies have been developed based on Cognitive Psychology and Neuroscience, bringing together the neuroscience and economic studies (Lee, 2008; Chorvat, 2007; Heekeren, Marrett, Ruff, Beettini & Ungerleider, 2008; Camerer, Loewenstein & Prelec, 2005; Cohen, 2005; Barraclough, Conroy & Lee, 2004; Lord, Hanges & Godfrey, 2003).

The linear model proposed by Pennings, Garcia and Hendrix (2005) discusses the relation between reason and intuition, but there is a lack of details on how the intuition works on the decision making process. Camerer, Loewenstein and Prelec (2005, p. 16) present a bi-dimensional model that allows a more profound reflexion related to the Intuition construct. To create their model, the authors consider decision as neural functioning during the information processing. The two dimensions proposed in their model are related to the forms of information processing (controlled or automatic processes) and to the type of system that needs to be accessed (cognitive or affection). The crossing of these two dimensions creates a model with four quadrants, as presented in Figure 2.

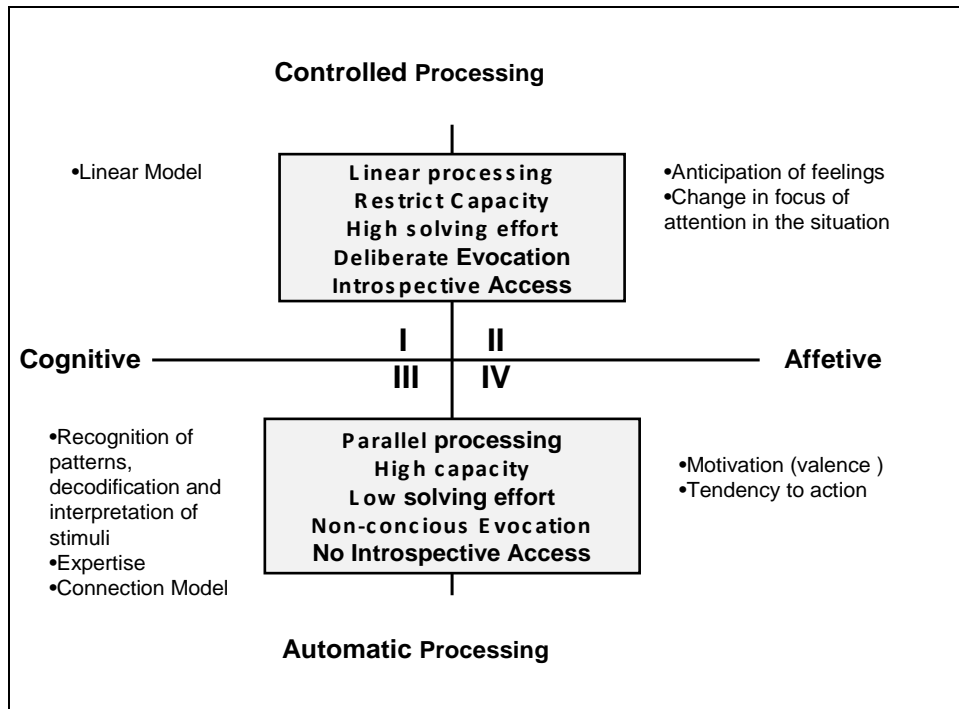


Figure 2: Bi-Dimensional Model for Decision Making
Source: Adapted from Camerer, Loewenstein and Prelec (2005, p. 16).

The controlled-automatic dimension mechanisms (superior and inferior parts in Figure 2, respectively) refer to the manner that the information is processed in the brain: either by a controlled process (conscious and with active effort to solve problems and make a decision) or automatic process (non-conscious, with fast solutions and decisions, based on previous learning). The cognitive and affective dimensions (left and right parts in Figure 2, respectively) are triggered during the decision making process, forming the controlled or the automatic process.

In the controlled process, the information processing is serial, linear, and it follows logical steps as proposed by Pennings, Garcia & Hendrix (2005). The mechanism is triggered when the decision maker faces challenges or surprises that are not in his/her routine and the decision depends on the deliberate triggering of memory systems. When questioned, the subject is able to remember the steps that he/she followed to reach the decision, since the process is conscious. As a person is not capable of solving a problem estimating all the possible answers, this type of processing stumbles in the restrict computational capacity of the human being (Simon's Bounded Rationality Theory).

In the automatic process, the mechanism is parallel, using heuristics. The processing model is connected, as opposed to the linear model, and there is a simultaneous interaction among different neural systems, with distinct specialties. Consequently, the redundancies allow faster answers and multiple simultaneous tasks completion, increasing the computational capacity of the brain.

The cognitive and affective systems interact in the determination of the subject's behavior. The affective dimension has a role in the motivation, since the affection has valences, positive or negative and it answers questions related to "go/not go," meaning, to approximation or distance situations in relation to the decision object (Camerer, Loewenstein & Prelec, 2005, p. 18). The cognitive system is responsible for reasoning and it answers for "true/false" aspects. The cognitive and affective systems can be part of the automatic or the controlled processes.

Expertise is one among the mechanisms that are controlled by the cognitive system, but is part of the automatic processing. It occurs when the decision making process is not conscious to the decision maker. The process happens like this: the decision maker makes the immediate identification of one pattern in the problem-situation and looks for an alternative to solve the problem, resulting in alternatives previously learned and memorized. When a problem is frequent, the solution tends to concentrate in specialized areas in the task processing and the problem is solved in an automatic manner with little effort. As the controlled process demands high energy, the brain is constantly searching for automatic processes to increase the computational capacity. So, the expertise is the result of learning and memories accumulation that generate automatic response and is frequently named “Intuition” (Pennings, Garcia & Hendrix, 2005, p. 121).

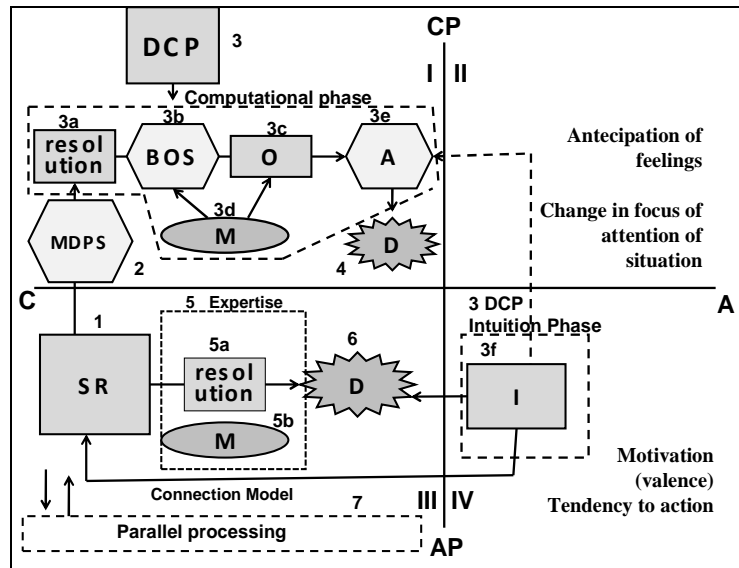
An important aspect to be discussed is the social influence upon decision making process. The controlled process is influenced by the subject thoughts about other people (their feelings, their behavior, their judgment). Moreover, the so called rational decision is not completely based on computational actions (Camerer, Lowenstein & Prelec, 2005, p. 43), what may explain the biases in judging something related to social effects.

4 THE INTEGRATED COGNITIVE MODEL AND CULTURAL ASPECTS

This study presents a model that integrates the two models described on the previous sections: the linear model proposed by Pennings, Garcia & Hendrix (2005, p. 113-127) and the bi-dimensional model proposed by Camerer, Lowenstein & Prelec (2005, p. 9-64). In Figure 3, the integrated model is presented. In these two models the influence of cultural aspects is not clearly discussed although the concept permeates all the phases of the decision making process.

Considering that the decision making process is being analyzed in organizational contexts, it is necessary to take into account that the decision maker is under the influence of both national and organizational culture. There are several typologies for classifying and differentiating countries and organizations around the world (Jacob, 2005, p. 515). Jacob (2005) pointed out some problems with cross-cultural studies: 1) Can apples be compared with oranges? Countries can be so different one from another that a manager from one country may not be able to work in companies located in another countries (even if it is the same company); 2) A large number of exceptions to the rules may exist. For example, countries with a high power index in the Hofstede typology, the most famous typology to organizational culture (Hofstede, 1984; Hofstede, Neuijen, Ohayv & Sanders, 1990) have individuals who may have low scores as well. 3) Organizational environments and cultures are constantly evolving. So, the cultural boundaries need to be construed as permeable avoiding walls which segregate and differentiate individuals and organizations based on cultural aspects. Jacobs (2005) emphasizes that there is not a cultural purity but different cultural mixes and “people tend to be ‘hybrids’ who simultaneously hold membership in different cultural groups” (2005, p. 516).

The influence of the cultural aspects over decision making process is discussed in the presentation of the integrated model.



Source: Adapted from Pennings, Garcia and Hendrix (2005, p. 115).

Figure 3: The integrated model

Labels: SR (stimuli-relay); MDPS (multi-dimensional perceptual space); DCP (dynamic cognitive processing); BOS (behavioral outcome space); M (memory)

Maintaining the labels of the constructs as they were nominated in the original models previously discussed, the integrated model (Figure 3) shows that the decision making process always begins in the automatic process (Quadrant III) where the stimuli are recognized as patterns, decoded and interpreted (SR phase, 1, Quadrant III)). This contradicts the notion that it is possible to make a decision in a totally controlled format. The selection of the environmental inputs does not depend on the decision maker consciousness, and it is subject to a series of biases aroused from the cognitive and affective systems. In terms of the performance of the affective systems, the social influence posited by Pennings, Garcia and Hendrix (2005) is important, as well as the subject's previous experience regarding the decision issue; these aspects are responsible for the positive and negative valences regarding the theme, among others. Regarding the cognitive system's performance on the automatic processing, there are several possibilities of interferences in retrieving the information that leads to stimuli interpretation, such as recognizing a pattern in a situation, even when it is an ambiguous situation. Clearly, ambiguity and clearance judgment are related to cultural aspects. What is a toothbrush to someone that lives in the middle of the Amazonian forest as a member of one of the remote civilizations? Is it an ambiguous stimulus? That is the discussion proposed by Doupnik and Richter (2003) about the interpretation of uncertainty expressions in International Accounting Standards.

It can be said there is a "relative control" when there is a lot of available information and the subject can analyze each one of the alternatives, weighting and selecting them based on elected criteria. But if the decision is under time pressure (or emotional pressure) the subject's expertise will be triggered, as an automatic process. However, as the automatic processing is parallel, several responses can be generated by expertise at the same time; sometimes conflicting ones. Expertise is related to previous learning of patterns of action and to a conceptual framework that has been stored. Despite the fact that the accounting rules exist, the operationalization of them in a particular organizational environment depends of some cultural aspects.

Biases can occur analyzing the optimization process in rational decision (O, 3C – Quadrant I), when it is the decision maker's responsibility to judge which alternative has the highest probability of occurrence. Suppose that the decision maker has outlined the goals for a

pessimistic, a favorable, and a conservative scenario; which of these scenarios should be taken as standard by the decision maker? The subject can suffer Quadrant II influence, anticipating what will occur to him/her (or his/her team) if the presented goal is not accurate; he/she can also be influenced by Quadrant IV, tending to choose the alternatives that have higher valence, creating a conflict between the interests for personal and organizational goals (Agency Theory).

Personal and organizational interests are dimensions that vary across cultures. They are related to social values which can be defined and measured in terms of the weights that individuals assign to their own and to other's outcomes (McClintock & Allisson, 1989, p. 353). The individual may possess a cooperative social orientation; he/she can be concerned with maximizing the welfare of others in addition to their own welfare. But the individual also can possess an individualistic orientation, maximizing his/her own welfare independent of the welfare of others. Or, according to McClintock and Allisson (1989, p. 354) he/she can possess a competitive social value orientation, maximizing the difference between his/her own outcome and the outcomes of the others in their social environment. This social value orientation changes according to local cultures, religions and another types of social issues or social constructions.

The interrelationship between the quadrants suggests that it is possible to search for the optimization of the decision taking in account for the interference of the affective system and the automatic processing of information in the decision making process. Both the automatic processing as the affective system cannot be separated from cultural aspects, as discussed in the text.

Figure 4 presents a structural model of the integrated model described in order to facilitate the visualization of the variables in the model, incorporating cultural variables and mobilization styles.

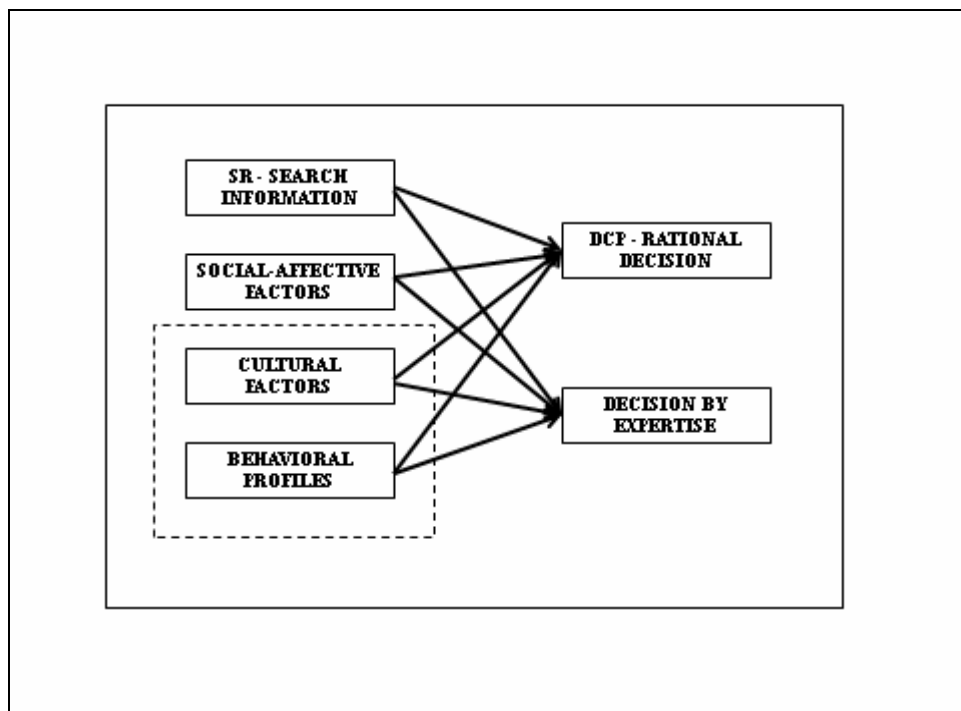


Figure 4: Structural model

5 FINAL CONSIDERATIONS

As discussed, the implementation of IFRS involves the construction and interpretation of reports that can be analyzed in different cultural contexts. Investigating the effect of

language culture and linguistic translation on the interpretation of verbal uncertainty expressions found in International Accounting Standards, Douppnik and Richter, in 2003, raise the question of whether International Accounting Standards can be applied consistently across language-cultures. Their opinion is: it is difficult because there are differences in the interpretation of reports when they were written in Germany or in English language. So, ten years ago, the authors are skeptical about the implementation of IFRS. But IFRS was successfully implemented in different countries!

As discussed in the the Brazilian study developed by Coda, Cesar, Silva and Custodio (2013) the Maintainer style among Accountants is higher when compared to individuals with the other profiles, in another samples. That is critical to the success of the IFRS implementation; according to the characteristics proposed by Ricco (2004) for each mobilization style, Maintainers and Specialists should be able to develop activities focused on continuity and the long term, which demand technical concern and careful actions. These behavioral traits are linked to the challenges related to normative aspects and to the categories of counseling and consulting. However, these traits are not sufficient in themselves to cope with the challenges related to a management and business scenario analysis.

It is suggested that cross-cultural subsequent studies be carried out to test the integrated decision making model presented, introducing two new variables in the model: the style of mobilization of the respondents (Accountants) and cultural aspects related to the country where they are from or to the organization where they work (Figure 4). The cultural aspects could be capted using cultural typologies like the Hofstede's typology; the behavior profiles could be identified using the MARE typology developed by Coda (2000) or the Mobilization Styles Scale developed by Coda and Ricco (Coda, Ricco & Garcia, 2005), among other possibilities.

Finally, it is important to reinforce that knowing how people make decisions, not only is one of the most important management tasks in contemporary organizations, but also a quality that draws Accountants near their new role of leader and motivator before work teams. Efforts aiming at the identification of behavioral styles, cultural aspects and their relation to decision making process should contribute to make adjustments in the educational process in Accounting, including courses able to give support to behavioral competence such as dealing with people, negotiation and results orientation, all of them more likely to meet the challenges imposed on Accountants by the implementation of IFRS in their organizational contexts.

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