

# INTUITION: AN OFTEN OVERLOOKED COMPONENT IN ORGANIZATIONAL DECISION-MAKING

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## **ABSTRACT**

*Honing a company's competitive skills is fundamental to the survival of any business and organization. Given the current economic conditions, the corporate environment is shaping into a very competitive and global market place such that the degree to which a company survives and thrives is based, to a large extent, on the organization's ability to make decisions with speed and accuracy. Rare within the more competitive organizations are senior executives and managers who possess the processing skills that enable them to make decisions on an intuitive level that, in turn, enable these officers to solve their organization's problems with accuracy and speed. Their skills are highly sought after because their intuitive decision-making process is profoundly effective albeit their skills are not abundantly found in the workplace. What is the intuitive decision-making process, what are the components that make up this skill, and what are the value-added advantages for companies to implement the intuitive decision-making processes is the purpose of this discussion.*

## **INTRODUCTION**

The current economic conditions are shaping the corporate environment into a very competitive and global market place to the degree that a company's survival is based on its ability to make decisions with speed and accuracy. One crucial component about this ability involves implementing effective intuitive decision-making processes to the level that senior executives and managers who have the intuitive processing skills are able to solve complex organizational problems with speed and accuracy. Savage and Sales (2008) stated, "A few extraordinarily effective leaders possess a set of potent abilities and intuitive instincts that enable them to readily reposition their organizations in anticipation of market changes" (p. 28).

Assessing the effectiveness of an organization's decision-making process depends, in part, on how it makes its decisions—rationally and logically—and on how fast and accurate are the decisions made based on information that is either too limited or too abundant.

On the organizational level, the process of decision-making typically goes through four phases: (a) intelligence, (b) design, (c) choice, and (d) review (Simon, 1977). The first two phases depend on and are constrained by the organization's ability to obtain information. The third phase—choice—involves rationality and logic and it is best implemented using decision-making models.

The fourth phase—review—leads back to the first two phases—intelligence and design—revealing new information as it cycles around.

Snow and Phillips (2008) described three types of decisions that are implemented on the organizational level: (a) habitual-making decisions [i.e., without thinking], (b) recipe-making decisions [i.e., based on a general set of guidelines], and (c) planning-making decisions that enable an organization to overcome new challenges. Thus, the decision-making process varies depending upon an organization's targeted outcomes.

### **DECISION-MAKING PROCESS ON THE ORGANIZATIONAL LEVEL**

Traditionally, organizations use mathematical reasoning as part of their decision-making process whereby decisions are made based on mathematical models—such as return on investments; total cost of ownership; costs and benefits analysis; and use of sophisticated computer models [e.g., artificial intelligence and decision support systems]. However, one serious shortcoming about using simple mathematical reasoning is that it may not always be effective in solving problems.

As an example, a person who is faced with the dilemma of taking a 10-foot ladder through a door of a house must consider the dimensions of the resident's door, which is 4 feet by 7 feet. Simple mathematical reasoning defines that the ladder is taller than the dimensions of the door...and therefore, it is not possible to take the ladder into the house. One solution is to cut the ladder so that its height is reduced to fit through the door.

Contrary to this process, some problems are solved not by removing the cause but by designing the way forward even if the cause remains in place (De Bono, 1970). De Bono called this decision-making process backward thinking...that is, looking at something that is there and working it over. However, most people recognize how to take a 10-foot ladder inside a house without consciously implementing mathematical reasoning (Snow and Phillips, 2008). This example describes the situation that involves intuitive reasoning.

### **DECISION-MAKING PROCESS ON THE EXECUTIVE LEVEL**

On the personnel level of an organization, senior executives and managers who possess the processing skills to intuitively solve organizational problems with accuracy and speed are highly sought after because their intuitive skills are profoundly effective but are not abundantly found in the workplace. Thus, there has been much research attention conducted on management's abilities to problem-solve (Barnard, 1938; Simon, 1987; Simon & Chase, 1996) as well as on the classic works involving the process of decision-making (Kahneman, Slovic, & Tversky, 1982; Tversky & Kahneman 1974, 1983) that focuses explicitly on how individuals apply intuiting to solving problems.

Although "intuiting" refers to a unique way of processing information, the public often uses the concept of intuition as a noun---as a product of the intuitive process. To differentiate this process from the product facets of intuition, Dane and Pratt (2007) coined the words, "intuitive judgment", to signify intuition as a state of intuition outcomes. As they stated, "We make references to "judgments" rather than some other outcome state, given the strong association between intuition and problem solving." They also proposed that cognitive schemas must be domain-relevant to generate accurate intuitive judgments. Based on these concepts, it is worth noting that individuals who possess expert intuition in their specialized field of industry, are not necessarily as effective at making the same quality of intuitive decisions in the areas of industry that differ substantially from which the expert's cognitive schema was originally developed.

### **DEFINING WHAT IS INTUITION**

Intuition (WordNet Search, n.d.) is instinctive knowing without the use of rational processes [such as mathematical reasoning]. How does an individual acquire the ability to ‘know’ intuitively? Human intuition is based on memories, pattern recognition, accumulated experience, conditioning, and long-held personal biases (Harvard Business Essentials, 2006). “Intuition appears to be more important as a person deals with complex decisions in which uncertainties and ambiguities are greatest” (p. 92). Myers (2004) described intuition as an automated-being, thinking without thinking, knowing without awareness. It is a big part of human decision-making but intuition often errs (Myers, 2004). One of the perils of intuition is the reliance on instinct to solve problems without the use of mathematical reasoning.

Shapiro & Spence (1997) defined ‘intuition’ as “A nonconscious, holistic processing mode in which judgments are made with no awareness of the rules of knowledge used for inference and which can feel right, despite one’s inability to articulate the reason.” Hogarth (2001) defined ‘intuition’ as “Thoughts that are reached with little apparent effort, and typically without conscious awareness; they involve little or no conscious deliberation.”

Intuition has long been viewed as using a processing format based on information...this differs from using a processing format based on rational or analytical thinking. Distinctions between “rational” and “nonrational” human thought can be traced as far back as Aristotle (Sloman, 1996).

Dane and Pratt (2007) clarified intuitive judgments as ‘affectively charged’, given the tendency that judgments often involve emotions. At a very basic level, however, these judgments may be thought of as affective because they are detached from rational thinking. Thus, rationality is often associated with the “head” while intuition is often associated with the “heart.” Chen and Chaiken (1999) reported that, “... the presence of “cognitive feelings” may indicate that heuristic processes are operating.” Other researchers have made references to the feelings about intuition as “gut feelings” and “gut instincts” (Hayashi, 2001; Shapiro & Spence, 1997). Agor (1986) noted that when corporate executives make intuitive judgments, they often experience excitement and harmony. Additionally, individuals who deliberately learn to develop ideas and engage in analyses in a conscious and attentive manner are referred to as being ‘rational’ (Epstein, 2002; Epstein, Pacini, Denes-Raj, & Heier, 1996; Pacini & Epstein, 1999), ‘intentional’ (Bargh & Chartrand, 1999), ‘deliberate’ (Hogarth, 2001), and ‘extensional’ (Tversky & Kahneman, 1983). The majority of research data has focused on the rational decision-making model.

### **ADDING VALUE TO THE CORPORATION**

In one of the few empirical studies in the field of decision science, Khatri and Ng (2000) reported that during the times of greatest environmental uncertainty, corporate executives have displayed their best organizational performances. Although from the study alone, it was difficult to conclude about what were the underlying causes for the outcomes, Dane and Pratt (2007) suggested that due to the uncertainty of the corporate environment, the results might have shifted away from the more structured problems-and-standard operating procedures. As a result, this enabled executives to offer a multitude of ‘plausible alternative solutions’ rather than sticking to the standard single focused objectives as solutions. Thus, they suggested that intuitive ‘judgments’ provide for a more effective approach to decision-making when focused on ‘judgmental’ tasks whereas the converse is true when the focus is on ‘intellectual’ tasks. It is worth noting that the value-add for an organization occurs when the problem structure is more judgmental, because under these circumstances, the outcome of the intuitive decision-making process is more effective with regard to speed and accuracy.

### **INTUITING IS FAST**

The intuitive process that instills the greatest interest among corporate managers and researchers is about its speed (Bastick, 1982; Burke & Miller, 1999; Kahneman, 2003; Khartri & Ng, 2000; Myers, 2004). Although there has been some debate about whether intuiting is always speedy (see Hogarth, 2001), the vast majority of researchers view intuiting as speedy—especially when it is compared to the speed of the rational decision-making process. Kihlstrom (1987) espoused that processing information intuitively is nonconscious and does not require the quantity of attention and, therefore, it does not produce the same processing effects that could cause “bottlenecking”...an outcome that sometimes occurs as a result of conscious processing.

#### **TASK CHARACTERISTICS FACTORS**

The intuitive decision-making process has advantages when encountering unstructured problems because it often avoids the process of using more formal decision-making rules. Aligned with this advantage, researchers have argued that analytical strategies work well for problems that are well defined but are much less effective for ill-defined problems (Claxton, 1998; Hayashi, 2001). Shapiro and Spence (1997) further noted that intuition is often more effective than using standard analysis especially when assisting individuals in developing an understanding about the structures of complex systems.

#### **SKILLS OF AN INTUITIVE DECISION-MAKER**

Dane and Pratt (2007) concluded that executives and senior management who are most capable in making associations that produce accurate intuitive judgments are those who possess complex, domain-relevant cognitive structures within their particular domain. These individuals are referred to as experts (Chi, Glaser, & Farr, 1998; Dreyfus & Dreyfus, 1986; Prietula & Simon, 1989; Shanteau & Steward, 1992). Although the majority of past research data have focused on heuristic-based studies, recent data now suggest that “experts” can make highly accurate intuitive decisions (Dreyfus & Dreyfus, 1986; Klein, 1998, 2003, Prietula & Simon, 1989; Simon, 1987, 1992; Simon & Chase, 1996).

Because complex schemas develop in a particular domain (i.e., in one’s area of specialization), they are more likely to lead to effective decision-making outcomes versus when they are used in different domains or contexts. Therefore, complex managerial schemas may serve well for the manager at the office but may lead to inaccurate intuitive judgments in a very different environment [viz. in the home front]. This implies that for intuition to be effective, schemas are complex and have domain relevance. Corporate level executives and senior managers who can take complex, domain-relevant schemas and apply them to organizational, problematic circumstances are more likely to make effective intuitive decisions as compared to individuals who only use heuristics and simpler, domain-independent schemas.

Explicit learning occurs when individuals are consciously aware of the changes that are accruing to their underlying knowledge base (Lovett, 2002). Thus, explicit learning has a positive influence on the effectiveness of the intuitive decision-making process during the development of complex, domain-relevant schemas. However, the developmental period for mastery of this process tends to be long. Kharti and Ng (2000) suggested that for managerial intuition to be effective, it requires years of problem solving experiences that are founded on a comprehensive and complete grasp of the details about the business’s specialization. Research suggests that mastery requires at least ten-years of solid intense business preparation in order to achieve the level of an expert (Ericsson & Charness, 1994; Ericsson, Krampe, & Tesch-Romer, 1993; Simon & Chase, 1973).

Other characteristics about mastery as an expert include repetition and feedback. Ericsson and colleagues (1993) proposed that it is only through “deliberate practice,” involving repetition and

successive refinement, as well, through the concentration of immediate and accurate feedback as the individual develops the capacity to perform on the level of an expert (Ericsson & Charness, 1994; Ericsson & Lehmann, 1996; Ericsson & Smith, 1991).

Hogarth (2001) concluded that if the practice is performed within “kind” learning structures, then this facilitates effective intuition. The report elaborated that “kind” learning structures are characterized as having the feedback that is both relevant and exacting. ‘Relevant’ feedback is conceptualized as speedy...whereas ‘accurate’ feedback is conceptualized as that which enables an individual to assign proper causal relationships among decisions, actions, and outcomes.

Although explicit learning advances an effective and intuitive decision-maker...in some situations, research data reveals that it may not *always* be necessary for the formation of complex domain-relevant schemas. Instead, schemas may also develop through implicit learning. Implicit learning refers to the process in which one acquires—outside of one’s conscious awareness—it is the knowledge about structures and patterns that underlie a complex and stimulus environment (Reber, 1989; see also Lewicki, Hill, & Bizot, 1988; Reber, 1992; Reber, Walkenfeld, & Hernstadt, 1991; Seger, 1994; Stadler & Frensch, 1998). Dane and Pratt (2007) stated that implicit learning differs from its external counterpart in very important ways. “Not only are individuals unaware that such learning is occurring, but research suggests that implicit knowledge is stored in the brain differently from other types of knowledge.” Seger (1994) pointed out that knowledge acquired through implicit learning is likely to be retained even when individuals have suffered from amnesia...versus under the same circumstances; less knowledge is retained when individuals acquired their information through explicit learning.

Thus, both implicit learning and intuition are linked to nonconscious processing systems [i.e., just as intuition involves both the nonconscious and the experiential processing of information, implicit learning also involves the same processing system]. Reber (1989) tied implicit learning to “intuitive knowledge” and proposed that it is through implicit learning that individuals form complex cognitive structures that are necessary for intuitive judgments and the decision-making process. Therefore, intuitive decision-making is likely to add greater value to an organization under circumstances when it taps into complex, domain-relevant schemas as compared to when it taps only into heuristics as a process for finding solutions to complex and unstructured issues.

#### **GENDER DIFFERENCES AND INTUITION**

The intuitive processing is often referred to as having a gender preference. However, Taggart and Valenzi (1990) found no differences based on gender regarding rational and intuitive styles. Contrarily, Kirton (1989); Allinson and Hayes (1996) both suggested that male managers might possess greater intuitiveness than female managers. Contrary to the latter findings, Agor (1986); Parikh, Neubauer, and Lank (1994) concluded that women managers are more intuitive than their male counterparts. Thus, the overall findings provide very mixed conclusions regarding intuitive information styles and gender differences. No doubt, more research studies are required before the truth about gender differences becomes more clearly defined.

#### **GENERAL DISCUSSION**

In this global economy, an organization’s ability to implement intuitive decisions is a little understood component in the overall decision-making process. Additionally, an organization’s ability to process this skill with speed and accuracy is vital to its survival in an environment where the marketplace is forever changing and becoming increasingly competitive.

The concept of intuition discussed in this paper is regarded as scientific albeit weak and there is still much more research that is needed in order to gain greater comprehension about the concepts and the details of the intuitive decision-making process.

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