

# Knowledge Organizations: Rational and Creative Thinking in Strategic Decision Making

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## Abstract

The survival and success of an organization depends on its ability to adapt to environmental changes by making strategically relevant decisions. Therefore the question arises what could ensure the quality of strategic solutions in the situation where complexity and uncertainty are unavoidable, and are the main challenges faced by organizations. According to Nonaka (1991, 96) “on economy where the only certainty is uncertainty, the source of lasting competitive advantage is knowledge”. Drucker (1993) considers that under a new economy knowledge is not only one more source side by side with other production factors (land, work and capital); it is the core source assisting in surviving under the conditions of a dynamic fierce competitive market. An organization oriented towards knowledge turns from a modern concept into the fact conditioned by life realities. In its turn, this stimulates the rethinking of the processes taking place in the knowledge organization. Strategic decisions are made under the basis of knowledge, the latter changing as fast as the environment. When making strategic decisions, organization leaders should possess not only information, but they should examine their perceptions and concentrate their mental and creative powers in forecasting the guidelines of organizational strategic development. The article deals with the issue of rational thinking and its adequacy to the contemporary business environment, as well as with the advantages of creative thinking and its possibilities to supplement each other when making strategic decisions in a knowledge organization.

## Keywords

knowledge, knowledge organization, decision making, rational thinking, creative thinking

## Distinctions of strategic decisions in knowledge organizations

Strategic decisions are the decisions, that deal with the organization structure and its environment (Armstrong 1993). Most often these decisions are long-term ones and determine all the rest solutions influencing the perspective of an enterprise. These decisions are reflected in the top level management activity. Strategic decisions are usually not repeated, they are complex and indeterminate. According to Armstrong (1993), strategic solutions include organization tasks, political and activity ways of actions, resources definition, the choice of a production market, the capital investment program.

Under contemporary changing and dynamic surrounding, an organization must flexibly and widely introduce innovations in order to resist the competition. Therefore, it is very important to ensure the process of effective knowledge management.

In post-industrial society, the knowledge within an organization is frequently identified as the main source of its competitive advantage (Kogut & Zander 1992, Prahalad & Hamel 1990, Starbuck 1992, Nonaka 1994, Nonaka & Takeuchi 1995).

A knowledge organization is the organization in which “knowledge has more importance than other inputs” (Starbuck 1992).

There might arise the question what knowledge is? According to Albrecht (1993, 43), “knowledge is the result of conscious information remaking process”. Other researchers make a much greater difference between information and knowledge marking the subjective aspect of knowledge. Romhardt (1998, 40) holds that “knowledge is the whole of knowing and abilities possessed by individuals for problem solutions”. Knowledge includes both theoretical knowledge and the practical rules of everyday activity. Knowledge is based on data and information, however, it differs from data and information as it is always related to a personality. Knowledge is constructed and presented by individuals in seeing the best result in the context of cause – effect. Schüppel (1994, 11) thinks that “knowledge is the representation of declarative and symbolic understanding of information about reality related to the process of information remaking”. Pawlowsky (1994, 184) states that “the knowledge system is the net of reality reflections that is created according to subjective hypotheses and certain theories”. Knowledge is the information, understanding and skills that are gained through experience. Experience could be treated as the subjective evaluation of such information.

Generalizing all that has been written it could be stated that the data structured according to decision requirements acquire value only when a consumer evaluates its usefulness information becomes knowledge when an individual’s or organization’s potential increases. Thus, knowledge is a specific organizational resource embracing the whole information, knowing and abilities possessed by the managing personnel and consciously or unconsciously using strategic decision making.

Analysing the manifestations of rational and creative thinking and making strategic decisions in knowledge organizations, it is expedient to specify the distinctions of knowledge that make up the basis of strategic decisions. Al-Laham (2003, 43) characterizes knowledge and its role in the following way:

- Knowledge is the deepened information that is used for organizational problem solutions (strategic decision making).
- Knowledge includes both perceptive, theoretical knowledge (knowledge about cause-effect relationship) and practical activity as well as behavior rules (abilities).
- Knowledge embraces both a personal aspect (ability and knowing) and non-personal, material or a materialized aspect (documented knowledge in the form of information).
- Knowledge includes both hidden (unconscious with limited articulation) and clearly expressed knowledge (conscious, articulated).
- Knowledge is the result of various learning processes.

## **Rationalistic decision making**

“Everybody in this prosaic universe [the world according to economists] is rational.” (Leckachman, 1976). Neoclassicists often argue that all kinds of behavior, that at first seem to be non-rational, in effect are rational. So trying to find out the possibilities of rational thinking while making strategic decisions in knowledge organizations, it is purposeful to analyse the nature of rational decision making.

Rationalistic decision making involves a series of sequential steps, based on the assumptions that there is only one best alternative in a certain situation; no matter how many people make a strategic decision at the same information basis, they will draw the same conclusions. The works by Ansoff (1965), Chandler (1962), and Sloan (1964) have become the foundation for the rationalistic approach in strategic decision making in the early 1960s.

Rational decision making is based on several exceptions. First, possible consequences are known and the expected optimal result could also be known with a rather high degree of reliability. Second, estimations are based on similar past events making an assumption that what made influence in the past is expected to make it in future. Feedback conditions the deviation of actions from the plan correction. An assumption is made that the increase of the input information is to lead to a higher convergence. In other words, a bigger amount of information decreases ambiguity and indetermination. Rationality also leads to an assumption that the information collected is reliable and the participants of the process of decision making have common experience. And finally, an objective assumption is to be followed. Criteria are established and mathematically evaluated, some factors are added and the subjective possibility for the decision realization is eliminated.

Rationalistic approach to decision making is considered to be classical and suitable under the determined conditions. Following the principles of a rational approach, subjectivity factor is reduced while determining criteria, assigning necessary weights to them and summing up evaluations so that the best evaluation is the solution. Knowing what is the most important in decision making, it is possible to concentrate at the collection of actual data as this is effective.

However, the question arises how much it is effective for a knowledge organization. Following a rational approach, it could be assumed that there exists a clear managerial direction when it is started and that is a known determined, final position, aim and conclusion. Although it might seem that such decision making is objective, however, it is not so because people decide which information could be chosen and what weight coefficients of various factors are to be given. Moreover, the abundance of information does not mean knowledge. It is necessary but insufficient condition. A rational approach determines the procedure of formal decision making, however, it does not analyse the nature of strategic decision making.

## **Limited rationality**

The supporters of a limited rational approach consider classical methods to be unsuitable in a naturalistic environment. There are a lot of decisions that should be made looking into the future which is not the same as the past and therefore a rationalistic approach to decision

making is not appropriate. Following a limited rationalistic thinking, an assumption is made that man is not rational and has an access only to a very limited amount of information. As individuals act only with partial rationality and are limited by cognitive and information restrictions, it is doubtful that the decision made could be rational. According to Al-Laham (2003), there are three causes that predetermine partial rationality:

- Knowledge incompleteness. There is too much information and it is too expensive to be properly evaluated by a receivers.
- The difficulty in evaluating future changes. It is even stated that a precise evaluation of a today's situation does not mean that it will be the same in future.
- The number of unlimited alternative decisions. It is impossible to analyse all the alternatives and to choose the most optimal.

The main factor that decided the appearance of a limited rational approach was the capability of an organization to adapt itself to complex and rapid changes applying rational ways of decision making. Time may be rather short and it might be not relevant for the linear, detailed model of decision making. Information might not being clearness or even to increase it, leading decision alternatives more to divergence than to convergence. According to the rationalistic approach, chaos is not a bad thing, it leads to activity and possibilities. A decision maker is given a greatest freedom for his/her actions, and he/she is rather free from organizational restrictions and historical limits (Shambach 1996). Moreover, it is not stated that it is possible to precisely measure and collect the data about alternatives, besides there is no mathematical solution of the problem and the decision maker interprets an indeterminate situation.

Following the principles of a limited rationalism, it is necessary not only to collect, but also to interpret information and also to find out and understand more about various complex situations. Thus the information redundancy is avoided. Limited rationality stimulates to creatively overcome theoretical barriers formed by a strict rational approach (Ogilvie 1996).

Recently a new paradigm comes into consideration in the field of strategic decision making, i.e. a creative thinking that is considered to be the panacea in the unpredictable and unstable world of business.

New perspectives and approaches to decision making expand possibilities offered by rational or limited rational models. This opens a wide way for innovative decisions and enables to adapt to unstable situations, ambiguities and complexities. These are very important factors for the future that is not quite the same as the past.

## **Creative thinking**

Creativity could be defined as creative efforts manifesting themselves in the human activity and thinking and meaning novelty and originality as well as allowing to make expedient and special decisions in the field of human or socio-political solutions. Distinct from using analytic methods and models, in concepts of creative strategy formation (Mintzberg 1989, Teece 1990, Prahalad & Hamel 1994) the goal is to “escape” from reality, relax the thought and create even idealized vision of future. The strategy prepared by this logic differs from the strategy that was prepared in an analytic way, like art differs from mechanization (Mintzberg

1989). According to R.L Ackoff (2002) there exist six necessary attributes for an “effective” manager, one of them being is creativity. By the author non-creative manager can guarantee the evolution of an organization, but he hardly is able to guarantee forward breakthrough, quality jump that are essential for organization in knowledge intensive environment. The book “Managing Creativity and Innovation” (Luecke 2003, 44) presents the following prerequisites of creativity: resourcefulness, ability to think outside the rules, playfulness, focus on exploring possibilities, being accepted, ability to accept failure and learn from it, intelligent risk taking, active listening, acceptance of differences, receptivity to ideas, collaboration and focus on mutual gain, tolerance for ambiguity, tolerance, flexibility, persistence, having an inner focus, recognizing creative potential in self.

A limited time factor is often one of the arguments in creative decision making. However, an accumulated experience and intuition often can help in the context of not sufficient information. But creative thinking requires mental powers and this factor could influence the quality and time of decision making.

The rich store of ever-changing chunks forms the human database of knowledge and provides the ability to respond intuitively and often very rapidly (Bar-Tel et al. 1999, Prietula & Simon 1989, Schoemaker & Russo 1993, Simon, 1997). Knowledge works through rules of thumb (call them scripts that can be played so quickly that they occur as subconscious mind transactions. These scripts are flexible guides to action that decision makers have developed through trial and error and over long experience and observation. Some leaders have so thoroughly learned what they need for effective decisions that they can apply the relevant scripts automatically, without conscious thought and at great speed (Arvidson 1997, Becharang et al. 1997, Dawson 1993, Eisenhardt 1999, 2002, Isenberg 1984, Prietula & Simon 1989, Shapiro & Spence 1997, Simon 1997).

Chess masters play at a higher level than novices, in part because the chess master does not waste so much time and cognitive effort exploring unproductive pathways (Eisenhardt 1999, Prietula & Simon 1989, Simon 1997).

Hentig (1998) also doubt about creativity while making rapid decisions. He maintains that there are too many expectations for creative thinking. In his estimation, rapid decisions may be taken identifying standard situations, while the decisions taken in new circumstances request a lot of knowledge, experience, contemplation, and also time.

Amabile (2003, 14) has studied the time pressure-creativity connection for a long time. They concluded that time pressure usually kills creativity. That was bad news for enterprises and managers, but not entirely bad. The researchers noted that time pressure affects creativity in different ways depending on whether the environment allows people to focus on their work, conveys a sense of meaningful urgency about their tasks at hand, or stimulates or undermines creativity in other ways. They have noted that, creative thinking under high likelihood of creative thinking and low time pressure is more likely when people feel as if they are on an expedition. They show creative thinking that is more oriented toward generating and exploring ideas than identifying problems. Creative thinking under high likelihood of creative thinking and high time pressure is more likely when people feel as if they are on some mission. They can focus on one activity for a significant part of the problem, they show

creative thinking that is equally oriented toward identifying problems and generating or exploring ideas.

Most authors focus their attention on different means of developing creative thinking, however, it is not quite clear how much creative thinking could be attributes to knowledge organizations.

## **Discussion**

Rational analysis is useful and necessary while making strategic decisions. This idea is accepted even by Mintzberg (1994) who is considered to be a critic of a strategic rationality. However, a rational approach is rather limited. One of the reasons is the fact that too little attention is paid to the influence of subjective factors in the process of decision making and its realization.

Rational theories deal more with material resources, work force taken as a whole, however, they do not focus on the distinctions of individuals who influences decision making. Furthermore, even the most mathematically founded models cannot foresee all factors.

Graetz (2002) states that strategic thinking is a skill more commonly found in people who are creative and able to work outside their comfort levels, coping well in situations with low structure in the available information. Associates intuitive thinking is a critical strategy often overlooked in the strategy formulation processes (Boyd, et al. 2001).

Courtney et al (1999) hold that in predictable business environment, most companies are adapters. The reason might be that at the heart of the traditional approach to strategy lies the assumption that by applying a set of powerful analytic tools, executives can predict the future of any business accurately enough to allow them to choose a clear strategic direction. In relatively stable businesses that approach continues to work well. But it tends to break down when the environment is so uncertain that no amount of good analysis will allow them to predict the future.

Bolz states that today it is important to know what is not necessary to know (Al-Laham 2003, 1). In a rapidly changing environment, one can face such difficulties as time limitations while collecting information in order not to fall behind the changing environment and the shortage of reliable information. Thus, strictly rational approach is not quite acceptable because the contemporary world is too complex to present the evaluation of the whole information related to strategic decisions. On the other hand, an organization being the social system of people is irrational in its nature. In spite of this, sometimes irrationality might seem as the most rational decision although it is difficult to perceive or to find it out. This happens because in strategic management it is impossible to formulate strict rules or undeniable truths and laws. There does not exist one and the best decision.

According to Mintzberg (1994), strategic thinking involves synthesis – encouraging intuitive, innovative and creative thinking at all levels of the organization. Strategic thinking emphasizes synthesis using intuition and creativity to produce an integrated perspective of the enterprise (Mintzberg 1994). Strategic thinking needs a holistic understanding of the

organization and its environment "Thinking out of the box" (creativity) and the vision of organization future (Bonn 2001). One should agree with Hentig (1998), as far as thinking is concerned in trying to assign it to the inborn feature. The author states that the approach to creativity based on the individual's personal characteristics and forming two polar stereotypes (creativity – non-creativity) without paying attention to external or internal factors stimulating creativity is not right. Creative thinking is a complex process characterized by structural aspects without any restrictions from the phases or rational thinking (information collection, analysis, ideas evaluation). However, herein lies the main difference: following rational thinking principles, there exists an attempt to operate with the objective information, to evaluate it according to objective evaluation criteria etc. Then during the creative thinking process information is "processed" at the level of subconsciousness keeping not only to objective information but also to intuition.

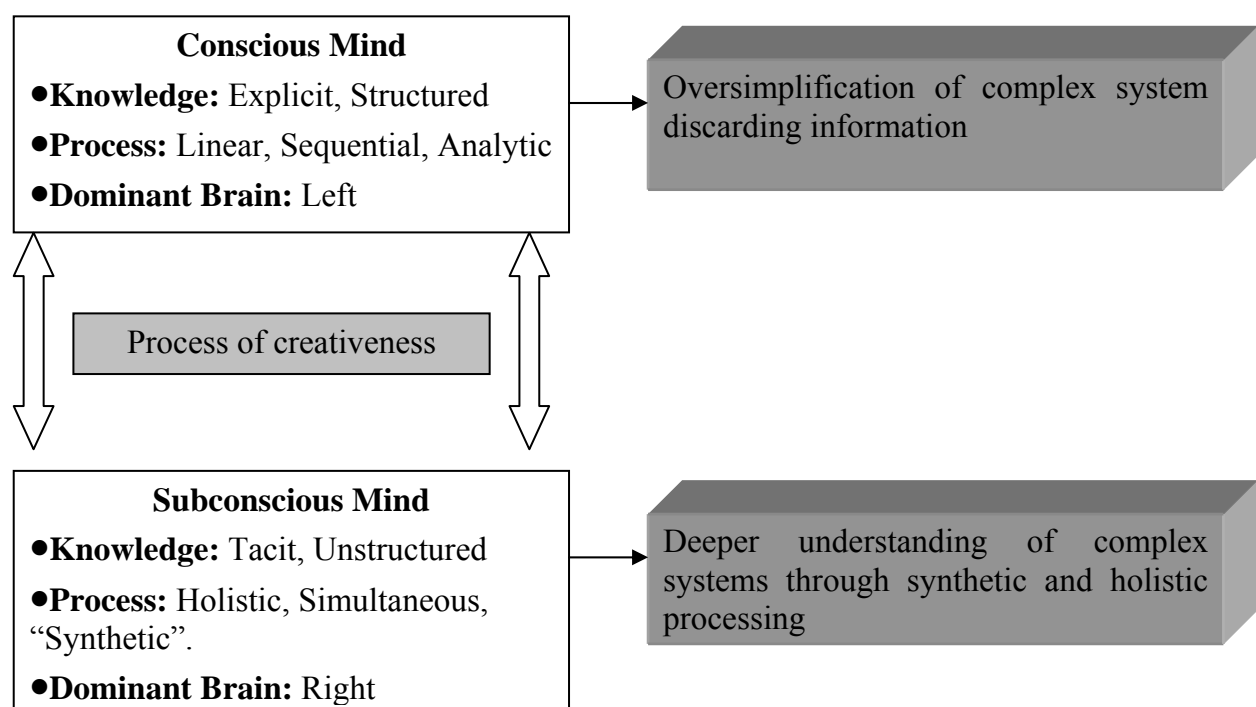


Figure 1. Creativity process (adapted according to Erat & Krogh 2000)

Creativity could be defined as knowledge that is explicit knowledge and available to all, however, creativity is based on experience, both one's personal and somebody else's. Other person's knowledge could be characterized as partly explicit knowledge that could be available to other people; personal experience is more tacit knowledge possessed by an individual who makes strategic decisions. Intuition that could be defined as tacit knowledge is conditioned by the very tacit knowledge of a definite individual. All the individuals in the organization have tacit and explicit knowledge at their disposal. This knowledge composes the basis of organizational knowledge conditioning strategic decisions. According to Johannessen et al. (2001), the foundation of organization knowledge is formed by both tacit and explicit knowledge, and any of them cannot be excluded as this might lead to the loss of organizational competitiveness. Thus, both tacit and explicit knowledge cannot be separated as explicit knowledge is always supported by tacit knowledge. Tacit knowledge held by the

organisation is the most secure and strategically significant kind of knowledge since other organisations would find it difficult to understand and imitate (Spender 1995).

Thus, creative thinking could be considered to be deepened information, the logical analysis of cause – effect aspect, the integration of personal experience into strategic decision making.

Taking into account the rightness of the statements both theories mentioned, it is, however, expedient to focus attention at the positive features of both approaches:

- to collect the most essential information and evaluate various alternatives;
- to appraise the influence of a subjective factor.

Thus, combining rationality and creativity in the process of strategic decision making, creativity as some kind of “expanded thinking” enables to embrace much more information and to find some support in subordinate and inessential things.

## **Conclusions**

Drucker (1993) considers the present and especially the future period to be that of knowledge society because the main means of activity that would substantiate organizational success are to be special knowledge and abilities. However, knowledge and capabilities themselves do not ensure success. These aspects should be used properly in creating a new value. Thus making strategic decisions, it is important for an organization to be able to supply actual knowledge. In the theoretical context, it is purposeful to take into account free creativity and the decisions based on such situations. Strategic decision making in a rapidly changing environment with limited time factor should be based on the synthesis of rational and creative thinking.

Creativity needs to be used in a highly unstable environment. An unstable environment poses some challenges for strategic decision making, like time constraint on collecting a large amount of relevant information in order to handle environmental instability. Thus, under these circumstances hard information can be unreliable, while mental processes using soft information might be more appropriate (Mintzberg 1994).

There exists a traditional tendency for strategic organizational decisions to be made only with a strong sense of responsibility, i.e. having logically assessed the influence of all factors and having evaluated the alternatives of the problem solution. The model of the process of a rational problem solution does not exist because it is impossible to know and forecast everything. There are situations when it is possible to make decisions based on creative thinking, however, making strategic organizational decisions, creativity is not the only facet to be relied on. Seeking for strategic problem solutions, both rational and creative ways are to be considered. Combining rationality and creativity during the strategic decision making process in knowledge organizations, creativity like “expanded thinking” enables to cover quite big amount of information

It is not possible to know everything. There exist situations where possibility to make decision can be created by using just intuition, but decisions that are important for the organization should not be made this way. Therefore it is recommended to combine both:

rational and creative methods for strategic decision making in a knowledge intensive organization.

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