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The factors that effect on rational decision making

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Abstract

Decision making is one of the most central processes in organizations and a basic task of management at all levels. Decision making refers to making choices among alternative courses of action-which may also include inaction. While it can be argued that management is decision making, half of the decisions made by managers within organizations. Since strategic decision not only affects the organization in which they are taken but also the society (Colignon and Cray, 1980). Decisions are regular part of human everyday life and they strongly influence either life of individuals, or even the lives of many others, depending on the position of decision maker. Understanding of the decision-making processes could help us in preventing bad decisions and make the rational decision. The rational decision-making model describes a series of steps that decision makers should consider if their goal is to maximize the quality of their outcomes. In other words, if you want to make sure that you make the best choice, going through the formal steps of the rational decision-making model may make sense. After discusses definition, process and rational decision in this paper we will study what the factors that effect on the decision making. So the research question is:

How can make the rational decision making? What the main steps should follow? And what the main factors that effect on rational decision making? The objective of this study is to discuss the factors that effect on rational decision making to know the most important role of rationality in decision making.

Keywords: Rational model, bounded rationality, decision making process.

Introduction

Literature review

Decision-making is an important part of managerial function of any organization. In reality, managers must make decisions while performing managerial functions; planning, organizing, leading, and controlling. Therefore to be a good planner, organizer, leader and controller, a manager must first be a good decision maker (Byars, 1986) [39]. Thus the primary duty of managers is decision-making.

Decision-making process

Different researchers have developed numerous models of strategic decision-making process since 1970 (e.g., Mintzberg *et al.*, 1976; Hofer and Schendel, 1978; Dubrin, 1997; Donnelly *et al.*, 1998) [26, 17, 12, 11]. These models comprise various numbers of stages and are generally similar to each other. Strategic decision making varies from three steps of problem formulation and objective setting, identification and generation of alternative solutions, and the analysis and choice of a feasible alternative (Cyert and March, 1963; Mintzberg *et al.*, 1976) [9, 26] to the five steps suggested by Fredrickson (1984): situation diagnosis, alternatives generation, alternatives evaluation, selection, and integration, so in this study the researcher use components of the decision-making process are the functions of decision making.

These functions are

Setting managerial objectives, decision making starts with the setting of objectives, and a given cycle within the process culminates on attaining the objectives that gave rise to it, searching for alternatives. Search involves scanning the internal and external environment of the organization for relevant information from which to fashion a set of alternatives likely to fulfill the objectives.

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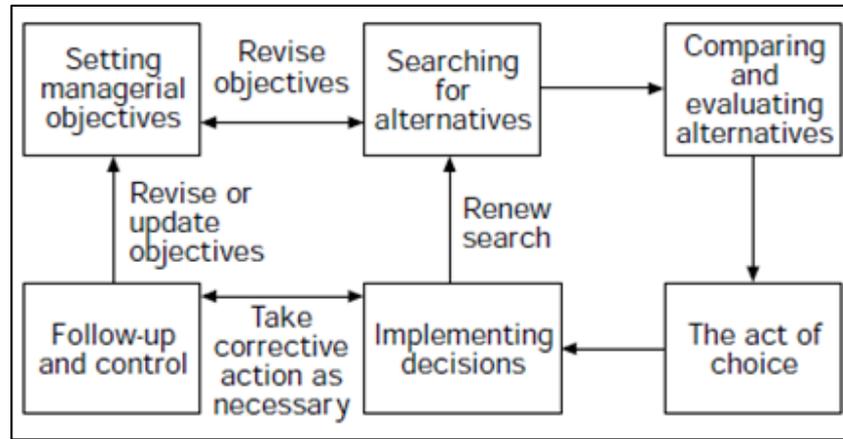


Fig 1: The managerial decision making process.

Comparing and evaluating alternatives. By formal and informal means, alternatives are compared based on the perceived relative uncertainty of cause-and-effect relationships and the preferences of the decision maker for various probabilistic outcomes, the act of choice. Choice is a moment when, in the ongoing process of decision making, the decision maker chooses a given course of action from among a set of alternatives, implementing the decision. Implementation is that point in the total decision-making process when the decision is transformed from an abstraction into an operational reality and Follow-up and control. This function is intended to ensure that the implemented decision has an outcome coincident with the objectives that gave rise to its occurrence.

Following are five criteria for use in identifying and making a strategic decision

1. The decision must be directed towards defining the organization's relationship to its environment.
2. The decision must take the organization as a whole as the unit of analysis.
3. The decision must encompass all of the major functions performed in the organization.
4. The decision must provide constrained guidance for all of the administrative and operational activities of the organization.
5. The decision must be critically important to the long-term success of the total organization (Shirley, 1982) ^[37].

Who should make decisions?

Peters and Waterman found that the best companies are usually run by a specialist from the core of the business rather than a generalist, possibly because they are better trusted by subordinates, but also because they have intimate knowledge of and "love the product" (Peters and Waterman, 1982) ^[28]. McAleer *et al.* state that "specialists are quick to point out resource problems but slow to become involved in the design or redesign of the whole system" (McAleer, 1995) ^[23]. Hill-Smith has shown that service developments which were traditionally initiated and funded centrally have long lead-in times and excessive bureaucracy (Hill-Smith, 1996) ^[16]. However, Peters and Waterman's work would suggest that clinicians with appropriate management skills would be expected to be more successful than generalist managers. So far, decisions have been discussed as individual actions, but complex decisions are increasingly taken by groups. There is a tendency to believe that the

group will make a "better" decision. This may be a question of greater organizational legitimacy. A group will probably generate more alternatives, particularly if creativity is sought. Individuals will bring to the group different knowledge, skills and perspectives, which should be complementary. It has been shown repeatedly that real or potential participation in decision making gives a greater feeling of control and increases morale, job satisfaction and organizational commitment. Giving employees more power was shown to increase productivity in the Hawthorne experiments (Jennings and Ewalt, 1998) ^[18] and Coch and French have shown that it helps overcome resistance to change (Coch, 1948; Coghlan, 2019) ^[6, 7]. Groups also exert pressure on dissenting individuals to adjust their opinions and conform to the group norm, which is likely to be close to organizational policy (Asch, 1951) ^[1]. If the decision does differ from policy, credibility will increase because it was made by a group.

The disadvantages of group decision making include a temporal delay in information exchange and solution choice, communication problems, breaches of confidentiality and a dissemination of personal accountability. Groups may become static and not make any decisions, or develop "groupthink" which will not generate any true options and will rationalize failure or indecision as acceptable. Group size, status, goals, relationships and communications all influence effectiveness. Group cohesion is useful but some conflict will produce a wider range of alternatives. Belbin has identified certain traits which are important to an effective group (Austin *et al.*, 1981; McIntyre *et al.* 2017) ^[2, 25]. Which if present will make the group a "team". This has led to the concept of the "project management team". An effective group tends to be informal, with pertinent discussion including all members. The chairman is non-dominant and no one is made to look foolish; everyone is listened to and criticism is impersonal. The task is well understood and the team is committed to solving it. Decisions are reached by approaching a consensus with actions assigned and accepted (McGregor, 1960) ^[24].

Rationality

Leibniz, Spinoza and Descartes are credited as being "the three great Rationalist philosophers" (Morgan *et al.*, 2009) ^[27]. The rationalists "hold reason to be a faculty that can access truths beyond the reach of sense perception, both in certainty and generality" (Remenyi and Money, 2006) ^[33]. Aristotle in his Nicomachean Ethics views rationality as "minded or deliberative action" (Prus, 2007) ^[33]. Aristotle

“views rational agency as in need of assistance in order to develop, and as developing more or less well depending on the character of the circumstances and efforts made” (Curren *et al.*, 2006) [8]. These conditions are thought to be dependent on equality in citizenship and material circumstances (Curren *et al.*, 2006) [8]. Kant reasons “that rational nature is an end in itself; that it is the only thing which is unconditionally valuable; and that it is the ultimate condition of all value” (Regan, 2002) [32]. Albert Schweitzer studied Chinese philosophy believing their ethical philosophy “might help the West regain [their] rationality that had been lost because of irrational trends in Western thought” (Morgan *et al.*, 2009) [27]. Amartya Sen defines rationality “as the discipline of subjecting one’s choices – of actions as well as objectives, values and priorities – to reasoned scrutiny the need to subject one’s choices to the demands of reason” (Morgan *et al.*, 2009) [27]. Sen notes that the “most direct use of rationality [is] to think and act wisely and judiciously, rather than stupidly and impulsively” (Morgan *et al.*, 2009) [27]. Different disciplines view rationality differently. “Rational choice is championed by a wide range of disciplines, because of its ability as a theory to tie together so many of the social sciences within one rubric” (Lazo *et al.*, 2015) [22]. Gramajo (2008) [15] defines “rationality as the relationship between means that humans use to reach certain ends, ends which themselves become means to reach other ends. Weber: distinguishes between substantive and formal rationality; substantive rationality designates material behavior shaped by political, religious or ethical standards; formal rationality refers to action based on calculation and means-to-ends reasoning (Gramajo, 2008; Fforde, 2018) [15, 13]. It has been defined rational action: as action of an “outcome-oriented” kind in which certain requirements are met regarding the nature of, and the relations among: actors’ goals, their beliefs relevant to the pursuit of these goals, and the course of action which, in given circumstances, they then follow. Rational behavior has been expressed and manifested in various terms. Narrow rationality (homo economics) tries to maximize general happiness. Daniel Bernoulli, in 1738, called this utility (Bell and Farquhar, 1986; Kangas *et al.*, 2015) [3, 21]. John Stuart Mill, a nineteenth century philosopher, concurred with Bernoulli, and believed that given a choice, the rational choose the highest expected utility consistently (Morgan *et al.*, 2009) [27]. A broader definition of rationality includes the notion of a person’s beliefs being based on logical, objective analysis of all the available evidence. Whether this is a meaningful definition continues to be the subject of much philosophical debate (Morgan *et al.*, 2009) [27]. Walsh (1994) [38] defines instrumental rationality as “internal consistency of choice and the maximization of self-interest.” As cited in Boudon (2003) [4] that “the very concept of rational action is a conception of action that is ‘understandable,’ action that we need ask no more questions about.” He further quotes that: cognitive rationality is concerned with achieving true beliefs. Evaluative rationality is concerned with making correct evaluation. Practical rationality is concerned with the effective pursuit of appropriate objectives (Boudon, 2003) [4].

The Rational Decision-making Model

A rational decision-making process is often suggested as the way in which decisions should be made, and it involves the following strictly defined sequential process.

This process is underlain by certain assumptions and characteristics, which, as will be argued, are highly unrealistic in practice. Some of the *assumptions* are that:

1. Decision makers have a *clear* and *unambiguous* understanding of the nature of the problem and of their objectives in relation to this problem.
2. A comprehensive search for alternative courses of action and their consequences with respect to this problem is feasible and is carried out.
3. Each alternative is objectively evaluated with respect to its chances of achieving the desired objectives, and the alternative most likely to achieve these objectives is selected and then implemented.
4. Monitoring of consequences is continually and objectively carried out to determine success of chosen course of action with respect to objectives.
5. The rational decision-making model makes no reference to the filtering and constraining influences of the organizational paradigm on the decision process as a whole.
6. The model also ignores the significant effects of political behavior on this process.

Making “Good Enough” Decisions

The bounded rationality model of decision making recognizes the limitations of our decision-making processes. According to this model, individuals knowingly limit their options to a manageable set and choose the first acceptable alternative without conducting an exhaustive search for alternatives. An important part of the bounded rationality approach is the tendency to *satisfice* (a term coined by Herbert Simon from *satisfy* and *suffice*), which refers to accepting the first alternative that meets your minimum criteria. For example, many college graduates do not conduct a national or international search for potential job openings. Instead, they focus their search on a limited geographic area, and they tend to accept the first offer in their chosen area, even if it may not be the ideal job situation. Satisficing is similar to rational decision making. The main difference is that rather than choosing the best option and maximizing the potential outcome, the decision maker saves cognitive time and effort by accepting the first alternative that meets the minimum threshold.

Bounded rationality: already in 1950s some psychologists challenge the concept of unbounded rationality. American psychologist and economist Herbert Simon in his papers published in 1955 and 1956 introduced the concept of bounded *rationality* (Checkland, 1991) [5]. He believed that people are not necessary irrational, but they show bounded rationality. Namely our world is too complex to be understood in its totality, and therefore people form its simplified model, and behave according to it, using heuristics as a kind of mental shortcuts.

Proposed Research Model

Based on the literature review and research hypothesis, this present study has developed a theoretical framework that is presented in Figure 1. The model is descriptive in nature and focuses on the factor that effect on the rational decision making. Also it looks at the impact of the strategic decision-making processes on quality of the decision-making process output.

Four guiding assumptions derived from literature serve as the theoretical basis for the model.

1. Clear and Unambiguous Understanding of the Nature of the Problem and of Objectives in Relation to This Problem.
2. Comprehensive Search Alternative and information need for specific goal.
3. The decision maker would be objective and logical.

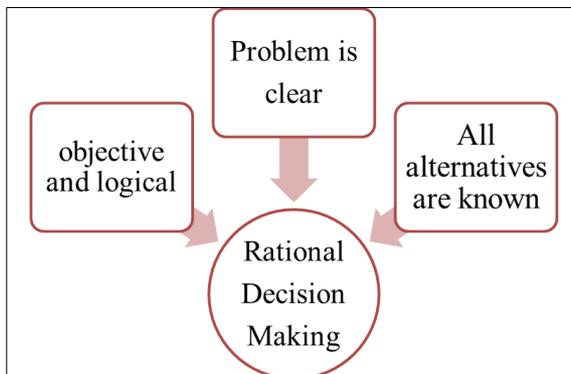


Fig 1: Research model

Rationality of the strategic decision-making process was selected because:

- It is more frequently cited in literature.
- It has clearly played central roles in organization decision-making, and
- It is distinct and is related to the most important and popular models.

Also all organization and individuals need to make the rational decisions, because it's the way to success and to achieve the goals.

Hypothesis development

The literature (e.g. Rajagopalan *et al.*, 1993; Dean and Sharfman, 1993; Joshi *et al.*, 2018) indicated that the nature of the decision to be made will influence the nature of the process to be used.

Assumption 1: Clear and unambiguous understanding of the nature of the problem.

The extent that a manager will be more clear and unambiguous understanding of the nature of the problem in decision making process (independent variable), the decision making will be more and more rational (dependent). The study of problem solving is grounded in the intended rationality of problem solvers, as is the study of judgment (Schoenfeld, 2014) [36]. Problems were not givens; they had to be defined (Rochefort & Cobb 1994) [34]. Solutions did not automatically follow problems; sometimes actors had set solutions ready to apply to problems that could occur (Jones & Bachelor 1993) [19]. Based on these discussions H1 was developed:

H1: There is a positive relationship between Clear and Unambiguous Understanding of the Nature of the Problem and the rational decision making.

Assumption 2: Comprehensive Search for Alternative and information needed for specific goal.

A comprehensive search is also something which is often practically not feasible given for the specific and determine

goals we want to achieve it or for problems facing decision makers in organizations. So the decision maker would select the alternative that maximizes the likelihood achieving the goal by comprehensive search for alternative and information to be rational decision maker.

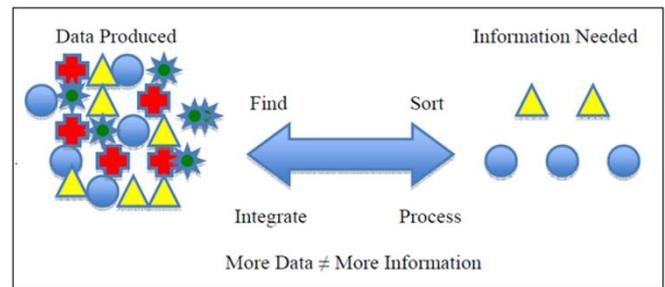


Fig 2: Information needed

The information here more than is needed and the needed one is hard to discover. The decision maker should be rational to be able to master it (Polič, 2009) [29]. Based on these discussions I posit the following hypothesis for testing the impact of Comprehensive Search for Alternative and information needed for specific goal as independent variable on rational decision making as dependent variable so,

H2: There is a positive relationship between the extent of rationality in the decision-making process and the Comprehensive Search for Alternative and information needed for specific goal.

Assumption 3: The decision maker would be objective and logical.

In objective and logical as a dependent variable when the decision manager evaluate, select and implement the alternative with more objective and logical the rational decision making will also be more as independent variable. the "rational" manager who took an "objective" approach to the task so avoiding the "confusion" of facts and values (Rutgers, 1999) [35].

Based on these discussions I posit the following hypothesis for testing the impact of objective and logical on rational decision making so,

H3: There is a positive relationship between the extent of rationality in the decision-making process and the logical and objective.

Conclusion

Decision making as one of the most characteristic human mental activity is shown to us – or better studies and thinking about it are showing this – as a very complex phenomenon. The image of the human decision maker is circling between irrationality and bounded rationality, so the manager should be rational as much as can, because in managerial decision making seldom meets all the tests.

This study indicate that a better quality decision is achieved through a rational process by take the factors that effect on rational decision making in our consideration. Thus, organization should encourage greater use of rationality in the decision-making process.

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