

Research Article

DECISION MODEL IN DEVELOPMENT MANAGEMENT

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ABSTRACT

The purpose is to study the decision model and its role in development management. First management and decision making and its steps are defined and some researchers' ideas and the difference between reasonable and initiative decision makings are provided and then founders of development management are named. Reasonable decision making is discussed and it is emphasized that scientific decision making includes but not limited to observing futurism, having right doctrine and experiences- and scientific knowledge-based decision making which is consistent with people traditions and cultures as well as skills and techniques governing on organization and its goals. The decision model allows efficient decision making to be made at appropriate level of management.

Keywords: *Decision Making, Development Management, Scientific Knowledge*

INTRODUCTION

Theoreticians and practitioners of management suggested different definitions for it with different purposes and directions. Most of the definitions are purely theoretical.

In other words they are encyclopedic. Of them, one is relatively complete and precise which seems to be most related to our discussion, decision making; because it both has scientific and applied criteria of management and is new and considered by the majority of reputable scientists.

The definition is "management is a regular and organized activity to reach specific goals realized by establishment of relations among available resources, doing works cooperating with other people and active participation in decision making" (Alagheband, 1992).

Statement of the Problem

Decision making is a specific process including selection of a way among two or more available ways. Decision means conscious selection that allows one to examine a particular behavior and thoughts of a collection based on given conditions and then consider a reasonable option and implement it (Rezayian, Tehran, 1991).

Herbert Simon, a leading management thinker, considers decision making equal to management. According to Professor Shockley, decision making is the combination of knowledge, thinking, feeling and imagination such that the result is implementable.

➤ There are two main roles for managers in organizations:

The role of information and the role of decision

a. The role of information:

By interacting with subordinates, customers, suppliers and other managers, managers play neurological centers in their respective organizations.

b. The role of decision:

Data collection is not effective per se, but the information is a basic data for decision-making. Due to the information they have, managers can make decisions determining the organization strategy (Abasszadegan, 1998). Figure 1

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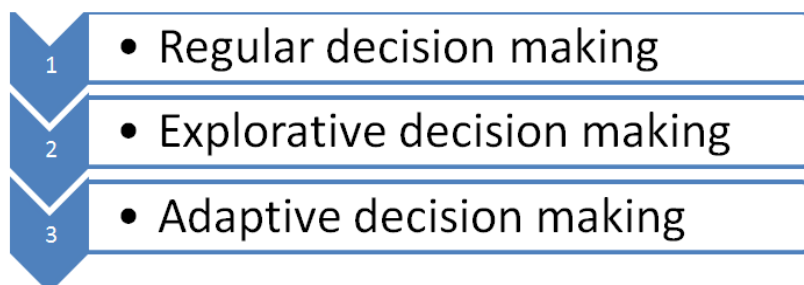


Figure 2: The role of decision

The Difference between Reasonable Decision Making and Initiative Decision Making

A reasonable decision maker first identifies problems precisely; he has a clear purpose. An initiative decision maker is able to recognize all criteria and record favorable options. A reasonable decision maker selects options with maximum economic efficiency. Figure 3

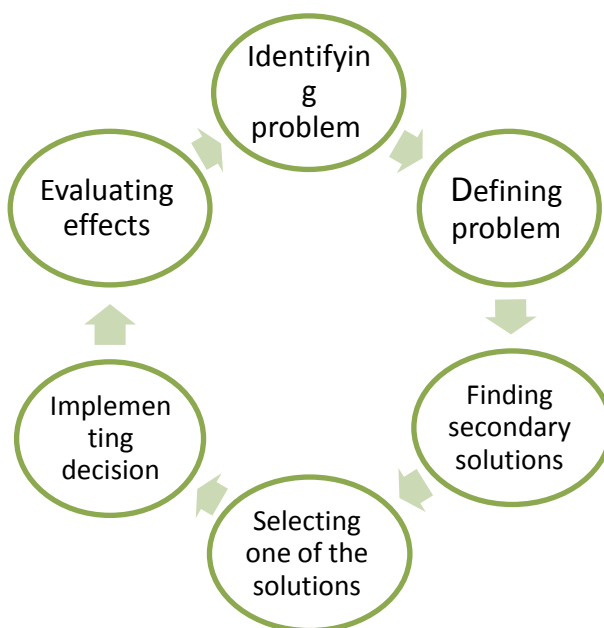


Figure 4: Steps of Decision Making

Decision Making Model in Scientific Development Management

Decision making forms one of the most important tasks of management. Knowing decision theory enables managers to develop and improve their decision skills.

According to Gregg, decision making occurs at the center of management process. MacCamy also pointed that making a decision forms one of management principles and other features of management process are intertwined with and based on decisions.

Simon considers decision making to be synonymous with administration. Before him Barnard wrote that decision is the necessary process of adaptation in an organization in which physical, biological, personal and social factors required for providing a special combination for voluntary action are selected. So decision making influences on overall process of management because it not only involves decision but also affects on overall strategy of an organization.

Decision making is a reaction one shows when encountering a problem. It is a situation or process during which a specific action is selected for solving a problem. In systemic analysis, decision making involves the following:

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1. Identifying the problem nature
2. Recognizing possible solutions
3. Analyzing individual solutions and comparing them
4. Selecting a solution among available ones
5. Implementing or employing selected solution
6. Determining efficiency effectiveness

Generally a problem comes up when the status quo is different from the ideal or anticipated situation. Factors such as understanding and recognizing goals, plans, acceptable functional standards as well as personal values in intellectual fields and past experiences can help managers to identify the problem and situation in which he is located.

Decisions may be usual or programmed and unusual or non-programmed. Programmed decisions are routine and repetitive tasks which can be announced to the organization as goals, standards, policies, procedures, methods and rules (oral or written regulations). However, solving new, unexpected and unusual problems demands unusual decisions which are usually made at the highest level of an organization.

Since decisions are related to the future, managers should be able to analyze future conditions and situations and consider whether it is certainty, risk (risky) or uncertainty (proconvulsant). It means that in certainty conditions decision maker is aware of what will happen in the future. In this case future is predictable to a great extent. Risk condition is less predictable. There is no complete information but decision maker knows possible outcomes. In other words, one can estimate success probability of decisions. In uncertainty condition, however, there is no information about what will happen and decision maker is unaware of probabilities and even possible outcomes.

One of important decision models in today management is rational model (reasonable). The model is based on the assumption that managers can take four successive steps to examine situations and conditions, evaluate individual solutions, select the best solution and finally implement a method assuring their success.

In this model, a decision maker is turned out to be an electronic system or very advanced calculator. In fact, there is time and information constraint for managers to select a solution that is satisfactory (limited logic). They make decisions considering experiences and practical methods and are influenced by their biases. They impose their personal views and judge unilaterally.

However, if managers can identify obstacles on decision making, they can improve decision making and problem solving processes. To this end, they should be able to use reasonable model-based decision making and problem solving process more easily, determine priorities and consider personal biases and views. On the other hand, successful managers try to involve others in decision making process and its responsibilities (if objective quality of decisions and improved spirit of organization members is more than costs used by managers in terms of time or money and decisions should be accepted by others). However, it is an important fact that it is the managers who have the ultimate responsibility of decisions and their implementations.

Effective Decision-Making

As we have indicated, to aid in decision making, at any stage of development and delivery, status is reported by the set of indicators describing it. The lower indicators rollup to support the next higher level of indicators for decision making. Decisions at any phase are based on deliverables' status at the end of the phase. This allows for the next phase's activities to be initiated. Information gathering during the process is readily available so that decisions makers can apply different decision schemes based on situations and functions.

As a general rule, every organization unit and every level of management are involved in the decision-making process, each in its own scope of responsibility, level of authority and roles (primary or supporting). A decision scheme using the indicators that involves three core tasks as described by Rouse (Hopple, 1986) can be readily applicable: (1) situation assessment can be used in conjunction with the set of indicator statuses, (2) planning and commitment and (3) execution and monitoring may be incorporated

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in deliverables reporting. Thus, the model allows other methodologies on decision processes (Hopple, 1986) to be implemented as appropriate.

Uses of Decision Models

- They can solve complex problems.
- They provide analytical framework for evaluating modern business problems
- They are subject to limitations
- They provide techniques applicable in many areas such as:
 - Accounting, Economics, and Finance
 - Logistics, Management, and Marketing
 - Production, Operations, and Transportation

They can be applied when:

- designing and implementing new operations or procedures
- evaluating an ongoing set of operations or procedures
- determining and recommending corrective action for operations and procedures that are producing unsatisfactory results

Limitations of Evaluation Models for Decision-Making

An additional reason to pay more attention to stakeholders comes from Holton and Naquin's (2005) critical analysis of evaluation models. They argue that one of the reasons that evaluation models are not widely used is that most are derived from a rational-economic framework and that rational-economic models do not work in practice for making decisions. They set bounded rationality models in contrast, which have as "a foundational assumption that decision makers have neither the time nor resources to conduct complex ROI-type evaluations" and "individuals use limited pieces of information to find a satisfactory resolution rather than an optimal decision" (265). Also favoured by Holton and Naquin are naturalistic evaluation models, involving collaborative, participatory and learning-oriented approaches, which, through the close involvement of organisational stakeholders, are most likely to result in a decision-making process which is natural for the organisation and leads to change. Evaluations which most closely resemble the idealised type for decision-making as described by Holton and Naquin (2005) are those which involved multiple stakeholder groups in their design and delivery through various action inquiry, participative inquiry or action research approaches, of which there were several in this review.

Founders of Scientific Development Management and Development Management

Having scientists in management western countries claim to be the founders of contemporary educational and academic management. In his well known book, "An Inquiry into the Nature and Cause of the Wealth of Nations", Adam Smith raised work expertise principle. In the early twentieth century Max Weber introduced the criteria related to rule (no relation), discipline, equity, rule of law, logic and stability in an organization in his book "The theory of Social Economic Organization".

In the late nineteenth century in France Henry Fayol in his book "Industrial Management and general" introduced 14 principles in Management including: Division of work, authority and responsibility, discipline, unity, guidance, command chain, order, equity, job and employment stability, initiative, unity of command (command) and group spirit.

In 1911, Taylor published a book "The principles of scientific management" and stated the following principles:

1. Scientific method of production
2. Scientific method of selecting people
3. Cooperation between supervisors and employees regarding segregation of duties assigned to planning and execution
4. Determination of work unit
5. Payment for work performed based on the number of units
6. Considering the time and performing work units

Kurt Lewin addressed the principle of the effectiveness of collaborative partnerships to bring about change. Mayo et al., proposed a principle that feelings created in employees by managers' attention can

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increase production considerably. Bales and Mc Gregor considered the importance of formal and informal leadership role and inherency and eternality of human desire or hate toward work.

Trist and Bamforth (1951), addressed the principle of technical skill of managers and group work skill. Siomon and Marech (1958 and 1975) studied the principle of reasonable organization and reasonable behavior of employees in an organization.

Katz and Kahn introduced an organization principle as open system, and finally Burns and Stalker (1961) looked at the mechanical and organic principle of an organization.

Thus we see that many scientists and scholars have been able to capture numerous phenomena, principles, concepts and theories resulted from their experiences in management. However, each idea has its own limitations in today management.

In total, these theories don't go beyond human (staff), structure (organization) and their relationship with the environment. So a right and logical decision making can overcome obstacles and provide an appropriate solution for organization.

CONCLUSIONS

It can be concluded that there are always uncontrollable variables in scientific development management. In development management there is logical and rational thinking for decisions but the manager should make a right and logical decision in order to direct uncontrollable variables into correct path; this scientific and reasonable decision includes the following:

1. Observation of futurism
2. Have an appropriate doctrine
3. Resulted from scientific experiences and knowledge
4. Originated from people traditions and cultures
5. Consistent with skills and techniques governing on what happens in the organization
6. Observing human factors and relations
7. Consistent with organizational goals

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