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Research paper

Behavioral Biases in Managerial Decision-Making: Implications for Cost Control and Budgeting

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Abstract

The term "decision" has been derived from the Latin word "decidere': to cut off. A decision is a settlement, a fixed resolve ending result, a judgment, and a resolution. Decision-making has been defined as the selection of a course of action out of alternatives; it is at the very core of planning. Managers sometimes consider decision-making their core job since they must constantly decide what is to be done, by whom, when, where, and sometimes even how it is to be done. Decision-making is a Human Mental Process. Rationality is injected through the human brain, which has the capacity of learning, think, and relate intricate facts and variables while deciding. Decision making is rational in the sense, the manager decides by choosing and judging the alternatives to attain desired goals by choosing the most desired one. Individuals acting or deciding rationally are trying to attain some goal that cannot be reached without action. In most cases, not all alternatives can be examined, even with the most advanced available techniques of analysis and computers. A decision is an option between numerous alternatives, and a decision maker is the person making such an option. Although decisions can be arrived at instantly, more often the process of identification, analysis, assessment, choice, and planning is the process in decision-making. Strategy, as a word, is associated with Military science. A policy u when a specific meaning is given under a dominating situation, and in consideration of the enemy or competition policy, becomes a strategy.

Keywords: *Behavioral Biases; Managerial Decision Making; Cost Control; Budgeting; Decision Maker.*

1. Introduction

The human society is undergoing a shift from the age of industry to the age of information, where every aspect of society, such as business, education, health, government, etc., remains in a fight for information all the time. It is very clear that in the complex society of today, no worthwhile development is possible without good and authentic information. The socio-economic, political, and technological progress of a country largely depends on the availability and accessibility of information. Information is also seen as a key input for the development and creation of an industry. It is one of the influential industrial development sources of any country because it is extremely necessary for the daily activities of an industry. Industries are the pillar of a nation's economic structure. Industrial corporations today have become a significant aspect of the economy and are evolving every day to meet the reform and pace of intensifying global competition (Romanazzi, 2024). Proper management of industries involves planning, directing, controlling, decision-making, and forecasting for effective operations. Sufficient information is needed for their setup, operations, repeated supply of raw materials, manufacturing, marketing of products, and diversification of the industries. Ranging from small-scale industries to large multinational corporations, managers are in search of correct information in an appropriate form made available at the proper time to make critical decisions. Along with the raw material of capital and labor, increasingly, information is needed for industries, and it must be planned, guarded, stored, and regulated like other valuable resources. Information is needed for organizations to fulfill a variety of purposes, from the most essential, such as decision making, strategizing, and planning, to the control of operations(Ramona & Danica, 2023; Jalali&Shaemi, 2015). Organizations require socio-economic information, information on ongoing plans and projects, financial information, marketing information, information on technologies, equipment, management practices, industrial and technological research ongoing, and legislation, etc. Conceptual Diagram of Managerial Decision Making, Structured as a Central Concept Surrounded by Five Key Aspects, shown in Fig. 1.

Fig. 1: Conceptual Diagram of Managerial Decision Making, Structured as Asa Central Concept Surrounded by Five Key Aspects

Details of the external and internal organization are a key determinant for any business decision in any sector (Baker & English, 2011). Internally, professionals and managers working within a firm require information so that they can do the functions properly and for tracking the strategy threats and externally, it is necessary. Any business organization, thus, must inform its employees so that they can update themselves on the recent happenings in their specialization field. This will make them more effective and improve the productivity of the organization, and is necessary to cope with the dynamic and intricate business environment. Without proper and prompt information, people and organizations are likely to make incorrect decisions. Organizations must implement efficient information management processes at all phases of their operations. Management is the art of creating and sustaining an environment in which individuals, in groups working together, effectively achieve specific goals. It is a unique process that includes the functions of planning, organizing, actuating, controlling, and decision making. It structures men, materials, technology, money, and other resources in the business functions of Marketing, Production, Sales, Research & Development, Human Resource, Finance, and Operations, etc., through the different levels of management executed to define and achieve the mentioned goals (Biondi &Marzo, 2011; Nejad&Fard, 2019). It is the force that brings together human as well as non-human resources to attain the organizational objectives. Decision-making is a part of management that runs through all the managerial functions and in all fields of business. It is the process whereby individuals choose a course of action among several alternatives to yield a desired outcome. In each management function, a decision must be made between different alternatives of action.

1.1 Objectives

- To identify demographic and firm-specific factors influencing behavioral biases (Sumithra& Sakshi, 2024).
- To develop strategies for mitigating behavioral biases in managerial decision-making

1.2 Research Question

- What types of behavioral biases are most prevalent in managerial decision-making related to cost control and budgeting?
- How do behavioral biases affect the accuracy and effectiveness of cost control and budgeting decisions?
- What demographic and firm-specific factors contribute to the development of behavioral biases in managers?

2. Literature Review

Decision-making is a process of carrying out several steps taken in a sequential way. It is dealt as a rational or scientific 'process of decision-making' which is a time-consuming and long procedure or steps being logically ordered, which has to be adopted to make rational or outcome-focused decisions. It was Peter Drucker who initially strongly recommended the scientific method of rational decision-making in 1955, which, in his opinion, Translation of the Decision into Action: is the fifth key component of the decision-making stages, which is the most time-consuming and difficult stage. Once the best decision is selected, the next step is to translate the chosen decision into a successful action. Then the manager needs to take follow-up actions for implementing the decision made. Ensuring Feedback for Follow-up: The final step in the decision-making process is ensuring feedback(Davydenko et al., 2023). Here, the manager must make provision to ensure feedback to continuously test actual developments against the expectations. It is required to determine whether the decision already made should be maintained or changed in the light of altered conditions.

Recent studies (Davydenko et al., 2023; Nobre et al., 2022) emphasize the role of training interventions, nudges, and decision aids in mitigating behavioral biases in budget planning and financial forecasting. Integrating behavioral economics into managerial training has shown promise in reducing cognitive distortions, such as confirmation bias or loss aversion, which can lead to flawed capital allocation or cost estimation errors. Organizations can employ structured de-biasing strategies such as red-team reviews, feedback loops, and post-decision audits to improve cost discipline. The present study highlights the necessity of embedding these strategies within budgeting processes to safeguard organizational financial performance. Decision-making is a fundamental aspect of contemporary management. Decisions assist in converting management plans, policies, and objectives into tangible actions. The management needs to make a sequence of decisions from time to time(Vishnuprasath&Kumudha, 2016; Davidians &Gelard, 2017; Lotfy&Vatankhah, 2014). Decisions have been categorized by management experts on various bases. Herbert Simon has provided the categorization of programmed and nonprogrammed decisions (Zahera& Bansal, 2018).Diagram Related to “Controlling Budget Costs shown in Fig. 2.

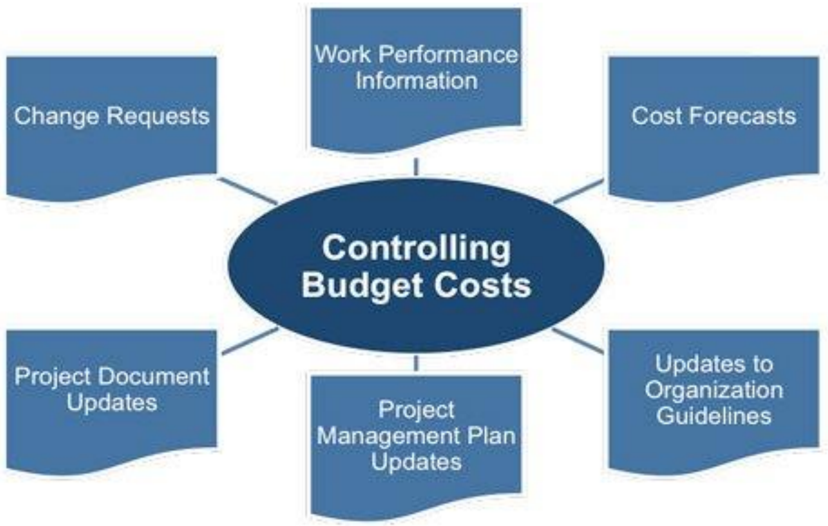

Fig. 2: Diagram Related to “Controlling Budget Costs

The following are the significant categories of decisions(Liu et al., 2010). Routine and Strategic decisions: Strategic and tactical decisions are taken regularly based on some specific rules, procedures, and policy(Meurs et al., 2022). They are not required by the manager by special effort. The managers operating at the lower and middle levels of management mostly make such decisions. Basic or strategic decisions, however, are more significant and therefore are made generally by the top and middle management. Policy and Operating decisions: Policy decisions are of crucial significance, which are made by the top management. These decisions have a bearing on the whole enterprise. But Operating decisions are made by sub-management so that the policy decisions may be implemented (Langer, 2016).

Budget variance analysis is a critical financial control tool that helps organizations monitor deviations between budgeted and actual figures, especially in areas like overheads, procurement, and departmental spending. By linking behavioral biases to budgeting decisions, this study incorporates budget variance tracking to assess how optimistic or anchoring bias may lead to consistent underestimation or overestimation of costs (Romanazzi, 2024). Managerial tendencies such as escalation of commitment or overconfidence were found to distort initial budgeting assumptions, resulting in variance anomalies. These insights were supported using one-sample t-tests, showing statistically significant deviations in decision quality under biased conditions. Integrating budget variance analysis reinforces the study’s contribution to cost control mechanisms and financial accountability frameworks.

Information is needed for various functional areas and levels of management for decision-making. However, the information types differ based on the role of a specific area and level of management. Managers who belong to core functional areas of Finance, Marketing, Human Resource Management, Operations, etc., have distinctive information requirements. Financial managers are concerned with the acquisition and utilization of money and need information on the flow and utilization of funds within the organization, the availability of funds, and investment opportunities. Marketing managers need information regarding consumers' needs and wants, product attributes, and other characteristics of the marketplace. Operations managers need information that assists in organizing, directing, and controlling an organization’s physical operations. They collect data about the product, process, service, planning and design, capacity planning, scheduling, and stock control. Human resource managers require information that facilitates the design and application of human resource planning, staffing, training and development, performance appraisal, remuneration, and labor-management relations. Administrators at each level of an organization need great quantities and various types of information to perform efficiently. Top-level managers are accountable for the general direction of an organization and consequently have a special requirement for strategic information that supports developing strategies, policies, long-term plans, and objectives. Middle managers would require more need for information in executing these long-range plans, developing tactical and operating plans and objectives, and additionally need tactical information to improve employee performance and customer service. Lower-level managers need operational information to enable them to make short-term decisions that assist them in ensuring the successful operation of the day-to-day activities of the organization.

3. Methodology

The level of management indicates the position of the manager in an organization based on authority. Hence, based on authority and responsibility, management can be classified into three types. Top-level management is the first level of management. Top management is the managers who operate at the organizational hierarchy level, which is at the topmost level, and they form the minimum number of managers. Top managers formulate the organizational objectives, overall policy, and take long-range strategic choices. The middle level of administration is referred to as Middle-level management, which is responsible to top management and includes the department heads of their specialist units. Middle managers pass down the communication of decisions formulated by top levels to lower levels, and they look after the functions of lower levels. The third and last level of management is referred to as Lower-level management or first-line managers/supervisors. The lower managers oversee the activities of workers, and the greatest number of managers fall in the lower level(Lawyer, 2014).

Research design: Methodologically, the study comes under cum explanatory framework. The study is descriptive in nature as it attempts to describe the distribution of managers across various functional areas with differential levels of information need and usage of information for managerial decision making. The presence of needed information from organizational (internal) and external information sources for managerial decision making was also explained. The study goes on to inquire about the adequacy and level of satisfaction regarding the information accessible through multiple sources for managerial decision-making and is therefore explanatory.

Sampling design: The sampling design is the technique of choosing the items to be observed, and it gives the plan and methodology for choosing the sample.
The sampling technique employed was stratified random sampling across three hierarchical levels of management (top, middle, and lower) and four functional departments (Finance, Operations, HR, and Marketing). A structured questionnaire consisting of both closed-ended Likert-scale items and a few open-ended probes was administered to a sample of 150 managerial professionals across private sector enterprises in India. The survey instrument was pre-tested with a pilot group (n=10) to ensure clarity and internal consistency. Cronbach's alpha for internal reliability was 0.82, indicating high consistency. The survey captured behavioral bias indicators (e.g., overconfidence, anchoring, loss aversion) and their perceived impact on budgeting accuracy and cost control effectiveness.

4. Discussion

Decision-making is needed in all areas of management functions and all managerial activities, like planning, organizing, directing, and controlling. In planning, the policies and objectives are established through the decision-making process. In organizing, decision-making applies to the selection of structure, nature, and form of organization, division of labor, and delegation of responsibility and authority. In direction, decision making is associated with deciding the action to be taken, what orders and instructions to be issued, providing direction, etc. Control over the decisions is associated with setting performance standards, strategic control points, control procedures, etc. All level managers and officials make decisions that finally help in the survival of the organization (Nobre et al., 2022). One-Sample Test shown in Table 1.

Table 1: One-Sample Test

	Test Value = 3					
	t	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
What is the impact of behavioral biases on managerial decision-making, particularly about cost control and budgeting processes?	8.400	49	.000	4.9450000	3.762045	6.127955

Budget divides the company into its elements or centers, where the accountable entity sets up and regulates action.

5. Conclusion

A system of information that assists various levels of management to make more effective decisions by furnishing the requisite information is referred to as Management Information Systems. MIS is an official way of determining the needs for decisions and making available to management the right and timely information to enable the decision-making process and allow the organization's planning, control, and operating functions to be executed efficiently and effectively. Gordon B. Davis has defined MIS as "MIS is an integrated user-machine system for providing information to support operations, management, and decision making in an organization.". The system makes use of computer hardware and software, manual procedures, analysis models, planning, control, and decision making, and a database. The system identifies, collects, stores, processes, structures, and retrieves information regarding the past, present, and future anticipated events and regarding related events within and outside the organization to aid decision making.
Decision-making is an essential function in all forms of organization, whether it is a service or business venture. The managers are entrusted with making final decisions in a competitive, complex, and dynamic business setting. This subsequently makes decision-making highly complicated. Various types of managers make varying types of decisions, from strategic decisions to operational decisions. Efficient and effective decisions eventually result in the achievement of organizational goals and, hence, subsequently contribute to the economy's success. So, the decisions need to be made with due care.

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