

The Role of Management Information System and Factors Influencing Strategic Decision making Processes in an Organization

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Abstract

Decision making is the hallmark of Management in any business enterprise whether big or small. Management on daily basis is beset with challenge of what to do, how to do, where to do, when to do and for whom to do. Strategic decision making is an ongoing process that involves creating strategies to achieve goals and objectives altering strategies based on observed outcomes through management information system. Management Information System is basically concerned with the process of collecting, processing, storing and transmitting relevant information to support the management operations in an organization. Thus, the success of decision-making, which is the heart of administrative process, is highly dependent partly on available information, and partly on the functions that are the components of the process. In spite of many studies that have been carried out in the area of strategic decision-making especially during the 1990's, we still know little about strategic decision-making process and factors affecting it. This paper builds on previous theoretical and empirical studies to determine the extent to which contextual factors and Management information system impact the strategic decision-making processes.

Introduction

Decision making is the process of selecting the BEST Solution among ALTERNATIVES in order to solve problems. A model for practical, effective, strategic decision making and the importance in getting decisions approved, is to understand the practice of organizations decision making processes and to fit the strategic proposal within that framework. Decision making however, often tends to vary from one decision to another, providing hope for any new proposal, but gloom for those seeking consistent, rational, just and equitable decisions. As it sound, strategic decision making is unique by its nature. (www.pearsoned.com.ac/hubbard)

In ancient Greek, 'Stratos' was the term for the army and so in Military term 'Strategy' referred to the act of the general. So the origins of 'strategy'-comes from the Military arena.

(Alfred Chandler, 1962) define strategy "the determine action of the basic-long term goals and objectives of an enterprise and the adoption of courses of action and the allocation of resources necessary for carrying out these goals"

Porter relates strategy to the success or failure of a Company "obtaining competitive position or series of competitive positions that lead to superior and sustainable financial performance. (Michael E Porter (1991).

Strategy nowadays therefore is big stuff. The top levels of the Organizations are generally involved in preparing plans for the future –for finance, and growth by acquisitions, innovation in products, developing new markets and increasing internal efficiency. Therefore, because of recent technological and social changes and competition from rival organizations, there is a need in modern times for strategies to achieve agreed goals and objectives, giving a sense of purpose and direction to the organization. (Neil Ritson. Strategic Management bookboon.com)

The quality of a company's decision making helps it gain an advantage over competitors. Business decision must reflect an organization's aims, its purpose, such as to maximize returns for its shareholders. They also relate to its objectives, its goal, such as to be the market

leaders in its field. To achieve its aims and objectives, a business puts in place strategies. This approach applies regardless of the size of the organization

Management information system is a flow of procedures for data processing based on the computer, and integrated with other procedures in order to provide information on a timely and effective manner to support decision making and other management functions. The use of management information systems for more effective decision is a key factor for the production of new products and services, to collect information on activities, products produced, productivity, hiring new employees, tracking stock and setting target of performance. The goals and objectives of the Management Information system are the products of business goals and objectives. It helps indirectly to pull the entire organization in one direction towards the corporate goals and objectives by providing the relevant information to the organization.

Literature review

Strategic decision-making

Initially, strategic decision making was of most use to large corporations operating in multiple industries. Increasing risks of error, costly, and even economic ruin are causing today's professional managers in all organizations to take strategic management decision making seriously in order to keep their companies competitive in an increasingly volatile environment. The first step in the evolution of strategic management was taken in the late 1950's, when firms developed a systematic approach to deciding where and how the firm will do its future business (Ansoff, 1984). Strategic management is a set of managerial decisions and actions that determines the long run performance of a corporation. It includes environmental scanning (both external and internal), strategy formulation (strategic or long-range planning), strategy implementation, and evaluation and control. So a strategy is a pattern in the organization's important decisions and actions, and consists of a few key areas or things by which the firm is distinguished from others (Digman, 1986). To Drucker, strategy is a purposeful action while to Mintzberg it is a **plan**, a **ploy**, a **pattern**, a **position**, and a **perspective** (five **Ps**). Strategic management is defined as the set of decisions and actions resulting in the formulation and implementation of strategies designed to achieve the objectives of an organization (Pearce II & Robinson,).

Realizing that even the best strategic plans are worthless without the input and commitment of lower-level managers, top management forms planning groups of managers and key employees at many levels, from various departments and workgroups. They develop and integrate a series of strategic plans aimed at achieving the company's primary objectives. Strategic plans at this point detail the implementation, evaluation, and control issues. Rather than attempting to perfectly forecast the future, the plans emphasize probable scenarios and contingency strategies. The sophisticated annual five-year strategic plan is replaced with strategic thinking at all levels of the organization throughout the year. Strategic information, previously available only centrally to top management, is available via local area networks and intranets to people throughout the organization. Instead of a large centralized planning staff, internal and external planning consultants are available to help guide group strategy discussions. Although top management may still initiate the strategic planning process, the resulting strategies may come from anywhere in the organization. Planning is typically interactive across levels and is no longer top down. People at all levels are now involved in the process.

SWOT analysis

A SWOT analysis is a common strategic planning tool that managers can use to examine internal and external factors that may influence the ability to achieve goals. A SWOT analysis involves creating a list of a business's strengths and weaknesses and the external threats and opportunities it faces. Identifying strengths, weaknesses, opportunities and threats can help

managers create strategies to exploit strengths or minimize weaknesses to take advantage of opportunity and avoid threats.

Cost-benefit analysis

(Gregory Hamel) opined that a cost-benefit analysis is a strategic decision making tool that can help managers choose between two or more different courses of action. In a cost-benefit analysis, managers estimate the amount of revenue they expect a certain project to generate and the related expected costs of pursuing the project. By estimating the costs and benefits associated with several different projects, managers can determine which project is expected to produce the greatest benefit.

Outside advice

While entrepreneurs and small business owners may be experts in their chosen industry, they are often not experts in actually managing businesses, (entrepreneurial myth). Business owners often seek outside help to aide in the strategic decision making process. The U.S. Small Business Administration says that mentors can be a vital source of advice for small business owners. Some businesses hire professional consultants to help them make strategic decisions. (Gregory Hamel, studio)

It is always a good habit to see what practices other companies are using to execute successful strategic decisions. Strategic decision making and planning is ultimately about resource allocation and would not be relevant if resources were unlimited. Financial goals and financial performance can play a more central role in the strategic planning and decision-making process, particularly in the implementation stage.

Benefits of strategic management

Strategic management emphasizes long-term performance. Many companies can manage short-term bursts of high performance, but only a few can sustain it over a longer period of time. For example, of the original *Forbes 100* companies listed in 1917, only 13 have survived to the present day. To be successful in the long-run, companies must not only be able to *execute* current activities to satisfy an existing market, but they must also *adapt* those activities to satisfy new and changing markets.

Research reveals that organizations that engage in strategic management generally outperform those that do not. The attainment of an appropriate match, or “fit,” between an organization’s environment and its strategy, structure, and processes has positive effects on the organization’s performance.

Strategic planning becomes increasingly important as the environment becomes more unstable. For example, studies of the impact of deregulation on the U.S. railroad and trucking industries found that companies that changed their strategies and structures as their environment changed outperformed companies that did not change.

A survey of nearly 50 corporations in a variety of countries and industries found the three most highly rated benefits of strategic management to be:

- Clearer sense of strategic vision for the firm.
- Sharper focus on what is strategically important.
- Improved understanding of a rapidly changing environment.

A recent survey by McKinsey & Company of 800 executives found that formal strategic planning processes improve overall satisfaction with strategy development.

To be effective; however, strategic management need not always be a formal process. It can begin with a few simple questions:

1. Where is the organization now? (Not where do we hope it is!)
2. If no changes are made, where will the organization be in one year? Two years? Five years? 10 years? Are the answers acceptable?
3. If the answers are not acceptable, what specific actions should management undertake? What are the risks and payoffs involved?

Strategic decision is particularly effective at identifying new opportunities for growth and in ensuring that all managers have the same goals. Other highly-ranked strategic management tools were mission and vision statements (used by 79% of respondents), core competencies (79%), scenario and contingency planning (69%), knowledge management (69%), Strategic alliances (68%) and growth strategy tools (65%).

A study by Joyce, Nohria, and Roberson of 200 firms in 50 sub industries found that devising and maintaining an engaged, focused strategy was the first of four essential management practices that best differentiated between successful and unsuccessful companies. Based on these and other studies, it can be concluded that strategic management is crucial for long-term organizational success.

Research into the planning practices of companies in the oil industry concludes that the real value of modern strategic planning is more in the *strategic thinking* and *organizational learning* that is part of a future-oriented planning process than in any resulting written strategic plan. Small companies, in particular, may plan informally and irregularly. Nevertheless, studies of small- and medium-sized businesses reveal that the greater the level of planning intensity, as measured by the presence of a formal strategic plan, the greater the level of financial performance, especially when measured in terms of sales increases.

Strategic issues

Strategic issues can be defined as developments, events and trends having the potential to impact an organizational strategy (Ansoff, 1980; Dutton & Duncan, 1987). These issues can represent problems or opportunities to decision makers. They are important because they affect an organization's ability to achieve its goals or objectives (Dutton & Duncan, 1987). Decision-making on strategic issues generally is treated as strategic decisions and therefore deserves strategic management consideration. According to Pearce II & Robinson (1994) strategic issues typically have the following characteristics:

- Require large amount of the firm's resources,
- Often affect the firm's long term prosperity,
- They are future-oriented,
- Usually have multifunctional consequences,
- They require consideration of the firm's external environment, and
- Require top-management decisions.

Process of strategy

Strategic Management is the organized development of the functional areas; financial, manufacturing, marketing, technological, manpower etc in the pursuit of its objectives. It is the use of all the entity's resources available. The complex nature of many large organizations has led to the splitting of strategies into inter-related levels comprising the hierarchy of process in the figure 1 below.



Figure 1. Stages of decision making processes.

The process is a set of policies adapted by senior management, which guides the scope and direction of the entity. It takes into account the environment in which the company operates.

A sequence of developing plans that make move from general to specific and intent to action would create several levels of planning which could be illustrated in the triangle above.

‘Vision’ and ‘Mission’ are often used interchangeably. Vision is broader and future looking conveys the unique purpose of a company. Delimits the scope of activities that the company is, or will be undertaking.

Every organization will have a purpose for its continued existence. A mission statement expresses their purpose and can therefore be a brief statement. It also links with the idea of vision-how managers interpret the mission for their colleagues.

Mission statements can be long or short. A statement should include the basic function or tasks of an organization particularly why it exists, the nature of the businesses it is in and the customers or clients it seeks to satisfy. A formal mission statement provides a charging force behind the organization’s other plans and more specific objectives. A mission statement is a formal commitment to the vision that incorporates the company’s strategy.

Factors affecting strategic decision-making process

Different theoretical models of strategic decision processes, which reflect different conceptions of organization, have been suggested by various literatures (e.g. Mintzberg, 1973; Chaffee, 1985; Lyles & Thomas, 1988; Hart, 1992). These models that definitely differ substantially in terms of their underlying assumption(s) about the decision context and the characteristics of decision process are usually influenced by different factors. The factors affecting the strategic decision-making in particular the different stages and process can be classified into four major categories.

1. Decision-specific characteristics,
2. Internal organizational characteristics,
3. External environmental characteristics, and
4. Management team's characteristics.

Decision-Specific Characteristics

With respect to my literature review, there is limited research dealing with the relationship between strategic decision-making process and decision specific characteristics. Rajagopalan et al. (1993) believed that the relationships between decision specific factors and decision process characteristics have received very limited attention in past research. According to Papadakis et al. (1998) “our understanding, however, of the impact of decision-specific characteristics on organizational decision-making process is still quite limited”.

Research (e.g., Dean & Sharfman, 1993; Dutton, 1993; Papadakis et al.1998) on decision-making process recommends that managers in various organizations or even within the same organization may view the same internal or external problem quite differently. Thus the nature of the decision itself may be important and influences the strategic decision-making processes. From among 121 studies, which have been conducted in terms of contextual factors influencing strategic decision-making process, decision specific characteristics have received very limited attention (20 percent). Following are the major dimensions of decision specific characteristics which impact strategic decision-making process

Decision’s familiarity

Decision’s familiarity refers to the degree that the decision problem is clear to the decision-maker. Papadakis et al. (1998) did not find any relationship between decision’s familiarity and characteristics of the decision-making process. Why, Fahey (1981) found that decision’s frequency (a proxy to familiarity) influences the extent of rationality and politicization in the decision-making process. Nooraie (2011) opined that familiarity is negatively and significantly related to rationality of the strategic decision-making process, but it is positively and significantly related to politicization in the strategic decision-making process (Nooraie, 2001).

Decision's magnitude of impact

Decision's magnitude of impact refers to the extent that the decision will impact various parts of the organization. Papadakis et al. (1998) and Hickson et al. (1986) discovered that decision's magnitude of impact positively and significantly influences the extent of the rationality and decentralization in the decision-making process. However, some literature (e.g. Dean and Sharfman, 1993) claimed that the importance of strategic decision is not related to the rationality of the decision. And the result of investigation that was conducted by Nooraie (2008) indicates that decision magnitude of impact is significantly associated with the level of rationality in the strategic decision-making process. And also there is a positive relationship between decision magnitude of impact and decentralization in the decision-making process (Nooraie, 2001)

Threat/crisis or opportunity

When a decision is perceived as a crisis, different actions will be taken than if the decision is perceived as an opportunity (Jackson & Dutton, 1988). Frederickson (1985) claimed that when decisions are interpreted as threats as opposed to opportunities, actions taken in making strategic decisions are characterized by greater comprehensiveness. According to Papadakis et al. (1998) threat/crisis is positively related to the extent of decentralization in the decision-making process. This is supported by Dutton, (1986) who asserted, threat/crisis is related to decentralization. However, a number of studies (e.g. Milburn, 1983) found that when crisis become actual, this relationship will be changed to centralize.

Risky decisions

Risky decisions are those decisions that have major impact on organizational effectiveness, high cost and difficult to reverse (Schilit, 1987). In their study of 329 strategic decisions, Schilit and Paine (1987) concluded that the higher the riskiness/return, the greater is the duration of the process, the level of negotiation, and the alliance/coalitions. Carter (1971) found that decision context in terms of criticalness to decision makers, significantly influences the decision process characteristics.

Decision's complexity

Astley et al. (1982) in a study that was carried out with respect to decision specific characteristics contended that decision's complexity is positively related to the extent of centralization in the decision-making process. This supports Fahey (1981), who found that the decision process varies in terms of decision's complexity.

Type of decisions

Papadakis et al. (1998) suggested that new business investment and investment in marketing are significantly and negatively associated with the extent of rationality/comprehensiveness in the decision-making process, but positively related to the extent of decentralization. This support Fahey (1981) who found that type of decision explains the nature of the decision-making process. What follows is further empirical evidence supporting the impact of decision specific characteristics on strategic decision process.

Role of the management information system in decision making

As mentioned earlier, Management Information System (MIS) is basically concerned with the process of collecting, processing, storing and transmitting relevant information to support the management operations in an organization. Thus, the success of decision-making, which is the heart of administrative process, is highly dependent partly on available information, and partly on the functions that are the components of the process.

When you base your decisions on data available from management information systems, they reflect information that comes from the operations of your company. Management

information systems take data generated by the working level and organize it into useful formats. Management information systems typically contain sales figures, expenses, investments and workforce data. If you need to know how much profit your company has made each year for the past five years to make a decision, management information systems can provide accurate reports giving you that information. Management information system therefore is used across all levels in an organization.

MIS provides vital information at senior levels to help make strategic decisions. At other levels, MIS observes an organization's activities and distributes information to everyone in the organization and customers. MIS is very important for every organization because it not only collects and manages information, but also represents it in various formats useful for the management to make important organizational decisions.

MIS is a system providing management with accurate and timely information. Such information is necessary to facilitate the decision-making process and enable the organizations planning, control, and operational functions to be carried out effectively.

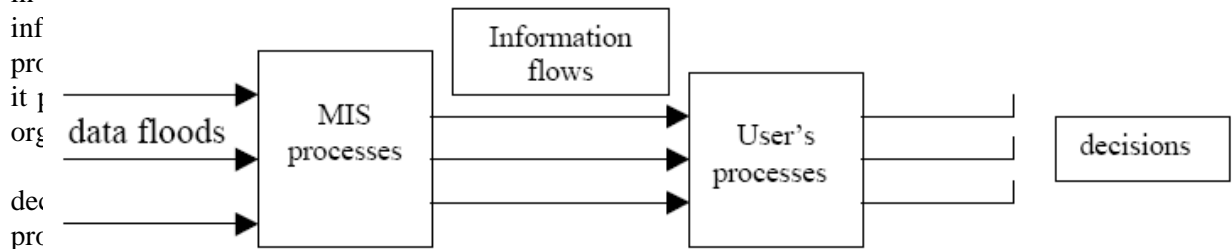
MIS increase competitiveness of the firm by reducing cost and improving processing speed. The power of technology has transformed the role of information in a business firm.

Now information has become recognized as the lifeblood of organization and without information, the modern company is dead.

MIS and its organizational subsystems contribute to the decision making process in many ways. Power has stated that making decisions is an important part of working in the business environment. Companies often make decisions regarding operational improvements or selecting new business opportunities for maximizing the company's profit. Companies develop a decision-making process based on individuals responsible for making decisions and the scope of the company's business operations. A useful tool for making business decisions is a management information system. Historically, MIS was a manual process used to gather information and funnel it to individuals responsible for making decisions.

MIS is an organization – wide effort to provide decision making process. The system is a formal commitment by executive to make the computer available to all managers. MIS sets the stage for in the other area, which is DSS, the virtual office and knowledge based systems. The main idea behind MIS is to keep a continuous supply of information flowing to the management. Afterwards, by data and information gathered from MIS, decisions are made.

According to Obi (2003), MIS is useful in the area of decision making as it can monitor by itself disturbances in a system, determine a course of action and take action to get the system in



MIS differs from regular information systems. The primary objectives of these systems are to analyze other systems dealing with the operational activities in the organization. MIS is a subset of the overall planning and control activities covering the application of humans, technologies, and procedures of the organization. Within the field of scientific management, MIS is most often tailored to the automation or support of human decision making.

Conclusion

The role of information in decision making cannot be overemphasized. Effective decision making demands accurate, timely and relevant information. MIS provides accurate and timely information necessary to facilitate the decision-making process and enable the organizations planning, control, and operational functions to be carried out effectively. MIS also plays the

crucial role of providing a wide range of streamlined options from which decision-makers are able to make their preferred choices and this ensures that whatever choices are made by decision makers, the outcome, more often than not, becomes positive. This, as a matter of fact, is the reason why many decision makers tend to prefer using MIS tools when making tough business choices. The MIS plays the role of information generation, communication problems and helps in the process of decision making. The MIS, therefore, plays a vital role in the management, administration and operations of an organization.

Bibliography

- [1] Asefeh Asemi, Ali Safari, Adeleh Asemi Zavareh, The Role of Management Information System (MIS) and Decision Support System (DSS) for Manager's Decision.
- [2] Bert Markgraf, studio- The Role of Management Information Systems in Decision-Making
- [3] Making Process, International Journal of Business and Management Vol. 6, No. 7; July 2012.
- [4] Mahmood Nooraie ;*July 2012, Vol. 2, No. 7* Factors Influencing Strategic Decision-Making Processes.
- [5] (Neil Ritson. Strategic Management bookboon.com)
- [6] Papows, J., 1998. Enterprise.com: Market Leadership in Information Age, London: Nicholas Brealey Publishing.
- [7] Papows, J., 1998. Enterprise.com: Market Leadership in Information Age, London: Nicholas Brealey Publishing.