International Journal of
INTELLIGENT SYSTEMS AND APPLICATIONS IN ENGINEERING
ISSN:2147-6799 www.ijisae.org Original Research Paper

Strategic Decision Making: An Empirical Study of Key Factors

[1]Mr. Selvam R., [2]Dr. G. Madhumita

Submitted: 06/02/2024 **Revised**: 14/03/2024 **Accepted**: 20/03/2024

Abstract: Effective strategic decision-making is crucial for organizations to navigate complex and dynamic business environments. *Strategic decision-making* is a critical process that shapes the success and competitiveness of organizations. Understanding the determinants that influence strategic decision-making is essential for effective decision-making outcomes. This research paper comprehensively reviews the critical determinants (External environment, Internal resources, and environment, information availability and decision-making skills, and risk assessment) that impact strategic decision-making. It synthesizes existing literature and empirical studies to identify and analyze the factors influencing strategic decision-making processes. The research has done on 200 respondents of IT sector employees in the Chennai region. The findings of this research offer insights into the complex dynamics of strategic decision-making and provide a foundation for future research and practical applications in strategic management.

Keywords: *Effective strategic decision-making, External environment, Internal resources, and environment, information availability and decision-making skill, risk assessment.*

Introduction:

The process of making strategic decisions is complex and affected by many different elements, both internal and external. Decisions are influenced by these elements, which also greatly affect the results of strategic choices. Organisations must comprehend these elements in order to make well-informed strategic decisions. Important elements that influence the formulation of long-term plans.

Hoy and Tarter (1998) define strategic decision-making as "a process that begins with the formulation of a decision strategy, continues through its implementation, and concludes with an evaluation of its results." Choosing one choice over another based on a set of criteria is one of the fundamental cognitive processes of human behavior (Wang et al., 2007). To adapt successfully, a company needs more than just high-performance operating processes (Hammer, 2006). To create a workable operational process for putting decisions into action, it is helpful to break the process down into time-phased sequences of deliberate action (Hitch, 1967). A company's ability to fulfill its goals in a competitive market depends on the quality of its strategic decision-making. Strategic planning can be helpful in this regard because it facilitates making wise and comfortable choices. It facilitates effective problem-solving by streamlining decision-making, forming distinct goals, offering a yardstick to evaluate progress, translating ideals into actions, and methodically committing limited resources. Timely execution of strategic decision-making is also advantageous since it improves the fit of decisions to the context of the problem being handled. When decisions are postponed, they may not be implemented at all or need to be reviewed, necessitating a new round of analysis and decision-making to fit the circumstances better. This in and of itself represents a monetary and time commitment.

[1]*Research Scholar Department of Management Studies Vels Institute of Science, Technology & Advanced Studies (VISTAS) Pallavaram, Chennai Email: krselvam2000@gmail.com*
[2]*Research Advisor Department of Management Studies Vels Institute of Science, Technology & Advanced Studies (VISTAS), Pallavaram, Chennai Email: madhu.sms@velsuniv.ac.in*

2. Literature review

To make strategic decisions, one must identify a problem or opportunity and decide how best to address it. The work begins well before you make your final decision and continues after that. It can also be defined as the series of mental operations that leads to a decision between competing courses of action. Effective management relies heavily on sound decision-making because it is the basis for addressing issues, distributing resources, and meeting objectives within an organization (Mintzberg, 2007).

The elements that play a role in a company's strategic decision-making process vary widely from one entity to the next. This can come from inside or outside the company. Decisions that are "institutionalized" (Drucker, 1999) can be understood as "aligning strategy with the institutions of the organization." A corporation needs to evaluate the significance of these aspects to effectively adapt to external conditions and aid its efforts to achieve its goals (March 2008).

The literature research reveals many variables that have a role in formulating long-term strategies. These are standard across only some companies. The most typical ones include things like the company's external environment, organisational structure, corporate culture, policies, resources, decision makers' personalities and

attitudes, support from upper management, and leadership's vested interests.

Elements of an organization's internal design include identifying and distributing roles and responsibilities. It establishes structures to help departments work together more effectively. It aids in properly distributing authority across the company and allocating duties within the departments along hierarchical lines (Lysons, 1996). A well-thought-out organizational structure facilitates the coordination of decision-making activities. The decision-making process should be reflected in the organizational structure. However, not all organizational frameworks help with decision-making in the same way. For instance, decision-making in a highly formalized and hierarchical administrative structure necessitates clearly defined lines of authority and responsibility. In contrast, in a flat, informal organizational structure, networks of decision-makers are more likely to be adaptable and autonomous (Hisrich. Peters, and Shepherd, 2005).

On the other hand, the project's structure encourages adaptability to new circumstances. Decisions are affected by one's personality and attitude, the latter of which is a person's fixed, long-lasting, and primarily acquired inclination to respond to specific stimuli in a given way. They play a significant role in shaping people's perspectives, understandings, and reactions to events. In a business context, vested interests refer to the unreasonable profit expectations of some parties involved in the enterprise. They can cause a lot of strife, and the political systems they give rise to make it hard to implement solutions or reach a consensus on essential issues (Water et al. Plan, 2010).

Management that is strategic is characterised as the "cognitive impairment of structuring internal capabilities to fulfil external demands" (Mintzberg et al., 2020). This includes not just plans and patterns but also positions, viewpoints, plots, and patterns. Strategic management is the cognitive management structure of organizations as acknowledged through the managerial language of a decision-making framework that emphasizes how the strategy process is developed. Organizational members must also respond effectively to management decisions and work together to realize the organization's mission since doing otherwise will compromise its flexibility, credibility, and efficiency (Johnsen, 2015). Businesses need to be cognizant of the risks in their surroundings.

As a result, there are two ways in which the strategic management process can be mirrored: through strategic planning and strategic thought. According to Bryson (2018), organizations that put time and thought into their strategic plans are more likely to meet their goals. Strategic planning can also improve the group's decision-making capacity. The strategic management process must be rewarding for an organization to keep its competitive edge. In addition to challenging conventional wisdom, strategic thinking is innovative, unconventional, focused on the future, and open to experimentation (Liedtka, 2000). Strategic planning is critical When managing resources, implementing plans, keeping them under control, and assessing their effectiveness (Poister et al., 2010). Creative problem-solving and formalizing established approaches are central to strategic planning (Mintzberg et al., 2020). As an element of an organization's decision-making process, strategic thinking can examine and address environmental uncertainties and competing perspectives (Chin et al., 2018). According to research conducted by Goldman et al. (2015), a loss in organizational performance can be attributed to a lack of participation by organizational members in the strategic decision-making process.

Steptoe-Warren et al. (2011) emphasized the significance of strategic decision-making to an organization's effectiveness. According to the findings, the strategic thinking process may be improved to benefit performance by analyzing, recognizing, and verifying the process (Norzailan et al., 2016). Additionally, strategic thinking is crucial in evaluating the impact of external elements on the process. Organizational members' lackadaisical attitude toward the matter can contribute to perception flaws (Kzloglu & Serinkan, 2015).

Managers need to prioritize complicated concerns to speed up the decision-making process, and effective strategic management frameworks allow them to do just that (Dlamini et al., 2020). While empowering managers to steer the organization's efforts toward solving specific problems (Wang et al., 2021). The health and reputation of the organization will be protected if its leaders can effectively address pressing concerns with responses tailored to the realities of the present. Strategic management is essential to run an organization in a consistent, methodical fashion.

This paper provides a holistic understanding of the factors that affect strategic decision-making by conducting a comprehensive literature review. The synthesis of research findings from diverse perspectives offers valuable insights for practitioners, managers, and researchers seeking to enhance decision-making processes and outcomes. Understanding these factors can empower organizations to make informed decisions and adapt to the dynamic business environment, ultimately driving sustainable success. Based on that, the following factors have been identified, and the hypothesis has been developed.

2.1 Research Objectives:

1. To identify various factors affecting strategic decision making
2. To study the Impact of those factors on effectiveness of strategic decision making.

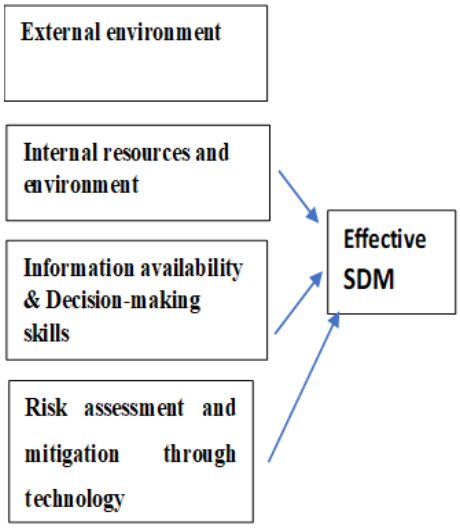

Fig 1: Conceptual framework of the study

2.2 Research hypothesis

1.External environment has significant impact on Effective SDM

2.Internal resources and environment has significant impact on Effective SDM

3.Information availability and decision-making skills has significant impact on Effective SDM

4.Risk assessment and mitigation through technology has significant impact on Effective SDM

3. Research methodology

The present research is descriptive in nature. Quantitative information was collected using a survey (questionnaire method). After completing the literature review, a questionnaire was developed using the aforementioned constructs from prior studies. Each statement was given a rating from 1 to 5, with 1 indicating strong disagreement and 5 indicating strong agreement, on a 5-point Likert scale. The research is backed by a thorough literature and theory review. After identifying the issue and developing the research question, the next step is to choose a research strategy. The next stage is to actually collect data utilizing those strategies. Randomly 200 respondents have been selected from the IT industry of Chennai region. This work makes use of a mixed qualitative and quantitative approach to its research. The research's primary data came from a survey of respondents, which was acquired through the development of a questionnaire.

3.2 Data analysis

The results and analysis of the study were presented using both descriptive and inferential statistics. Descriptive statistics, such as the sample's frequency, standard deviation, percentage, and mean, were computed using IBM SPSS version 24 for data analysis. A data screening was performed after collecting 215 total replies. In this step, questionnaires with missing data were removed and 200 responses were selected for the final study.

4. Results

4.1 Demographic characteristics: Below is a table displaying information technology workers' profiles. The data shows that 60.5% of respondents are male, 24% are aged 28 or younger, and 45.5% are aged 28-38. A total of 48% of those surveyed are undergraduates.

Table 1: Demographic profiles of women respondents (N=200)

Measures	Items	Frequency	Percentage
Gender	Male	121	60.5
	Female	79	39.5
Marital Status	Married	45	22.5
	Unmarried	155	77.5
Education	PG	81	40.5
	Secondary board/ Equivalent degree	23	11.5
	UG	96	48
Age of the respondents in years	<28yrs	48	24
	29 to 38	91	45.5
	38 to 48	42	21
	Above 48	19	9.5

Source: Primary data

4.2 Descriptive statistics and scale reliability:

The central tendency measures of mean and standard deviation showed that the responses were mostly concentrated in the middle of the scale. Of the five options, ESDM had the most positive reviews (M = 4.57, SD = 0.66), followed by RA (M = 4.52, SD = 0.68), IRE (M = 4.40, SD = 0.70), IDS (M = 4.43, SD = 0.78) and EE (M = 4.24, SD = 0.69).

To evaluate the consistency of the constructs used in the data analysis, Cronbach's alpha was selected as the preferable reliability measure. Findings from the study by Nunnally and Bernstein (1994) indicate that criteria with a value of 0.7 or higher are deemed reliable. All of the alpha values in Table 2, which range from 0.850 to 0.912, are within the stipulated standards, indicating that the data is credible.

Table 2 also included the values of the correlation coefficients for all variables. The purpose of a correlational study is to find a connection between two variables. We may conclude that the two variables are positively and statistically significantly related to one another because none of the correlation coefficients have p-values greater than 0.05. There is a strong association between effective SDM and IDS = 0.631, with a risk assessment value of 0.599 coming in second.

There is a favourable correlation between risk assessment, information and decision-making abilities, the external environment, and internal resources and environment.

Table 2: Cronbach's alpha, Mean, Std. deviation and Correlation of the variables.

	EE	IRE	IDS	RA	ESDM
Reliability (Alpha value)	0.850	0.875	0.912	0.888	0.903
Mean	4.2413	4.4250	4.3987	4.5163	4.5650
Standard deviation	.69608	.78508	.69911	.68457	.66263
EE (External environment,)	1				
IRE(Internal resources and environment)	0.429**	1			
IA (information and decision-making skills)	0.558**	0.455**	1		
RA (risk assessment,)	0.578**	0.409**	0.580**	1	
Efficient Strategic decision making (ESDM)	0.593**	0.551**	0.631**	0.599**	1

Note: ** indicates Correlation is significant at the 0.01 level (2-tailed)

Factors affecting strategic decision making and its effectiveness:

The study's dependent variable was examined using multiple regression analysis to identify the following four factors: We compared the independent variables external environment, internal resources and environment, information availability and decision-making abilities, and risk assessment with the dependent variable effective SDM. It was verified that the multicollinearity assumption was valid before administering the regression test.

Table 3: Multi-collinearity Tests

Independent Variables	Tolerance	VIF	Durbin-Watson
External environment	0.573	1.746	2.123
Internal environment	0.737	1.357	
Information and decision making skills	0.559	1.788	
Risk assessment	0.561	1.781	

Source: Primary Survey

Note: VIF = variance inflation factor

The presence or absence of multicollinearity in the data was determined by comparing the values of the variance inflation factor (VIF) with the tolerance value. A VIF score below four and a tolerance value above 0.02 were considered to indicate that there was no substantial association between any two independent variables (predictors). The VIF and Tolerance values in Table 3, which are both lower than the predetermined threshold, indicate that the data do not exhibit any signs of multicollinearity. Additionally, within the 1.5–2.5 critical value range, the Durbin-Watson statistic (DW = 2.13) shows that the residuals do not exhibit autocorrelation.

Table 4 ANOVA

ANOVA						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	49.305	4	12.326	63.133	.000
	Residual	38.072	196	.195		
	Total	87.377	200			

(Source: Primary Survey)

The regression model is statistically significant in predicting Efficient SDM (dependent variable), as shown in ANOVA table 4 by the F-test value =63.133, with a significance level of p less than 0.05 (p=0.000).

Table 5: Coefficients of Multiple Regression Analysis

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig. (p)	Results
	B	Std. Error	Beta			
(Constant)	0.699	.246		2.840	.005	
External environment,	0.196	0.059	0.206	3.295	.001	H1 supported
Internal resources and environment	0.209	0.046	0.248	4.498	.000	H2 supported
Information and decision making skills	0.263	0.060	0.277	4.388	.000	H3 supported
Risk assessment,	0.211	0.061	0.218	3.456	.001	H4 supported

(Source: Primary Survey)

Table 5 presents the coefficients of a multiple regression model that elucidates the influence of External environment, Internal resources and environment, information availability, risk assessment on the efficacy of SDM. Unstandardized coefficients refer to the coefficients of a regression equation that have not been standardized or transformed in any way. Coefficient B explains the association between the dependent variable and independent variables. A unitary alteration in the independent variable results in a corresponding alteration in the B value of the dependent variable. The sign of the B value indicates a positive increment or negative decrement in the dependent variable.

The standardized regression weights (β) indicate the strength of impact of predictor variable on dependent variables. The strength of impact increases with a higher β value. The criteria for selection of hypothesis are based on the path having p value less than 0.05 and T value above 1.96.

The findings of Table 5 indicate the effect of external environment is positive and significant as the β=0.206 with p= 0.001. Since p value is below 0.05 and T value (3.456) is above 1.96, hypothesis H1 was supported.

The factors like Internal resources and environment and its understanding leads to significant improvement in SDM as the β value is 0.248 with p value less than 0.05, confirming the hypothesis of H2. Similarly, organizations using proper information and timely availability of data influence Efficacy of SDM. The path coefficient value is 0.277 with p=0.000, since p less than 0.05 and T above 1.96, supported H3.

Finally, risk assesment and implementation of plan positively influenced the efficiency of SDM as the β=0.218 with p= 0.001. Since p value is below 0.05 and T value (3.456) is above 1.96, hypothesis H4 was supported.

The significance value of p< 0.05 proved that all the four factors have significant impact on efficient SDM and supporting all the hypotheses. Based on standardized regression weights it is confirmed that impact of Information and decision making skills is highest on achieving efficient SDM, followed by Intenal sources and environment.

Table 6: Model summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.751	0.564	0.555	.44186

With n R-value of 0.751, as shown in Table 6, the degree of connection is modest. When it came to the dependent variable, SDM efficacy, the independent variables explained 56.4% of the variation (R2 = 0.564).

4. Discussion and Implications

The external environment plays a pivotal role in shaping strategic decisions. Factors such as industry dynamics, market trends, competitive forces, technological advancements, regulatory changes, and socio-cultural shifts can significantly impact decision making. Understanding the external landscape and its potential opportunities and threats enables organizations to align their strategies with the changing environment. Stakeholders, including shareholders, employees, customers, suppliers, government agencies, and community groups, exert influence on strategic decision making. Their expectations, needs, and interests need to

be considered to gain support and legitimacy for strategic initiatives. Effective stakeholder engagement ensures that decisions are aligned with stakeholder interests and that potential conflicts are managed effectively. Internal factors, including an organization's resources, capabilities, and competencies, have a direct influence on strategic decision making. The availability and allocation of financial resources, human capital, technology, infrastructure, and intellectual property shape the organization's strategic options. The assessment of internal strengths and weaknesses helps identify areas where the organization can leverage its competitive advantages and address its limitations. Strategic decision making is guided by an organization's long-term vision and goals. Leaders need to have a clear understanding of the desired future state and set objectives that align with the vision. The vision provides a sense of direction and purpose, and goals help establish strategic priorities. Strategic decisions are evaluated in terms of their contribution to the organization's long-term goals, sustainability, and competitive advantage. The culture and leadership within an organization play a crucial role in shaping strategic decisions. Organizational culture reflects shared values, beliefs, and norms, which influence how decisions are made, risks are taken, and innovation is encouraged. Leadership style and decision-making processes set the tone for strategic decision making. The vision, values, and leadership approach of top management influence the strategic choices and the overall decision-making climate within the organization. Access to accurate, timely, and relevant information is critical for strategic decision making. The availability of data, market research, competitive intelligence, financial analysis, and performance metrics allows leaders to evaluate alternatives, assess risks, and make informed decisions. Effective information management systems and data analytics capabilities enable organizations to gather, analyze, and interpret information for strategic decision making. Strategic decision making involves evaluating risks and uncertainties associated with different alternatives. Organizations need to assess potential risks, both internal and external, and develop strategies to mitigate or manage them. Risk analysis includes financial risks, market volatility, competitive threats, regulatory compliance, operational challenges, and technological disruptions. Identifying and addressing risks in the decision-making process helps minimize negative impacts and enhance the chances of success.

To attain long-term goals, one must engage in strategic thinking, which entails systematically analyzing and synthesizing data, doing in-depth analyses of the present state of affairs, and coming up with novel approaches or the most viable alternatives. Strategic thinking is essential to a company's success because it improves decision-makers' skills, abilities, and knowledge, and it keeps businesses competitive even in volatile markets (Dhir et al., 2021). Therefore, any business that wants to succeed and remain competitive over the long haul must engage in strategic thinking. Leaders need to be efficient and aware of the commercial possibilities presented by novel approaches to bolster the strategic portfolios of their respective organizations.

5.Conclusion

Many factors influence strategic decision-making, including the external environment, internal resources, organizational culture, stakeholder influences, information availability, risk assessment, and long-term vision. Recognizing and considering these factors helps organizations make informed decisions, adapt to changing circumstances, and achieve strategic objectives. By understanding the complex interplay of these factors, organizations can enhance their strategic decision-making capabilities and improve their overall performance and competitiveness. Emerging strategies will increase motivation and productivity. Thus, they should be assessed periodically and significantly since an organization's future can sometimes be predicted based on its present trajectory. Because of this, strategic managers must be able to think quickly and clearly to conduct a long-term analysis of the organization's mission and vision. Taking the appropriate measures at the appropriate times will prevent businesses from destroying themselves by resisting the opportunities to enhance their operations.

6. Limitation and future research

The present study is only limited to the IT sector in the Chennai region. It has focused only on a few factors which affect strategic decision-making. Future studies can be done in detail by considering various other factors. Despite these limitations, the research paper aims to comprehensively understand the factors affecting strategic decision-making based on the available literature and survey. It is essential for future research to address these limitations and explore new avenues to enhance further our understanding of this critical aspect of organizational strategic decision-making.

References:

[1] Abubakar, A.M., Elrehail, H., Alatailat, M.A. and Elçi, A. (2019), "Knowledge management, decisionmaking style and organizational performance", Journal of Innovation and Knowledge, Vol. 4 No. 2, pp. 104-114,

[2] Abuhjeeleh, M., Elrehail, H. and Harazneh, I. (2018), "The experiential image of North Cyprus destination as perceived by German tourists", Journal for Global Business Advancement, Vol. 11 No. 5, pp. 630-649.

[3] Adam, A., Lindahl, G. and Leiringer, R. (2020), "The dynamic capabilities of public construction clients in the healthcare sector", International Journal of Managing Projects in Business, Vol. 13 No. 1, pp. 153-171.

[4] Adam, S., Mahadi, B. and Rahman, A.P.A. (2018), "The effect of enterpreneurial orientation towards organizational performance of E-business in Malaysia", International Journal of Entrepreneurship and Management Practices, Vol. 1 No. 2, pp. 12-21.

[5] Acciarini, C., Brunetta, F. and Boccardelli, P. (2021), "Cognitive biases and decision-making strategies in times of change: a systematic literature review", Management Decision, Vol. 59 No. 3, pp. 638-652.

[6] Aseeri, M., & Kang, K. (2023). Organisational culture and big data socio-technical systems on strategic decision making: Case of Saudi Arabian higher education. *Education and Information Technologies*, 1-26.

[7] Barlach, L. and Plonski, G.A. (2021), "The Einstellung effect, mental rigidity and decision-making in startup accelerators", Innovation and Management Review, Vol. 18 No. 3, pp. 276-291.

[8] Behling, O., Gifford, W.E. and Tolliver, J.M. (1980), "Effects of grouping information on decision making under risk", Decision Sciences, Vol. 11 No. 2, pp. 272-283.

[9] Chuang, R., Ishii, K., Kim, H. S., & Sherman, D. K. (2022). Swinging for the fences versus advancing the runner: Culture, motivation, and strategic decision making. *Social Psychological and Personality Science*, *13*(1), 91-101.

[10] Dhir, S. and Dhir, S. (2020), "Modeling of strategic thinking enablers: a modified total interpretive structural modeling (TISM) and MICMAC approach", International Journal of System Assurance Engineering and Management, Vol. 11 No. 1, pp. 175-188.

[11] Goldman, E.F., Scott, A.R. and Follman, J.M. (2015), "Organizational practices to develop strategic thinking", Journal of Strategy and Management, Vol. 8 No. 2, pp. 155-175.

[12] Johnsen, A. (2015), "Strategic management thinking and practice in the public sector: a strategic planning for all seasons?", Financial Accountability and Management, Vol. 31 No. 3, pp. 243-268.

[13] Nooraie M (2012), Factors Influencing Strategic Decision-Making Processes, International Journal of Academic Research in Business and Social Sciences, Vol. 2, No. 7

[14] Pearce, J.A. II & Robinson, R.B. Jr. (1994). Strategic Management, Formulation, Implementation, and Control, 5th ed. Burr Ridge, Illinois: Irwin inc.

[15] Pearce, John A., III and Richard B. Robinson, Strategic Management (Homewood, Ill.: Irwin, 1982).

[16] Schendel, Dan E. and Charles W. Hofer (editors), Strategic Management: A New View of Business Policy and Planning (Boston: Little, Brown & Co., 1979).

[17] Stevens P (2008), Kuwait Petroleum Corporation: Searching for Strategy in a Fragmented Oil Sector, Program on Energy and Sustainable Development, Working Paper #78 (Stevens, 2012).

[18] Seginer, Rachel, "Game Ability and Academic Ability: Dependence on SES and Psychological Mediators," Simulation and Games, Vol. 11, No. 4, 1980, pp. 403-421.

[19] Simon, Herbert A., Administrative Behavior (New York: The Free Press, 1957).

[20] Thompson, Arthur A. and A. J. Strickland III, Strategy Formulation and Implementation: Tasks of the General Manager (Plano, Texas: Business Publications, 1980).

[21] Wolfe, Joseph, "Effective Performance Behaviors in a Simulated Policy and Decision Making Environment," Management Science, Vol. 21, No. 8, 1975, pp. 872-882