

STRATEGIC MANAGEMENT TOOLS: IMPROVEMENT OF QUANTITATIVE STRATEGIC PLANNING MATRIX (QSPM)

ABSTRACT: A quantitative Strategic Planning Matrix (QSPM) is one of the most suitable strategies for comparing the relative attractiveness of the many prospectively implemented strategies under consideration. The QSPM has been utilized extensively in the strategic management process as a management instrument for comparing and selecting alternative strategies. Therefore, this paper aims to enhance the QSPM method and improve strategic selection quality. This study used The qualitative method to acquire data from professors and entrepreneurs. The novel strategy was validated using empirical methods and the responses of 36 entrepreneurs and professors of strategic management to a survey. This paper discovered a new flaw in the selected strategic option, which may not have been the best option after the QSPM procedure. This article presents a Sub-QSPM method for optimizing alternative results. In addition, this study broadened the application scope of QSPM and introduced a novel method to enrich this theory. Furthermore, it has both theoretical and practical importance.

Keywords: Strategy Management, Strategy Selecting, QSPM, Improvement, Sub-QSPM

1. Introduction

The central idea in the discipline of strategic management is strategy. This concept derives from ancient Greek philosophy. The authors reference a variety of frameworks and theories to support the concept of strategic management. Researchers have identified and developed various techniques and tools to act, plan, and deliberate strategically (Varelas & Apostolopoulos, 2020). These instruments also aid in support of strategic management decisions.

Strategy plays a crucial role when organizations must establish long-term goals and objectives. It plays a crucial role in international and domestic competition with rivals. According to Farida and Setiawan (2022), the number of companies operating in the same industry is growing. Frequently, organizations encounter challenging circumstances. To compete in a challenging environment, they must devise effective organizational strategies. Organizations in the same industry coexist. They collaborate and compete in the same environment. The development of strategies is essential for organizations to comprehend their operating environment. Therefore, according to Dwivedi et al. (2021), organizations must prioritize a results-oriented strategy to thrive in a complex environment.

Effective strategy management can yield numerous advantages for an organization. The strategic implementation that can be carried out effectively and achieve organizational objectives is particularly essential. Utilizing management instruments during strategy management could facilitate the efficient

completion of company objectives. While the management tools provide convenience, they also have some shortcomings (Kabeyi, 2019).

The quantitative strategic planning matrix (QSPM) is one of the essential tools for measuring and evaluating strategic alternatives in strategic management. Under this technique, various plans selected from the strategic policies are developed and evaluated. Barak and Javanmard (2020) Using these strategic policies, organizations can develop a variety of diverse strategies. Keeping the business's direction and purpose in mind, small-scale organizations can expand their operations to a larger scale through strategic management. Consequently, Bulturbayevich (2021) strategic management also plays a crucial position in the expansion of the business.

In order to conduct strategic planning, QSPM is extensively utilized across a variety of business sectors. Therefore, QSPM must be extensively implemented across all business sectors. It cannot be limited to a specific industry or business sector. Because QSPM is one of the most important instruments for prioritizing and assimilating information about the competition and the external/internal environment, it is necessary for developing strategic plans (Kuan, Yang, & Fei, 2020). The collected information in the form of data, trends, facts, and figures plays a crucial role in developing alternative strategies. It is crucial in developing organizational strategies (David, Creek, & David, 2019).

The development of strategies is conceptually the same for all types of organizations, from minor to large.

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Most researchers believe the strategic management process must be more quantitative and objective than qualitative. The term “crafting” was developed by researchers to refer to the subjective approach to strategies. Several distinct books refer to strategic management by crafting strategies (Hesselbarth, Alnoor, & Tiberius, 2023). During decision-making, important concepts are past experience, emotions, judgment, and intuition. Alternatively, external and internal information is essential for quantifying strategic decisions. The fundamental premise of QSPM is that organizations must evaluate both their internal and external environments to assess the advantages and disadvantages of various alternatives Wardhani and Dini (2020). According to scholars, objective analysis-based strategies should not be regarded (David, David, & David, 2017).

This research on the management tools themselves and the identification and correction of flaws improves the utility of these tools for organizations.

2. Literature Review

2.1 Strategic Management

There is not even a singular definition of strategy that is universally accepted. There is no single optimal strategy formulation or organizational structure. Contradictions proliferate worldwide, but an effective strategist must live with them, comprehend their causes and effects, and reconcile them to take appropriate action Elbanna, Al Katheeri, and Colak (2020). Various factors influence major business decisions, and no single approach or theory can account for all plausible combinations of these variables. Nobody can predict the peculiar changes that occur in the actual world or, more importantly (Fuertes et al., 2020), the effect of one's or another's creative ideas.

Strategic planning, which replaced long-term planning in the 1970s, acknowledged that trends might change without assuming that adequate development could be assured. Strategic planning and market competition are intricately intertwined, so the more constrained expansion of products and markets could not support the development objectives of industry players (Petropoulos et al., 2022).

According to Razak et al. (2016), strategy is a method for achieving long-term objectives. Strategy is the rule for decision-making under arial ignorance, whereas policy is the contingent decision. Business strategy is determined by rules, guidelines, and decisions that define the business's scope and growth direction. Business strategies include expansion, geographical, acquisition, diversification,

product development, employee rationalization, market penetration, liquidation, divestment, and joint ventures (Bhuiyan et al., 2023; Razak et al., 2016). The strategic analysis aims to provide a picture of the factors affecting the business so that the strategic decision of the entire strategic management process is well-informed.

Strategy management is the process of analyzing and evaluating the external environment in order to monitor, execute, and design plans. Strategy evaluation, strategy execution, and strategy formulation are the three main phases of strategic management. Future development, continuous scale expansions, and business growth are essential to strategy management (Wardhan and Dini, 2020).

According to studies, management strategy is comprehensive planning (strategic planning) to realize leaders' highest and most important decisions that enable organizations to interact (mission) effectively. The primary objective of strategic planning is to align the mission and vision of the organization. Without vision and mission, the plan would be less meaningful, as mission serves as the basis for planning, and vision is the objective. Moreover, the strategic plan functions as a road map to get from one to the other (Elbanna, Andrews, & Pollanen, 2016). This is done to generate operational planning to provide high-quality products and/or services best suited to achieving the strategic and operational goals of the company (Zaheer et al., 2019).

Researchers have described the advantages of four examples of effective strategic management. These consist of (1) strategic management providing employees with something to perform; (2) strategic management increasing the organization's awareness of its weaknesses and assets; and (3) strategic management fostering a sense of focus in the organization. With the aid of strategic plans, organizations can develop appropriate objectives and objectives, and (4) organizations can obtain clear paths due to strategy management (Trigeorgis & Reuer, 2017).

According to Cao et al. (2022), a three-stage decision-making framework can incorporate effective strategies for strategy formulation. Phase 1 comprises the IFE, EFE, and matrix. In the IFE-EFE matrix, each factor is assigned a weight based on the impact it is believed to have. The company's performance would then determine the ranking of the factors. Multiplying the weight by the position yields the weighted score.

In addition, it includes the Competitive Profile Matrix (CPM), referred to as the input stage, and outlines the basic information required to develop a plan. Phase 2

is called the “Matching Stage,” and it combines internal and external components to produce alternative, executable methods. In one of the methodologies, the Quantitative Strategic Planning Matrix, Phase 3 is the Phase Decision Stage (QSPM) (Safitri, Arbainah, & Karyanti, 2023).

Competition is extremely important for businesses, and businesses worldwide struggle to confront and adapt to the ever-increasing competition. Competitive strategy examines how a company can compete more effectively to enhance its market position. These strategies should follow socially permissible competitive behavior as determined by moral principles and public policy (Farida & Setiawan, 2022). Robertson (2021) defines competitive strategy as pursuing profitable competitive positions in the primary industry where competition exists. The competitive advantage stems from the company's ability to create consumer values greater than the costs associated with providing them. Competitive advantage is the key to surpassing competitors in marketing performance. Competitive advantage is a successful technique businesses use to obtain a greater competitive edge in the market. This strategy must be developed for businesses to dominate the market to produce a sustainable competitive advantage.

Strategic formulation, implementation, and evaluation constitute the phases of strategic management. The scope of strategy formulation includes the identification of external threats and opportunities for the organization, the selection of specific strategies that can assist the organization in achieving its goals and objectives, the evaluation of alternative strategies, the determination of long-term goals, the identification of organizational threats, and the development of mission and vision (Shujahat et al., 2017).

In order to implement the designed strategies, the organization must establish objectives, create policies, motivate its employees, and allocate resources. Evaluation of the strategy concludes the strategy management process. Include evaluation and assessment when strategies are not performing well to obtain the necessary information. The three most essential activities for evaluating strategies are reviewing internal and external factors that form the basis of the current strategy, implementing corrective measures, and measuring performance (Hieu & Nwachukwu, 2019).

2.2 Strategic Planning and Action Evaluation Matrix (SPACE)

Space matrix, also known as strategic planning and

action evaluation. Competitive profile matrix, also known as CPM, internal evaluation matrix, also known as IE, and Boston consulting group matrix, also known as BCG matrix, are different techniques of strategic planning that aid in the selection of the best strategies (Mohajan, 2017).

The company's effective strategy can surmount the difficulty of economic competition. BCG (Boston Consulting Group) assists corporate entities in increasing their efficacy to conduct business operations successfully. Kader and Hossain (2020) The BCG Matrix is an excellent instrument for strategic planning of the product's performance at the company and industry levels, thereby enhancing the effectiveness of marketing decision-making.

The Internal-external (IE) Matrix is an additional strategic management instrument for analyzing a business's strategic position and working conditions. The Internal-external (IE) Matrix, depicted in Figure 6-10, organizes an organization's many divisions (segments) into nine compartments. Khajezadeh et al. (2019) Both the IE Matrix and the BCG Matrix are referred to as portfolio matrices because they are used to diagram the division of a company.

In the strategic position, four categories are examined. These include competitive advantage, financial strength, environmental stability, and industry strength. The competitive advantage and financial strength factors determine the internal strategic position, while the environmental stability and industry strength factors determine the external strategic position. Genoveva and Siam (2017) The SPACE Matrix is a valuable instrument for analyzing internal and external dimensions of an organization's competitive position. The first two components, financial strength (FS) and competitive advantage (CA) are called internal dimensions. The second component, industry strength (IS) and environmental stability (ES), are referred to as external dimensions (Yaprimadi, 2019).

Four quadrants comprise the Space Matrix. Cyrilla et al. (2016) The first quadrant of the matrix reflects the organization's financial strength and displays the factors that demonstrate financial strength in the form of economic scales, currency flows, etc. The second quadrant represents the industry's strength in terms of capital, productivity, technology, and growth potential. The third quadrant, or competitive strength, contains actions that contribute to an organization's competitive strength, such as environmental stability, capital utility, market share, and consumer loyalty. The final quadrant, environmental stability, depicts

the organizational steps that lead to organizational instability. It is reflected by competitive intensity, market changes, inflation rate, and technological advancements (Haidari & Karamdoost Maryan, 2016).

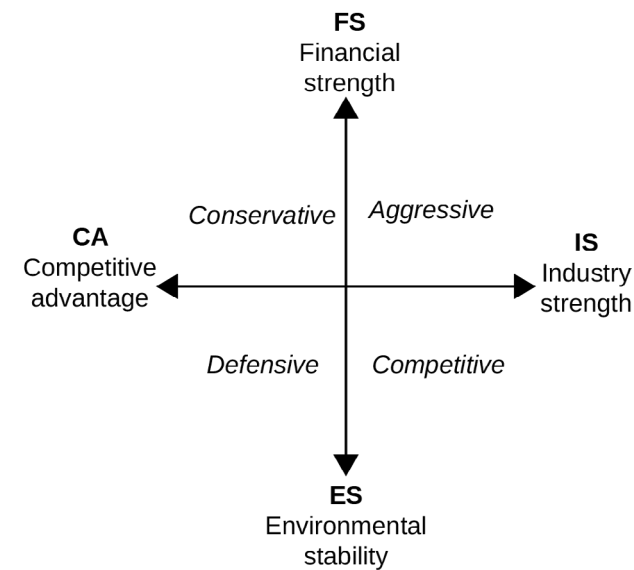


Fig 1:- SPACE Matrix
Source: David, 2009

In the Cartesian coordinate system, the outcomes include values from four fundamental dimensions: The Y-axis values for environmental stability and financial fortitude range from 0 to 6 and 0 to -6, respectively. On the X-Axis, however, are industrial strength and competitive strength (Borocki et al., 2019). Comparatively, environmental stability and industrial strength reveal the organization's overall industrial strategy, competitive advantage, and financial strength, which aid in determining its strategic position (Hermundsdottir & Aspelund, 2022).

2.3 Quantitative Strategic Planning Matrix (QSPM)

The Quantitative Strategic Planning Matrix (QSPM) objectively demonstrates which alternative strategies are the most successful. Both internal and external considerations are utilized to generate and evaluate alternative methods. The organization's likelihood of making a final strategic choice increases as the QSPM process progresses. Walukow and Pangemanan (2015) The objective of QSPM analysis is to compare the use of numerous approaches. The findings of the QSPM investigation are techniques that businesses can implement.

QSPM consists of three stages: strategy evaluation, implementation, and formulation. These three factors contribute to the process of formulating a

strategy. The first stage in formulating a strategy is to define its various components. After identifying these factors, various analyses, such as SWOT analysis, are conducted to quantify the advantages and disadvantages of strategic factors. Based on information garnered through analysis, a final decision is made regarding the strategy to pursue. The QSPM is beneficial because it allows organizations to assess internal and external success factors. Gupta (2015) Every business administration makes every effort to grow their company. For business expansion, motivation, creativity, and foresight are required.

Developing QSPM requires several subjective assessments and decisions. These factors must also be conducted with the assistance of external stakeholders. Consequently, there is a high likelihood of obtaining crucial and beneficial organizational decisions (Putri & Riyanto, 2020). Certain authors criticize the notion that subjectivity is inherent to the process.

Interpretation of the matrix

The QSPM is used to evaluate the relative attractiveness of various options based on the levels of external and internal key success factors that can be enhanced or utilized. This attractiveness is determined by calculating the cumulative effect of all significant success factors.

According to Pazouki, Jozi, and Ziari (2017), QSPM is a methodology that enables strategists to objectively evaluate alternative plans based on previously identified external and internal success factors. IFE (Internal Factor Evaluation) and EFE (External Factor Evaluation) Matrix evaluate internal and external achievement strategies. These alternative strategies are derived from the SWOT, SPACE, and BCG matrices. However, not every alternative strategy requires QSPM evaluation (Ariendi, Daryanto, & Sanim, 2015).

Table 1:-Quantitative Strategic Planning Matrix (QSPM)

Alternative Strategies					
Key factors	Weight	Strategy 1		Strategy 2	
		AS	TAS	AS	TAS
Internal Key Factors					
-					
-					
-					
External Key Factors					
-					
-					
-					
Total amount of attractiveness score	1.0				

Source: David, 2009

Multiple strategies can be evaluated concurrently through QSPM, its primary feature. In addition, strategists can use QSPM analysis to integrate internal and external factors into the decision-making process. Every organization, from non-profit to for-profit, can utilize QSPM (David et al., 2019).

2.4 Strategic-management Process and The QSPM's Position

Typically, the formulation, execution, and evaluation phases are the three primary phases of strategic management. In addition, some individuals viewed strategic management as a process that incorporated both promotion and feedback, and they perpetually enhanced it. Strategic management should have four stages: environmental assessment, formulation, execution, and monitoring/control (Hashemi et al., 2011). Although Henry Mintzberg did not support a clear distinction between formulation and implementation, the research considers there to be six steps in the strategic-management process (See Table 1): analysis, formulation, selection, implementation, evaluation/monitoring, and control/adjustment.

Analysis of QSPM is crucial because the information gathered will determine subsequent phases. At this juncture, collecting as much information as possible is essential to realize the organization's vision. Understanding business needs in terms of sustainability, identification of initiatives, and strategic directions that will contribute significantly to the development of the business should be the primary objective of analysis. Sumiarsih, Legono, and Kodoatie (2018) Organizations should use the information from

SWOT and PESTEL analyses to set realistic and clear objectives and goals. The subsequent development of targeted plans is for the achievement of objectives.

It is essential for the success of a business venture that strategies are effectively implemented. It is the action phase of the strategic management procedure. If the overall organizational strategy does not align with the organization's current structure, it is crucial to implement new structures. Control actions and strategy evaluation include performance measures (Caiado et al., 2019). On the other hand, they also include taking corrective actions, addressing external issues, and conducting routine assessments of internal issues. Parameters that should be measured for an effective strategy evaluation must be defined. This stage must reflect the objectives established in the previous stage. Organizations should evaluate their progress by comparing intended results to actual results. Monitoring external and internal issues will enable organizations to respond to significant changes in the business environment. Corrective action should be taken if an organization is not progressing toward its objectives. Moreover, the strategic management process must be repeated if Shepherd, McMullen, and Ocasio (2017) organizational actions fail.

The QSPM is a tool for objectively evaluating alternative strategies, and its primary purpose is to make the selection of alternative strategies after strategy formulation and prior to strategy implementation more effective. The QSPM falls into the first stage of the strategic-management process, strategy formulation, and is an excellent instrument for selecting viable alternative strategies (David et al., 2019).

Table 2. Strategic-management Process & the QSPM's Position

Stages	Normal	Stages	Others	Stages	This paper	Tools
	Process Name		Process Name		Process Name	
1	Formulation	1	Environmental Scanning	1	Analysis	EFE/IFE/CPM
		2	Formulation	2	Formulation	SWOT/BCG/IE
		3	Formulation	3	Choosing	QSPM
2	Implementation	3	Implementation	4	Implementation	
3	Evaluation	4	Monitoring/Control	5	Evaluation/Monitoring	BSC
				6	Control/Adjustment	

Strategy formulation can be identified, evaluated, and selected within a framework that includes three stages: input, matching, and decision.

In order to develop organizational strategies at stage 1, fundamental input data is required. These input tools require strategies to quantify subjectivity during the initial phases of strategy formulation. At the matching

stage of strategy formulation, there is a framework consisting of five instruments. These instruments include the grand strategy matrix, the IE matrix, the BCG matrix, the space matrix, and the TOWS matrix. The tools rely heavily on the input stage's information to match external threats and opportunities with internal weaknesses and strengths. In the third stage, QSPM-based decision-making is implemented. At the

QSPM, the information gathered in stages 1 and 2 is utilized. QSPM reveals the relative attractiveness of various alternative strategies. QSPM provides objective strategies as a result.

Preparation of matrix

Initial conditions include both external and internal factors. External factors represent threats and opportunities, while internal factors represent vulnerability and strength. It is then related to EFE and IFE to weigh the various factors. The weight indicates the significance of external and internal factors. The result will be "0" if all weights are added together. After designating the weights, the stage 2 matrix is analyzed. In addition, various strategic alternatives for implementation are also identified.

The summit of the QSPM is determined by various strategies derived from the Grand strategy matrix, the IE matrix, the BCG matrix, the SPACE matrix, and the TOWS matrix. These instruments produce comparable outcomes. However, not every strategy is suggested

by the QSPM-required matching techniques. On the other hand, consumers and analysts of the QASPM should rely on their intuition. After allocating scores to various factors, the attractiveness of scores should be determined (Alamanda et al., 2019). The factor with the highest score is the most appealing.

Steps in preparation for QSPM

Five steps are required to produce QSPM. First, information regarding internal weaknesses/strengths and external threats/opportunities are collected in QSPM's left column. The second phase is to assign external and internal factors weights. The third stage is examining stage 2 matrices and identifying implementation strategies that organizations must consider. The fourth step is the determination of attractive scores, followed by the computation of various scores and, finally, the attractive score.

As depicted in Figure 1, QSPM represents the final strategy formulation phase compared to other management tools.

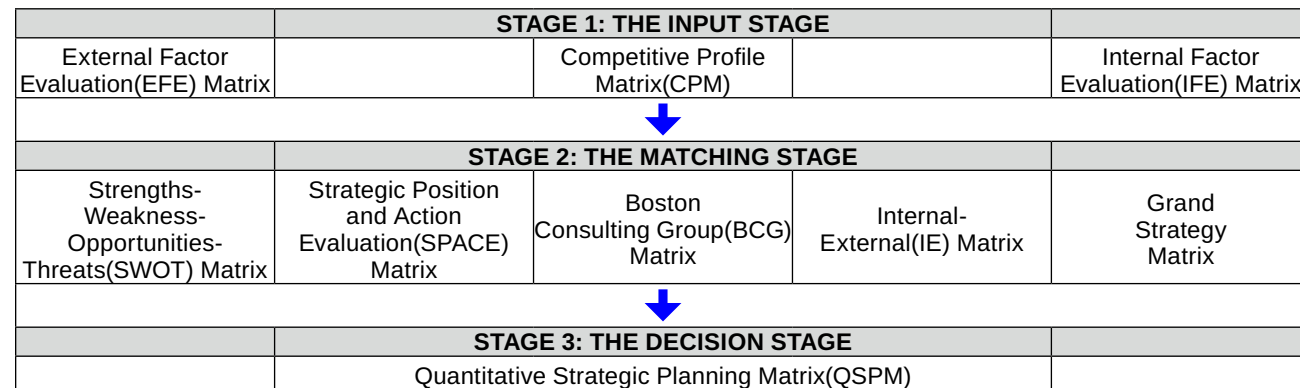


Figure 2. The Strategy-Formulation Framework

2.5 Stages of Quantitative Strategic Planning Matrix (QSPM)

QSPM was presented for the first time in 1986 for Long Range Planning. Using the QSPM method, senior managers can objectively evaluate various plans in light of the organization's internal strengths and weaknesses and external opportunities and threats (David, 1986). The various methods of the second stage are to be scored separately by the QSPM. The weights, ratings, and ASs require subjective evaluations based on the company- and industry-specific facts, figures, data, and trends (David, David, & David, 2016).

The score reflects the benefits and drawbacks of the strategy. In other words, the first stage's factor

assessment results (obtained by examining the EFE matrix and IFE matrix) and the second stage's potential strategies (obtained by analyzing the SWOT matrix, space matrix, BCG matrix, and IE matrix) serve as the input data for QSPM (Pichainarongk & Bidaisee, 2022). The QSPM outcomes reflect the optimal choice of strategy. A QSPM can be constructed in six stages. (See the example QSPM in Table 3).

Step 1: In the left column of the QSPM, list significant external opportunities and threats, as well as internal strengths and weaknesses. The EFE matrix, IFE matrix, and competitive situation matrix provide direct access to these variables. Typically, it consists of at least 10 external and 10 internal factors.

Step 2: Assign weights to each internal and external factor of significance. These weights must match those of the EFE matrix and the IFE matrix. The sum of all external critical factor weights is equal to 1. Additionally, the sum of all internal key factor weights equals 1.

Step 3: Consider alternative strategies for implementation by the organization. Record these tactics in the first column of the QSPM.

Step 4: Determine the appeal scores (AS). Each alternative strategy's relative attractiveness is conveyed numerically. Consider each factor individually to determine if it influences the selection of alternative strategies. Compare the alternative strategies for this factor if the answer is YES. Then, AS should be assigned to each strategy in the provided set of alternatives, where 1 indicates that the

strategy is not acceptable, 2 indicates that the strategy is possibly acceptable, 3 indicates that the strategy is likely acceptable, and 4 indicates that the strategy is the most acceptable. In particular, the higher the number, the more acceptable the strategy. Alternative strategies for this factor are not contrasted if the answer is NOT.

Step 5: Totalize the attractiveness scores (TAS). TAS=AS multiplied by mass. The alternative strategy is more enticing the higher the TAS.

Step 6: Compute the total TAS for each alternative course of action. Sum TAS reveals the most alluring strategy in comparison to others. The higher the score, the more attractive the strategy. Which strategy is best when internal and external factors that could influence strategic decisions are considered?

Table 3. A sample of QSPM

Key factors	Weight	Alternative strategies						
		Strategy 1		Strategy 2		Strategy 3		
		AS	TAS	AS	TAS	AS	TAS	
External	Opportunities							
	factor 1	0.15	1	0.15	2	0.3	3	0.45
	factor 2	0.12	3	0.36	1	0.12	2	0.24
	factor 3	0.1	1	0.1	3	0.3	2	0.2
	factor 4	0.08		/		0		0
	factor 5	0.05	1	0.05	2	0.1	3	0.15
	Threats							
	factor 1	0.15	1	0.15	2	0.3	3	0.45
	factor 2	0.12		0		/		0
	factor 3	0.1	3	0.3	2	0.2	1	0.1
factor 4	0.08		0		0		/	
factor 5	0.05	2	0.1	1	0.05	3	0.15	
Internal	Strengths							
	factor 1	0.15	3	0.45	2	0.3	1	0.15
	factor 2	0.12	1	0.12	3	0.36	2	0.24
	factor 3	0.1		0		0		/
	factor 4	0.08	3	0.24	1	0.08	2	0.16
	factor 5	0.05		0		0		/
	Weaknesses							
	factor 1	0.15	3	0.45	1	0.15	2	0.3
	factor 2	0.12	2	0.24	1	0.12	3	0.36
	factor 3	0.1		0		/		0
factor 4	0.08	1	0.08	3	0.24	2	0.16	
factor 5	0.05		/		0		0	
Total	2		2.79		2.62		3.11	

2.6 Application and Positive Features of QSPM

QSPM analysis is utilized as an instrument for strategic management in various academic disciplines. Table 3 displays the most recent industrial applications of the QSPM in research and study. QSPM applies to a

variety of business duties and industries. M. E. David et al. (2017) were the first to introduce the QSPM as a standalone marketing instrument. Additionally, QSPM technologies could be utilized for individual planning decisions. David (1986) asserts that one of the benefits

of QSPM is its capacity to evaluate multiple alternative strategies simultaneously.

In addition, QSPM incorporates both external and internal factors into the decision-making process. Thirdly, QSPM can simultaneously evaluate multiple alternative strategies. QSPM applies to numerous categories of organizations.

2.7 Shortcomings of Quantitative Strategic Planning Matrix (QSPM)

As a management instrument, the QSPM had some limitations. According to David (1986), numerical values designated as ratings and attractiveness scores are subjective judgments, even though they should be based on objective information, and evaluation quality depends on the information's quality. The evaluation process relies on the intuition and experience of the reviewer. Barak and Javanmard (2020) proposed a method for enhancing QSPM that used fuzzy numbers as the input data and adapted the TOPSIS MCDM index for calculating the total attractive scores of strategies by permitting experts to use linguistic terms (qualitative data) in their evaluations. This method improved the QSPM process, with the implied prerequisite that all important factors be calculated. The enhancement was conceived during the technical procedure. It did not improve upon the deficiencies of QSPM that David mentioned. This new method has not been extensively adopted despite offering QSPM enhancement suggestions. In addition, the future is uncertain, and the current prerequisites for scoring may

alter. Although QSPM has flaws, it is extensively used as a straightforward strategic decision-making tool.

2.8 A new description of QSPM's shortcomings

QSPM evaluates alternative strategies based on historical and current information and data. The future may be uncertain, and methods will be implemented. The recent discovery of a defect in QSPM will be discussed below:

According to stage 4 criteria in QSPM, alternative strategies for this factor are not compared if the answer is NOT. All alternative strategies for this factor (such as X) are not compared. Thus, numerous strategies can be evaluated and compared objectively.

However, this essential component (X), identified through analysis, was extracted from EFE, IFE, or CPM. That may arise in the future for an organization. During the QSPM procedure, alternative strategies for this factor (X) must be contrasted; otherwise, the selected strategy will be incapable of handling this crucial element in a real-world scenario. This significant aspect will influence the organizational strategy's implementation (X). This is a brand-new discovery regarding a QSPM defect.

3. Research Method

This study employed the empirical method to identify problems, propose hypotheses and solutions, administer expert questionnaires, and collect feedback data to validate the logic. The method's structure is depicted in Figure 3 to illustrate the approach process plainly.

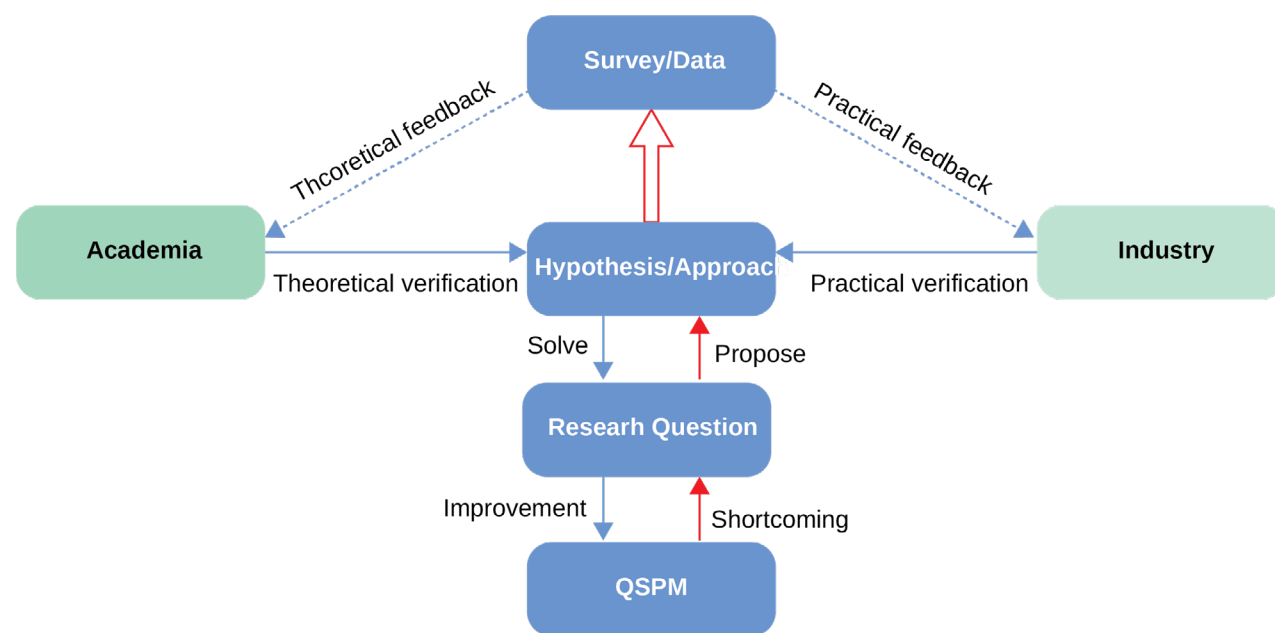


Figure 3:

3.1 Hypothesis and Problem

Based on the above new shortcoming of QSPM, it is hypothesized that the selected strategy would not be able to handle this situation of key factor(X) in the actual world if alternative strategies for this factor(X) were not compared during the QSPM process. It is a prerequisite that all critical factors have been analyzed through the internal and external environment of the organization using EFE/IFE/IE techniques. That means that all significant factors could potentially occur in the future. QSPM's purpose is to integrate important factors and alternative strategies. If the hypothesis is true, the problem will manifest itself.

3.2 Propose Approach

Regardless of the future, completing the organization's strategic objectives effectively is the most important

thing. The QSPM could be enhanced to enhance the implementation plan's efficacy. The relationship between all extant alternative strategic items is one of coexistence and complementarity, not opposition, and they can be utilized concurrently within each strategic option in descending order of importance. This is the unambiguous agreement that must be reached following QSPM selection. This study suggests that, after QSPM, additional procedures for sorting key factors that match them should be implemented. Select all critical factors from QSPM that have not been evaluated and list them on the left. Choose and list on the right those alternative strategies that could be valued with important unevaluated factors. After listing all key factors that have not been evaluated and alternative strategies, it is necessary to compare them based on those that have not been evaluated. Table 4 demonstrates the Sub-QSPM.

Table 4. Sub-QSPM

Unevaluated Key factors		Alternative strategies						
		Weight	Strategy 1		Strategy 2		Strategy 3	
			AS	TAS	AS	TAS	AS	TAS
External	Opportunities							
	factor 4	0.08		/	1		2	
	Threats							
	factor 2	0.12		1	/		2	
	factor 4	0.08		2	1		/	
Internal	Strengths							
	factor 3	0.1		2	1		/	
	factor 5	0.05		1	2		/	
	Weaknesses							
	factor 3	0.1		1	/		2	
factor 5	0.05		/		2		1	

3.3 Research Process and Data

A qualitative methodology was used to collect feedback data from academic researchers working in similar disciplines, business experts, and managers at the top and middle levels of their firms. For the online survey, two groups were established. The first cohort comprised academic researchers, while the second cohort comprised managers and industry specialists. The first step involved selecting small and medium-sized business interviewees (experts/managers). Then, the top 50 academic experts were arranged according to their strategy Google Scholar Cited Number. Include relevant strategy scholars as well. There were 90 participants in the interviews. The purpose of the survey was to solicit opinions from academic researchers and business professionals. This method is believed to be effective for gathering a complete data set, particularly

if the phenomenon being studied requires participants with the requisite skills, knowledge, expertise, and experience to enrich the research findings.

In this investigation, both structured and unstructured interviews were conducted. The portion of the structured interview that identified the deficiency in QSPM's finding concerned the statement of the query. The objective of the unstructured interview was to solve the problem by evaluating the proposed hypothesis to determine its viability. All interviewees should initially possess knowledge of strategy management, strategy formulation, and QSPM. A description of QSPM was appended to the feedback provided. Moreover, all interviewees knew the hypothesis to remedy this paper's flaw. Interviewees provided feedback based on their academic and professional backgrounds and independent judgment.

4. Result

According to industry feedback data, 72.22 percent of the participants held management positions and participated in the enterprise's strategy formulation process, while 86.11 percent were aware of the enterprise's strategic objectives.

Although 75% of respondents were familiar with some mainstream strategic management tools, only 33.33 % used strategic management tools to assist with strategic planning during the strategy formulation process. Consequently, strategic management instruments have not been utilized extensively in the industry.

Regarding QSPM feedback, 44.44% of participants knew this management tool, but only 13.89% would use it to select strategic solutions. Surprisingly, 94.44% of participants believed QSPM would benefit strategic decision-making.

Regarding David's deficiency in QSPM, 91.67 percent of participants (30.56 percent) concurred and agreed partially (61.11 percent). 66.67% of the participants comprehended (25.00%) and partially comprehended (41.67%) the proposed new deficiencies of QSPM in this paper.

94.44% of respondents concurred (38.89%) or partially agreed (55.56%) with the recommendations made in this paper regarding the new deficiencies of QSPM.

Even though 54 questionnaires were sent out and only three responses were received, based on the influence of the three professors in the professional field, the feedback data from academia can also impact the quality of the research results presented in this paper.

From the data feedback, two concur with David's proposed deficiency of QSPM, and one partially agrees.

One agrees, and two partially concur with the new shortcomings of QSPM outlined in this paper.

Two of them partially concur with the suggestions presented in this paper regarding the new deficiencies of QSPM.

5. Discussion

QSPM has several positive characteristics. First, organizations can utilize it for strategic evaluation purposes. Second, decision-making requires the integration of internal and external factors, for which strategists are required. Therefore, there is a negligible chance that an essential feature will be overlooked. In addition, QSPM plays a crucial role in making

crucial strategic decisions. Though several subjective decisions are required to develop QSPM and make minor decisions, they are crucial in enhancing strategic decisions and boosting profitability. Different types of organizations can utilize QSPM.

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6. Conclusion

It was subjected to a survey of strategic management academics and business managers to ensure the questionnaire's validity. The poll results are more credible because they are supported by academic theory and business managers' perspectives.

Despite QSPM's numerous faults, its utility and function are still acknowledged. It remains a highly effective strategic management instrument for selecting between multiple approaches. Through the research of QSPM, a new flaw was identified, and a workable and effective solution was developed, which will unquestionably aid in improving strategic management. Using QSPM, we can make future strategic decisions that will result in the greater achievement of the organization's strategic objectives and the implementation of the strategy.

When the abovementioned criteria are in operation, the alternative strategy on the right with the comparative advantage could be selected from Table 4. If there are no factor-related options, you cannot make a selection. In the end, prospective facts and data are derived from the past and the present. The tool alone is insufficient. It also merits an additional step. However, academic research has not been utilized extensively in industry until recently. It indicates that the practical application of the theory has not been considered.

The research activities in this study also increase industry interest in management tools, promote greater integration between industry and academia, and enhance the practical significance and value of academic achievements.

7. Limitations

QSPM possesses a few limitations. (1) It requires informed assumptions and intuitive judgments at all times. Even though they are based on organizational objectives and industrial information, data, facts, and trends, judgmental decisions require ratings and weighting. (2) Throughout formulating a strategy, discussion among decision-makers

is integral to developing QSPM. As there may be genuine differences in the interpretation of opinion and data during the selection and evaluation of a strategy, there is the potential for fruitful debate. (3) The third limitation of QSPM is that information quality determines output quality.

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