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**STRATEGIC LEARNING AND STRATEGIC
FORESIGHT - MEDIATING ROLE OF
STRATEGIC FLEXIBILITY: UNIVERSITY
OF BASRAH IN IRAQ**

Elham Abdul Samad Mohammed ALTOMA

Master's Thesis

Supervisor

Asst. Prof. Dr. Esin YÜCEL

Istanbul, 2024

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The thesis titled STRATEGIC LEARNING AND STRATEGIC FORESIGHT - MEDIATING ROLE OF STRATEGIC FLEXIBILITY: UNIVERSITY OF BASRAH IN IRAQ prepared by ELHAM ABDUL SAMAD MOHAMMED ALTOMA and submitted on 31/05/2024 has been **accepted by majority of votes** for the degree of Master of Business Administration.

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I hereby declare that all information/data presented in this graduation project has been obtained in full accordance with academic rules and ethical conduct. I also declare all unoriginal materials and conclusions have been cited in the text and all references mentioned in the Reference List have been cited in the text, and vice versa as required by the abovementioned rules and conduct.

Elham Abdul Samad Mohammed ALTOMA

Signature



DEDICATION

I would like to express my sincere gratitude to Allah (SWT) for giving me the strength and determination to see this thesis through. This accomplishment would not have been achievable without His blessings.

I sincerely thank my supervisor, Dr. Esin Yücel, for her constant helpfulness and guidance. She has been with me every step, from the initial research stages to the final writing process. Her dedication to the Business Administration program at Altinbas University has been truly inspiring.

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I believe in the following saying of Albert Schweitzer: “At times, our own light goes out and is rekindled by a spark from another person. Each of us has cause to think with deep gratitude of those who have lighted the flame within us.”

ABSTRACT

STRATEGIC LEARNING AND STRATEGIC FORESIGHT – MEDIATING ROLE OF STRATEGIC FLEXIBILITY

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The major goal of this study is to determine the role of strategic flexibility as a mediator between strategic learning and strategic foresight. Four dimensions of strategic learning are used in this study, including Knowledge Creation, Strategic Knowledge Distribution, Strategic Knowledge Interpretation, and Strategic Knowledge Implementation. In addition, it discusses and illustrates the sources of strategic flexibility, including resource and coordination flexibility. The sources of strategic foresight are also examined, which include hindsight, insight, and prospection. A questionnaire that includes 36 items and utilizes the A five-point Likert scale has been distributed. The measurements are based on a scale ranging from 5 (strongly agree) to 1 (strongly disagree). The practical data of the study were collected from administrators working at the University of Basrah in Iraq. The target sample of the study includes the University President, Vice President of the University, College Dean, Assistant Dean, and Head of the Department. A total of 163 valid responses have been collected from the hand-delivered questionnaire. The study findings indicate that Strategic Learning has a statistically significant and positive impact on Strategic Foresight. Additionally, Strategic Learning has a statistically significant and positive impact on Strategic Flexibility. Furthermore, Strategic Flexibility has a statistically significant and positive impact on Strategic Foresight. Moreover, Strategic Flexibility acts as a mediator in the relationship between Strategic Learning and Strategic Foresight, enhancing their connection.

Adopting Strategic Flexibility at the University of Basrah as an approach and practice by developing infrastructure that is capable of generally absorbing environmental changes and efficiently resolving them. Monitoring developments and changes related to the environment of the University of Basrah through the utilization of various means, as well as encouraging the effectiveness of cooperation between the colleges and departments of the University of Basrah.

Keywords: Strategic Learning, Strategic Flexibility, Strategic Foresight, University of Basrah, Iraq.



ÖZET

STRATEJİK ÖĞRENME VE STRATEJİK ÖNGÖRÜ - STRATEJİK ESNEKLİĞİN ARABULUCULUK ROLÜ

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Bu çalışmanın temel amacı, stratejik öğrenme ile stratejik öngörü arasında arabulucu olarak stratejik esnekliğin rolünü belirlemektir. Bu çalışmada Bilgi Oluşturma, Stratejik Bilgi Dağıtımı, Stratejik Bilginin Yorumlanması ve Stratejik Bilginin Uygulanması dahil olmak üzere stratejik öğrenmenin dört boyutu kullanılmaktadır. Ayrıca, kaynak ve koordinasyon esnekliği de dahil olmak üzere stratejik esnekliğin kaynaklarını tartışır ve gösterir. Geriye dönük bakış, içgörü ve izah içeren stratejik öngörü kaynakları da incelenir. 36 maddeden oluşan ve beş maddelik Likert ölçeğini kullanan bir anket dağıtılmıştır. Ölçümler, 5 (kesinlikle katılıyorum) ile 1 (kesinlikle katılmıyorum) arasında değişen bir ölçeğe dayanmaktadır. Çalışmanın pratik verileri Irak'taki Basra Üniversitesi'nde çalışan yöneticilerden toplanmıştır. Araştırmanın hedef örneklemini Üniversite Rektörü, Üniversite Rektör Yardımcısı, Yüksekokul Dekanı, Dekan Yardımcısı ve Bölüm Başkanı oluşturmaktadır. Elden teslim edilen anketten toplam 163 geçerli yanıt toplanmıştır. Çalışma bulguları, Stratejik Öğrenmenin Stratejik Öngörü üzerinde istatistiksel olarak anlamlı ve olumlu bir etkiye sahip olduğunu göstermektedir. Ek olarak, Stratejik Öğrenmenin Stratejik Esneklik üzerinde istatistiksel olarak anlamlı ve olumlu bir etkisi vardır. Ayrıca, Stratejik Esnekliğin Stratejik Öngörü üzerinde istatistiksel olarak anlamlı ve olumlu bir etkisi vardır. Ayrıca, Stratejik Esneklik, Stratejik Öğrenme ile Stratejik Öngörü arasındaki ilişkide arabulucu görevi görerek bağlantılarını geliştirir.

Basra Üniversitesi'nde Stratejik Esnekliđi, genel olarak çevresel değışiklikleri özümsenebilecek ve bunları verimli bir şekilde çözebilecek altyapıyı geliştirerek bir yaklaşım ve uygulama olarak benimsemek. Basra Üniversitesi'nin çevresiyle ilgili gelişmeleri ve değışiklikleri çeşitli yollarla izlemek ve Basra Üniversitesi'nin kolejleri ve bölümleri arasındaki işbirliğinin etkinliğini teşvik etmek.

Anahtar Kelimeler: Stratejik Öğrenme, Stratejik Esneklik, Stratejik Öngörü, Basra Üniversitesi, Irak.



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1. INTRODUCTION

Organizations are currently confronted with the most significant challenges of accelerating changes and intense competition. This forces them to seek out novel strategic approaches to navigate, maintain their position, and ensure long-term success. Thus, establishing the future direction and goals for an organization depends on defining, describing, and understanding future scenarios through strategic foresight. This technique is designed to provide dependable insights for decision-making and minimize the occurrence of unexpected strategic outcomes. Therefore, production and service organizations have realized the importance of strategic foresight as a necessity for success, sustainability, and dealing with sudden changes. Organizations that do not have a clear roadmap through their strategic foresight will face a range of risks and threats, where strategic foresight and awareness of its prospects and understanding its challenges are among the main ingredients in making it successful for organizations. Therefore, interest in strategic foresight has increased because of the significant impact and rapid development of many everyday strategies and the tendency to catch up and keep pace with these developments. Bootz (2010) indicates that the interactive forms of learning are primarily associated with activities that entail collaborative processes and the engagement of several actors involving foresight. Rohrbeck and Kum (2018) state that the goals of strategic foresight include imparting knowledge to individuals engaged in planning, as well as the tactics required to develop strategies, create plans, and propose initial alternatives to growth rates.

In addition, according to Bouhaleb and Smida's (2020) study on the subject, strategic flexibility mediates the relationship between scenario planning, complexity, and strategic flexibility. Researchers assume that strategic flexibility mediates the association between scenario planning and strategic complexity in a positive way, which supports their findings. This is also confirmed by Ghorban-Bakhsh and Gholipour-Kanani (2018), who showed that strategic flexibility mediates, and that organizational learning positively affects strategic flexibility. In another context, Rezaei et al. (2022) have shown that improving strategic innovation requires strategic flexibility with the prospective view. Moreover, Strategic flexibility is an essential and vital factor for the organization's continuity and success, considering the unstable and rapidly changing business environment (Chanphati and Thosuwanchot, 2023).

In an attempt to gain strategic foresight in light of the dynamic environment, universities have turned to strategic learning and strategic flexibility. This has happened due to the ever-changing nature of the university marketplace and the uncertainty and intense competition that may result from it, which has caused universities to recognize these techniques. In considering that educational institutions must actively look for ways and methods to address these modifications and effectively manage the challenges they face, it is possible to achieve such foresight by employing both strategic learning and flexibility.

Considering the previous and to reduce the research gap between strategic learning, strategic flexibility, and strategic foresight, the purpose of this study was to fill a knowledge vacuum by investigating how strategic flexibility mediates the relation between strategic learning and strategic foresight. The study considered all of these variables.

The Intellectual Basis was established based on three contentious cognitive dialectics. It suggests that strategic learning is the most effective approach to improving strategic foresight. In contrast, in the contemporary business environment, strategic flexibility is essential for the improvement of an organization's strategic foresight. Consequently, the objective of the current study is to resolve this gap by offering empirical evidence that is primarily directed at:

- a. The connection that occurs between strategic learning and strategic foresight.
- b. Strategic learning and its relationship to strategic flexibility.
- c. The connection that exists between strategic foresight and strategic flexibility.
- d. How strategic flexibility mediates the connection between strategic learning and strategic foresight.

Universities generally face environmental conditions characterized by turbulence, uncertainty, and instability due to change and development in the surrounding environment. This requires them to conduct an environmental survey to collect and analyze information related to their internal and external business environments. The University of Basrah in Iraq's collection and analysis of information about its internal and external business environment requires it to adopt administrative approaches with a strategic perspective to improve its educational processes. Its ability to develop and grow, as diagnosing the level of its strategic flexibility is a fundamental and necessary requirement in achieving high levels

of performance, and through conducting a comprehensive literature review, the researcher examined previous academic publications related to strategic learning, strategic flexibility, and strategic foresight, it was shown that there was no study linking the three variables at the same time in an integrated manner, which reflected the necessity of conducting a study to closing the gap that linking strategic learning, strategic flexibility and strategic foresight. However, strategic learning and flexibility are crucial in enhancing the University of Basrah in Iraq. They enable the university to accurately identify business needs and improve its ability to adapt to frequent changes in the internal and external environment, as demanded by the strategic foresight process.

Following the ideas mentioned above and the intellectual basis, the researcher can come up with the research topic as follows in the configuration of the essential question:

“Does strategic flexibility mediate the relationship between strategic learning and strategic foresight?”.

The following questions are developed by the researcher in light of the study's problem statement, primary question, and intended outcomes:

- a. Does strategic learning, including (strategic knowledge creation, distribution, interpretation, and implementation), impact strategic foresight, including (hindsight, insight, and prospection)?
- b. Does strategic learning (strategic knowledge creation, strategic knowledge distribution, strategic knowledge interpretation, and strategic knowledge implementation) impact strategic flexibility (resources flexibility, and coordination flexibility)?
- c. Does strategic flexibility (resource flexibility, and coordination flexibility) affect strategic foresight (hindsight, insight, and prospection)?
- d. Does strategic flexibility (resources flexibility, and coordination flexibility) mediate the relationship between strategic learning and strategic foresight?

The current study carries significance from two perspectives:

- a. *The theoretical-scientific aspect*: represented in defining the scientific foundations of strategic learning, strategic flexibility, and strategic foresight as a concept, significance, and objectives among the vital and renewed topics in strategic thought. In addition to clarifying the measurements and dimensions related to strategic learning, strategic

flexibility, and strategic foresight, the Universities will measure and adapt them to guide them in making future decisions.

- b. *The practical aspect:* is to stimulate the thought of decision makers at the University of Basrah in Iraq to pay more attention to strategic learning and strategic foresight and highlight one of the prominent problems that the University of Basrah in Iraq suffers from is its limited ability to identify environmental signals that require strategic flexibility and use them in determining the means necessary for adaptation and formulating the appropriate strategy. It is also an illustration of the University of Basrah in Iraq and the necessity of developing approaches, means, and methods that enhance its strategic foresight. In addition, the significance of the research population and the sample and sampling unit is essential, as they are responsible for making and implementing strategic decisions for the University of Basrah in Iraq. Finally, the forthcoming recommendations and their potential contributions towards addressing the strategic challenges facing the University of Basrah in Iraq.

The primary focus of this study is to examine how strategic flexibility influences the connection between strategic learning and strategic foresight. To accomplish this, the study aims to achieve the following objectives:

- a. Studying the direct impact of strategic learning at the University of Basrah, Iraq (strategic knowledge creation, distribution, interpretation, and implementation) on strategic foresight (hindsight, insight, prospection).
- b. Investigate the direct impact of strategic learning on strategic flexibility at the University of Basrah in Iraq. This includes analyzing strategic knowledge creation, distribution, interpretation, and implementation, and resource flexibility and coordination flexibility.
- c. Determining how effectively strategic flexibility (coordination and resource flexibility) influences strategic foresight (hindsight, insight, prospection) at the University of Basrah in Iraq.
- d. Examine the impact of strategic flexibility, precisely resource flexibility and coordination flexibility, on the interaction between strategic learning and strategic foresight at the University of Basrah in Iraq.

2. LITERATURE REVIEW

New concepts have surfaced among academic researchers and practitioners in organizations in the contemporary business environment. Strategic learning emerged as a highly significant concept during the latter half of the previous century and the early years of the current one. This is particularly evident in the remarkable achievements of numerous organizations that implemented the strategic learning approach, a continuous confrontation with environmental challenges, interaction, extrapolation, exploration, and solution-finding, which enabled the organizations to select and implement the most effective solutions. These interests aligned with the profound global changes as we entered the era of information and knowledge concerned with the ongoing benefits of investing in strategic flexibility. Consistent with these developments, the emphasis on profit maximization, efficiency, and cost-effectiveness as the primary determinants of competition has diminished, considering the new competitive logic embodied in the ability to attain exceptional levels of competitive performance via strategic foresight. As a result, strategic foresight has evolved from a mere concept to a method employed for achieving a competitive edge, particularly by strategic adaptability.

2.1 Strategic Learning

Organizations face several challenges imposed on them by environments characterized by their ambiguity and difficulty to predict, as they are turbulent environments surrounded by a lot of uncertainty. In order to react and adapt to changes in their environment, organizations need to find the right strategy. Whenever an organization's leadership team works together, it may make the necessary changes to its capacity to adapt and continue to exist, and strategic learning, which puts the organization in a state of strategic renewal, which carries within it diligent work to change organizational strategies per the requirements of environmental changes (Anderson, et al. 2009). Organizations seeking to possess this ability take a strategic approach based on creating a type of change in the organizational system, including its inputs, operations, and outputs, to improve the ability of this system or its components to achieve the goals that it is supposed to achieve, as it was planned, and this approach is known as strategic learning. (Bryson, 2018).

According to AL-Jawazneh and AL-Awawdeh (2016), a company can benefit from strategic learning since it helps them create new knowledge that they can use to improve their strategies, create new knowledge overall, and implement changes to their strategies. A potential reason why strategic learning has become so popular among organizations is its ability to help them adapt to changing external conditions (Alenzy, 2018).

Based on the information provided, it can be concluded that the concept of strategic learning was developed by organizations to be able to effectively respond to changes in their environment. This is achieved by generating strategic knowledge and using it to update and improve their organizational strategies. The core of this concept became evident in the definitions provided by researchers and authors who were interested in clarifying the essence of strategic learning.

2.1.1 Strategic Learning Definition

There are many approaches that researchers have taken to define strategic learning, but the definitions of this concept have generally agreed on several pillars on which it is based, examples of which are:

- a. The organization's entrepreneurial orientation pillar: indicated that strategic learning is the outcome that the organization reaches after reviewing the successes and failures that the organization has experienced as a result of the entrepreneurial it has practiced and is still practicing, in addition, coming up with a list of lessons learned and formulating it into a new knowledge that is used to modify or change strategies currently applied in the organization and replaced by new strategies (Anderson et al., 2009).
- b. Ability to strategic information processing pillar: defines strategic learning as an organization's capacity to gain information from its strategic knowledge in order to improve its competitiveness and strategy updates (Sirén, 2012).
- c. Strategic renewal pillar: promised strategic learning as a form of organizational learning based on extracting strategic knowledge and using it to develop new strategies in line with the requirements of strategic renewal (Al-Jawazneh and Al-Awawdeh, 2016). Perhaps this feature of strategic learning represented the possibility

of developing strategic plans in line with changes in the organizational environment making it the focus of organizations' attention (Alenzy, 2018).

- d. Nature of strategic learning pillar: which emphasized that it is an interactive process, regardless of the information on which it depends, whether formal or informal, which means that the strategic learning process is a response to changing situations and circumstances in the organizational environment in a way that takes into account the surrounding environmental changes with a focus on improving organizational effectiveness (Rascão, 2018).
- e. Control and feedback pillar: which showed that it is the learning process based on the practice of continuous control over the implementation of the strategies currently applied in the organization, and the use of feedback on the results of control activities in making the required corrective adjustments (Dizaji et al., 2018). In the present study, strategic learning is conceptualized as the means that help an organization learn how to manage its resources to enhance its ability to adapt and reduce the effects of the risks it faces. In addition, expands the organization's perceptions of strategic foresight scenarios.

In line with previous definitions of strategic learning, it is understood that strategic learning is a means that benefits the organization in learning how to manage its resources in a way that enhances its ability to adapt and reduce the effects of the risks it faces (Marhamat et al., 2018). In addition, strategic learning expands the organization's perceptions of future planning scenarios (Ebrahini, 2018).

Accordingly, the researcher believes that an organization's knowledge base, competencies, and routines can be transformed through strategic learning. This can be achieved through the organization's own development, strengthening of its relationships with its environment, adaptation to internal and external variables, and training of its employees to seek out and apply new information for growth and success.

2.1.2 Strategic Learning Important

Sirén (2012) identified that the importance of strategic learning lies through:

- a. Helping the organization by quickly identifying rapid, environmental changes and seizing opportunities therein.
- b. Supporting the organization in achieving long-term organizational adaptation because the management of knowledge processes strategically contribute to the renewal that allows overall malleability.
- c. Enabling the organization to modify and develop its current goals, procedures, and strategies to assemble its capability of distinctive competition.

The importance of strategic learning can be recognized through the paradox between it and strategic planning. While strategic planning constitutes the explicit face of the planning process and the development of strategic plans, strategic learning is its other implicit face (Sirén & Kohtamäki, 2016). Strategic Learning is equally paramount to the pillars and applications of strategic management. Examples of the benefits of strategic learning that the organization gains are what Waribugo (2016) and De Rosemont, et al. (2018) mentioned:

- a. Achieving compatibility between the organization and its environment.
- b. Assisting the organization in its pursuit of achieving the organizational vision.
- c. Supporting strategic change in the organization and developing emergency strategies.
- d. Promoting strategic thinking, which is a major pillar of organizational building.

Bryson (2018) adds to the previous importance, that strategic learning helps the organization recognize the state of the organization's vision and goals in terms of idealism, realism, and the possibility of achieving them, and work to improve the level of the organization's creative and market performance (Cabrilo and Dahms, 2018), and help the organization enhance the performance of its products (Jiménez-Jiménez, et al., 2018). It also helps them achieve a competitive advantage by providing them with strategic knowledge (Bolisani and Bratianu, 2018).

2.1.3 Strategic Learning Dimensions

Strategic knowledge represents the subject of strategic learning. Strategic learning can be measured through Strategic Knowledge Creation, Strategic Knowledge Distribution, Strategic Knowledge interpretation, and Strategic Knowledge Implementation. This is confirmed by employing the same processes in previous studies to measure strategic learning (Sirén, 2012; Idris and Al-Rubaie, 2014).

2.1.3.1 Strategic knowledge creation

To understand what is meant by strategic knowledge creation, it is necessary to first refer to the sources of obtaining it, examples of which include the strategic mistakes that the organization has previously committed (Anderson et al., 2009), the external environment (Al-Jawazneh and Al-Awawdeh, 2016), Feedback from control processes on the implementation of the organization's strategies (Dizaji et al., 2018). These sources indicate that the nature of knowledge varies depending on the source, which means that collecting different knowledge from different sources requires preparing it before using it. These processes, which are known as the sub-processes of strategic knowledge creation, are represented by assimilation, which means obtaining tacit knowledge from its explicit sources, social interaction, which through the feedback emerging from it enables the construction of new tacit knowledge, deduction, which means transforming tacit knowledge into explicit knowledge, and integration, which describes the compilation of Knowledge from different sources and integrating them to create new knowledge (Papa et al., 2018).

Accordingly, it can be said that strategic knowledge creation involves gathering fresh insights and data that extend beyond existing markets and technologies. It also involves acquiring new methods as one develops services and improves understanding of strategies that rely on experimentation and are highly risky in the market.

2.1.3.2 Strategic knowledge distribution

Knowledge Distribution has received increasing attention from organizations due to its recognizable merits in terms of its positive impact on organization's competence to compete and improve its creative and economic performance (Michna, 2018). One of the

most important effects of this process is that it contributes to improving the organization's intellectual capital (Akhavan and Khosravian, 2016). The process of strategic knowledge distributing is defined as disseminating the knowledge acquired in the previous stage, which is the stage of creating strategic knowledge, among the various units in the organization, in preparation for the next step in the strategic learning process, which is the strategic knowledge interpretation (Sirén, 2012). This process enables workers to access and operate the knowledge available within the organization (Tang, 2017). The primary purpose of the process of collecting or receiving information within the process of sharing it is not to keep it, but rather to transfer it to the parties that benefit from it, which is what is done during the second sub-process known as disseminating knowledge, which is required to be done with the desire of the recipient of the knowledge because not wanting to share it means losing it (Tufail, et al., 2016). Another name for this process is knowledge sharing (Vangala et al., 2017), and it includes two sub-processes: receiving or collecting knowledge by workers in the organization first and then disseminating it at the level of the organization as a whole (Michna, 2018). Distributing and sharing knowledge is one of the strategic learning processes, whereby strategic knowledge is disseminated and delivered to its users in preparation for using it in developing strategies. This is done by considering that the exchange of strategic information is a behavioral rule and that the exchange of this information is supposed to be effective, in addition to that Dissemination of strategic information must occur at the level of all departments within the organization.

2.1.3.3 Strategic knowledge interpretation

Strategic knowledge Interpreting is imperative to organizations as it precedes the last stage of strategic learning, which is the stage of applying knowledge, as it contributes to developing a general interpretation and common understanding of strategic knowledge and its role in solving problems (King, 2009). The benefit of strategic knowledge interpreting for the organization is that it provides useful knowledge that can be stored and used (Evans, et al., 2015). Oluikpe (2015) emphasized that strategic knowledge interpreting plays vital role in giving this knowledge an identity and meaning that makes it more usable.

Accordingly, strategic knowledge interpreting is manifested in refining the knowledge, ridding it of impurities, making it meaningful, and placing it in a form ready for use, and in being the most influential process in the effectiveness of the knowledge application process in which strategies are formulated in light of its results, and this is what requires the formation of work teams to reconsider the decisions taken, thinking about assumptions when the organization obtains new strategic information, in addition to the size of the potential impact on the organization as a result of obtaining strategic information related to its competitors.

2.1.3.4 Strategic knowledge implementation

What we call "strategic knowledge implementation" is putting what we've learned into action when we know, on the one hand, that it will have a positive impact and, on the other, that our organization has a good chance of having that impact.

Strategic Knowledge Implementation gains its importance because it is the standard by which the value of strategic knowledge can be judged, that is, strategic knowledge acquires significance, and is described as valuable if it is usable (Chen and Huang, 2009). It is important to highlight that once the implementation of strategic knowledge is finished, the process of strategic learning is complete, the impact of which is supposed to appear in bringing about the desired innovation and the organization's acquisition of competitiveness (Sirén, 2014), if it is carried out effectively through the optimal use of strategic knowledge, avoiding previous pitfalls, and following best practices in its application (Vangala et al., 2017).

From the above, the researcher believes that Strategic Knowledge Implementation. However, it is the last stage in the strategic learning cycle, is the most important goal that the organization seeks to achieve because it is linked to the organization's operational strategies, and that previous strategic learning processes prepare the requirements for possessing strategic knowledge, through putting new strategic knowledge to use by enhancing the organization's services and operational processes and making decisions based on that knowledge.

2.2 Strategic Flexibility

2.2.1 Approaches to Building Strategic Flexibility

The importance of strategic flexibility in today's unstable and changing marketplace was highlighted by Chanphati and Thosuwanchot (2023), which has prompted many organizations to supplement their basic strategies with alternative strategies to change paths of action. Radan and Al-Anazi (2017) pointed out five main approaches to building strategic flexibility, which are:

- a. The reaction approach, as the basic idea of this approach is based on the organization's actual reaction behavior approach, as the organization constantly seeks to adapt a quick reaction to changes in the external environment. Therefore, strategic flexibility cannot be considered a strategy that the organization uses to ensure its continuity in an environment that is always changing, and the reaction approach lacks the strategic value of flexibility in its overall role in building an offensive strategy.
- b. The proactive response approach according to the resource theory. According to this approach, the strategic role of proactive flexibility can be analyzed, by focusing on innovation and anticipating the external environment. It is also considered to be a primary organizational capability. This view holds that a diverse and continuously renewed set of resources and competencies reflects a strategic flexibility. The organization's ability to respond to external environmental uncertainty and implement innovations at all levels depends on its capabilities and the speed with which its resources, qualifications, and competencies may be utilized. This is related to the presence of suitable organizational conditions, such as culture, structure, and technology, which revitalize the organization's powers by influencing its internal resources and skills.
- c. Strategic maneuvers approach. This approach includes strategies (defensive and offensive) to activate flexibility, which focus on what is known as the "catalyzing event," that is, the emergency. Offensive maneuvers involve taking the initiative and exploiting opportunities, while defensive maneuvers are preventive. According to this approach, strategic maneuvers are divided into four patterns that organizations adopt in their work, and these patterns are:

- i. A style of proactive maneuvers (few offensive maneuvers), used to initiate transformations. These strategic options are formulated before they are needed and anticipate competitive initiatives and changes in the market.
- ii. A pattern of preventive maneuvers (few defensive maneuvers). These help the organization protect against potential harm and its consequences when entering a high risk situation, such as entering a new foreign market. In this way, the organization seeks to take hedging strategies.
- iii. A pattern of corrective maneuvers (post-defensive maneuvers), refers to the ability to regenerate activities resulting from recovery from the shock after a major and influential event in the market.
- iv. Pattern of exploitative maneuvers (post-offensive maneuvers). These maneuvers allow for regaining control after a competitive movement and responding to it or any tangible unexpected event in the strategic competitive arena. As shown in Table (2.1).

Table 2.1: Classifications of Strategic Maneuvers.

Strategic options	Before the triggering event (proactive)	After the triggering event (defensive)
Offensive	Proactive maneuvers	Exploitative maneuvers
Defensive	Preventive maneuvers	Corrective maneuvers

- v. The functional approach, which reflects functional flexibility (manufacturing flexibility), as the ideas on this approach are related based on the broad production system adopted by many automobile manufacturers that focused on the method of standardizing outputs and benefiting from economies of scale. In addition, this approach focuses on the manufacturing processes implemented by the organization to transform its inputs into outputs to overcome all problems related to internal and external environmental factors, and thus ensure that the manufacturing processes do not deviate from what is planned.

- vi. The organizational adaptation approaches. This approach is a formula for matching the organization's activities with the environment in which it operates within the limits of what is known as strategic alignment as a procedure for regulating the reciprocal relationship between the organization and its environment. Therefore, the strategic manager must look to the future and find appropriate methods to deal with it, this requires more understanding, analysis, and searching for innovative ways to develop and survive.

From the above, the researcher concludes that strategic flexibility is an inevitable necessity for all types of organizations that seek to achieve success and excellence because it represents an integrated scientific methodology that gives organizations the ability to adapt and influence the environment surrounding them.

2.2.2 Historical Development of Strategic Flexibility Concept

To cover the conceptual sophistication of the term strategic flexibility, Herhausen, et al. (2020) confirmed that the concept of strategic flexibility has been addressed in many administrative fields, including strategy, marketing, innovation, entrepreneurship, and operations. As Zhuange, et al. (2018) explained. Strategic flexibility is two-oriented, embodying the competencies of the organization to be proactive and take the initiative so as to forecast the environment of the future, as well as the speed and effectiveness of the organization's response to environmental changes. Radomska (2015) also it was pointed out that one of the features is strategic flexibility, that permits organizations to get ready for modifications in the environment, and this concept involves many interactions between a group of elements, which are:

- a. Actions taken concerning types of analysis with the purpose of predicting a number of various scenarios.
- b. Formulate strategies for each scenario.
- c. Acquiring the resources and skills (capabilities) necessary to implement these strategies.
- d. Implement the most likely strategy.

- e. Prepare for the task of quickly adopting an alternative strategy if necessary.

Based on the above, According to Xin (2020), strategic flexibility is a result of an organization's capacity to adjust to significant environmental shifts that have a significant influence on its performance. This flexibility can be achieved by diversifying the organization's business operations, investing in resources that have not yet been utilized, and reducing the number of projects that are carried out in specialized fields such as research and development.

According to Wang et al. (2021), strategic flexibility is a multi-faceted idea that includes design and capabilities. An organization's strategic flexibility can be described as its capacity to activate a range of capabilities and speeds that enhance its control and management capacities (Wenna and Ruyue, 2021). Finally, the ability of an organization to adapt to unexpected scenarios in a strategic and deliberative manner is what we mean when we talk about strategic flexibility (Chen, 2022). Accordingly, the researcher believes that any definition of strategic flexibility is supposed to include both the internal and external conditions of the organization, and therefore strategic flexibility relates to the organization's ability to manage strategic risks through the optimal use of its resources in two ways: proactive and defensive to respond to external environmental changes (opportunities and threats).

2.2.3 The Value and Advantages of Strategic Flexibility

Organizations in general have realized the importance of strategic flexibility and the requirements for achieving it, as Idris et al (2023) explained the importance of strategic flexibility through:

- a. For an organization to manage activities under these conditions and to increase an organization's ability to respond efficiently and effectively to significant and rapidly occurring environmental changes in the markets, strategic flexibility is a requirement. It is also essential that organizations adopt this flexibility to manage the state of continuous change in the high-tech product market, considering environmental uncertainty.

- b. By means of interaction with their clients, businesses can improve their capacity and readiness to address evolving customer needs and desires, as well as uncover customer preferences and their level of interest in the organization's marketing capabilities.
- c. Its importance lies in enhancing organizations' capacity to showcase their products and services in diverse marketplaces, hence boosting their potential to create tangible value for clients and enabling swift adaptation to evolving customer preferences. Organizational growth and survival are closely tied to the generation of opportunities that enhance the quality of life for different societal classes. Within the realm of growth opportunities, there exist three fundamental alternatives: geographical expansion, product/service expansion, and value-added expansion.

Some summarized the importance of strategic flexibility (Xiao, Yang, and Hu, 2021):

- a. It enables the organization to react to changes in the surrounding environment in the way that is intended.
- b. It allows organizations to respond to unstable environments and use resources and adaptability to required conditions.
- c. Increasing the long-term growth of organizations by acquiring new resources and improving their ability to generate competitive advantages.
- d. Customize products and services to suit individual customer needs and expectations.
- e. Adjusting pricing in reaction to shifts in competition and market prices.

According to various researchers mentioned in Meng, et al. (2020), having strategic flexibility is crucial for organizations to swiftly adapt to shifting competitive conditions. This allows them to restructure their resources and seize opportunities in a Chaotic environment. In addition, strategic flexibility leads to excellence, innovation, and improvement of the organization's performance levels. Moreover, strategic flexibility is considered a tool for analyzing scenarios.

In line with the previous viewpoints of the researchers, the researcher believes that the importance of strategic flexibility is evident in the following points:

- a. Generating the necessary capabilities to enable organizations to survive during crises.
- b. Enhancing organizations' capacity to promptly adapt to significant changes in the external environment.
- c. It helps the organization to integrate its resources effectively in a way that leads to generating the greatest value, obtaining exceptional returns, and achieving competitive advantage at various organizational levels.
- d. Generating many options before the need for them arises, as well as developing an important base of information to follow up on different alternatives.
- e. Helps the organization switch from one strategy to another with minimal losses in time, effort, cost, and performance.
- f. Gives the company the ability to adapt to the wants and needs of its customers by constantly improving its products and services to meet their evolving demands.

2.2.4 Dimensions of Measuring Strategic Flexibility

The dimensions of strategic flexibility were identified in the current study according to what was indicated by (Xin, 2020); (Wang, Cao, Xi and Chen, 2021); (Wenna and Ruyue, 2021); (Chen, 2022). As follows:

- a. Resource Flexibility: One of the most important and well-known ideas in business is resource flexibility. This is especially true when allocating resources and finding a good mix between supply and demand. As the process gets more complicated, they tend to raise running costs. However, they have many benefits, such as risk pooling and hedging, and options for operating and revenue maximization usually pay off (Supriadi, et al., 2020). According to Xin (2020), resource flexibility is very helpful for businesses when it's hard to predict how much demand there will be.

According to Wang, et al., (2021) resource flexibility is related to identifying potential changes in the deployment and use of internal resources. The term resource flexibility refers to resources that can produce many variants of the product, where resource flexibility in the distribution network with deferred production is linked to investigating production flexibility that requires a hierarchical analysis of different

strategic work levels that require space and information technology systems, workers who can integrate and coordinate these resources during the process (Wenna and Ruyue, 2021).

Consistent with the above, resource flexibility reflects an organization's ability to obtain resources with diverse uses in addition to offering the use of existing resources (Wang, et al., 2021). It improves the level of response to changes in the external business environment by adjusting part of the service delivery plan, in addition, the flexibility of resources is considered a key factor for organizations to achieve a competitive advantage through exploitation and full benefit from the resources available to these organizations. There is often talk about how to benefit from the organization's available resources to help enhance its competitive position and improve performance levels (Chen, 2022).

- b. Flexibility in Coordination: Typically, coordination involves the skill of organizing and linking various elements to gain a clear understanding of something. When it comes to flexibility, coordination flexibility is all about finding different ways for an organization to effectively utilize its resources in order to reach its objectives. This aligns with the idea of coordination flexibility as a dynamic organizational capability. It involves being proactive, reallocating resources, and staying attuned to market demands. The goal is to leverage complementary capabilities to strengthen partnerships (Arunachalam, et al., 2021).

Sing et al. (2019) underscored the correlation between coordination flexibility and organizational performance-influencing factors such as demand management, coordination, resources, and physical distribution. However, based on their scale, organizations are expected to recognize their capacity to effectively coordinate their resources.

Xin (2020) states that organizations utilize coordination flexibility to adjust to changes in the dynamic business environment, capitalize on opportunities, and offer services to potential customers by organizing and connecting resources in a suitable manner. Coordination flexibility enables organizations to efficiently integrate their internal and external resources and utilize them to achieve superior performance.

Additionally, it assists in restructuring and reconfiguring conventional administrative procedures, implementing them in a novel way to reduce time and expenses associated with production operations, thereby enhancing and improving production methods. Wang, et al., (2021) show that implementing resource flexibility enables organizations to:

- a. Using current resources or relying on external resources.
- b. Using existing resources or restructuring internal resources.
- c. Effective sharing and use of resources for an effective response.
- d. Effective response to potential threats.

Coordination flexibility reflects the organization's ability to deploy tasks, resources, and activities and focuses on coordinating individual tasks and activities and integrating them by building a comprehensive collective sense and understanding (Wenna and Ruyue, 2021). Accordingly, coordination flexibility is used to facilitate reconfiguration procedures through (Chen, 2022):

- a. Enable organizations to identify, pool, and allocate resources to facilitate the dissemination of market information among organizational units.
- b. Appointing the right individual for the right task.
- c. Better synchronize the organization with its tasks and activities.

2.3 Strategic Foresight

2.3.1 The Historical Development of The Strategic Foresight Approach

The 1950s are considered the period for the birth of the term foresight in the organizational context. Marinković, et al. (2022) confirm that the development of the term foresight historically mentioned in Rohrbeck et al., in 2015 came from two main schools, the first, in which Gaston Berger developed the French “futurism school” in which the focus is on systems thinking. Cooperative. Second, the American Rand Corporation laid the foundations for the school of strategic foresight, which focuses on methods of future forecasting.

According to the above, the starting point for the term foresight as an element of strategic management is considered to be in the eighties of the last century, as the first use of this term was in the scientific and technological field to determine the prospects for the development of scientific discoveries, It was classified as technological and its results were primarily concerned with technological innovations applied in the defense industries. In 1971, technological foresight was implemented by the Science and Technology Foresight Center in Japan as part of the project “Future Technology in Japan Towards 2030” (Khort, 2022).

Until the early 1990s, foresight was characterized by a quantitative approach focusing on forecasting developments that applied digital information (Walton, et al. 2019). However, Gordon et al. (2020) emphasized that future forecasting follows a different approach, as many companies have applied myriad tools across various organizational levels within organizations to understand the future challenges they face.

Schwarz (2024) summarized the historical stages of the development of strategic foresight into five basic stages, as follows:

- a. The necessity of preparing for the future and the birth of the strategic dimension of foresight

This stage ranged from the forties to the fifties of the last century. The starting point of the foresight system was unknown, and foresight emerged in the context of World War II and American military forecasting practices. Moreover, two main roots were identified for this phase, the first being the RAND Project (First Foresight School), which proposed advanced methods with great emphasis on the Delphi technique and the participation of experts. The second, the French Futurist School founded by Gaston Berger, includes diverse actors, cooperation between them, joint thinking, and a focus on decision-making and future-oriented sense-making.

- b. Lack of precise definition of the future and thinking about multiple scenarios

This stage ranged from the sixties to the end of the seventies of the last century, during which it was emphasized that foresight practices had become an integral part of the practice of the operational processes of organizations, in addition to the emergence of

the organizational foresight system, and the application of linear models when the environment was seen as stable, and the lack of accuracy as reflected in the inadequacy of planning in a more complex and competitive market, as well as, the realization that traditional forecasting methods no longer provide meaningful and adequate results, and finally, the emergence of the scenario planning approach in the field of organizational foresight, which has become one of the most common and powerful strategic foresight methods in application and discussion.

c. Enriching the methods of strategic foresight and incorporating it into organizational practice

This stage was from the beginning of the eighties to the end of the nineties of the twentieth century. Enrichment and inclusion have been driven by increasing environmental uncertainty, mobility, complexity, ambiguity, and the challenges of globalized markets. Organizations have integrated foresight into their operational practices intending to maintain their competitiveness. In addition, strategic foresight at this stage has become prominent for managing innovation and not just supporting the decision-making process. Moreover, in light of the uncertain, dynamic, and more complex markets, continuous foresight practices were implemented, represented by the establishment of think tanks directed at the innovative process, in addition to discussing mechanisms for improving the organization's visionary strength and competitiveness by integrating strategic foresight methods. This represented a turning point in the foresight system. The strategic implementation of many large-scale foresight projects.

d. The value of strategic foresight

This stage ranged from the beginning of the year 2000 until the end of 2019 of the twenty-first century. In it, the integration and multidisciplinary of foresight practices in organizations became an integral part of their organizational routine, and many organizations also tried to translate their future visions into strategic measures. This situation was explained by two phenomena. The first is that foresight processes generate a huge amount of information that needs interpretation by individuals. Highly experienced and knowledgeable. Second, managers often lack the time to analyze these ideas, raising the question of how to integrate foresight and visioning practices into

organizations. At this stage, emphasis was placed on benefiting from the sensing, interpretation, and planning capabilities performed by the various functions of the organization assigned to it, such as research and development, innovation management, strategy, or risk management.

e. The future of strategic foresight

The 1920s and beyond represent the period in which strategic foresight gained more attention, and many questions were raised, the most prominent of which is how strategic foresight will be included in organizational preparation. These questions highlighted many of the challenges faced by individuals, society, governments, and organizations regarding the importance of strategic foresight and its applications. Many organizations have developed strategic foresight procedures, and many small and medium-sized organizations have faced difficulties in successfully performing strategic foresight, which has led to the necessity of identifying the optimal strategic foresight tools that provide the greatest benefit. Furthermore, technological and digital developments and the generation of big data that serves as a data basis have prompted AI-based foresight tools that may help organizations by detecting weak signals or by improving organizations' capabilities in sensemaking.

2.3.2 The Essence of Strategic Foresight

The management of organizations has faced tremendous, rapid, and continuous development in management and techniques methods from a strategic perspective, which required it to adopt techniques based on the strategic approach, including the strategic foresight approach, one of the most important approaches used in future studies. Wyrwicka & Erdeli (2018) confirmed that the lack of agreement on a single concept about strategic foresight reflects the widespread interest in this concept, as many researchers approached the abstraction from different perspectives depending on the difference in their specialization and intellectual orientations, which gave the concept of strategic foresight a value and cognitive knowledge that enabled understanding the contents of strategic forecasting from several cognitive approaches.

In line with the above, Van Duijne and Bishop (2018) expressed strategic foresight as analyzing the past with its variables, managing the present, and drawing the desired

future by studying the possibility of making long-term strategic decisions. According to Kononiuk, et al. (2018), it is a methodical and inclusive procedure carried out by organization's top brass with an eye toward the future; it stands for a vision for the medium term and helps identify environmental opportunities and threats in the domains of society, culture, economy, and the environment. It has been argued that it is an umbrella term for innovative strategic planning, policymaking, and solution design methods that work with alternative futures rather than predicting the future (Canyon, 2018).

On the other hand, Eibl, et al. (2019) explained. It is a set of tools, methods, and processes that facilitate strategic decision-making in the unknown future. From a future and temporal perspective, Buehring & Bishop (2020) emphasized that strategic foresight describes a set of alternative scenarios and not a single expected point in time. In another context, strategic foresight was defined as administrative capabilities and skills apparent in the organizational fabric, rooted in cognitive and work methods (Almansoori, et al. 2022).

Strategic foresight enhances organizational flexibility and rationality in decision-making, according to Haarhaus & Liening (2020), who also validated the significance of this concept. Leandro N, et al. (2021) expressed the importance of strategic foresight by pointing out that increasing the organization's strategic foresight leads to increased opportunities for innovation it. In another context, Hammad & Al-Sa'ed (2022) considered that strategic foresight is crucial to the success of organizational performance in rapidly changing work environments and is important for plans distinguished by complexity and the promise of real environmental certainty. Andresen et al. (2022) emphasized that the importance of strategic foresight is represented by its ability to reduce environmental uncertainty and complexity in the business environment. In agreement with what was indicated by Abuzaid, et al. (2022) that strategic foresight is an important tool for detecting changes in the business environment; and maintain focus on what matters in the external environment. According to Rohrbeck and Kum (2018) the objectives of strategic foresight are to provide an important aspect of the knowledge base for those in charge of the planning process and the strategies necessary to formulate strategies, draw plans, and present initial alternatives to growth rates, providing a long-

term time frame for decisions that may be taken, and then working according to a long-term view and a relatively long time horizon and explore the results and repercussions of the future paths of today's decision.

2.3.3 Perspectives and Process of Strategic Foresight

Recognizing its importance and development, many researchers have sought to review the body of knowledge of strategic foresight from multiple different angles. From an evolutionary perspective, Rohrbeck et al. (2015) confirmed many researchers try to understand how the concept of strategic foresight develops over time. As Gordon et al. (2020) confirmed Strategic foresight has evolved as a result of integrating technology with market forecasts to expand forecasting approaches to reach the stage of “organizational integration” to create flexible and adaptable organizations. As for the dynamic capabilities perspective, researchers resorted to using the dynamic capabilities lens to review and understand the development of strategic foresight as an organizational component (Schwarz et al., 2020). Studies and research that adopted the dynamic capabilities of strategic foresight consider it to be an organizational capability that can be implemented at all levels and institutions. Strategic foresight is a series of small activities that aim to negotiate an organizational path towards the future, and includes continuous interaction between all personnel, instead of being limited to discussions at the top levels (Fergnani, 2020).

Schwarz (2024) summarized the strategic foresight process with four main steps:

- a. Perception (environmental scanning): That describes the practices that organizations use to identify factors that drive environmental change. The basic assumptions in this step are that interruptions do not appear without warning; Warning signs are described as weak signals that reflect early detection of events that could lead to strategic surprises. The Weak signals are detected through environmental scanning to identify early indicators of potential environmental changes.
- b. Excavation: These practices describe organizations' involvement in sense-making and developing strategies to anticipate the appropriate time for action by identifying trigger points. The purpose of this step is to obtain the advantage of strategic insight

that allows organizations to determine a superior path of action that differs from the current state of the industry.

- c. Examination: That describes practices often operationalized in dedicated accelerator modules and may include prototyping, R&D projects, consumer testing, internal and external projects, and strategic initiatives. This step aims to confer legitimacy, start a new business path, and ultimately gain a competitive advantage.
- d. Transformation: This step describes the methods by which organizations consolidate, combine, and reconfigure their organizational assets and capabilities to achieve change or transformation.

2.3.4 Strategic Foresight Dimensions

The dimensions of strategic flexibility were identified in the current study according to what was indicated by Sarpong and O' Regan (2014):

- a. Hindsight, describes the manner in which causal relationships from the past can impact the present. Actively interacting with historical data facilitates the development of a comprehensive comprehension of patterns that can be extrapolated to unveil developing environmental trends. Divergent responses frequently result from the cognitive inertia issue pertaining to the historical knowledge and experiences utilized in the process of envisioning the future. Preceding the occurrence of an event, therefore, hindsight can be a potent instrument for estimating the probability of knowledge. An assortment of organizational techniques, including forecasting methods like time series and econometrics and the Delphi technique, are all capable of facilitating the development of retrospective knowledge.
- b. Prospection, the process entails comprehending the future by engaging in imaginative exploration and transforming prospective sources and constraints into valuable resources and fruitful results. Internally, prospecting prioritizes innovative and unconventional thinking while undermining the established interpretative processes within businesses. Prospecting is a speculative activity that typically takes place at the intersections of industry, technology, and an organization's value chain borders. The culture of prospecting also emphasizes the active promotion and acceptance of

unconventional and dissenting viewpoints that challenge the established assumptions of a company. Prospecting activities in practice involve forming partnerships and alliances and strategically utilizing experimental applications like social computing to collect competitive intelligence based on knowledge. This information is then compiled, analyzed, and systematically acted upon in relation to competitors, customers, and suppliers.

- c. Insight, focuses on the shift from the current state to the upcoming state, and this shift can be influential in examining situations with significant ambiguity or lacking historical precedent. Exceeding expectations and assumptions for verification or evaluation involves constructing a plausible future that relies on developing technologies and social and economic developments. Regulatory actors often depend on this to perform value-based indicative analysis. Commonly employed methodologies for gaining foresight may encompass environmental study, analysis of market trends and patterns, value chain analysis, case probability assessments, impact simulations, and strategic games.

3. INTERACTIONS BETWEEN ESSENTIAL CONCEPTS

This study investigates how strategic flexibility mediates between strategic learning and strategic foresight. In this section of the study, we review existing research on the conceptual connection between strategic learning, strategic foresight, and strategic flexibility and formulate the study's hypotheses.

3.1 THE LINK BETWEEN STRATEGIC LEARNING AND STRATEGIC FORESIGHT

A number of authors share the view that strategic learning is essential especially when it involves strategic foresight (Bootz et al., 2019; Chermack, 2005; van der Heijden, 2004). Pulsiri and Vatananan-Thesenvitz (2021) propose that including strategic learning and strategic foresight in the dynamic capabilities' framework could enhance the value for scholars and professionals. According to Bootz (2010), understanding the connection between learning and foresight requires a precise definition of essential concepts and the role of reflection within this vast field. According to Lichtenthaler (2009), organizational learning can help businesses improve their strategic planning, enabling them to acquire and utilize new capabilities to achieve a competitive advantage. Yoon, et al. (2017) support this idea. Chermack et al. (2015) and Burt and Nair (2020) have shown that scenario analysis can lead to strategic foresight or oversight. According to Pulsiri and Vatananan-Thesenvitz (2021), organizations should engage in strategic learning to enhance their ability to anticipate and prepare for future strategic successes. Strategic learning involves incorporating new information and knowledge into an organization. According to a study by Eskandari, et al. (2020), strategic learning is essential in the connection that exists between strategic foresight and competitiveness. In addition, it enhances competitiveness, proving that strategic learning is an essential component of strategic foresight. So, based on the information, we can make the following hypothesis based on:

H1: Strategic learning has a significant positive direct effect on strategic foresight.

3.2 RELATIONSHIP BETWEEN STRATEGIC LEARNING AND STRATEGIC FLEXIBILITY

In 2012, Santos-Vijande, Sánchez, and Trespalacios conducted a study exploring the relationship between strategic learning and flexibility. The study found that organizational learning is essential in helping companies to adapt to changing market circumstances. According to Maroofi (2013), organizational learning can improve a company's ability to adjust quickly to changes in the intellectual environment, thus enhancing strategic flexibility. Yuetong and Taoran (2013) show that organizational learning significantly impacts strategic flexibility. According to Agha, Atwa, and Kirwan (2014), strategic intelligence helps reinforce strategic flexibility. According to Abu Shehab (2015), strategic learning substantially impacts the flexibility of strategic planning. We can formulate the following hypothesis based on the information that has been provided:

H2: Strategic learning has a significant positive direct effect on strategic flexibility.

3.3 RELATIONSHIP BETWEEN STRATEGIC FLEXIBILITY AND STRATEGIC FORESIGHT

After conducting a thorough literature review on the connection between strategic flexibility and strategic foresight, it has become clear that there is a gap in knowledge regarding the aspects of this relationship. That is primarily due to the limited availability of information on the topic. According to research by Kaddory and Alalousi (2018), there is a positive correlation between strategic flexibility and strategic foresight. Moreover, a study by Al-Douri and Atrach (2020) revealed that strategic flexibility and strategic foresight are positively related. These findings suggest that companies must be adaptable and flexible in their strategic approach to achieve long-term sustainability.

H3: Strategic flexibility has a significant positive direct effect on strategic foresight.

Based on the positive relationship among the three variables, our study suggests that strategic flexibility acts as a mediator between strategic learning and strategic foresight.

H4: Strategic flexibility mediates positively the relationship between strategic learning and strategic foresight.

4. METHODOLOGY

4.1 SAMPLING PROCEDURE

This study is exploratory and quantitative, and it aims to develop a more comprehensive knowledge of the interactions among the variables being studied. The study uses empirical methods to examine the function of strategic flexibility in mediating the relationship between strategic learning and strategic foresight. The research sample comprised 181 administrators employed at the University of Basrah in Iraq. The study sample includes the study population itself, which was surveyed comprehensively due to the limited size of the study population. A total of 181 questionnaires were delivered. A total of 163 questionnaires have been received and are being utilized to analyze the practical data.

4.2 RESEARCH DESIGN

A quantitative inquiry approach was used to collect and analyze empirical data. The approach that was used was based on the objective of the current study, which was to evaluate the fit and precision of the evaluator model that had been developed. For the purpose of determining quantitative data, the inquiry research strategy was considered to be the most appropriate approach.

4.3 RESEARCH VARIABLES

This study has three variables: an independent variable, a mediating variable, and a dependent variable. The variable that is not being changed is strategic learning (Strategic Knowledge Creation, Strategic Knowledge Distribution, Strategic Knowledge interpretation, Strategic Knowledge Implementation), the variable that is being changed is strategic flexibility (Resource Flexibility and Coordination Flexibility), and the variable that is being changed is strategic foresight (Hindsight, Insight, Prospection).

4.4 THE RESEARCH MODEL

The study's research model has been formulated using the previously cited literature. Figure 4.1 displays the study model. The study comprises one independent variable, which is strategic learning. Strategic learning encompasses Strategic Knowledge Creation, Strategic Knowledge Distribution, Strategic Knowledge Interpretation, and Strategic Knowledge

Implementation. The mediating variable is strategic flexibility, which consists of Resource Flexibility and Coordination Flexibility. Lastly, the dependent variable is strategic foresight, encompassing Hindsight, Insight, and Prospection.

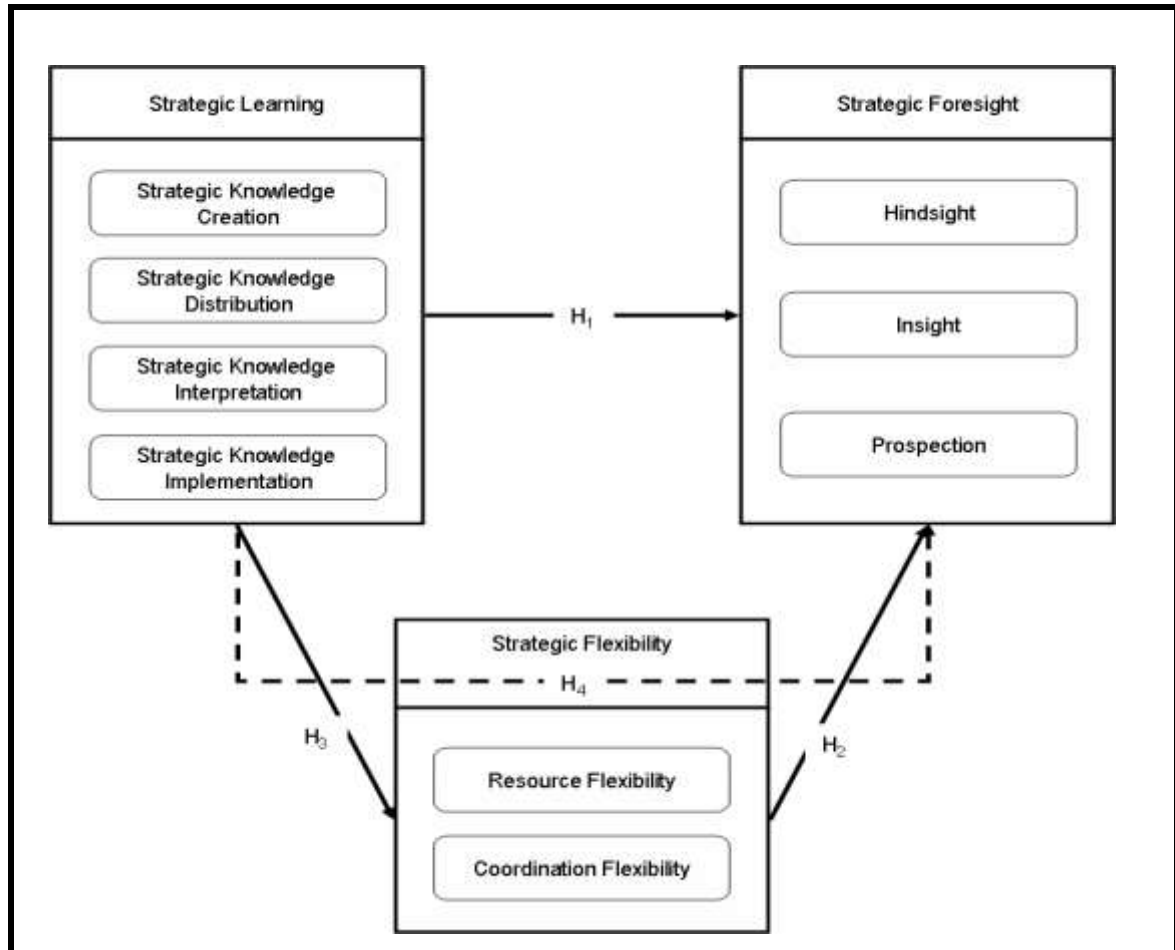


Figure 4.1: The Research Model.

4.5 RESEARCH HYPOTHESES

In accordance with the study's objectives, the subsequent hypotheses are analyzed:

H1: Strategic learning has a significant positive direct effect on strategic foresight.

H2: Strategic learning has a significant positive direct effect on strategic flexibility.

H3: Strategic flexibility has a significant positive direct effect on strategic foresight.

H4: Strategic flexibility mediates positively the relationship between strategic learning and strategic foresight.

4.6 INSTRUMENTS FOR MEASURING

The quantitative methodology is the foundation of the current investigation. Conducting surveys is the process that is used to obtain the data. The study comprises four items, one of which is the independent variable, strategic learning (Strategic Knowledge Creation, Strategic Knowledge Distribution, Strategic Knowledge Interpretation, and Strategic Knowledge Implementation). The other two variables are the mediating variable, strategic flexibility (Resource Flexibility and Coordination Flexibility), and the dependent variable, strategic foresight (Hindsight, Insight, and Prospection).

This research used four sections of the survey. First, there is the data about the general population. The second part, "strategic learning," is comprised of 19 items and is designed to assess the components of strategic learning according to Sirén (2012) and Idris and Al-Rubaie (2014). The third part, the strategic flexibility section, comprises 8 different items. The purpose of this section is to evaluate the components of strategic flexibility based on the findings of Xin (2020), Wang, Cao, Xi, and Chen (2021), Wenna and Ruyue (2021), and Chen (2022). The strategic foresight portion is the fourth section, consisting of 9 items. Its purpose is to measure strategic foresight based on Sarpong and O'Regan's (2014) findings. This study utilized a Five-Likert scale, which consisted of five response options: strongly agree (5), agree (4), neutral (3), disagree (2), and strongly disagree (1).

4.7 DATA ANALYSIS

The Statistical Package of Social Sciences (SPSS 29) and AMOS 29 were utilized for data analysis. Various statistical methods were employed to analyze the data from the study. The investigation data was analyzed using reliability, Exploratory factors, correlation, and path analyses.

5. RESEARCH FINDINGS

5.1 RESPONDENTS PROFILE

Table 5.1 displays the results of the first stage of the study, which involves the responder profiles. Among those who participated in the survey, 26.99% are female, and 73.11% are male, according to the results. Most respondents (51%) had 6–10 years of work experience, followed by 53.37% with 10–15 years of experience and 23.93% with more than 15 years of work experience. The most common occupation among responders (86.50% of the total) is the head of the department. On the other hand, vice deans have the second-highest percentage at 12.88%.

Table 5.1:The Demographic Characteristics of the Participants.

		N	Percentage (%)
Gender	Male	119	73.01%
	Female	44	26.99%
Years of Experience	5 Years or less	28	17.18%
	From 6 – less than 10 Years	87	53.37%
	From 10 – less than 15 Years	39	23.93%
	15 Years and above	9	5.52%
Job Title	University President	1	0.61%
	Vices President of the University	2	1.23%
	Colleges' Deans	19	11.66%
	Vice Deans	21	12.88%
	Heads of the Departments	120	73.62%

5.2 RELIABILITY OF MEASUREMENT INSTRUMENTS

To determine how reliable the questionnaire was, this study utilized the Cronbach alpha coefficient. Table 5.2 shows that reliability values of more than 0.7 were observed when the variables were tested for internal consistency. Results show that there is a strong relationship between the questionnaire's items. In terms of data review, Table 5.2 shows the results of the study's reliability analysis for the three variables.

Table 5.2: The Reliability Analysis of the Study's Three Variables.

Main Variables	Sub-variables	Cronbach's Alpha
Strategic Learning		0.952
	Strategic Knowledge Creation	0.864
	Strategic Knowledge Distribution	0.844
	Strategic Knowledge Interpretation	0.886
	Strategic Knowledge Implementation	0.895
Strategic Flexibility		0.928
	Resource Flexibility	0.859
	Coordination Flexibility	0.872
Strategic Foresight		0.933
	Hindsight	0.878
	Insight	0.830
	Prospection	0.837

5.3 FACTOR ANALYSES

The study used a factor analysis to find out which variables were significantly correlated with each other (Hair et al., 2019). The major objective of this research is to determine if the number of dimensions as estimated by participants and those in the literature are consistent with one another. Researchers make sure there are enough data points in the study by doing a sample adequacy test before doing factor analysis (Sipahi et al., 2006). To prove these points, we used Bartlett's sphericity test and the Keiser-Meyer-Olkin (KMO) test. To demonstrate that the analysis makes use of correlated and homogenous statistical data, KMO employs a set of tests. We can state that 0.5 is the lowest possible value for KMO. By revealing statistically significant correlations between particular research variables, Bartlett's test demonstrates statistical significance (Hair et al., 2019).

5.3.1 Strategic Learning

The strategic learning component consists of 19 components, grouped into 4 categories. The results of the study's factor analysis support the hypothesis that the research followed a predetermined pattern. The findings from the factor analysis are presented in Table 5.3. A 0.921 KMO score and a statistically significant Bartlett's Test value show that the factor analysis outputs have been considered acceptable.

Table 5.3: KMO and Bartlett's Test for Strategic Learning.

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0.921
Bartlett's Test of Sphericity	Approx. Chi-Square	2311.502
	df.	171
	Sig.	0.000

There are nineteen items in Table 5.4. Of the four components observed, one had an eigenvalue greater than one. As a whole, the components explained a considerable amount of variation, at 72.310 percent. The final items' loadings, which fall within the acceptable range of 0.512 to 0.874, are considered satisfactory. Sirén (2012) and Idris and Al-Rubaie (2014) lay out theoretical frameworks that are compatible with the strategic learning construct's structure. Internal consistency evaluations included computing Cronbach's alpha coefficients for all four dimensions. Four strategic learning variables had Cronbach's alpha values of 0.864, 0.844, 0.886, and 0.895, respectively. All of the numbers stated are higher than the previously accepted cutoff of 0.70, as pointed out by Hair et al. in 2019. It is clear from the results that the method of measuring strategic learning is strong.

In addition, the factor loadings of the strategic learning subfactors have been calculated. A factor loading of 53.923 indicates strategic knowledge creation, 7.699 indicates strategic knowledge distribution, 6.656 indicates strategic knowledge interpretation, and 4.033 indicates strategic knowledge implementation. A better grasp of the total variance can be achieved by analyzing these factor loadings.

Table 5.4: The Outcomes of Factor Reliability Analyses for Strategic Learning.

Scale items		Factor loading			
		F1	F2	F3	F4
Factor1: Strategic knowledge creation (Cronbach Alpha = 0.864) (Sirén, 2012; Idris and Al-Rubaie, 2014)					
CR1	Our university focuses on acquiring knowledge of strategies that involve experimentation and high-market risks.	0.874			
CR 2	Our university prefers to collect market information with no identifiable strategic needs to ensure experimentation.	0.786			
CR 4	Our university gathers up-to-date information and ideas beyond its market and technological capabilities.	0.722			
CR 5	Our university seeks knowledge that challenges us to discover new things about recent educational services.	0.663			
CR 3	To expand our perspective and learn about emerging markets and technological zones, our university is always seeking fresh information and working on new technology.	0.578			
Factor 2: Strategic knowledge distribution (Cronbach Alpha = 0.844) (Sirén, 2012; Idris and Al-Rubaie, 2014)					
DI 4	Each of the departments that are inside our university interchanges essential knowledge with each other departments.		0.721		
DI 5	Each university department shares the crucial strategic knowledge it obtains with the others.		0.681		

Table 5.4: The Outcomes of Factor Reliability Analyses for Strategic Learning “Table Continued”.

Scale items		Factor loading			
		F1	F2	F3	F4
DI 3	On a frequent basis, representatives from many departments within our university engage to discuss essential strategic issues.		0.598		
DI 1	Sharing important strategic information is the initial guideline for working at our university.		0.586		
DI 2	Everyone has easy access to information that is vital to the strategy of our university.		0.560		
Factor 3: Strategic knowledge interpretation (Cronbach Alpha = 0.886) (Sirén, 2012; Idris and Al-Rubaie, 2014)					
IN 1	Our university is in agreement on how new strategic information will affect it.			0.770	
IN 2	During our discussions at the university, we try to come up with techniques to use recent strategic information.			0.762	
IN 3	Our university departments are open to evaluating decisions given updated strategic understanding.			0.745	
IN 4	We challenge university assumptions while trying to obtain new strategic information.			0.632	
IN 5	As a community at our university, we regularly examine how our assumptions bias our assessment of current strategic information.			0.512	
Factor 4: Strategic knowledge implementation (Cronbach Alpha = 0.895) (Sirén, 2012; Idris and Al-Rubaie, 2014)					
IM 4	Our university relies on working group recommendations regarding strategic knowledge use.				0.805
IM 3	Individual strategic knowledge is integrated into our university's plan.				0.785
IM 2	Modifications to university routines and processes reflect our decisions.				0.773
IM 1	In our university, working groups use strategic knowledge to improve services and processes.				0.643

5.3.2 Strategic Flexibility

The strategic flexibility factor consists of 8 components divided evenly into 2 groups. The factor analysis confirms that the outcome agrees with the hypothesis. Nothing has been removed from the study's items. Table 5.5 displays the factor analysis results, which are considered satisfactory, with a KMO score of 0.897 and a significant Bartlett's Test value.

Table 5.5: KMO and Bartlett's Test for Strategic Flexibility.

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0.897
Bartlett's Test of Sphericity	Approx. Chi-Square	936.356
	df.	28
	Sig.	0.000

With eigenvalues greater than one, the two components found in the study (Table 5.6) explained 74.95% of the overall variance. We can state that the finished items are satisfactory because their major loadings are within the satisfactory range of 0.563 to 0.901. Chen (2022), Xin (2020), Wang et al. (2021), and Wenna and Ruyue (2021) have presented theoretical dimensions that impacted the strategic flexibility construct's two-dimensional structure. Computing Cronbach's alpha values allowed us to check if the two dimensions were internally consistent. All components of strategic flexibility demonstrate acceptable values, with values of 0.864 and 0.895, respectively, while the previously established acceptable limit for Cronbach's alpha is 0.70 (Hair et al., 2019). This finding validates the model's reliability as a measure of strategic flexibility.

Also, it is found that the factor loading for sub factor of strategic flexibility is 66.411 for Resource Flexibility, and 8.539 for Coordination Flexibility from the total variance.

Table 5.6: The Outcomes of Factor Reliability Analyses for Strategic Flexibility.

Scale items		Factor loadings	
		F1	F2
Factor 1: Resource Flexibility ($\alpha= 0.859$) (Xin, 2020; Wang, et al., 2021; Wenna and Ruyue, 2021; Chen, 2022)			
RF 2	In our university, the same resources can be used by different departments.	0.901	
RF 4	In our university, the time required to switch from one use of resources to an alternative use is short.	0.843	
RF 3	Our university faces difficulty switching from a certain level of use of their resources to another.	0.788	
RF 1	Our university utilization the same resources in developing, producing, and presenting different educational services.	0.722	
Factor 2: Coordination Flexibility ($\alpha= 0.872$) (Xin, 2020; Wang, et al., 2021; Wenna and Ruyue, 2021; Chen, 2022)			
CF 1	Our university finds new uses of existing resources.		0.862
CF 3	Our university can rapidly deploy resources through organizational systems and processes to targeted uses.		0.709
CF 4	Our university can cope with emergent problems well and benefit from changing environmental conditions.		0.672
CF 2	Our university finds new uses for external resources.		0.563

5.3.3 Strategic Foresight

The strategic foresight factor consists of 3 elements and 9 components. After factor analysis, it was found that this result is in line with the theoretical framework. From the study, no

items have been taken out. Table 5.7 shows the findings of the factor analysis, which show a satisfied outcome with a KMO score of 0.897 and a significant Bartlett's Test value.

Table 5.7: KMO and Bartlett's Test for Strategic Foresight.

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0.916
Bartlett's Test of Sphericity	Approx. Chi-Square	1122.921
	d.f	36
	Sig.	0.000

The three factors that were discovered throughout the research are shown in Table 5.8. The components with eigenvalues above one explain 82.13% of the variation. The final items are considered satisfactory because their primary loadings are between 0.642 and 0.847. The three-dimensional framework of strategic foresight development followed the theoretical aspects of Sarpong and O'Regan in 2014. We calculated Cronbach's alpha coefficients for both dimensions to see how consistent they were with one another. Both the 0.830 and 0.878 Cronbach's alpha values for the strategic foresight dimensions are over the acceptable limit of 0.70 that has been set by prior research (Hair et al., 2019). The strategic foresight measuring approach is sufficiently reliable, according to this conclusion. Hindsight has a factor loading of 0.66140, Insight of 0.9986, and Prospection of 0.6006, according to the total variance for the subfactor of strategic foresight.

Table 5.8: The Outcomes of Factor Reliability Analyses for Strategic Foresight.

Scale items		Factor loadings		
		F1	F2	F3
Factor 1: Hindsight ($\alpha= 0.878$) (Sarpong and O’ Regan, 2014)				
HI 2	Proactively sharing our university's past helps develop a broad understanding of historical data patterns that can be extrapolated to reveal emerging environmental trends.	0.817		
HI 3	Strategic hindsight helps in estimating the likelihood of knowing before an event occurs.	0.816		
HI 1	Strategic hindsight illuminates the causal dynamics of our university's past and how it may influence the present.	0.769		
Factor 2: Insight ($\alpha= 0.830$) (Sarpong and O’ Regan, 2014)				
IN 2	Our university insight encompasses building a future based on emerging technologies social and economic trends.		0.847	
IN 1	Our university insight helps in analyzing events with extremely high uncertainties and/or with no historical precedence.		0.736	
IN 3	Our university insight contributes to a value-based heuristic analysis.		0.642	

Table 5.8: The Outcomes of Factor Reliability Analyses for Strategic Foresight “Table Continued”.

Factor 3: Prospection ($\alpha = 0.837$) (Sarpong and O’ Regan, 2014)				
PR 1	Our university uses prospection to understand the future through creative exploration and reconfiguration of potential sources in future resources.			0.797
PR 2	Our university prospection is speculative and often takes place between the higher education industry, technology, and the boundaries of the value chain.			0.757
PR 3	Our university's prospection activities include establishing strategic partnerships and alliances with other universities.			0.721

5.4 ANALYSIS OF MEAN VALUES AND CORRELATIONS FOR DATA

5.4.1 Mean Values

The analysis is centered around the mean values of the main variables. Results from Table 5.9 show that out of all the research items, the Strategic Learning variable stood out with the highest mean value of 3.53. The outcome was determined following a careful examination of each of the study's four variables. Based on outcomes, actually essential.

Table 5.9: Mean Values of Strategic Learning, Strategic Flexibility, and Strategic Foresight.

Variables	Mean Values
Strategic Learning	3.53
Strategic Knowledge Creation	3.50
Strategic Knowledge Distribution	3.54
Strategic Knowledge interpretation	3.57
Strategic Knowledge Implementation	3.50
Strategic Flexibility	3.56
Resource Flexibility	3.54
Coordination Flexibility	3.58
Strategic Foresight	3.39
Hindsight	3.48
Insight	3.38
Prospection	3.30

5.4.2 Correlation Analysis

To find out how the variables were related to each other, this study used correlation analysis, the results of the correlation analysis are shown in Table 5.10. There is a wide variety of intensity in the sixty-six significant correlations that are clearly shown in the table. It was

found that the highest correlational values were between the strategic flexibility and t Coordination Flexibility, with a value of (0.967**), which is significant at a probability level ($\alpha \leq 0.01$) or less, while the lowest correlational values were between Strategic Knowledge Creation and Insight, with a value of (0.486**) and is a function at a probability level ($\alpha \leq 0.01$) or less. In general, based on the presented results, it appears that the investigated variables are related to significant relationships, which indicates that an increase or decrease in one of them will result in an increase or decrease in the other variables.



Table 5.10: Correlation Analysis for All Variables.

		S Lear	CR	DI	IN	IM	S Flex	RF	RC	S Fore	HI	IN	PR
S Lear	Pearson correlation	1	0.874**	0.928**	0.904**	0.858**	0.814**	0.817**	0.755**	0.782**	0.773**	0.651**	0.731**
	N	163	163	163	163	163	163	163	163	163	163	163	163
CR	Pearson correlation		1	0.794**	0.666**	0.636**	0.687**	0.709**	0.620**	0.602**	0.617**	0.486**	0.556**
	N		163	163	163	163	163	163	163	163	163	163	163
DI	Pearson correlation			1	0.808**	0.704**	0.727**	0.722**	0.683**	0.689**	0.688**	0.558**	0.652**
	N			163	163	163	163	163	163	163	163	163	163
IN	Pearson correlation				1	0.744**	0.751**	0.743**	0.707**	0.750**	0.741**	0.610**	0.715**
	N				163	163	163	163	163	163	163	163	163
IM	Pearson correlation					1	0.738**	0.741**	0.686**	0.757**	0.716**	0.677**	0.687**
	N					163	163	163	163	163	163	163	163
S Flex	Pearson correlation						1	0.963**	0.967**	0.823**	0.860**	0.660**	0.749**
	N						163	163	163	163	163	163	163
RF	Pearson correlation							1	0.864**	0.806**	0.830**	0.655**	0.738**
	N							163	163	163	163	163	163
RC	Pearson correlation								1	0.783**	0.830**	0.621**	0.709**
	N								163	163	163	163	163
S Fore	Pearson correlation									1	0.889**	0.930**	0.926**
	N									163	163	163	163
HI	Pearson correlation										1	0.723**	0.726**
	N										163	163	163
IN	Pearson correlation											1	0.818**
	N											163	163
PR	Pearson correlation												1
	N												163

** . Significant correlation on the 0.01 level (2-tailed).

5.5 ANALYSIS OF STRUCTURAL EQUATION MODELING (SEM)

5.5.1 AMOS Structural Equation Model

Figure (5.1) presents an AMOS structural equation model (SEM) that examines the relationships between strategic learning, flexibility, and foresight. The results show that strategic learning significantly influences strategic flexibility, with a standardized regression weight of 0.89 and a p-value typically less than 0.001. Also indicates a strong relationship between strategic foresight and flexibility, with a statistically significant p-value and standardized path coefficient of 0.77. The mediation impact of strategic flexibility on the connection between strategic learning and strategic foresight is 0.6853, indicating that strategic learning plays a role in strategic foresight.

Also find that strategic flexibility has a loading value of 1.02, while strategic learning has a loading value of 0.82. The evidence suggests that strategic learning is crucial for determining strategic flexibility and precision, and reducing the impact of strategic learning on strategic foresight requires a high level of strategic flexibility. So, this proves the importance of fostering strategic learning and flexibility for decision-makers to enhance their organizations' strategic foresight.

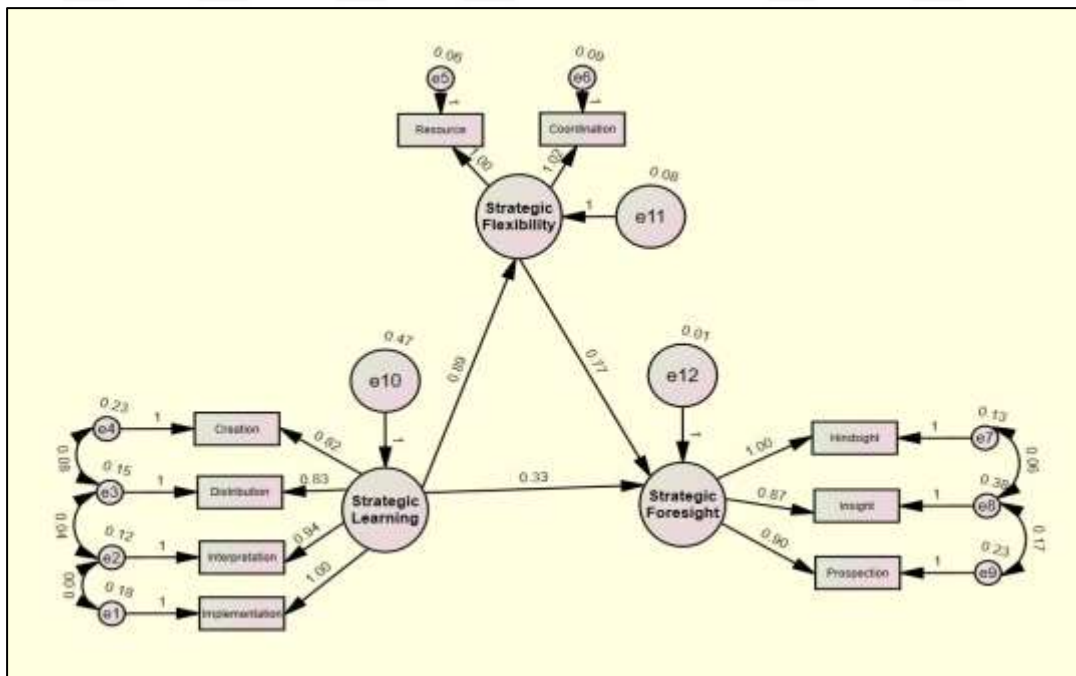


Figure 5.1: AMOS Structural Equation Model (SEM) Illustrates the Relationship Between Strategic Learning, Strategic Flexibility, and Strategic Foresight.

5.5.2 Summary of AMOS Model Fit

Model statistics comprising parameters count (NPAR), chi-square value (CMIN), degrees of freedom (DF), p-value (P), and chi-square/degree of freedom ratio (CMIN/DF) are displayed in Table 5.11. A CMIN/DF ratio of 1.849, which falls within the acceptable range, indicates that the default model provides an acceptable fit (Tabachnick & Fidell, 2013).

Table 5.11: Statistics for the Chi-Square Minimum Fit Function (CMIN)

Model	NPAR	CMIN	DF	P	CMIN/DF
Default model	26	35.122	19	.014	1.849
Saturated model	45	.000	0		
Independence model	9	1505.895	36	.000	41.830

Both the Root Mean Square Residual (RMR) and the Goodness of Fit Index (GFI) values for the model are displayed in Table 5.12. The overall fit of the model can be evaluated with the help of these indicators. The default model's RMR and GFI values of 0.015 and 0.954, respectively, show a good fit; the values of AGFI and PGFI add weight to this finding.

Table 5.12: Goodness of Fit Index (GFI) and Root Mean Square Residual (RMR)

Model	RMR	GFI	AGFI	PGFI
Default model	.015	.954	.891	.403
Saturated model	.000	1.000		
Independence model	.374	.201	.002	.161

These model fit indices—the Normed Fit Index (NFI), the Relative Fit Index (RFI), the Incremental Fit Index (IFI), the Tucker-Lewis Index (TLI), and the Comparative Fit Index (CFI)—are compared baseline in Table 5.13. High values for all these indices indicate that the default model fits the data quite well, especially when contrasted with the saturated and independence models.

Table 5.13: Model Fit Index Baseline Comparisons

Model	NFI Delta1	RFI rho1	IFI Delta2	TLI rho2	CFI
Default model	.977	.956	.989	.979	.989
Saturated model	1.000		1.000		1.000
Independence model	.000	.000	.000	.000	.000

At 99% confidence, the following table 5.14 reveals that the default model has a reasonable fit with an RMSEA of 0.072 and a confidence interval of [0.032, 0.109] and a PCLOSE of 0.153. In comparison, the independence model has a poor fit with an RMSEA of 0.502 and a confidence interval of [0.481, 0.524] and a PCLOSE of 0.000. Thus, the default model matches data better than independence (Hair et al., 2021).

Table 5.14: RMSEA (Root Mean Square Error of Approximation)

Model	RMSEA	LO 99	HI 99	PCLOSE
Default model	.072	.032	.109	.153
Independence model	.502	.481	.524	.000

5.5.3 Standardized Regression Weights and Regression Weights

Table 5.15 shows the most likely estimations of the default model's regression weights. The robustness of the correlations between the model variables is demonstrated by these estimations. There are substantial links among the constructs, since all routes are significant with p-values less than 0.05.

Table 5.15: Estimation of Regression Weights Using the Maximum Likelihood

			Estimate	S.E.	C.R.	P	Label
Strategic Flexibility	<---	Strategic Learning	.893	.070	12.689	***	par 1
Strategic Foresight	<---	Strategic Flexibility	.768	.157	4.902	***	par 2
Strategic Foresight	<---	Strategic Learning	.332	.152	2.186	.029	par 3
Hindsight	<---	Strategic Foresight	1.000				
Insight	<---	Strategic Foresight	.873	.069	12.669	***	par 4
Prospection	<---	Strategic Foresight	.901	.064	13.999	***	par 5
Coordination	<---	Strategic Flexibility	1.025	.049	20.919	***	par 6
Resource	<---	Strategic Flexibility	1.000				
Creation	<---	Strategic Learning	.821	.075	10.994	***	par 7
Distribution	<---	Strategic Learning	.831	.066	12.646	***	par 8
Interpretation	<---	Strategic Learning	.937	.066	14.137	***	par 9
Implementation	<---	Strategic Learning	1.000				

The default model's standardized regression weights are displayed in table 5.16 below. One can better grasp the significance of each model path with the help of these normalized estimations. Estimates close to 1 indicate considerable effects of the independent factors on the dependent variables, demonstrating strong correlations along all paths.

Table 5.16: All-Dimensional Standardized Regression Weights

			Estimate
Strategic Flexibility	<---	Strategic Learning	.909
Strategic Foresight	<---	Strategic Flexibility	.703
Strategic Foresight	<---	Strategic Learning	.309
Hindsight	<---	Strategic Foresight	.898
Insight	<---	Strategic Foresight	.719
Prospection	<---	Strategic Foresight	.809
Coordination	<---	Strategic Flexibility	.916
Resource	<---	Strategic Flexibility	.943
Creation	<---	Strategic Learning	.757
Distribution	<---	Strategic Learning	.830
Interpretation	<---	Strategic Learning	.878
Implementation	<---	Strategic Learning	.848

5.5.4 Correlations and Covariances Analyses

We can see the correlations between the default model's error terms in table 5.17 down below. Values like this show how strongly connected the error terms of various variables are with one another. One typical issue with structural equation modeling is the presence of significant covariances, which indicate that the measurement errors are not independent.

Table 5.17: Covariances Analysis for Dimensions

			Estimate	S.E.	C.R.	P	Label
e8	<-->	e9	.172	.028	6.060	***	par 10
e3	<-->	e2	.040	.014	2.831	.005	par 11
e4	<-->	e3	.084	.018	4.648	***	par 12
e2	<-->	e1	-.001	.018	-.040	.968	par 13
e7	<-->	e8	.056	.017	3.287	.001	par 14

The default model's error terms are correlated in table 5.18 below. The correlations between the measurement mistakes of various variables can be better understood with the help of these numbers.

Table 5.18: Correlation Analysis for Dimensions

			Estimate
e8	<-->	e9	.580
e3	<-->	e2	.299
e4	<-->	e3	.454
e2	<-->	e1	-.005
e7	<-->	e8	.253

5.5.5 Multiple Squared Correlations

The squared multiple correlations for the default model are displayed in table 5.19 below. The values here show how much of the model's independent variables explain the dependent variables' variance. A large value indicates that the model adequately accounts for a considerable amount of the variation in the dependent variables.

Table 5.19: The Squared Multiple Correlations for Dimensions

	Estimate
Strategic Learning	.000
Strategic Flexibility	.825
Strategic Foresight	.985
Coordination	.839
Resource	.889
Implementation	.719
Interpretation	.770
Distribution	.688
Creation	.573
Prospection	.654
Insight	.517
Hindsight	.807

5.5.6 Direct, Indirect, and Total Effects of Dimensions

Table 5.20 below shows the overall impact of the model's independent variables on the dependent variables. Included in the total impacts are both the direct and indirect

outcomes. By comparing these numbers, we can see how each independent variable affected the dependent ones.

Table 5.20: Total Effects of the Dimensions for All Variables

	Strategic Learning	Strategic Flexibility	Strategic Foresight
Strategic Flexibility	.893	.000	.000
Strategic Foresight	1.017	.768	.000
Coordination	.915	1.025	.000
Resource	.893	1.000	.000
Implementation	1.000	.000	.000
Interpretation	.937	.000	.000
Distribution	.831	.000	.000
Creation	.821	.000	.000
Prospection	.916	.692	.901
Insight	.888	.670	.873
Hindsight	1.017	.768	1.000

All of the independent factors' standardized total impacts on the dependent variables are shown in table 5.21 below. While consider the scale of the variables using standardized total effects, we can see how each independent variable affects the dependent variables more clearly.

Table 5.21: Standardized Total Effects for All Variable Dimensions

	Strategic Learning	Strategic Flexibility	Strategic Foresight
Strategic Flexibility	.909	.000	.000
Strategic Foresight	.948	.703	.000
Coordination	.832	.916	.000
Resource	.857	.943	.000
Implementation	.848	.000	.000
Interpretation	.878	.000	.000
Distribution	.830	.000	.000
Creation	.757	.000	.000
Prospection	.766	.568	.809
Insight	.681	.505	.719
Hindsight	.851	.631	.898

The table 5.22 below illustrates the direct impacts of the independent variables on the dependent variables. Direct effects refer to the rapid impact of one variable on another, without any involvement or influence from other variables.

Table 5.22: Direct Effect for Dimensions of All Variables

	Strategic Learning	Strategic Flexibility	Strategic Foresight
Strategic Flexibility	.893	.000	.000
Strategic Foresight	.332	.768	.000
Coordination	.000	1.025	.000
Resource	.000	1.000	.000
Implementation	1.000	.000	.000
Interpretation	.937	.000	.000
Distribution	.831	.000	.000
Creation	.821	.000	.000
Prospection	.000	.000	.901
Insight	.000	.000	.873
Hindsight	.000	.000	1.000

To see how the independent variables affected the dependent variables in a standardized way, look at table 5.23 below. By controlling for variable sizes, standardized direct effects make the relative significance of the model's pathways more transparent.

Table 5.23: Standardized Direct Effect of Dimensions for All Variables

	Strategic Learning	Strategic Flexibility	Strategic Foresight
Strategic Flexibility	.909	.000	.000
Strategic Foresight	.309	.703	.000
Coordination	.000	.916	.000
Resource	.000	.943	.000
Implementation	.848	.000	.000
Interpretation	.878	.000	.000
Distribution	.830	.000	.000
Creation	.757	.000	.000
Prospection	.000	.000	.809
Insight	.000	.000	.719
Hindsight	.000	.000	.898

The following table (5.24) shows how the independent variables indirectly affect the dependent variables. When a third variable mediates the connection between two independent variables, then conclude that the relationship is indirect.

Table 5.24: Indirect Effect of Dimensions for All Variables

	Strategic Learning	Strategic Flexibility	Strategic Foresight
Strategic Flexibility	.000	.000	.000
Strategic Foresight	.685	.000	.000
Coordination	.915	.000	.000
Resource	.893	.000	.000
Implementation	.000	.000	.000
Interpretation	.000	.000	.000
Distribution	.000	.000	.000
Creation	.000	.000	.000
Prospection	.916	.692	.000
Insight	.888	.670	.000
Hindsight	1.017	.768	.000

Table 5.25 shows the dependent variables standardized indirect effects from the independent factors. The relative significance of the model's mediated relationships can be clarified with an understanding of standardized indirect effects.

Table 5.25: Standardized Indirect Effect of Dimensions for All Variables

	Strategic Learning	Strategic Flexibility	Strategic Foresight
Strategic Flexibility	.000	.000	.000
Strategic Foresight	.639	.000	.000
Coordination	.832	.000	.000
Resource	.857	.000	.000
Implementation	.000	.000	.000
Interpretation	.000	.000	.000
Distribution	.000	.000	.000
Creation	.000	.000	.000
Prospection	.766	.568	.000
Insight	.681	.505	.000
Hindsight	.851	.631	.000

5.6 HYPOTHESES TESTS

The use of AMOS 29.0 for structural equation modeling to test the hypotheses. Table 5.26 displays the outcomes, which serve as indications of both absolute and economic fit. Below the usual value of 0.08, the root mean square error of approximation (RMSEA) was 0.071. With 3 degrees of freedom, the value of χ^2 was estimated to be 2.952. The value of the minimum variance, which is obtained by dividing the value of χ^2 by the degrees of freedom DF, should be less than 5, stated by Ahmad et al. (2016). Because of this, we can see that the smallest variance value was achieved, which is 0.984.

Table 5.26: Indicators of Absolute and Economic Fit.

Model \ Indicators	RMSEA	χ^2	DF	χ^2 / DF
Default model	0.071	2.952	3	0.984
Saturated model	-	0.000	0	-
Independence model	0.180	379.117	3	126.372

5.6.1 Direct Hypotheses Results

Table 5.27 provides each parameter's Estimate Critical Ratio (C.R.) and Standard Error (S.E.).

Table 5.27: Direct Hypotheses Results.

Hypothesis	Regression Weights		Estimate (β)	SE	C.R.	P Value	SMC	Results
	From	To						
H1	Strategic Learning	Strategic Foresight	0.782	0.057	13.719	***	0.612	Accepted
H2	Strategic Learning	Strategic Flexibility	0.814	0.049	16.612	***	0.662	Accepted
H3	Strategic Flexibility	Strategic Foresight	0.823	0.049	16.796	***	0.678	Accepted

H1: Strategic learning has a significant positive direct effect in strategic foresight.

Strategic learning has a significant positive effect in strategic foresight ($\beta = 0.782$; C.R = 13.719; P-value = ***) or H1 is supported). This hypothesis is the linkage between strategic learning and strategic foresight. There are many previous studies were conducted in the relationship between strategic learning and strategic foresight (Bootz et al., 2019; Chermack,

2005; van der Heijden, 2004). Pulsiri and Vatananan-Thesenvitz (2021) suggest that understanding how to integrate strategic learning and strategic foresight into the dynamic capability framework could contribute value to both academics and practitioners. Bootz (2010) suggests that the analysis of the link between learning and foresight therefore requires a clear definition of some key concepts and of the place reflection in one or the other currents of this vast field. Lichtenthaler (2009) points out that organizational learning illustrates how organizations can develop their corporate foresight to acquire new capabilities and use those capabilities to create a competitive advantage. This was confirmed by Yoon, Kim, Vonortas and Han (2017). Chermack et al., (2015) as well as Burt and Nair (2020) show that the strategic learning from scenarios can lead to either strategic foresight or oversight. Pulsiri and Vatananan-Thesenvitz (2021) establish that strategic foresight cannot occur without strategic Learning that acts as the process to generate and integrate new information and knowledge into the organization. Finally, Eskandari, et al (2020) note that the presence of a strategic learning component influences the impact of strategic foresight on competitiveness and further enhances creativity's impact on competitiveness. This provides strong evidence that strategic learning significantly impacts strategic foresight.

H2: strategic learning has a significant positive direct effect in strategic flexibility.

Strategic learning has a significant positive effect in strategic flexibility ($\beta = 0.814$; C.R = 16.612; P-value = ***) or H2 is supported). This hypothesis is the linkage between strategic learning and strategic flexibility. There are many previous studies that were conducted in the relationship between strategic learning and strategic flexibility. Santos-Vijande, Sánchez, Trespalacios (2012) reveal that the organizational learning effect on strategic flexibility through acts as a forerunner of an organization's ability to adapt to evolving market conditions. Similarly, Maroofi (2013) establish that, through the organizational learning increase the organization's capability to react quickly to surround intellectual environmental contingencies (strategic flexibility). Yuetong and Taoran (2013) show that organizational learning significantly impacts strategic flexibility. More specifically, strategic intelligence contributes to reinforcement strategic flexibility (Agha, Atwa and Kiwan, 2014). Abu Shehab (2015) indicates that strategic learning significantly affects strategic flexibility.

H3: strategic flexibility has a significant positive direct effect in strategic foresight.

Strategic flexibility has a significant positive effect in strategic foresight ($\beta = 0.823$; C.R= 16.796; P-value = ***) or H3 is supported). This hypothesis is the linkage between strategic flexibility and strategic foresight. There are many previous studies were conducted in the relationship between Strategic flexibility and strategic foresight. Kaddory and Al-Alousi (2018) reveal that there is a positive relationship between strategic flexibility and strategic foresight. Al-Daouri and Atrach (2020) discovered a significant correlation between strategic flexibility and foresight, suggesting that both of them need to be developed in order for organizations to achieve long-term sustainability through strategic preparation.

5.6.2 Indirect Hypotheses Results

As seen Table 5.28 illustrates the outcomes of the indirect hypotheses analysis.

Table 5.28: Indirect Hypotheses Results.

Hypothesis	Variables affect paths				Types of Effect	Direct Effects		Indirect Effects		Total effect	Variance Accounted For	
						Estimate	P	Estimate	P		Effect %	Effect Nature
H4	strategic learning	→		strategic foresight	Direct	0.333	***	-	-	0.782	57.41	Partial
	strategic learning	→		strategic flexibility	Direct	0.814	***	-	-			
	strategic flexibility	→		strategic foresight	Direct	0.552	***	-	-			
	strategic learning	→	strategic flexibility	→	strategic foresight	Indirect	-	-	0.449	***		

H4: Strategic flexibility mediates positively the relationship between strategic learning and strategic foresight.

Table 5.28 clarifies the indirect effect value for mediate variables (strategic flexibility) in the relationship between independent variable (strategic learning) and dependent variable (strategic foresight) (0.449). Also, the value of total effect for the independent variable (strategic learning) in dependent variable (strategic foresight) (0.782). As well as table 5.28 clarifies the Variance Accounted for (VAF) value (57.41), this value indicates the partial

effect nature due to the biggest of (20%) and lower than (80%) (Hair, et al., 2021). This result clarifies that strategic flexibility mediates positively the relationship between strategic learning and strategic foresight.



6. DISCUSSION

A large number of scholars have recognized strategic learning and strategic foresight as a fascinating and consequential area of study. On the other hand, developed countries have done studies of a similar kind. To the best of our knowledge, this study is the first of its kind to be conducted in Iraq. Many gaps in the research on learning and strategic planning were filled by this study. One of these gaps is the shortage of measurement to evaluate strategic foresight, which has not been implemented before. Strategic foresight measurement can be useful in future studies examining reliability and validity. It will require extraordinary skill to coordinate the assessment of strategic foresight across all survey responses, in addition to the open interviews.

In this study, this was accomplished by getting the open element right after the strategic foresight measurement; previous questions had an effect on some participants' responses to the strategic foresight measurement, which results in greater levels of consistency between both of them. Furthermore, the present study's measurement of strategic foresight contributed to filling a gap in research by identifying an experimental relationship between strategic learning and strategic foresight. This research also addressed a need in literature by investigating the role of strategic flexibility in the relationship between strategic learning and strategic foresight, which was previously unexamined.

Specifically, this research hopes to provide an understanding of how strategic flexibility acts as a mediator for strategic learning and strategic foresight. Strategic learning, strategic flexibility, and strategic foresight are all interrelated, as shown by the findings.

Strategic learning, as Pulsiri and Vatananan-Thesenvitz (2021) explains, is the process by which an organization generates and incorporates new information and knowledge; without it, strategic foresight is useless. Learning a strategy has a major impact on being adaptable, according to Abu Shehab (2015). Organizations need to be strategically adaptable if they want to be successful in the long run, according to research by Al-Daouri and Atrach (2020). This is because strategic foresight is positively correlated with strategic flexibility.

The first hypothesis of the study argues that strategic learning and strategic foresight are positively related. According to the results, strategic learning positively and significantly

impacts strategic foresight. Bootz (2010) states collaborative learning procedures involving multiple actors are most commonly associated with foresight activities.

Findings from this study are in line with those of Pulsiri and Vatananan-Thesenvitz (2021), which means that researchers and professionals could benefit from figuring out how to include strategic foresight and strategic learning into the framework of dynamic capability. According to Eskandari, et al (2020), a strategic learning variable modifies the effect of strategic foresight on competitiveness and amplifies the effect of creativity on competitiveness. This has implications for the relationship between strategic foresight and strategic learning.

Both strategic foresight and strategic flexibility are favorably and significantly correlated, according to the second hypothesis. Prior research by Kaddory and Al-Alousi (2018) confirmed the favorable correlation between strategic flexibility and strategic foresight. Organizations require strategic flexibility to ensure long-term sustainability, which is a direct result of having strategic foresight (Al-Daouri and Atrach, 2020).

The study's third working hypothesis is that strategic foresight is greatly improved by being more adaptable to changing circumstances. Many studies have shown that strategic Prior research by Kaddory and Al-Alousi (2018) established a favorable correlation between strategic flexibility and strategic foresight. According to Al-Daouri and Atrach (2020), companies must possess strategic flexibility in order for their foresight to guarantee their long-term sustainability.

6.1 MANAGERIAL IMPLICATIONS

The necessity of strengthening strategic learning requirements at the University of Basrah is to benefit from its implications in enhancing strategic flexibility by integrating with strategic foresight. Also, strategic flexibility at the University of Basrah should be adopted as an approach and practice by developing infrastructure in a way that makes it capable of absorbing environmental changes in general and quickly dealing with them. Monitoring developments and changes related to the environment of the University of Basrah using more than one means. It encourages the effectiveness of cooperation between the colleges and departments of the University of Basrah, whether in solving problems or sharing knowledge through material and moral stimulation so that this stimulation reflects the size of the efforts.

It analyzes the complexity of the educational services required from the University of Basrah by analyzing and classifying environmental and financial risks. It was conducting a study with the independent and mediating variables for the current study itself, but with their impact on strategic success as a dependent variable at the University of Basrah.

6.2 SUGGESTIONS FOR THE FUTURE RESEARCH

It will be possible to do comparable studies in other countries or other industries, such as banking, construction, or information technology, in the future. To remedy this, future studies should investigate strategic foresight in greater depth by comparing a variety of work settings. To further assess the uniformity of the strategic foresight descriptions, we will collect samples from a variety of unique enterprises. In order to draw broader conclusions from the data, future research should use larger samples than the 250 participants used in this one. Researchers may also choose to adopt a knowledge-based view (KBV) or a resource-based view (RBV) inside this framework going forward. An organization's RBV is a way of thinking about strategy that takes stock of the company's advantages and disadvantages. The resources of an organization are the assets that allow it to produce value through strategic planning and implementation (Curado and Bontis, 2006). The KBV is an extension of the RBV in which a company considers its knowledge to be its most important strategic asset (De Carolis, 2002). When one considers knowledge as a resource, there is a theoretical relationship between the RBV and the KBV (Ariely, 2003).

By developing the premise that organizations are multi-faceted entities rich with information, organizational knowledge base valuation (KBV) adds to RBV (Hoskisson et al., 1999). An organization's resource base is increasingly composed of assets based on knowledge (Marr, 2004). The RBV argues that research ought to center on the unique characteristics of an organization's knowledge and other intangible resources (Rouse and Daellenbach, 2002). Knowledge resources are crucial to sustaining competitive advantages due to their uniqueness, intangible nature, and difficulty to copy (Wiklund and Shepherd, 2003).

Researchers would thus explore the role of strategic flexibility as a mediator between strategic learning components and strategic foresight. Future studies may utilize empirical

studies or alternative methodologies to study more into the variations in employment circumstances caused by different sectors.

6.3 LIMITATIONS OF THE STUDY

The study has a number of limitations. In order to achieve a more representative cross-section of the population, a larger number of participants were initially needed due to the small sample size. This would allow for a more comprehensive examination of the suggested model in subsequent research and provide additional clarity regarding the reliability of the results. Additionally, it should be noted that the study only included individuals from Iraq, which may have introduced cultural bias and limited the results' applicability to a wider community. As a result, gathering empirical information from a variety of cultural environments is crucial for validating the results. Furthermore, higher education administrators were the primary sources of experimental data in the study. Researchers may ask doctors, nurses, and other medical workers to participate in the study if it were to be conducted on a different professional sample in the health sector, for example. This could lead to a bias in the methodology; therefore, future studies should aim to include a wider range of professions to provide a more comprehensive.

7. CONCLUSIONS

- a. Study addresses deficiencies in measuring strategic foresight and establishes its connection with strategic learning and flexibility.
- b. Strategic learning positively impacts strategic foresight, as collaborative learning processes are closely linked to foresight activities.
- c. Strategic flexibility serves as a vital intermediary between strategic learning and strategic foresight, facilitating firms' adaptation and long-term success.
- d. Managerial practices, especially at institutions like the University of Basrah, should prioritize strengthening strategic learning and flexibility to adapt to environmental changes and improve strategic foresight.
- e. Future research should examine similar connections in various industries and cultural settings.
- f. Study emphasizes the need for combining strategic learning and adaptability for strong strategic foresight, crucial for organizational resilience and competitiveness.

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APPENDIX A
QUESTIONNAIRE
STRATEGIC LEARNING AND STRATEGIC FORESIGHT -
MEDIATED ROLE OF STRATEGIC FLEXIBILITY: UNIVERSITY
OF BASRAH IN IRAQ CASE STUDY

Section One: Personal and Occupational Characteristics

1- Gender

Male ☐

Female ☐

2- Qualification

Master ☐

PhD ☐

3- Years of Experience

6 Years or less ☐

From 6 – less than 10 Years ☐

From 10 – less than 15 Years ☐

15 Years and above ☐

4- Job Title

University President ☐

Vice President of the University ☐

College Dean ☐

Vice Dean ☐

Head of Department ☐

Section Two: Strategic Learning

No.	Items	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
Strategic Knowledge Creation						
CR1	Our university focuses on acquiring knowledge of strategies that involve experimentation and high-market risks.					
CR2	Our university prefers to collect market information with no identifiable strategic needs to ensure experimentation.					
CR3	To expand our perspective and learn about emerging markets and technological zones, our university is always seeking fresh information and working on new technology.					
CR4	Our university gathers up-to-date information and ideas beyond its market and technological capabilities.					
CR5	Our university seeks knowledge that challenges us to discover new things about recent educational services.					
Strategic Knowledge Distribution						
DI 1	Sharing important strategic information is the initial guideline for working at our university.					

DI 2	Everyone has easy access to information that is vital to the strategy of our university.					
DI 3	On a frequent basis, representatives from many departments within our university engage to discuss essential strategic issues.					
DI 4	Each of the departments that are inside our university interchanges essential knowledge with each other departments.					
DI 5	Each university department shares the crucial strategic knowledge it obtains with the others.					
Strategic Knowledge Interpretation						
IN 1	Our university is in agreement on how new strategic information will affect it.					
IN 2	During our discussions at the university, we try to come up with techniques to use recent strategic information.					
IN 3	Our university departments are open to evaluating decisions given updated strategic understanding.					
IN 4	We challenge university assumptions while trying to					

	obtain new strategic information.					
IN 5	As a community at our university, we regularly examine how our assumptions bias our assessment of current strategic information.					
Strategic Knowledge Implementation						
IM 1	In our university, working groups use strategic knowledge to improve services and processes.					
IM 2	Modifications to university routines and processes reflect our decisions.					
IM 3	Individual strategic knowledge is integrated into our university's plan.					
IM 4	Our university relies on working group recommendations regarding strategic knowledge use.					

Section Three: Strategic Flexibility

No.	Items	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
Resource Flexibility						
RF 1	Our university utilization the same resources in developing, producing, and presenting different educational services.					

RF 2	In our university, the same resources can be used by different departments.					
RF 3	Our university faces difficulty switching from a certain level of use of their resources to another.					
RF 4	In our university, the time required to switch from one use of resources to an alternative use is short.					

Coordination Flexibility

CF 1	Our university finds new uses of existing resources.					
CF 2	Our university finds new uses for external resources.					
CF 3	Our university can rapidly deploy resources through organizational systems and processes to targeted uses.					
CF 4	Our university can cope with emergent problems well and benefit from changing environmental conditions.					

Section Four: Strategic Foresight

No.	Items	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
Hindsight						
HI 1	Strategic hindsight illuminates the causal dynamics of our university's					

	past and how it may influence the present.					
HI 2	Proactively sharing our university's past helps develop a broad understanding of historical data patterns that can be extrapolated to reveal emerging environmental trends.					
HI 3	Strategic hindsight helps in estimating the likelihood of knowing before an event occurs.					
Insight						
IN 1	Our university insight helps in analyzing events with extremely high uncertainties and/or with no historical precedence.					
IN 2	Our university insight encompasses building a future based on emerging technologies social and economic trends.					
IN 3	Our university insight contributes to a value-based heuristic analysis.					
Prospection						
PR 1	Our university uses prospection to understand the future through creative exploration and reconfiguration of potential sources in future resources.					
PR 2	Our university prospection is speculative and often takes place between the higher education					

	industry, technology, and the boundaries of the value chain.					
PR 3	Our university's prospection activities include establishing strategic partnerships and alliances with other universities.					

