

-RESEARCH ARTICLE-

ROLE OF STRATEGIC INNOVATION CAPABILITIES IN ENHANCING STRATEGIC NICHE OF IRAQI INDUSTRIAL COMPANIES

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—Abstract—

The present study's intellectual and philosophical framework emerged from the interplay of two factors (strategic innovation capabilities and strategic niche). To understand and illustrate this framework, the dimensions of strategic innovation capabilities (strategic learning mechanisms for dynamic capabilities, organisational characteristics, and supply chain characteristics) and strategic niches (expressing and shaping expectations, network formation, and learning processes) were used. The current study problem was illustrated in the main question: "To what extent do managers at the Union Food Industries Company realize the importance of possessing the capabilities of strategic innovation by the company and their impacts on enhancing strategic niche of the company?" This question was answered through practical application to the research sample, which was represented by managers at all administrative levels at Al-Etihad Food Industries Company Limited in Babylon Governorate in Iraq. The questionnaire form was adopted as the main tool for gathering data in the research, was given to a sample of (120) managers by using a comprehensive survey. To process data, several statistical methods were employed, namely the Cronbach Alpha coefficient, the weighted arithmetic mean, the severity of the answer, the standard deviation, the simple correlation coefficient (Pearson), the (T) scale, and the coefficient of determination (R^2) based on programs (Microsoft Excel, SPSS V. 26). The research came up with key conclusions represented in the fact that the capabilities of strategic innovation and their dimensions play an instrumental role in enhancing strategic niche.

Keywords: Strategic Innovation Capabilities, Strategic Niche, Al-Etihad Food Industries Company Limited, Babylon, Iraq.

INTRODUCTION

Organizations are currently under increasing pressure as a result of the vast changes and major challenges in the business environment, which require finding appropriate solutions to confront them (Khan et al., 2023). The organizations should look for novel and more sustainable methods of production and consumption that enable them to survive and adapt. The organizations should also look for unconventional strategies to take precedence over confronting these challenges and to develop their strategic niche (Tiits et al., 2024). A new strategic thought has emerged, which whereby business organizations can continue, survive and excel in a changing environment characterized by a high degree of uncertainty and instability (Hughes et al., 2020).

Furthermore, this new thought is the strategic innovation, which is known as a radical change emerging from a revolution in creative thinking that contributes to building new business models whereby new markets are formed or existing markets are

reshaped to provide superior value to the customer as well as the organization (Gajdzik & Wolniak, 2022). Furthermore, this could lead to strategic niche. Strategic innovation has become a strategic resource that leads to the development of dynamic capabilities and enables organizations to develop their strategic niche (Zhang et al., 2022). Owing to the importance of strategic innovation capabilities and their role in enhancing strategic niche in organizations and the scarcity of research in this field, the current research dealt with an environment that is in dire need of researching, namely, the Iraqi environment.

The present study's intellectual and philosophical framework emerged from the interplay of two factors (strategic innovation capabilities and strategic niche). To understand and illustrate this framework, the dimensions of strategic innovation capabilities (strategic learning mechanisms for dynamic capabilities, organisational characteristics, and supply chain characteristics) and strategic niches (expressing and shaping expectations, network formation, and learning processes) were used. The current study problem was illustrated in the main question: "To what extent do managers at the Union Food Industries Company realize the importance of possessing the capabilities of strategic innovation by the company and their impacts on enhancing strategic niche of the company?"

This question was answered through practical application to the research sample, which was represented by managers at all administrative levels at Al-Etihad Food Industries Company Limited in Babylon Governorate in Iraq. The questionnaire form was adopted as the main tool for gathering data in the research, was given to a sample of (120) managers by using a comprehensive survey. To process data, several statistical methods were employed, namely the Cronbach Alpha coefficient, the weighted arithmetic mean, the severity of the answer, the standard deviation, the simple correlation coefficient (Pearson), the (T) scale, and the coefficient of determination (R^2) based on programs (Microsoft Excel, SPSS V. 26). The research came up with key conclusions represented in the fact that the capabilities of strategic innovation and their dimensions play an instrumental role in enhancing strategic niche. The structure of the study is based on review of literature, methodology, results, discussion, implications, and future directions.

LITERATURE REVIEW

Strategic Innovation Capabilities (SIC)

Before delving into the concept of strategic innovation capabilities, we must know the concept of Strategic Innovation. This concept has capabilities in modern writings through studies leading to the maturity of the scientific basis for strategy and creativity. The studies related to strategy emphasized on the topic of strategic planning, whereas creativity research dealt with new product development processes.

Thus, strategy and creativity arose and developed in separate schools, and then modern studies started challenging the traditional mentality to integrate the two topics into studies devoted to strategic innovation (AlTaweel & Al-Hawary, 2021). Moreover, Rezaeian et al. (2024) defined this concept as reformulating the basic concepts of business models and reshaping present markets by breaching the rules and making some changes on the competition. As for Chatterjee et al. (2023), it was defined as the capability to create and redefine the business idea and concept of the organization by altering its market, Capabilities, and work system. It represents a proactive reconsolidation of the company and a process of creative thinking that leads to this focused reconsolidation. In addition, Zhao (2023) expanded on the definition of strategic innovation to include coming up with plans for new product growth, creating new business models that alter the competitive landscape, and bringing new benefits to consumers, customers, and the company itself. This type of creativity poses several challenges for organizations, including exploring opportunities that can be achieved. As for the capabilities of strategic innovation, Wan et al. (2023) indicated that these capabilities represent the ability of the company to improve new products or markets by matching creative practices with strategic innovation directions. Kiani et al. (2022) added that the capabilities of strategic innovation refer to the ability of company systems to achieve transformation in the strategy of the organization through strategic innovation. Strategic innovation enables the organization to achieve a distinguished competitive position in the rapidly changing environment.

Mirza et al. (2022) point out that the capabilities of strategic innovation can be realized through expertise and experience, which are supported by teamwork and learning. These Capabilities are a part of the organization's intangible resources, and by advancing them in comparison to rivals, they demonstrate new insight that enables the organization to stand out. Choi and Yoo (2022) added that the basic considerations for Strategic Innovation related to the abilities of the organization to innovate are represented by the work of the organization and its creative ability to include its work in a broad functional, social, and cultural context, as well as leadership and its central role in creating benefits and privileges among the work of the organization. He and Wu (2022) describes it as the ability of the organization to take initiatives to create Strategic Innovation on a regular basis. Ceptureanu et al. (2022) defined it as the ability of the organization to perform a specific activity through developing intangible resources and hoarding of experiences, expertise, and knowledge resulting from strategic learning and teamwork toward achieving success and excellence. From what is mentioned above, it can be said that the capabilities of strategic innovation are represented by the organization ability to innovate in all areas of its work to achieve a distinguished competitive position. On the other hand, Bradley et al. (2021) identified the dimensions of strategic innovation capabilities with strategic learning mechanisms for dynamic capabilities, organizational characteristics and supply chain characteristics, which will be adopted in the current study.

The Mechanisms of Strategic Learning for Dynamic Capabilities

Strategic learning is a basic requirement for strategic innovation, as it includes modifying organizational structures with logic. In addition, strategic learning has the ability to develop and renew dynamic capabilities to the highest level, enabling the organizations to confront crises and break the rules of competition (Xu et al., 2021). Dynamic capabilities stand for the capability of the company to purposefully generate, modify, and adapt its resources and operational capabilities to meet changes in the external environment (Chege & Wang, 2020). Teece (2020) considered it as part of a system that includes resources and strategy, which together determine competitive advantage and achieve superiority over its competitors for the adopting organization. Dynamic capabilities consist of three capabilities (Wu et al., 2020). Cognitive Capability, the starting point for realizing external knowledge lies in the process of scanning the organization's external environment to prove new information or invalidate it. The ability of the organization to possess external knowledge is one of its critical tasks, as constantly knowing new opportunities and options is crucial for the organization aspiring to penetrate the market. In addition, external insight into other industries and customers is a crucial topic of cognitive ability within the concept of strategic innovation. The mechanisms of strategic learning affect this ability in a way leading to the development of strategic innovation capabilities (Ferreira et al., 2020).

As for Absorptive Capability, Teece (2014) indicated that it includes designing business models that enable the organization to respond quickly to customer needs, secure material and human resources, and create value for the organization. In addition, it contributes to designing an effective system to motivate working individuals and establish close relationships with suppliers, workers, and customers. Zhao (2023) explained that organizations facing high environmental change focus on the importance of absorbing knowledge more than possessing it, because possessing market knowledge alone does not generate creativity; rather, renewing knowledge about the market through the ability to absorb is what creates continuous creativity. Whereas Transformational Capability is the ability of the organization to create the required change in operating organizational processes to integrate current knowledge with newly acquired and absorbed knowledge. Transformational capability requires organizational changes and a constant redefinition of the business to transform the knowledge that has been absorbed into new business concepts. This must include speed in developing business capabilities and flexible response, because new ideas will not succeed without changing organizational behaviour. Cognitive ability and absorptive capability must lead to changes in organizational behaviour in the form of organizational procedures (Meng et al., 2023).

Organizational Characteristics

Kara et al. (2023) indicated that organizational characteristics include organizational culture and organizational structure, as the organizational culture that supports the strategy has a great influence on creating and developing dynamic capabilities through its influence on administrative procedures and organizational processes. Kara et al. (2023) define culture as the set of shared values and beliefs within an organization that aid persons understand the nature of organizational activities. They are communicated and shared through stories or other meanings. As for the organizational structure, Hensellek et al. (2023) explained that strategic innovation requires certain structural changes, as the decentralized classification of the organizational structure suits the development of dynamic capabilities that lead to achieving the capabilities of strategic innovation. High degrees of centralization can lead to only incremental changes, making it an obstacle to strategic innovation, although it may contribute to making efficient decisions.

Supply Chain Characteristics

Shan et al. (2023) explained that the supply chain shows the interconnection and sequence of the main and supporting activities that add value to the products inside and outside the organization. The added value is created by stimulating the climate of the supply chain and stimulating it through customers and suppliers. Guo et al. (2023) confirm that the creation of added value occurs through separating activities and estimating the added value from each activity within the organization, and then analysing how these activities are interconnected and how much this interconnection adds to the customer's value. As for motivation through customers and suppliers, Jalil et al. (2023) showed that obtaining information from suppliers and customers, which other organizations cannot obtain, is a path to creative ideas. The organization's external interactions with customers and suppliers lead to a positive impact on the absorption of knowledge to develop dynamic capabilities.

Strategic Niche (SN)

The roots of positioning date back to sociology and social psychology, which refer to prestige, respect, and social status according to the viewpoints of acting bodies within the group, which emerge from individuals' expectations of their performance and others' as well (Fan, 2024). In the context of organizations, positioning is linked to financial performance and quality of goods and services, as this concept is dependent on factors including the product connection to other partners in the market, charitable donations, and market share, which gives this term distinct conceptual importance (Channagiri Ajit, 2019). Usman et al. (2024) explained that strategic niche is the strategy that is used to provide a group of products, whether goods or services, to customers and that focuses on a group of needs that can be distinctly met for

customers. [Raji et al. \(2024\)](#) counted it as one of the adaptation strategies whose goal is to control one or a group of small markets, whether these strategies are offensive or defensive, and thus this strategy can limit competition.

[Hagawe et al. \(2023\)](#) views it as a stage of creating, developing, monitoring, and using promising technology through experimentation, aiming at identifying the reliability of the modern technology and improving its application. [Baheer et al. \(2023\)](#) said that the organization's strategic niche is appropriate for big organizations that can match current demand. Competing organisations are attempting to join the market in order to get a sufficient market share to ensure their existence. From the above, it can be said that strategic niche relates to the operations undertaken by organizations to invest in new technology for the purpose of building a competitive position in the market. On the other hand, dimensions of strategic niche adopted by many studies will be adopted, including ([Emara et al., 2023](#)). These dimensions have the greatest impact on achieving strategic niche of the organization.

Expressing and Shaping Expectations

[Rukmana et al. \(2023\)](#) noted that expectations play an important role in developing a strategic niche as they provide direction for developing creativity, influencing design choices, and attracting actors. In the early stages of strategic niche, participants join by investing money, time, and effort since they have prospects about technology. However, over time, expectations about visions change due to external and internal factors. Expectations are concentrated on three levels: the first is the micro level, which is the expectations resulting from the position; the second is the macro level, that is correlated to external conditions; and the third is the intermediate level, which results from expectations and visions at the level of strategic niche. [Smolka et al. \(2023\)](#) stated that forming future expectations is necessary in order to give legitimacy to the new technology that the organization is trying to use. [Aithal and Aithal \(2023\)](#) added that the shared expectations of actors are important for developing strategic niche because they provide legitimacy and direct learning processes.

Formation of Network

[Klyver and Arenius \(2022\)](#) pointed out that social networks at the beginning of the development of strategic niche are fragile and small, and there are restricted resources. More experiments attract more participants, for example, non-governmental organizations, producers, consumers, and government authorities. [He et al. \(2022\)](#) added that building social networks creates opportunities to deal with stakeholders, small markets, and resources (money, individuals and experience), as networks allow the expression of multiple viewpoints and enable the team to provide learning opportunities. [Zhang and Erturk \(2022\)](#) emphasized that when analysing social networks, two important characteristics must be taken into account. The first is the

composition of the network, which requires the presence of a group of actors with different goals and roles, and the second is network harmony, that is, the degree of vision, expectations, and effective strategies through interaction with the actors.

Learning Processes

Lee et al. (2023) stated that this process is the one whereby organization seek to develop their actions through comprehension and knowledge to maintain their continuity and enable adaptability to various environmental situations. Sheehan et al. (2023) pointed out that learning mechanisms among actors and previous events are vital to creating new rules, and they are at several levels. The first level stands for the accumulation of facts and data, whereas the second level enables the construction of basic assumptions and cognitive frameworks. The first level provides answers to the following question: Are we doing things, right? When it comes to level 2 of learning, “are we doing the right thing?” Sarwar et al. (2023) explained that learning processes are a set of processes whereby market and technological aspects are determined. Learning has an impact on the position and attracting actors, as learning focuses on several aspects, including learning in the technological position, on changes, seizing opportunities, and overcoming environmental barriers. The learning cycle can be described through four stages: the first is represented by practical and tangible experiences; the second is contemplation of experiences; the third is generalization of experiences; and the fourth is the translation of accumulated business experiences, which provides a new process and tangible experiences for another cycle in the learning cycle. Therefore, this research aimed to study the relationship and the possibility of the positive impact of strategic innovation capabilities in enhancing the strategic niche of Iraqi industrial organizations. Based on this, the following hypotheses can be formulated:

H¹: *There is a significant correlation among the dimensions of the capability of strategic innovation and strategic niche. The following sub-hypotheses emanated from it:*

1st sub-hypothesis: *There is a significant correlation between strategic learning mechanisms of dynamic Capabilities and strategic niche.*

2nd sub-hypothesis: *There is a significant correlation between organizational characteristics and Strategic Niche.*

3rd sub-hypothesis: *There is a significant correlation between supply chain characteristics, and Strategic Niche.*

H²: *There is a significant effect of strategic innovation capabilities in strategic niche. The following sub-hypotheses emanated from it:*

1st sub-hypothesis: *There is a significant effect of strategic learning mechanisms for dynamic capabilities in strategic niche.*

2nd sub-hypothesis: *There is a significant effect of organizational characteristics in strategic niche.*

3rd sub-hypothesis: *There is a significant effect of the supply chain characteristics in strategic niche.*

METHODOLOGY

Al-EtiHAD Food Industries Company Limited in Babylon Governorate/Iraq, which was established in 2012, is one of the most important projects that works on refining sugar and raw vegetable oil. This company is a development project and is considered a real lever for the local economy, as it pushes it towards growth and development and meets the needs and aspirations of society by providing national products with high specifications contribute to achieving self-sufficiency, as those responsible for this company aspire to continue giving in supporting the process of industrial development in the country to reach true competition with global markets. The study population was chosen based on the requirements of scientific research and the achievement of its objectives, after conducting a field study in the company, showing the extent of its importance and suitability to the variables of the current study. This organisation was selected on account of the substantial economic influence and stature it embodies within Iraqi society. In addition to its notable accomplishments in the industrial sector, this organisation provides essential food products to Iraqi families. Furthermore, the managerial team's administrative and functional dedication establishes a solid foundation for undertaking this study.

The study sample consisted of (120) responses from the company's board of directors and management, and it is appropriate for statistical analysis from (131) questionnaires issued and received. As a result, 92% of respondents responded, which is a respectable and excellent percentage. It is important to note that the target individuals for the research are administrative leaders with a wide range of responsibilities in the field. As such, it was challenging to schedule meetings with them and explain the nature of the questionnaire, the purpose of the study, and its significance for managing the company under investigation and its place in the local market. Instead, the researchers used a comprehensive inventory of the target group.

To obtain data on the practical side, we relied on the descriptive analytical approach, which is an appropriate method for studying social and behavioural phenomena and relies on a comprehensive analysis of the studied problem, interpreting the influence relationships between its variables, and determining their effects to reach their results. By employing a questionnaire designed to assess the probability of strategic innovation capabilities significantly impacting the company's strategic position and featuring a five-point response scale. Strongly agree (five) to strongly disagree (one). The initial section of the questionnaire is comprised of general information pertaining

to the individual being surveyed. The second section was dedicated to measuring the study variables (SIC), which consisted of (35) items distributed evenly on three dimensions, while (SN) was assessed using (16) items dispersed equally on three dimensions. The Cronbach's alpha test was used using SPSS V.26 to guarantee the questionnaire's reliability. A research model, as shown in Figure (1), was established to describe the function of SIC in SN within the Iraqi food industry sector by gathering administrative literature on strategic management.

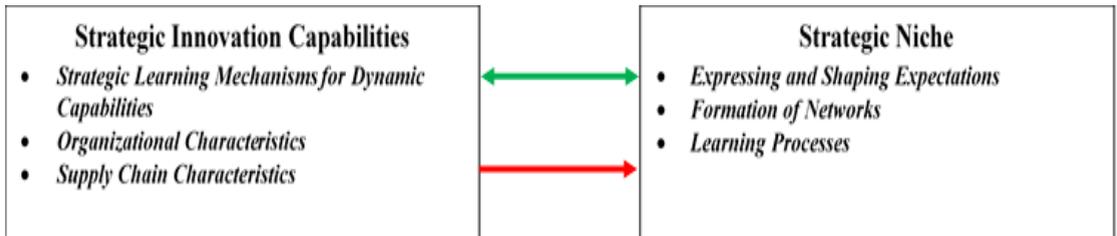


Figure 1. Research Model

Measurement and Methods

Strategic Innovation Capabilities is the capability of the organization to be creative in all working areas to achieve a unique competitive positioning. [Berghman \(2006\)](#) provided a scale which is composed of three sub-dimensions: strategic learning mechanisms for dynamic capabilities (Strategic learning mechanisms for cognitive capability, Strategic learning mechanisms for absorptive capability, Strategic learning mechanisms for transformative capability). There are 15 items distributed equally among three Capabilities, 5 items for each capability. Organizational characteristics (Organizational culture, Organizational structure). There are 15 items distributed equally among three capabilities, 5 items for each capability. And supply chain characteristics (Motivation through customers and suppliers, Motivation through the supply chain climate). There are 5 items distributed among two capabilities, 3, 2 items respectively for capability, were adopted. The scale was adapted to be suitable to the nature and objectives of this study.

Strategic Niche: Means all the operations undertaken by organizations to invest in new technology for the purpose of building a competitive position in the market. The scales by [Linko \(2018\)](#), [Vanheule \(2012\)](#) and [Mourik and Raven \(2006\)](#) which include three sub-dimensions: (Expressing and Shaping Expectations, Formation of Networks, and Learning Processes), There are 16 items distributed among three dimensions, 7, 5, 4 items respectively for dimensions, were adopted. All research measures were designed based on a five-point Likert scale, and these measures were tested with high reliability as shown in Table 1.

Testing The Measurement Tool

Reliability

The stability of the scale indicates that it is stable, giving the same results if it is re-used to the same sample. Stability is consistency or measurement (Sekaran & Bougie, 2016). Cronbach's Alpha is the most well-known ratings employed to measure the reliability of survey questions. Sekaran and Bougie (2016) shows that if the value of the test is less than (0.60), it will indicate weak stability of the measure used. The reliability of the scale, on the other hand, can be acceptable if it exceeds (0.70), whereas its reliability can be good if it is (0.80) or more. Validity refers to the scale's ability to accurately measure what it was intended to. Does the established scale actually measure the phenomena under study and not another phenomenon? (Sekaran & Bougie, 2016). Since validity has numerous types, content validity, that could be a judgmental measure that relies on the researcher's precise identification of the research topic variables, was used. This clearly relies on the depth of research done on the subject (Cooper & Schindler, 2014). The researchers used face validity by presenting the questionnaire to a group of specialized arbitrators. The following table illustrates the coefficients of reliability and validity for the study variables. All the study variables and their dimensions have dependability coefficient values that are within statistically acceptable ranges, as shown in Table 1. This provides strong evidence of the reliability of the scale used to assess the study items, enabling researchers to confidently utilise the findings to influence their decisions.

Table 1. Cronbach's Alpha for Research Variables

Variables and Dimensions	Cronbach's Alpha
Strategic Innovation Capabilities	0.824
Strategic Learning Mechanisms for Dynamic Capabilities	0.711
Organizational Characteristics	0.732
Supply Chain Characteristics	0.762
Strategic Niche	0.850
Expressing and Shaping Expectations	0.783
Forming Networks	0.810
Learning Processes	0.750
Overall Reliability of Scale	0.863

Testing Data Normal Distribution

This test was conducted after verifying the tools of data collection since testing hypotheses in the present study rely on parametric statistics, which is founded on a key assumption that the data being analysed must be regularly distributed. In case parametric methods are employed for information that are not subject to a regular distribution, then the findings concluded from these tests are not reliable (Field, 2009). Although statisticians point out that if researchers survey a great deal of members

compared to the research community, the normal distribution of the data would be promising (Field, 2009). However, to ensure the accuracy of the research results, the researchers subjected the data collected from the questionnaire to the Kolmogorov-Smirnov test, which is a vital test for the regular distribution of data. If the test significance (sig.) is more than or equal to (0.05), then the data can be normally distributed at the level mentioned previously. Thus, it is possible to use parametric statistical analysis tools in addition to being assured about the results. If the data is not dependent on a regular distribution, researchers will make use of non-parametric analysis tools. Table 2 illustrates the test results of the regular distribution of the study variables. It shows that the statistics for the research variables (strategic innovation capabilities and strategic niche), whether at the sub-level or the total level, are dependent on a regular distribution since the test significance is more than (0.05). This causes it to be eligible to undergo parametric analysis tools.

Table 2. Kolmogorov-Smirnov Test

Variables and Dimensions	Strategic Learning Mechanisms for Dynamic Capabilities	Organizational Characteristics	Supply Chain Characteristics	Strategic Innovation Capabilities
Test Statistic	.157	.113	.116	.093
Asymp. Sig. (2-Tailed)	.059 ^c	.054 ^c	.059 ^c	.196 ^c
Variables and Dimensions	Expressing and Shaping Expectations	Forming Networks	Learning Processes	Strategic Niche
Test Statistic	.114	.101	.114	.081
Asymp. Sig. (2-Tailed)	.078 ^c	.056 ^c	.062 ^c	.200 ^{c,D}
N = 120				

RESULTS

Describing and Diagnosing the Study Variables

This part displays, analyses, and interprets members' questionnaire paragraph responses using weighted arithmetic mean values, relative importance values and standard deviation values for each study variable. Through the process of group identification, the study could determine the degree of the responses using arithmetic averages. The five groups of arithmetic means result from the questionnaire's five-point Likert scale (extremely disagree to highly concur). The category is obtained by dividing the length of the range ($5-1 = 4$) by the number of categories ($5; 4/5 = 0.80$). Following that, 0.80 is either subtracted from the higher limit of the scale (1) or added to its lower limit. (5). The categories are presented in Table 3.

Table 3. Weighted Arithmetic Means and Their Response Levels

Answer Level	Weighted Average
Very Low	From 1 To 1.80
Low	From 1.81 To 2.60
Moderate	From 2.61 To 3.40
High	From 3.41 To 4.20
Very High	From 4.21 To 5

Source: Dewberry (2004)

Descriptive Analysis for Strategic Innovation Capabilities

To analyse the different aspects of this variable, we will extract the values of the M, RI, and SD. This analysis will be done at both the total and partial levels. According to Table 4, the strategic innovation capabilities variable falls into the high group and has a WAM of (3.50), with a SD of (1.27). This reflects the availability of this variable in the company under study. What supports this statement is that the RI reached (70%). Below is a detailed explanation of the axes of the investigated variable. For descriptive statistics of the mechanisms of strategic learning for dynamic capabilities, based on its WAM of (3.45) and RI of (68%), this dimension is classified as high. The value of the SD was (1.21). Based on the aforementioned information, it is evident that the research sample company employs mechanisms of strategic learning to develop dynamic capabilities. Furthermore, in organizational characteristics, the dimension has a WAM of (3.42), suggesting that it falls into the (high) group, while its RI was (68%). The SD value was (1.22). According to the information provided above, the firm sampled in the study has organizational features. In case of supply chain characteristics, the WAM of this dimension is (3.41), indicating its classification as high. Furthermore, it possesses a RI of (68%). The value of the SD was (1.31). From the above, this study concluded that the characteristics of supply chain receive good attention from the sample members.

Table 4. Descriptive Statistics for Strategic Innovation Capabilities Variable

No	Dimensions	Relative Importance (RI)%	Standard Deviation (SD)	Weighted Arithmetic Mean (WAM)
1	Strategic Learning Mechanisms for Dynamic Capabilities	68	1.21	3.45
2	Organizational Characteristics	68	1.22	3.42
3	Supply Chain Characteristics	68	1.31	3.41
	Strategic Innovation Capabilities	70	1.27	3.50

Descriptive Analysis for Strategic Niche

The WAM, RI, and SD values will be extracted, either fully or partially, to address the axes of this variable. According to the data presented in [Table 5](#), the WAM for the strategic niche was 3.52, placing it in the high category with a SD of (1.25). This reflects the organisation under investigation possesses this variable. What supports its existence is that the RI reached (71%). Below is a detailed explanation of the axes of the investigated variable. In case of expression and formation of expectations, this dimension has a WAM of (3.43), suggesting that it is moderate, with a RI of (68%). The SD was (1.34). There are expression and formation of expectations in the company sampled in the research. Furthermore, in network formation, with a WAM of (3.64) and a RI of (73%), this dimension is classified as high. The SD of (1.19) was recorded. From the above results, there is a kind of networks formation in the sample of the study. Finally, regarding learning processes, With a WAM of (3.44), this dimension falls into the high group, while its RI is (69%). The SD was (1.39) in value. From the above, we conclude that learning processes are important for the company to realize strategic niche.

Table 5. Descriptive Statistics for Strategic Niche

No	Dimensions	Relative Importance (RI) %	Standard Deviation (SD)	Weighted Arithmetic Mean (WAM)
1	Expressing and Shaping Expectations	68	1.34	3.43
2	Forming Networks	73	1.19	3.64
3	Learning Processes	69	1.39	3.44
	Strategic Niche	71	1.25	3.52

Hypotheses Testing

In hypotheses testing, [Table 6](#) shows the dimensions of these variables and the matrix of simple Pearson correlation coefficients (Pearson). The sample size (120) and kind of test (2-tailed) are shown in [Table 6](#) before we get into testing this hypothesis. The table displays the results of the significance test for the correlation coefficient, denoted as (Sig.). The correlation is considered significant at the level of (5%) if the correlation coefficient has the sign (*). When the correlation coefficient has the symbol (**), it signifies that the correlation is significant at (1%). According to the rule (Cohen, 1977: 79–81), the correlation coefficient's strength is assessed as follows. It is low if the coefficient of correlation is between (0.10) and (0.29).

Furthermore, it is moderate if the coefficient of correlation value lies within the range of (0.30 to 0.49). Finally, it is high if the coefficient of correlation is within the range of (0.5 to 1).

Table 6. Correlations Analysis among the Research Variables

		Strategic Learning Mechanisms for Dynamic Capabilities	Organizational Characteristics	Supply Chain Characteristics	Strategic Innovation Capabilities
Strategic Niche	Pearson Correlation	**0.540	**0.536	**0.607	**0.632
	Sig. (2-Tailed)	0.000	0.000	0.000	0.000
	N	120	120	120	120

** . Correlation is Significant 0.01 (2-tailed)

The correlation matrix that validated the initial main hypothesis and the subsequent hypotheses that arose from it, suggesting robust positive correlations, is presented in Table 6. This is since its value exceeds 0.5 and possesses statistically significant importance at the 1% level in the context of strategic innovation capabilities and strategic niche. According to Cohen's rule, there is a substantial association between strategic innovation capabilities and strategic niche, with a correlation coefficient of (0.632) at a significance level of (1%). When the size of the correlation between them grew at (0.607) at a significant level (1%), which is a strong direct connection based on Cohen's rule, the supply chain features, and strategic niche showed the greatest correlation at the dimensional level. On the other hand, the weakest correlation was among organizational characteristics and strategic niche, as the value of the correlation was (0.536), which was a strong correlation according to Cohen's rule. The data obtained from Table 6 demonstrate that consideration is given to the existence hypothesis in relation to the first main hypothesis and its sub-hypotheses. The hypothesis which states "there is a significant correlation among the strategic innovation capabilities with its dimensions and strategic niche" is approved. Table 7 shows the results of testing the second main hypothesis (there is a significant effect of the strategic innovation capabilities with its dimensions in the strategic niche).

Table 7. Results of testing the second main hypothesis

Dependent Variable Independent Variable	Strategic Niche					
	P-Value	F	P-Value	T	R ²	β
Strategic Innovation Capabilities	0.000	86.31	0.000	9.29	0.40	0.63

The findings in Table 7 reveal that the coefficient of regression for strategic innovation capabilities in strategic niche was (0.63). This means that if the Capabilities of Strategic Innovation alter by one-unit, strategic niche will increase by (63%), indicating that the impact is significant as the calculated (t) value of (9.29) is significant at (0.000). Strategic innovation capabilities show 40% of the changes occurring in strategic niche. The rest (60%) is assigned to factors not specified in the

study model; it is worth mentioning that the estimated model is completely significant, as the computed (f) value of 86.31 is 0.000 times significant. Therefore, the second hypothesis, stating "there is a significant effect of strategic innovation capabilities in strategic niche", is verified.

The following is made evident by using [Table 8](#) to demonstrate the viability of the sub-hypotheses arising from the second primary hypothesis: The 1st sub-hypothesis: There is a significant effect of the Mechanisms of Strategic Learning for Dynamic Capabilities in strategic niche. According to [Table 8](#), the coefficient of regression was (0.53), indicating that in case the dimension changed by one unit, the variable of strategic niche will increase by (53%). This indicates that there is a significant impact as the calculated (t) value of (7.30) is significant at (0.000). Furthermore, the coefficient of determination value (R^2) was nearly (0.29) indicating that the dimension describes 29% of the alterations occurring in strategic niche. The other percentage (71%) is ascribed to other factors which aren't mentioned in the present model. Meanwhile, the calculated (F) value of (52.92) is significant at (0.000) level. Therefore, the estimated model is totally significant. Therefore, analyzing the findings of [Table 8](#) shows that the 1st sub-hypothesis, which states there is a significant effect of strategic learning mechanisms for dynamic capabilities in strategic niche), is accepted.

Table 8. Results of testing the 1st sub-hypothesis of the second main hypothesis

Dependent Variable Independent Sub-Variable	Strategic Niche					
	P-Value	F	P-Value	T	R ²	β
Strategic Learning Mechanisms for Dynamic Capabilities	0.000	52.92	0.000	7.30	0.29	0.53

The following is made evident by using [Table 9](#) to demonstrate the viability of the sub-hypotheses arising from the second primary hypothesis: The 2nd sub-hypothesis: There is a significant effect of organizational characteristics in strategic niche. According to [Table 9](#), the coefficient of regression was (0.54) indicating that in case the dimension changed by one unit, the variable of strategic niche would increase by (54%). This implies that the impact was considerable, since the computed (t) value of (7.33) is statistically significant at (0.000). Furthermore, the strategic niche reflects 28% of the changes that occur, as shown by the dimension's coefficient of determination (R^2) value of around (0.28). The other rate (72%) is ascribed to factors other than those in the present model. Accordingly, the computed (F) value (51.19) is statistically significant at the (0.000) level. As a result, the calculated model is (100%) significant. Therefore, through analyzing the data of [Table \(9\)](#), the 2nd sub-hypothesis, which states there is a significant effect of organizational characteristics in strategic niche), is accepted.

Table 9. Results of testing the 2nd sub-hypothesis of the second main hypothesis

Dependent Variable Independent Sub-Variable	Strategic Niche					
	P-Value	F	P-Value	T	R ²	β
Organizational Characteristics	0.000	51.19	0.000	7.33	0.28	0.54

The following is made evident by using [Table 10](#) to demonstrate the viability of the sub-hypotheses arising from the second primary hypothesis: The 3rd sub-hypothesis: There is a significant effect of the supply chain characteristics in strategic niche. According to [Table 10](#), the coefficient of regression was (0.62), indicating that when the dimension changed by one unit, the variable of strategic niche would be increasing by (62%). This indicates a significant effect as the calculated (t) value of (8.69) is a significant value at (0.000). Besides, the coefficient of determination (R²) had an approximate value of 0.36, suggesting that 91% of the changes observed in the strategic niche are reflected in that dimension. The remaining 64% is attributable to variables not accounted for in the current model. Thirdly, the calculated (F) value of (64.73) is significant at the level of (0.000). Therefore, the estimated model is totally significant. Finally, therefore, the statistics in [Table \(10\)](#) show that the 3ed sub-hypothesis, which states there is a significant effect of the supply chain characteristics in strategic niche), is accepted.

Table 10. Results of testing the 3rd sub-hypothesis of the second main hypothesis

Dependent Variable Independent Sub-Variable	Strategic Niche					
	P-Value	F	P-Value	T	R ²	β
Supply Chain Characteristics	0.000	64.73	0.000	8.69	0.36	0.62

DISCUSSION AND CONCLUSIONS

The purpose of this research was to examine the correlation between strategic niche (SN) and strategic innovation capabilities (SIC) at Al-Etihad Food Industries Company Limited in Iraq. This study assumed that the (SIC), in its three dimensions, affect building the company's (SN) in the field of application. The study evaluated a total of (120) responses, and the results indicated that (SIC) have a positive impact on enhancing the company's (SN) as well as its sustainability. This indicates that the more the company is oriented toward using the (SIC) in its dimensions, the more this leads to strengthening (SN). There are also empirical evidence indicating that companies adopting innovative and creative approaches to building their capabilities will affect the strengthening of their (SN), such as the study [Abdulrasool et al. \(2023\)](#); [Amanah et al. \(2023\)](#). These results are consistent with previous studies, for example, the study of [Fadhil et al. \(2023a\)](#) who presented experimental results on enhancing the strategic objectives of contemporary companies, including their (SN).

In addition, authors of other studies such as [Hussein et al. \(2023\)](#) ; [Amanah et al. \(2022a\)](#) emphasized the importance of this type of capabilities in sustaining and developing the position of companies in the telecommunications sector, and similarly, In addition to the study [Bannay et al. \(2020\)](#), which emphasized that innovative behaviors in the workplace will enhance employee participation strategically, these findings are consistent with those findings. This result is also consistent with the results of other studies, such as [Ahmed et al. \(2023\)](#) ; [Amanah et al. \(2022b\)](#), who emphasize that contemporary organizations should look at strategic elements such as (SN) that can help predict future opportunities and risks, thus gaining and maintaining prestige. In the same regard, the study of [Fadhil et al. \(2023b\)](#) ; [Hussein et al. \(2024\)](#) agreed with the current study, which confirmed that companies' possession of strategic capabilities will reduce internal organizational conflict, which contributes to building a position as a result of the quality of their strategic decisions that were built on the basis of their innovative capabilities.

IMPLICATIONS

The study has some implications based on its findings. The study recommends that the company in the field of application needs to build innovative capabilities according to strategic approaches that enable it to respond quickly to changes in the internal and external work environments. Furthermore, the study recommends working proactively to take advantage of the opportunities that arise because of these changes to achieve a strategic competitive position compared to other companies in the food commodity manufacturing sector that needs. The Iraqi family has the required quality and then moves regionally and internationally to achieve gains on a broader level, ensuring its expansion and development and the diversity of its products provided to internal and external customers. Moving on, investing in organizational characteristics that enhance (SIC) in generating new creative initiatives that ensure the building of a sustainable (SN) that cannot be matched. The organizational culture that supports the strategy and organizational structure has a significant impact on creating and developing dynamic capabilities through affecting the administrative procedures and organizational processes. Moreover, the interest of the company under study should be highly enhanced in building social networks for its role in the marketing process through financial and moral support and making it a source for building a distinctive position for the company. Similarly, it must be a basis for expressing ideas and values towards its customers, which contributes to building acceptance of new services and modern technology.

FUTURE DIRECTIONS

Although, the research came up with key conclusions represented in the fact that the capabilities of strategic innovation and their dimensions play an instrumental role in

enhancing strategic niche. However, there are directions for the future studies to work on this area of research to contribute further to knowledge. The future studies are required to work entrepreneurial capabilities and entrepreneurial capabilities to determine their impact on strategic niche. It would be a significant addition in knowledge. Similarly, the future studies are required to collect data from developed countries to improve the knowledge. It will be a significant addition to knowledge by the scholars.

DECLARATIONS OF INTEREST

The authors have no competing interests to declare relevant to this article content.

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REFERENCES

- Abdulrasool, A. M., Loukil, T. M., & Amanah, A. A. (2023). The Mediating Role Of The Work Life Quality In Enhancing The Relationship Between Marketing Ambidexterity And Strategic Niche. *American Journal of Business Management, Economics and Banking*, 18, 28-49. <https://www.americanjournal.org/index.php/ajbmeb/article/view/1429>
- Ahmed, A. H., Amanah, A. A., & Alabbas, S. A. A. (2023). Strategic ambidexterity and its role in achieving contemporary initiatives: an exploratory study of opinions of a sample of managers of travel and tourism companies in holy governorate of Kerbala-Iraq. *Periodicals of Engineering and Natural Sciences*, 11(2), 13-21. <http://dx.doi.org/10.21533/pen.v11i2.3451>
- Aithal, P., & Aithal, S. (2023). Super Innovation in Higher Education by Nurturing Business Leaders through Incubationship. *International Journal of Applied Engineering and Management Letters (IJAEML)*, 7(3), 142-167. <https://dx.doi.org/10.2139/ssrn.4673874>
- AlTaweel, I. R., & Al-Hawary, S. I. (2021). The mediating role of innovation capability on the relationship between strategic agility and organizational performance. *Sustainability*, 13(14), 7564. <https://doi.org/10.3390/su13147564>
- Amanah, A. A., Hussein, S. A., & Bannay, D. F. (2022b). Role of proactive behavior in entrepreneurial alertness: A mediating role of dynamic capabilities.

Problems and Perspectives in Management, 20(4), 127–137.
[https://doi.org/10.21511/ppm.20\(4\).2022.10](https://doi.org/10.21511/ppm.20(4).2022.10).

- Amanah, A. A., Hussein, S. A., & Fadhil, A. H. (2022a). Assessing the relationship of strategic alignment with strategic response: Mediating role of strategic thinking: Prospective analytical research in Karkh health directorate – Baghdad. *International Journal of eBusiness and eGovernment Studies*, 14(2), 388–410.
- Amanah, Ahmed Abdullah. Al-Taweel, Raad Ismail Sawadi. Aljaburi, Haitham Wadi Jaaz. Amanah, Srmed Abdullah. Sultan, Suad Jubair (2023). The mediating role of quality of work life for strengthening the relationship between servant leadership and strategic niche. *Warith Scientific Journal*, 5(15), 163-180.
- Baheer, R., Khan, K. I., Rafiq, Z., & Rashid, T. (2023). Impact of dark triad personality traits on turnover intention and mental health of employees through cyberbullying. *Cogent Business & Management*, 10(1), 2191777. <https://doi.org/10.1080/23311975.2023.2191777>
- Bannay, D. F., Hadi, M. J., & Amanah, A. A. (2020). The impact of inclusive leadership behaviors on innovative workplace behavior with an emphasis on the mediating role of work engagement. *Problems and Perspectives in Management*, 18(3), 479. [https://doi.org/10.21511/ppm.18\(3\).2020.39](https://doi.org/10.21511/ppm.18(3).2020.39)
- Berghman, L. (2006). *Strategic innovation capacity: a mixed method study on deliberate strategic learning mechanisms*. <http://hdl.handle.net/1765/7991>
- Bradley, S. W., Kim, P. H., Klein, P. G., McMullen, J. S., & Wennberg, K. (2021). Policy for innovative entrepreneurship: Institutions, interventions, and societal challenges. *Strategic Entrepreneurship Journal*, 15(2), 167-184. <https://doi.org/https://doi.org/10.1002/sej.1395>
- Ceptureanu, S. I., Ceptureanu, E. G., & Cerqueti, R. (2022). Innovation ambidexterity and impact on the performance in IT companies: the moderating role of business experience. *Technology Analysis & Strategic Management*, 34(7), 746-759. <https://doi.org/10.1080/09537325.2021.1918337>
- Channagiri Ajit, T. (2019). COMPETITION, STATUS AND MARKETS.
- Chatterjee, S., Chaudhuri, R., Mariani, M., & Fosso Wamba, S. (2023). The consequences of innovation failure: An innovation capabilities and dynamic capabilities perspective. *Technovation*, 128, 102858. <https://doi.org/https://doi.org/10.1016/j.technovation.2023.102858>
- Chege, S. M., & Wang, D. (2020). Information technology innovation and its impact on job creation by SMEs in developing countries: an analysis of the literature review. *Technology Analysis & Strategic Management*, 32(3), 256-271. <https://doi.org/10.1080/09537325.2019.1651263>
- Choi, S., & Yoo, J. (2022). The impact of technological innovation and strategic CSR on firm value: Implication for social open innovation. *Journal of Open Innovation: Technology, Market, and Complexity*, 8(4), 188. <https://doi.org/10.3390/joitmc8040188>

- Cooper, D. R., & Schindler, P. (2014). *Business research methods*. Mcgraw-hill. <https://thuvienso.hoasen.edu.vn/handle/123456789/10310>
- Dewberry, C. (2004). *Statistical methods for organizational research: Theory and practice*. Routledge. <https://doi.org/10.4324/9780203414897>
- Emara, O. A. M., Halim, H. T., El-Deeb, M. S., & Halim, Y. T. (2023). Toward a sustained recovery of the lodging sector: a management path to lessen the Corona Variants upshots. *Future Business Journal*, 9(1), 1. <https://doi.org/10.1186/s43093-022-00171-3>
- Fadhil, A. H., Shaheed, J. M., Jarallah, M. A., & Amanah, A. A. (2023a). Impact Of Entrepreneurial Leadership On Forming Agile Work Teams: Mediating Role Of Strategic Engagement. *Problems and Perspectives in Management*, 21(4). [http://dx.doi.org/10.21511/ppm.21\(4\).2023.29](http://dx.doi.org/10.21511/ppm.21(4).2023.29)
- Fadhil, A. H., Amanah, A. A., Hussein, S. A., Hasan, M. F., Mohammed Ali, G. S., & Mohammed, I. Z. (2023b). Impact of behavioural integration of senior management in effectiveness of strategic decision-making: An applied study in some Iraqi Private Faculties in Kerbala City. *Technium Social Sciences Journal*, 43(1), 371–388. <https://doi.org/10.47577/tssj.v43i1.8833>
- Fan, X. (2024). Research on the Current Situation of Work Pressure and Relief Strategies of Grassroots Taxation Personnel. *Frontiers in Business, Economics and Management*, 13(3), 59-62. <https://doi.org/10.54097/pttsmp77>
- Ferreira, J., Coelho, A., & Moutinho, L. (2020). Dynamic capabilities, creativity and innovation capability and their impact on competitive advantage and firm performance: The moderating role of entrepreneurial orientation. *Technovation*, 92-93, 102061. <https://doi.org/https://doi.org/10.1016/j.technovation.2018.11.004>
- Field, A. (2009). *Discovering statistics using SPSS: Book plus code for E version of text* (Vol. 896). SAGE Publications Limited London, UK. <https://search.worldcat.org/title/1007930028>
- Gajdzik, B., & Wolniak, R. (2022). Smart production workers in terms of creativity and innovation: The implication for open innovation. *Journal of Open Innovation: Technology, Market, and Complexity*, 8(2), 68. <https://doi.org/10.3390/joitmc8020068>
- Guo, J., Jia, F., Yan, F., & Chen, L. (2023). E-commerce supply chain finance for SMEs: the role of green innovation. *International Journal of Logistics Research and Applications*, 1-20. <https://doi.org/10.1080/13675567.2023.2167959>
- Hagawe, H. M., Mobarek, A., Hanuk, A., & Jamal, A. (2023). A unique business model for microfinance institution: the case of Assadaqaat Community Finance (ACF). *Cogent Business & Management*, 10(1), 2135202. <https://doi.org/10.1080/23311975.2022.2135202>
- He, X., & Wu, X. (2022). Social networks and ambidextrous innovation in SMEs: the mediating role of dynamic capabilities and the moderating role of

- technological turbulence. *Technology Analysis & Strategic Management*, 1-14. <https://doi.org/10.1080/09537325.2022.2157710>
- He, X., Wu, X., Croasdell, D., & Zhao, Y. (2022). Dynamic capability, ambidexterity and social network—empirical evidence from SMEs in China. *Journal of Small Business and Enterprise Development*, 29(6), 958-974. <https://doi.org/10.1108/JSBED-05-2020-0181>
- Hensellek, S., Kleine-Stegemann, L., & Kollmann, T. (2023). Entrepreneurial leadership, strategic flexibility, and venture performance: Does founders' span of control matter? *Journal of Business Research*, 157, 113544. <https://doi.org/10.1016/j.jbusres.2022.113544>
- Hughes, P., Morgan, R. E., Hodgkinson, I. R., Kouropalatis, Y., & Lindgreen, A. (2020). A diagnostic tool to determine a strategic improvisation Readiness Index Score (IRIS) to survive, adapt, and thrive in a crisis. *Industrial Marketing Management*, 88, 485-499. <https://doi.org/10.1016/j.indmarman.2020.05.020>
- Hussein, S. A., Amanah, A. A., & Kazem, S. A. (2023). Strategic learning and strategic agility: The mediating role of strategic thinking. *International Journal of eBusiness and eGovernment Studies*, 15(1), 1-25. <https://doi.org/10.34109/ijepeg.%202023150101>
- Hussain, A. N., Olaywi, A. H., Amanah, A. A., & Fadhil, A. H. (2024). Interactive role of strategic clarity in the relationship between organizational conflict management and strategic decision quality. *Business: Theory and Practice*, 25(1), 154–163. <https://doi.org/10.3846/btp.2024.20083>.
- Jalil, F., Yang, J., Rehman, S. U., & Khan, M. M. (2023). Post-COVID-19's impact on green supply chain management and sustainable E-commerce performance: the moderating role of big data analytics. *Environmental Science and Pollution Research*, 1-16. <https://doi.org/10.1007/s11356-023-30581-x>
- Kara, E., Akbaba, M., Yakut, E., Çetinel, M. H., & Pasli, M. M. (2023). The mediating effect of green human resources management on the relationship between organizational sustainability and innovative behavior: an application in Turkey. *Sustainability*, 15(3), 2068. <https://doi.org/10.3390/su15032068>
- Khan, S. A. R., Yu, Z., & Farooq, K. (2023). Green capabilities, green purchasing, and triple bottom line performance: Leading toward environmental sustainability. *Business Strategy and the Environment*, 32(4), 2022-2034. <https://doi.org/10.1002/bse.3234>
- Kiani, A., Yang, D., Ghani, U., & Hughes, M. (2022). Entrepreneurial passion and technological innovation: the mediating effect of entrepreneurial orientation. *Technology Analysis & Strategic Management*, 34(10), 1139-1152. <https://doi.org/10.1080/09537325.2021.1948986>
- Klyver, K., & Arenius, P. (2022). Networking, social skills and launching a new business: A 3-year study of nascent entrepreneurs. *Entrepreneurship theory and practice*, 46(5), 1256-1283. <https://doi.org/10.1177/1042258720967063>

- Lee, E. T., Park, Y.-R., & Kwak, J. (2023). Knowledge distance and innovation performance: the moderating role of internationalization breadth and depth. *Asian Business & Management*, 22(3), 1131-1154. <https://doi.org/10.1057/s41291-022-00197-z>
- Linko, T. (2018). Collaboration between startups and incumbent companies in the field of consumer cleantech A perspective of transition studies. <https://core.ac.uk/download/pdf/158607221.pdf>
- Meng, J., Murad, M., Li, C., Bakhtawar, A., & Ashraf, S. F. (2023). Green Lifestyle: A Tie between Green Human Resource Management Practices and Green Organizational Citizenship Behavior. *Sustainability*, 15(1), 44. <https://doi.org/10.3390/su15010044>
- Mirza, S., Mahmood, A., & Waqar, H. (2022). The interplay of open innovation and strategic innovation: Unpacking the role of organizational learning ability and absorptive capacity. *International Journal of Engineering Business Management*, 14, 18479790211069745. <https://doi.org/10.1177/18479790211069745>
- Mourik, R., & Raven, R. (2006). A practioner's view on Strategic Niche Management. *Energy Research Center of the Netherlands Report*. <https://api.semanticscholar.org/CorpusID:55850054>
- Petersen, M. D., Shumway, A. M., Powers, P. M., Field, E. H., Moschetti, M. P., Jaiswal, K. S., ... & Witter, R. C. (2024). The 2023 US 50-State National Seismic Hazard Model: Overview and implications. *Earthquake Spectra*, 40(1), 5-88. <https://doi.org/10.1177/87552930231215428>
- Raji, M. A., Olodo, H. B., Oke, T. T., Addy, W. A., Ofodile, O. C., & Oyewole, A. T. (2024). Business strategies in virtual reality: a review of market opportunities and consumer experience. *International Journal of Management & Entrepreneurship Research*, 6(3), 722-736. <https://doi.org/10.51594/ijmer.v6i3.883>
- Rezaeian, M., Pinkse, J., & Rigby, J. (2024). Transforming titans: The role of policy mixes in business model adaptation strategies for sustainability transitions. *Energy Research & Social Science*, 112, 103499. <https://doi.org/10.1016/j.erss.2024.103499>
- Rukmana, A. Y., Meltareza, R., Harto, B., Komalasari, O., & Harnani, N. (2023). Optimizing the Role of Business Incubators in Higher Education: A Review of Supporting Factors and Barriers. *West Science Business and Management*, 1(03), 169-175. <https://doi.org/10.58812/wsbm.v1i03.96>
- Sarwar, F., Sami, A., & Nauman, B. (2023). Personality and entrepreneurial intentions of final year business students in Pakistan: The mediating role of entrepreneurial education and social norms. *Journal of Entrepreneurship and Business Venturing*, 3(1). <https://doi.org/10.56536/jebv.v3i1.45>
- Sekaran, U., & Bougie, R. (2016). *Research methods for business: A skill building approach*. John Wiley & Sons. <https://cir.nii.ac.jp/crid/1130282268737266944>

- Shan, H., Bai, D., Fan, X., Shi, J., Li, Y., & Yang, S. (2023). Enabling roles of integration and resilience for sustainable supply Chain performance: an empirical study on China's E-commerce platforms. *Applied Economics*, 1-15. <https://doi.org/10.1080/00036846.2023.2186354>
- Sheehan, M., Garavan, T. N., & Morley, M. J. (2023). The Microfoundations of Dynamic Capabilities for Incremental and Radical Innovation in Knowledge-Intensive Businesses. *British Journal of Management*, 34(1), 220-240. <https://doi.org/https://doi.org/10.1111/1467-8551.12582>
- Smolka, K. M., Geradts, T. H., van der Zwan, P. W., & Rauch, A. (2023). Why bother teaching entrepreneurship? A field quasi-experiment on the behavioral outcomes of compulsory entrepreneurship education. *Journal of Small Business Management*, 1-57. <https://doi.org/10.1080/00472778.2023.2237290>
- Teece, D. J. (2014). A dynamic capabilities-based entrepreneurial theory of the multinational enterprise. *Journal of International Business Studies*, 45, 8-37.
- Teece, D. J. (2020). Hand in glove: Open innovation and the dynamic capabilities framework. *Strategic Management Review*, 1(2), 233-253. <https://www.strategicmanagementreview.net/assets/articles/Teece%20OI.pdf>
- Tiits, M., Karo, E., & Kalvet, T. (2024). Small countries facing the technological revolution: fostering synergies between economic complexity and foresight research. *Competitiveness Review: An International Business Journal*. <https://doi.org/10.1108/CR-03-2023-0051>
- Usman, B., Lestari, H. S., Syofyan, S., & Esya, L. (2024). Exploring the relationship between dividend policy, the COVID-19 crisis, and stock market reaction: empirical insights from Indonesian real estate and property firms. *Cogent Business & Management*, 11(1), 2302204. <https://doi.org/10.1080/23311975.2024.2302204>
- Vanheule, L. (2012). Small Wind Turbines in Kenya. *An analysis with Strategic Niche Management*, Delf University of Technology. <https://doi.org/10.1016/j.rser.2015.04.082>
- Wan, Q., Yuan, L., Yao, Z., & Xu, Y. (2023). Impact of intellectual property protection on the innovation efficiency in China's hi-tech industry. *Technology Analysis & Strategic Management*, 35(1), 107-122. <https://doi.org/10.1080/09537325.2021.1968372>
- Wu, W., Liang, Z., Zhang, Q., & Zhang, H. (2020). Coupling relationships and synergistic mechanisms between technology management capability and technological capability in product innovation: a simulation study. *Technology Analysis & Strategic Management*, 32(9), 1098-1112. <https://doi.org/10.1080/09537325.2020.1743261>
- Xu, J., Wang, X., & Liu, F. (2021). Government subsidies, R&D investment and innovation performance: analysis from pharmaceutical sector in China. *Technology Analysis & Strategic Management*, 33(5), 535-553. <https://doi.org/10.1080/09537325.2020.1830055>

- Zhang, L., & Erturk, E. (2022). Potential lessons from Chinese businesses and platforms for online networking and marketing: An exploratory study. *Social Sciences & Humanities Open*, 6(1), 100274. <https://doi.org/10.1016/j.ssaho.2022.100274>
- Zhang, X., Gao, C., & Zhang, S. (2022). The niche evolution of cross-boundary innovation for Chinese SMEs in the context of digital transformation—Case study based on dynamic capability. *Technology in Society*, 68, 101870. <https://doi.org/10.1016/j.techsoc.2022.101870>
- Zhao, J. (2023). The relationship between coupling open innovation and innovation performance: The moderating effect of platform openness. *Technology Analysis & Strategic Management*, 35(2), 137-152. <https://doi.org/10.1080/09537325.2021.1970129>