



STRATEGIC INNOVATION AS A TOOL FOR ENHANCING COMPETITIVE EXCELLENCE: A STUDY IN IRAQI CEMENT COMPANIES

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Article history:		Abstract:
Received:	28 th November 2025	This study aims to analyze the role of strategic innovation in enhancing competitive excellence through a field study in the Iraqi cement industry. The study stems from the problem of intensifying competition and the challenges facing this sector. To address this problem and achieve the study's objective, the study population was defined as seven cement factories in Iraq. A questionnaire was designed as the primary data collection tool, and it was distributed to a sample of 345 employees representing various job levels in these factories. The data was analyzed using the Statistical Package for the Social Sciences (SPSS, AMOS). The study adopted a descriptive-analytical approach to interpret the results. The results showed a direct and significant impact of strategic innovation on enhancing competitive excellence, confirming that adopting strategic innovation practices contributes significantly to increasing organizations' ability to achieve superiority and excellence in a changing competitive environment. In light of the results, the study recommends adopting strategic innovation as an integrated approach to achieving competitive excellence, rather than treating its dimensions in isolation, due to its impact on maximizing competitive returns.
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INTRODUCTION

Business organizations have witnessed rapid developments and continuous changes over the past decade, presenting them with significant challenges. These challenges include intense competition, the technological revolution, ongoing market shifts, evolving customer needs and desires, and competitor behavior. Consequently, it has become essential for organizations to adopt effective strategies and explore all means to confront competition and enhance their competitive capabilities to achieve clear competitive excellences. Competitive superiority is a fundamental pillar of organizational success and requires possessing excellences that give them an edge over competitors, along with a continuous effort to cultivate and develop these excellences. Achieving competitive excellence in dimensions such as cost, quality, resources, delivery, and innovation requires adopting modern strategic approaches that help the organization understand its internal and external environment, capitalize on available opportunities, and effectively address challenges. One of the most important of these approaches is "strategic innovation." Strategic innovation represents a dynamic vision for determining the innovative strategic positioning of new services and business models offered by the organization to gain a sustainable, long-term competitive excellence. It helps organizations embrace radical reform of traditional services and create new business models that strategically and continuously transform existing operations, eliminating the need for them to simply maintain their existence. This enables the organization to respond swiftly and effectively to market opportunities and evolving technologies.

Achieving competitive excellence in dimensions such as cost, quality, resources, delivery, and innovation necessitates adopting modern strategic approaches. Based on the foregoing, the cement industry sector in Iraq is in dire need of strategic innovation, given its significant role in understanding the rapid changes in the business environment and ensuring competitive excellence. Hence, the study aims to demonstrate the role of strategic innovation in enhancing competitive excellence. To achieve this goal, we must understand the problem of the study, as the Iraqi cement sector suffers from intense competition from international companies due to weak strategic innovation, limited experience, and low technical level. These problems hinder competitive excellence.

Study Methodology

Study Problem: The cement industry in Iraq faces several challenges, including intense competition from foreign cement companies, technological obsolescence, and insufficient financial allocation. These problems hinder the



industry's ability to achieve competitive excellence in both the local and international markets. This situation has prompted the cement industry's management to seek effective solutions. Strategic innovation has emerged as a primary solution due to its positive role in developing plans that enable this vital sector to offer a product that competitors cannot imitate, thus achieving competitive excellence. Furthermore, the problem must be addressed theoretically and statistically by posing the following questions:

1. Does the management of the cement sector in Iraq recognize the importance of operating according to the principle of strategic innovation?
2. What is the level of competitive excellence within the sector under study?
3. Does strategic innovation influence competitive excellence in the sector under study?

Study Objective: The main objective of this study is to demonstrate the role of strategic innovation in enhancing competitive excellence through a field study in the Iraqi cement industry. From this main objective, we outline the following sub-objectives:

1. To diagnose the problems hindering the implementation of strategic innovation requirements in the sector under study, as well as to identify the most prominent obstacles to achieving competitive excellence.
2. To address these problems in a way that ensures the development of innovative strategic plans enabling the Iraqi cement industry to offer products and services that achieve a competitive edge, based on both theoretical and practical aspects of the study.
3. To reveal the level of relationship between strategic innovation and competitive excellence in this vital sector.

Study Significance: This study discusses the relationship between strategic innovation and competitive excellence, which helps the management of the sector under study to benefit from its findings. The study's significance lies in the following:

1. To assist the organization under study in understanding how to implement strategic innovation as a crucial component of its strategic plans, thus preventing its competitors from offering or imitating these plans.
2. To help the study community understand the dimensions of competitive excellence and how to implement them differently from competitors, thereby improving its operational and production performance and achieving a superior competitive position.
3. To provide a set of recommendations that enable the sector under study to implement innovative strategic solutions for all its activities, enabling it to reach the highest levels of competitive excellence.

Study plan: The study plan consists of two variables, namely the independent variable (strategic innovation) and its dimensions (modern technologies, strategic alignment, product and service development, disciplined implementation), and the dependent variable (competitive excellence) and its dimensions (cost, quality, flexibility, creativity, strategic resources), as shown in Figure 1, as this plan will help us formulate the study hypotheses.

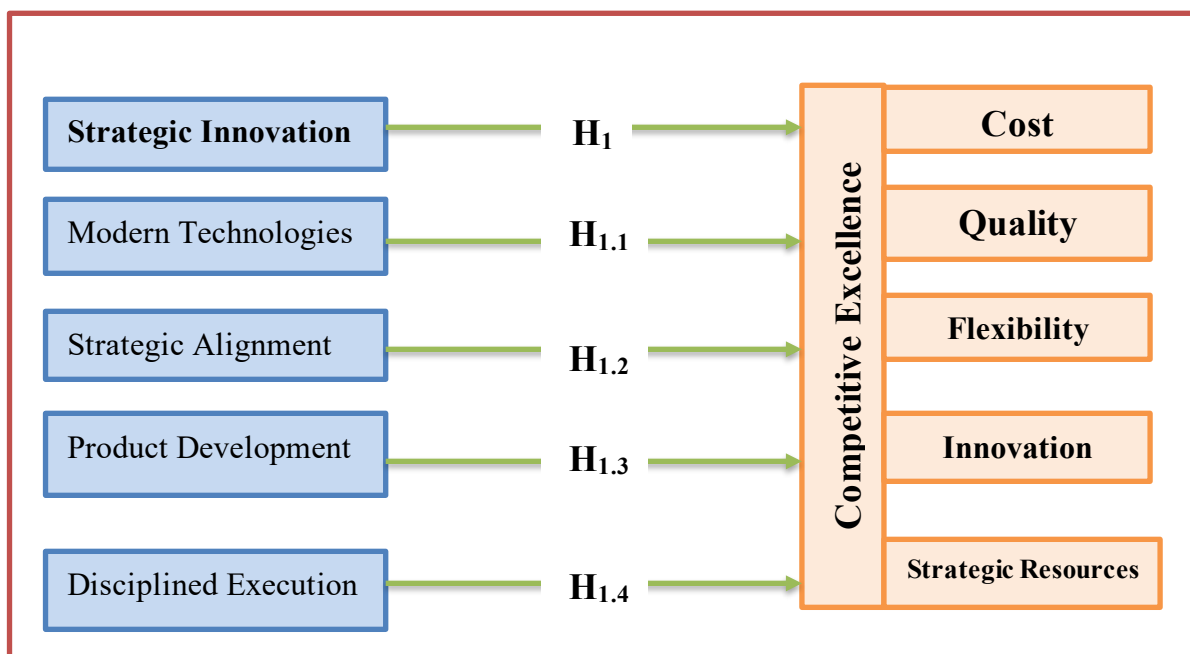




Figure 1 Study Diagram

Study Hypotheses:

Based on Figure 1, the study will proceed from one main hypothesis: (H1) There is a statistically significant relationship between strategic innovation (as a whole) and competitive excellence (as a whole). Four sub-hypotheses stem from this main hypothesis:

1. (H_{1.1}) There is a statistically significant relationship between modern technologies (in isolation) and competitive excellence (as a whole).
2. (H_{1.2}) There is a statistically significant relationship between strategic alignment (in isolation) and competitive excellence (as a whole).
3. (H_{1.3}) There is a statistically significant relationship between product development (in isolation) and competitive excellence (as a whole).
4. (H_{1.4}) There is a statistically significant relationship between disciplined execution (in isolation) and competitive excellence (as a whole).

Previous Studies

A study (Mushrif and Abdoun, 2019) aimed to explore the relationship between strategic innovation and organizational differentiation in hospitals in Babylon Governorate. The study addressed the following important questions: What is the role of strategic innovation in achieving organizational differentiation for employees in the hospitals under investigation? The results of this study showed that core technology, strategic alignment, the development of new services, and meticulous implementation have a direct impact on organizational differentiation through a coordinating role in organizational developments.

A study (Shaaban and Al-Hadrawi, 2024) aimed to reveal the relationship and influence between its variables: strategic innovation and organizational commitment at Najaf International Airport. The study adopted a descriptive-analytical approach and designed a questionnaire as the primary tool for collecting data and information related to the study variables. A random sample of 104 individuals was selected. To verify the hypotheses, the research used the SmartPLS statistical software. The most important findings indicated a relative interest in the organizational commitment variable at Najaf International Airport, in addition to the fact that strategic innovation has a positive impact and an effective contribution to increasing commitment levels at the airport under study.

The study (Ferri et al, 2025) explores the role of strategic innovation in examining the governance drivers of fintech investments. This study seeks to address this gap by investigating whether and how governance structure and characteristics are linked to investments in fintech projects. It examines a sample of cooperative credit banks operating in Italy and employs a quantitative approach, conducting multiple regression analyses on a sample of 230 Italian cooperative credit banks during the period 2017-2022. Key findings include the presence of a corporate social responsibility committee, managers with high IT skills, gender diversity on the board of directors, and a younger generation of managers with a higher level of education, all of which can significantly stimulate fintech investments.

The study (Omar, 2017) examines the relationship between innovation and competitive excellence in the hotel sector in the Egyptian market. The study population consisted of 21 five-star hotels, with a sample size of 176 employees. The study employed a descriptive-analytical approach to data collected via a questionnaire. The study concluded that innovation significantly impacts competitive excellence in the hotel sector.

The study (Waseel et al, 2024) aimed to examine the relationship between knowledge generation, dual innovation, and competitive excellence. It also tested the moderating role of organizational flexibility in this relationship. The empirical study data was collected through a survey of 306 respondents working in 140 Pakistani small and medium-sized enterprises (SMEs). The data analysis revealed that knowledge generation significantly impacts a company's competitive excellence. Furthermore, the study demonstrates that dual innovation can modify the relationship between knowledge generation and competitive differentiation. This study recommends that SME leaders recognize the importance of knowledge generation and balanced innovation in achieving operational success and gaining competitive differentiation. The study (Nugroho et al, 2024) evaluated the practices and challenges of implementing a competitive excellence system in the maintenance, repair, and overhaul (MRO) department of Ethiopian Airlines. The study employed a mixed-methods approach (quantitative and qualitative) using a questionnaire. The sample size was 245 employees. The results showed that the system was in place as an operating system, but the level of actual practice was weak due to inconsistent training, weak standard operating procedures, and low adherence. The study recommended strengthening pre-training, activating measurement and feedback methods, and optimizing the use of competitive excellence tools.

Theoretical framework



Strategic Innovation

The term "innovation" has garnered significant attention in numerous research fields, particularly in economics, production, and social development, due to its pivotal role in achieving growth and progress. Economist Schumpeter was among the first to establish this concept, introducing it in 1934 as a primary driver of economic growth. This growth is achieved through radically transforming existing products or services, replacing them with innovative products that open new markets and enhance consumer confidence. Porter further explored this concept in 1985 by linking innovation to competitive strategies. In 1996, Hamel collaborated with Porter in developing strategic innovation. In 2008, O'Connor et al. identified four stages of strategic innovation: discovery, preparation, acceleration, and transformation (Alwan and Mandour, 2005, p. 34).

Strategic innovation is defined by (Hassan et al. 2025, p. 470) as the organization's ability to generate and deliver innovative outputs that align with its strategic directions within a dynamic digital environment. This is achieved through digital leadership capable of directing innovative efforts toward achieving strategic goals, while continuously adapting to digital transformation and its associated complexities. This contributes to achieving a sustainable competitive advantage and enhancing organizational performance. According to (Alwan and Mandour, 2025, p. 34), it is a continuous, dynamic creative process for identifying new business strategies and utilizing the core competencies necessary to enable change. This process aims to create a unique and valuable strategic position for new products and services in the labor market, thereby achieving a sustainable competitive advantage over competitors. (Schiebel, et al. 2025, p. 7) view it as a conscious management process undertaken by the organization to manage innovation activities in a way that balances its strategic objectives with stakeholder expectations and societal standards. It is not limited to simply adopting or developing innovation, but also includes well-considered strategic decisions such as modifying or reversing the course of innovation when it conflicts with social legitimacy or external interests, with the goal of maintaining... Organizational reputation and continued acceptance and community support are among the most important dimensions of strategic innovation.

1. **Modern Technologies:** Modern technologies contribute to expanding the scope of organizational work by developing and motivating employees and enhancing their capabilities through the application of core technologies and modern knowledge. They also help improve resource utilization and reduce waste in time, effort, and cost, thereby enhancing performance efficiency and achieving organizational success. The effectiveness of these technologies depends on the availability of qualified administrative and organizational competencies and human resources, as well as the use of modern information programs and systems that support business efficiency and the organization's ability to efficiently convert inputs into outputs at various organizational levels (Shaaban & Al-Hadrawi, 2024, p. 1146).
2. **Strategic Alignment:** Strategic response options to constrained innovations are a direct reflection of an organization's ability to align its strategic directions with the requirements of innovation in an environment characterized by multiple institutional pressures. Two main dimensions were adopted to classify these responses: the strategic framework and the level of engagement. These dimensions are based on a solid theoretical foundation, conceptual integration, and practical explanatory value in understanding the behavior of innovative organizations. The strategic framework dimension is based on three basic patterns: regression, communication, and mitigation. It draws on the literature of non-market strategy and organizational legitimacy, reflecting the diverse stances organizations can adopt when seeking to align their innovations with institutional pressures and societal norms. These patterns represent strategic mechanisms that contribute to achieving a balance between innovation and maintaining legitimacy and harmony with the external environment. This provides a structured perspective for understanding how organizations adapt and align their strategic innovations (Scheibel et al., 2025, p. 7).
3. **Product and Service Development:** Strategic innovation can help develop new products and services that meet customer needs and excel in the market. By analyzing customer needs and developing new and innovative solutions, companies can gain a larger market share and achieve a competitive edge (Abdullah, 2024, p. 813).
4. **Disciplined Implementation:** This refers to the high degree of accuracy in implementing decisions, particularly health-related ones, which positively impacts the organization's business results. This is achieved through monitoring the level of implementation and leveraging accumulated practical experience. It is linked to the organization's commitment to implementing approved decisions and procedures, and the role of the executive director or those responsible for implementing or participating in the formulation of senior management decisions. Disciplined implementation also requires an innovative implementation program, a motivated team, and a clear plan for developing and implementing decisions in a way that serves the organization's best interests (Mushrif & Abdoun, 2019, p. 151).

Competitive Excellence



Competitive excellence is defined as reflecting the market position an organization strives to achieve by possessing a unique set of resources, skills, competencies, and characteristics. This enables the organization to build sustainable competitive advantages, cultivate a positive brand image, and create added value for customers, thereby strengthening its leading position in the market (Rahmoun, 2024, p. 29). Among the most important dimensions of competitive excellence are:

1. **Cost (Operational Efficiency):** Cost refers to an organization's ability to utilize its resources efficiently to achieve the lowest possible production cost. This translates into lower prices and enhanced competitiveness, especially in price-sensitive markets. This, in turn, contributes to increasing market share and achieving a sustainable competitive advantage (Rahmoun, 2024, p. 35; Abdullah & Abdullah, 2019, p. 14).
2. **Quality:** Quality is a fundamental dimension of competitive advantage. Organizations strive to provide products and services that meet customer expectations and achieve customer satisfaction, thereby fostering loyalty and supporting the organization's sustainability in an increasingly competitive environment (Fatima & Masouda, 2022, p. 36).
3. **Flexibility:** Flexibility reflects an organization's ability to respond quickly to changes in customer needs and market conditions through product diversification, development of existing products, and ensuring rapid operational response, thereby enhancing its competitiveness (Fatima & Masouda, 2022, p. 36).
4. **Innovation:** Innovation represents an organization's ability to generate and implement innovative ideas and methods in products and processes, creating added value and driving positive change that enables the organization to outperform its competitors (Fatima & Masouda, 2022, p. 36).
5. **Strategic resources:** Strategic resources refer to the organization's possession of a set of material, human and knowledge resources, and their efficient and effective use, which supports the implementation of its strategies and enhances its ability to achieve competitive superiority (Rahmoun, 2024, p. 36).

The Relationship Between Strategic Innovation and Competitive Excellence

Industry-leading innovations contribute significantly to improved performance and enhanced competitive position, even if the gains from a monopoly are not immediately apparent. Adopting strategic innovation initiatives is crucial for supporting an organization's overall competitive standing, enabling it to achieve leadership excellences in core strategic attributes. This prevents it from falling into the trap of imitating prevailing "best practices" or blindly following management trends, which fail to deliver a genuine competitive excellence due to their easy imitation by competitors. Contemporary literature suggests that adopting innovation strategies directly contributes to enhancing competitive excellence. Numerous studies have demonstrated that strategic innovation has a significant impact on organizational superiority, particularly in light of technological advancements, which are a critical factor in boosting the competitiveness of organizations, especially small and medium-sized enterprises (SMEs). Attention to innovation activities, particularly effective creativity in new product design, is essential for improving performance and achieving competitive excellence. Furthermore, an organization's ability to select, store, and deploy innovation capabilities is a key factor in supporting the application of competitive excellence and increasing market share. Therefore, this study confirms that strategic innovation is a key entry point for achieving competitive excellence and competitive differentiation by enabling the organization to offer unique value that is difficult for competitors to imitate (AlQershi, et al., 2020, p. 74).

Field Framework

Study Population and Sample: The study population consisted of 7 cement factories in Iraq. The study sample comprised 345 workers representing the various factories, as shown in Table 1.

Table 1: Factories Study Population, and Sample

No	Cement Plant	size
1	Sinjar Cement Plant	48
2	Kirkuk Cement Plant	55
3	Almas Cement Plant	44
4	Kufa Cement Plant	60
5	Badush Cement Plant	40
6	Karbala Cement Plant	48
7	Kubaisa Cement Plant	50
total		345



Methodology and Instrument: The study adopted a descriptive analytical approach. The primary research instrument was a questionnaire designed according to a five-point Likert scale (Strongly Agree 5, Agree 4, Neutral 3, Disagree 2, Strongly Disagree 1), with a hypothetical mean of 3. Table 2 lists the questionnaire components and their sources.

Table 2: Questionnaire Components and Sources

Variables	Sub-dimensions	Number	Source
Independent :variable Strategic innovation	Modern technologies	5	Shaaban and Al-Hadrawi , 2024
	Strategic alignment	5	Mushrif and Abdoun , 2019
	Product development	5	Alwan and Al-Mandour , 2025
	Disciplined implementation	5	Ferri, et al, 2025
Dependent :variable Competitive excellence	Cost	5	Abdullah Abdullah , 2019
	Quality	5	Fatima and Masouda, 2024
	flexibility	5	Omar, 2017
	Creativity	5	Nugroho, et al, 2024
	Strategic resources	5	Ben Rahmoun, 2024

Reliability Measurement: Reliability analysis was conducted using Cronbach's alpha coefficient, a common statistical method for measuring the reliability of a measurement instrument (questionnaire). The reliability of the two study variables and their dimensions was tested. A Cronbach's alpha coefficient exceeding 0.60 indicates that the scale possesses an acceptable degree of reliability and is capable of yielding similar results when re-administered to the same sample at a later date. Table 3 shows that the alpha coefficient for the strategic innovation variable was 0.85, a high value indicating strong reliability of its items. The alpha coefficients for its sub-dimensions ranged from 0.82 to 0.87, all exceeding the acceptable limit. Regarding the competitive excellence variable, the overall alpha coefficient was 0.88, while its sub-dimensions recorded high values ranging from 0.84 to 0.93, all exceeding 0.60. These results indicate that the questionnaire exhibits a high degree of reliability and internal consistency. This confirms its reliability for data analysis and hypothesis testing.

Table (3) Cronbach's Alpha coefficient for study variables and their dimensions

No	Study variables	Alpha coefficient	The overall alpha coefficient for each variable	Total alpha coefficient
Firstly	Strategic Innovation		0.85	0.87
1	Modern technologies	0.83		
2	Strategic alignment	0.86		
3	Product development	0.82		
4	Disciplined implementation	0.87		
secondly	Competitive excellence		0.88	
1	Cost	0.84		
2	Quality	0.88		
3	flexibility	0.93		
4	Creativity	0.87		
5	Strategic resources	0.93		

Analysis of the overall index results for the dimensions of strategic innovation: Table 4 shows that the study sample generally agreed on all dimensions of strategic innovation, with an overall agreement rate of 61%. This is a significant percentage, indicated by the overall mean value of 3.335 and the response rate of 66.7%. This reflects a clear awareness among a large percentage of the sample of the importance of adopting the requirements of strategic innovation in the Iraqi cement industry. The results also showed that 11.7% of responses were neutral, while 27.2% disagreed, resulting in a standard deviation of 1.015 and a gap of 33.2%. These indicators suggest that the level of strategic innovation implementation remains moderate and requires further strengthening and development to improve strategic performance and ensure the delivery of products and services in more innovative ways.

At the sub-dimension level, the disciplined implementation dimension ranked first, achieving the highest response rate of 70.1%, with a mean of 3.505 and a relatively low standard deviation of 0.963. This is attributed to cement plants' adherence to clear operational procedures and specific work methods that are difficult to manipulate, thus enhancing discipline in implementing innovative activities. The modern technologies dimension ranked last, recording the lowest



response rate of 60%, with a mean close to the median of 3.001 and a relatively high gap of 39.9%. This result indicates that the Iraqi cement industry suffers from a relative weakness in adopting modern technologies, which limits its ability to effectively support strategic innovation. The strategic alignment and product and service development dimensions achieved moderate response levels, with rates of 68% and 68.7%, respectively. This indicates a positive trend towards linking innovation to strategic objectives and developing products and services. However, these efforts still require further integration and technical and organizational support to enhance their effectiveness in achieving strategic innovation. Sustainable.

Table 4: Results of the overall index for the dimensions of strategic innovation.

Dimensions of strategic innovation	Response scale					arithmetic mean	standard deviation	Response rate	Gap ratio
	strongly agree	agree %	Neutral %	disagree %	strongly disagree				
Modern technologies	0.205	0.309	0.148	0.203	0.135	3.001	1.102	0.600	0.399
Strategic alignment	0.24	0.39	0.08	0.14	0.15	3.4001	0.999	0.680	0.319
Product development	0.232	0.406	0.104	0.153	0.105	3.437	0.997	0.687	0.312
Disciplined implementation	0.273	0.389	0.136	0.1	0.102	3.505	0.963	0.701	0.299
Rate total	0.237	0.373	0.117	0.149	0.123	3.335	1.015	0.667	0.332
	0.61		0.117	0.272					

Analysis of the overall index results for the dimensions of competitive excellence: Table 5 indicates that the study sample agreed on all dimensions of competitive excellence, with an overall agreement rate of 62%. This is a significant percentage, as evidenced by the overall mean of 3.524 and the response rate of 70.4%. This reflects a high percentage of the sample who recognize the importance of adopting the dimensions of competitive excellence in the organizations under study as a fundamental approach to improving performance and enhancing competitiveness. The results also showed that 14.8% of responses were neutral, while 23.1% disagreed, resulting in a standard deviation of 1.003 and a gap of 29.5%. These results indicate that the level of implementation of the dimensions of competitive excellence remains below expectations, necessitating the strengthening of competitive practices, particularly in areas with relative weaknesses, to ensure a sustainable competitive advantage.

At the sub dimension level, quality ranked first, achieving the highest agreement rate of 80.3%, supported by a high mean of 4.501 and a low gap of 9.9%. This indicates a clear focus by organizations on improving the quality of their products or services as a cornerstone of competitive advantage. In contrast, creativity ranked last, with an agreement rate of only 49.9%, a mean of 2.999, and a gap of 40%. This reflects a clear weakness in adopting creative and innovative practices, indicating the need for organizations to strengthen this dimension by encouraging new ideas, supporting innovative initiatives, and providing an organizational environment conducive to creativity. The remaining dimensions cost, flexibility, and strategic resources showed moderate levels of agreement, indicating partial implementation. However, these dimensions still require further development and integration to improve organizations' competitive position and enhance their ability to face environmental challenges and increasing competition.

Table 5 shows the overall index results for the dimensions of competitive excellence.

Dimensions competitive excellence	Response scale					arithmetic mean	st. deviation	Response rate	Gap ratio
	strongly agree	agree %	Neutral %	disagree %	strongly disagree				
Cost	0.268	0.372	0.124	0.154	0.082	3.487	0.999	0.697	0.302
Quality	0.407	0.396	0.078	0.063	0.056	4.501	0.679	0.900	0.099
flexibility	0.332	0.242	0.198	0.132	0.096	3.251	1.009	0.650	0.349
Creativity	0.204	0.295	0.232	0.165	0.104	2.999	1.326	0.599	0.400

Strategic resources	0.229	0.357	0.108	0.223	0.083	3.385	1.002	0.677	0.323
Rate	0.288	0.332	0.148	0.147	0.084	3.524	1.003	0.704	0.295
the total	0.62		0.148	0.231					

Hypothesis testing

Testing the first hypothesis: Figure 2 illustrates the overall relationship between strategic innovation and competitive excellence, and therefore it will help us in testing the first study hypothesis.

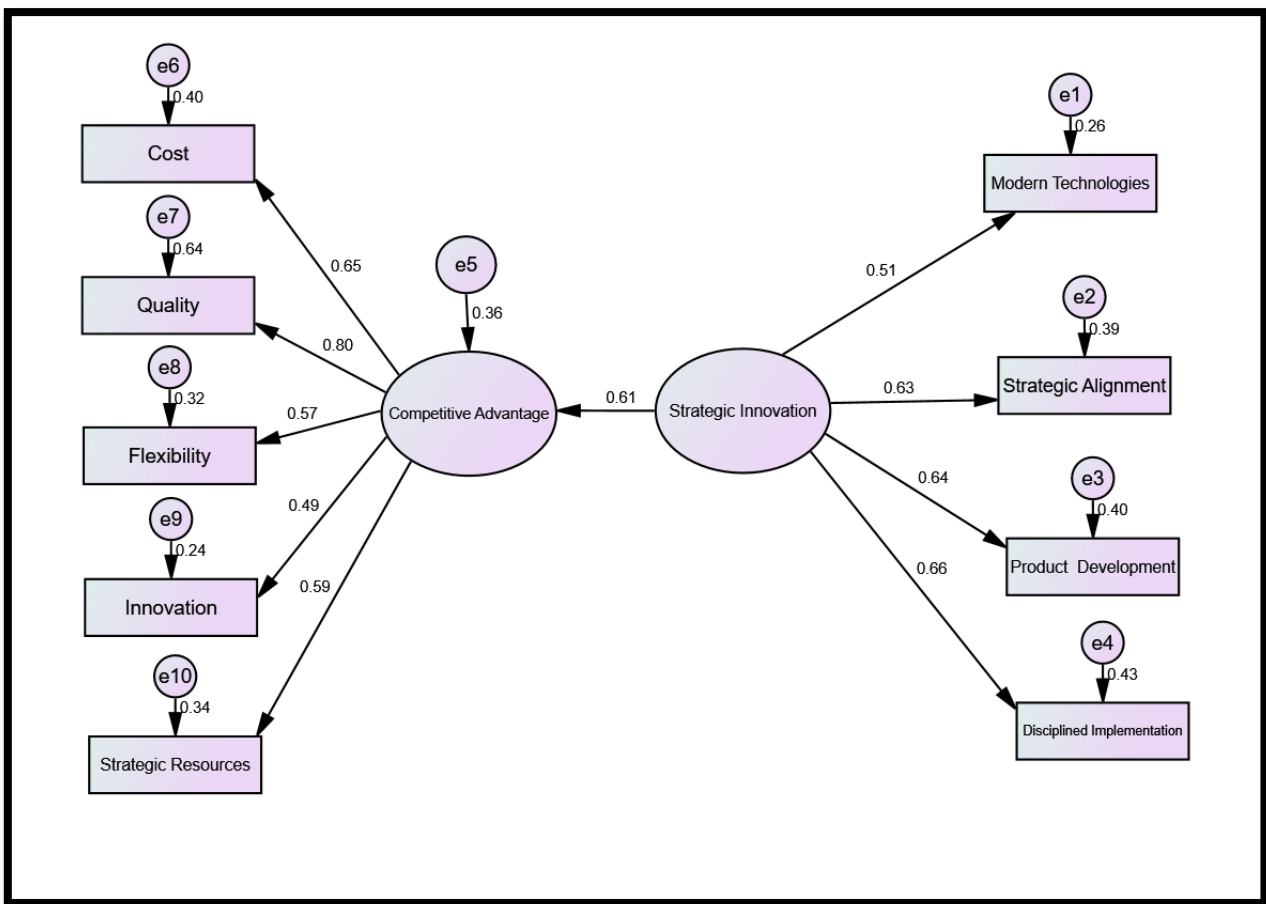


Figure 2: Structural Equations of the Relationship Between Strategic Innovation and Competitive Excellence (AOMS)

We have presented the results of Figure 2 in Table 6. The results of this table confirm the existence of a statistically significant relationship between strategic innovation and competitive excellence. The value of the unstandardized estimation coefficient (Estimate) reached approximately 0.631, which is a statistically significant value given the Critical Ratio of 7.423, exceeding the tabulated value (1.96) at a significance level of (0.05). This indicates the statistical significance of the relationship, meaning that an increase of one unit in strategic innovation leads to an increase of 0.631 units in competitive excellence, holding other factors constant. The standard error was 0.0685, a relatively low value, indicating the accuracy of the regression coefficient estimation and the stability of the results. The statistical significance level (P) was less than (0.05), which reinforces the statistical acceptance of the relationship. The standard regression coefficient (SRW) was 0.529. This indicates a direct and relatively strong effect of strategic innovation on competitive excellence, where a one-unit increase in strategic innovation leads to a 0.529 standard deviation increase in competitive excellence. Based on these results, the first main hypothesis is accepted.

Table 6: Results of the Effect Relationship of Strategic Innovation on Competitive Excellence

hypothesis	Relations		Estimate	S. E	C. R	SRW	P
H ₁	Strategic Innovation	→ Competitive Excellence	0.631	0.085	7.423	0.529	***

Testing the sub-hypotheses: Figure 3 shows the relationship between the dimensions of strategic innovation (modern technologies, strategic alignment, product development, disciplined execution) and competitive excellence, in order to test the sub-hypotheses of the second main hypothesis.

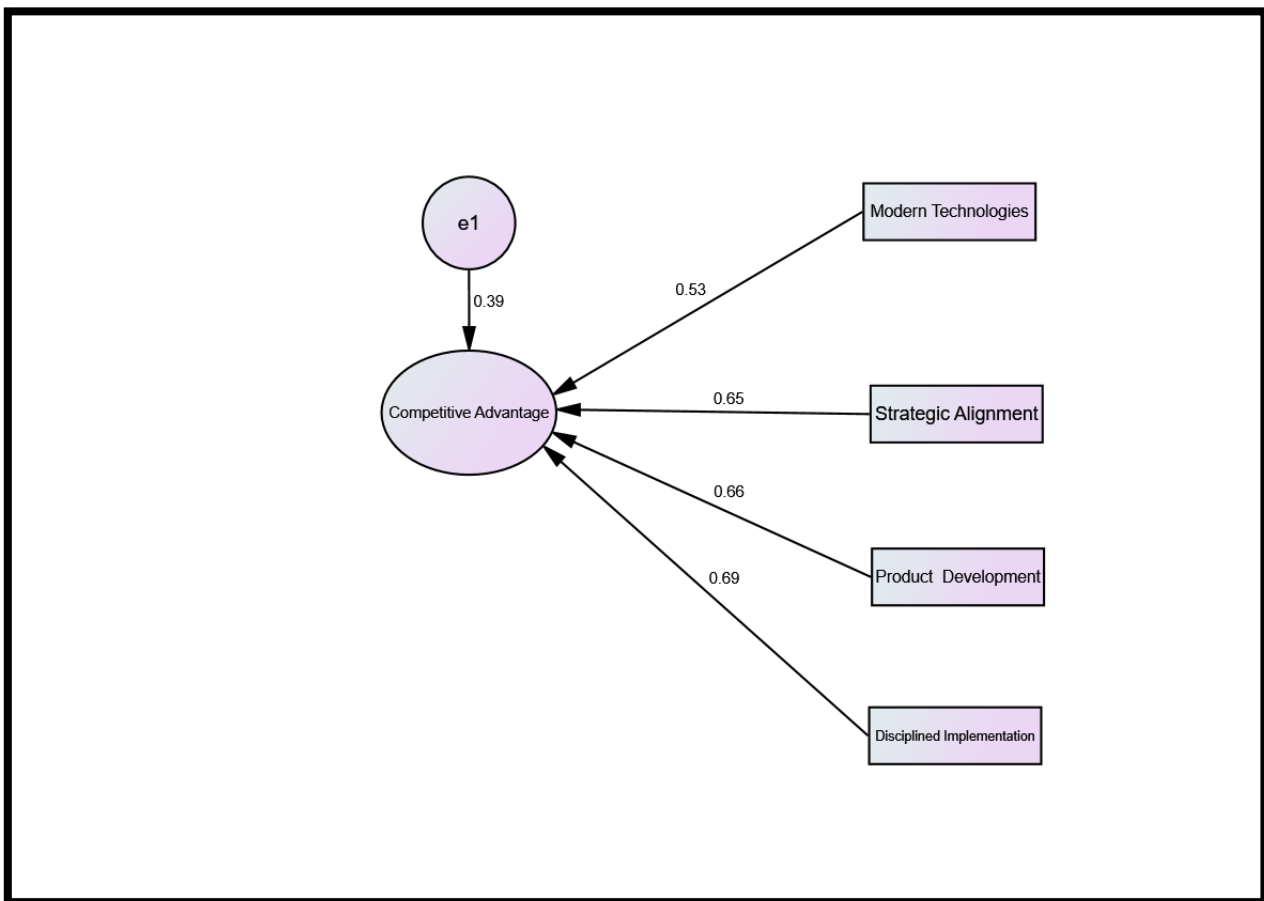


Figure 3: Structural Equations for the Individual Relationship of Strategic Innovation Dimensions and Competitive Excellence (AMOS)

The results in Table 7 indicate statistically significant influence relationships between the dimensions of strategic innovation and competitive excellence, as follows:

Sub-hypothesis 1 (H1.1): Modern technologies have an impact on competitive excellence. The unstandardized estimation coefficient (Estimate) reached approximately 0.534, a statistically significant value given the critical ratio (C.R.) of 5.134, which exceeds the critical value of 1.96, indicating a significant direct effect. This means that a one-unit increase in modern technologies leads to a 0.534-unit increase in competitive excellence, holding other factors constant. The standard error (S.E.) was 0.104, an acceptable value indicating the accuracy of the regression coefficient estimation. The standard regression work (SRW) was 0.515, demonstrating a moderately strong direct effect of modern technologies on competitive excellence. Therefore, the first sub-hypothesis is accepted.

The second sub-hypothesis (H1.2) states that strategic alignment affects competitive excellence. The effect size was 0.653, exceeding the critical value of 7.963, thus confirming the statistical significance of the relationship. This result indicates that enhancing strategic alignment by one unit leads to an increase in competitive excellence of 0.653 units. The standard error was 0.082, a relatively low value reflecting the stability of the results. The standard regression



work (SRW) was 0.542, indicating a moderate to strong direct effect of strategic alignment on competitive excellence. Therefore, the second sub-hypothesis is accepted.

The third sub-hypothesis (H1.3): Regarding product development, the results showed that product development affects competitive excellence, as indicated by the non-standardized estimate value of (0.667) and a high critical value of (8.443). This confirms a statistically significant effect of this dimension on competitive excellence, meaning that increasing product development by one unit contributes to raising the level of competitive excellence by (0.667) units. This dimension also recorded a relatively low standard error of (0.079), reflecting the accuracy of the estimate, while the standard regression coefficient (SRW) reached (0.534), indicating a moderate to strong direct effect. Accordingly, the third sub-hypothesis is accepted.

Sub-hypothesis 4 (H1.4): The results show that the disciplined execution dimension has the greatest impact on competitive excellence. The non-standardized estimation coefficient reached (0.692), the highest value recorded among the dimensions, supported by a critical ratio of (10.17), reflecting a highly significant relationship. This means that increasing disciplined execution by one unit leads to an increase in competitive excellence of (0.692) units. The standard error was (0.068), the lowest value, indicating high estimation accuracy. The standard regression coefficient (SRW) was (0.568), indicating a relatively strong direct effect of this dimension on competitive excellence. Thus, sub-hypothesis 4 is accepted.

Table 7: Results of the impact relationship of the strategic innovation dimensions (individually) on competitive excellence

hypothesis	Relations			Estimate	S. E	C. R	SRW	P
H _{1.1}	Modern technologies	→	Competitive Excellence	0.534	0.104	5.134	0.515	***
H _{1.2}	Strategic alignment	→		0.653	0.082	7.963	0.542	***
H _{1.3}	Product development	→		0.667	0.079	8.443	0.534	***
H _{1.4}	Disciplined implementation	→		0.692	0.068	10.17	0.568	***

CONCLUSIONS: In light of the study's findings, several conclusions can be drawn, the most important of which are:

1. The overall index results showed that the level of strategic innovation implementation in the surveyed organizations was moderate, indicating a clear awareness of its importance. However, this awareness has not yet translated into integrated and effective practices on the ground.
2. The results revealed a disparity in the level of implementation of strategic innovation dimensions. The disciplined implementation dimension emerged as the most frequently implemented, while the modern technologies dimension ranked last, reflecting a weak reliance on modern technology to support innovative activities.
3. The overall index results for competitive excellence dimensions revealed a moderate to good level of implementation, with efforts concentrated primarily on the quality dimension, compared to a relative weakness in the creativity and flexibility dimensions. This indicates an imbalance in the adoption of competitive excellence dimensions.
4. The gap percentages in both variables demonstrated a real need for improvement and development, particularly in the dimensions that recorded high gaps. This would enhance the ability to achieve a sustainable competitive excellence in a business environment characterized by change and intense competition.
5. The results of the main hypothesis test demonstrated a significant and direct impact of strategic innovation on competitive excellence, confirming that adopting strategic innovation practices contributes substantially to enhancing organizations' ability to achieve competitive excellence.
6. The results of the sub-hypotheses showed that all dimensions of strategic innovation have a significant and direct impact on competitive excellence, reflecting the comprehensive nature of strategic innovation as an integrated approach to enhancing competitive performance.
7. The results indicated that disciplined execution is the most influential dimension in achieving competitive excellence, demonstrating that adherence to procedures and discipline in implementing strategic plans are crucial factors in transforming innovative ideas into tangible competitive results.
8. The results showed that product development and strategic alignment are highly influential dimensions, emphasizing the importance of linking innovation to strategic objectives and focusing on improving products and services to meet market demands.
9. The results revealed that the impact of modern technologies, while significant, was less pronounced compared to the other dimensions, indicating a deficiency in the optimal utilization of modern technology to support innovation and achieve competitive excellence.

RECOMMENDATIONS



1. Transform the theoretical understanding of strategic innovation into practical applications by integrating it into organizations' strategic plans and policies. This ensures the integration of innovative efforts and prevents them from remaining merely theoretical.
2. Promote the adoption of modern technologies by investing in advanced technology and upgrading technological infrastructure. This plays a pivotal role in supporting innovative activities, improving operational efficiency, and achieving a sustainable competitive excellence.
3. Maintain and enhance disciplined implementation, recognizing it as the most influential dimension of competitive excellence. Ensure procedural flexibility allows for the integration of innovative ideas without compromising organizational controls.
4. Focus on strengthening the dimensions of creativity and flexibility within the framework of competitive excellence. This can be achieved by fostering an organizational environment that encourages the generation of new ideas and promotes rapid response to changes in market demands and the competitive landscape.
5. Reduce existing gaps in the dimensions of strategic innovation and competitive excellence, particularly those with high gap levels, by reviewing current policies and developing mechanisms for continuous monitoring and performance evaluation.
6. Deepen the link between strategic innovation and the organization's strategic objectives, ensuring that innovative efforts are directed towards achieving clear competitive priorities and enhancing strategic alignment across all organizational levels.
7. Focus on developing products and services that meet customer needs and market demands, and leverage the results of innovation to improve value propositions and enhance customer satisfaction.
8. Adopt strategic innovation as an integrated approach to achieving competitive excellence, rather than addressing its dimensions in isolation, given its impact on maximizing competitive returns and achieving sustainable performance.
9. Encourage senior management to support innovative initiatives and provide the necessary resources, thereby fostering a culture of innovation and integrating innovation with disciplined implementation.
10. Utilize the study's findings to formulate future policies aimed at enhancing organizational competitiveness, particularly in industrial environments characterized by rapid technological change and intense competition.

SOURCES

1. Abdullah, Adel Khairallah & Abdullah Fayza Khairallah (2019). International Marketing Strategies and their Role in Building Competitive Excellence for International Business Organizations. *Scientific Journal of Financial and Administrative Studies and Research*, 4(2), 1-48.
2. Abdullah, Fatima Mahmoud, Abu Aliwa, Nahla Sayed Hassan, Sharaf, & Rasha Saad Abdel-Shafi. (2024). Sustainable organizational culture as an approach to addressing obstacles to strategic innovation in higher education institutions in Bahrain. *Journal of Educational and Social Studies*, 30(12.3), 797-825.
3. AlQershi, N. A., Diah, M. L. B. M., Latiffi, A. B. A., & Ahmad, W. N. K. W. (2020). Strategic innovation and competitive excellence of manufacturing SMEs: the mediating role of human capital. *Quality Innovation Prosperity*, 24(3), 70-89.
4. Alwan, Siham Ahmed Mohamed, Al-Mandour, & Hanaa Shehata El-Sayed. (2025). Developing Strategic Innovation Management in Egyptian Universities: A Proposed Framework. *Educational Administration*, 45(45), 13-184.
5. Ben Rahmoun & Jannat. (2024). The Impact of Administrative Excellence Management on Building Competitive Excellence for Organizations: A Case Study of a Group of Mills in Biskra Province (Doctoral dissertation, Mohamed Khider University of Biskra).
6. Fatima, Mawaqi & Masouda, Khawaled, 2024. The Role of Benchmarking in Achieving Competitive Excellence: A Case Study: Benchmarking and its Role in Achieving Competitive Excellence for Al-Falha Bank, Rural Development Bank, and Al-Salem Bank, Biskra Branches.
7. Ferri, L., Spagnuolo, F., Troise, C., & Zampella, A. (2025). Strategic innovation: exploring governance drivers of FinTech investments. *Journal of Strategy and Management*.
8. Hassan, Y., Pandey, J., Majumdarr, S., Pereira, V., Behl, A., & Bazal-Shoham, O. (2025). Examining the impact of e-leadership on strategic innovation at work: a moderated-mediation model. *The Journal of Technology Transfer*, 50(2), 469-487.
9. Mushrif, Abbas, and Abdoun, Jenan, 2019. The Role of Strategic Innovation in Achieving Organizational Excellence. *Al-Ghari Journal of Economic and Administrative Sciences*, Volume 16, Issue 1.



10. Nugroho, A. J. S., Haris, A., Haryono, P., Tasari, T., & Setyawanti, D. (2024). Positioning the Quality Excellence Competitiveness of Integrated School Education Using the Multidimensional Scaling Model. *Al-Hayat: Journal of Islamic Education*, 8(3), 833-844.
11. Omar, Amira Mohamed Ahmed, (2017). The Role of Innovation in Supporting the Competitive Excellence of Organizations. *Scientific Journal of Commercial and Environmental Studies*, 8 (Issue 3), 522-539.
12. Scheibel, O., Radnejad, A. B., & Osiyevskyy, O. (2025). Redline innovations: Strategic responses to stakeholder opposition in innovation management. *Business Horizons*.
13. Shaaban, Abdulkarim, and Al-Hadrawi, Rafid, 2024. Strategic Innovation and its Role in Enhancing Institutional Commitment: An Analytical Study of the Opinions of a Sample of Employees at Najaf International Airport. *Al-Ghari Journal of Economic and Administrative Sciences*, Volume 20, Special Issue (2024).
14. Waseel, A. H., Zhang, J., Shehzad, M. U., Hussain Sarki, I., & Kamran, M. W. (2024). Navigating the innovation frontier: ambidextrous strategies, knowledge creation, and organizational agility in the pursuit of competitive excellence. *Business Process Management Journal*, 30(6), 2127-2160.