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Examining the Impact of Strategic Alignment of Information Technology on International Success with the Mediating Role of Strategic Agility in Small and Medium-Sized Enterprises

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Abstract

International success is critical for SMEs to achieve growth and access new markets. This study investigates the impact of strategic alignment of information technology on international success in small and medium-sized enterprises (SMEs), with a focus on the mediating role of strategic agility. The present study was a descriptive-survey research. The population consisted of 32,000 companies in Tabriz and 23,000 companies in Karbala, from which a sample of 384 companies was selected using Cochran's formula and random sampling method. Data were collected through a questionnaire. The collected data were analyzed using structural equation modeling (SEM) through AMOS software. The results showed that strategic alignment of information technology has a significant effect on international success and strategic agility in SMEs. Moreover, strategic agility has a significant impact on international success in SMEs.

Keywords: Strategic alignment, strategic agility, information technology, international performance.

1. Introduction

In an increasingly volatile, uncertain, complex, and ambiguous (VUCA) global environment, small and medium-sized enterprises (SMEs) are under mounting pressure to maintain competitiveness and sustain international performance. This competitive pressure is largely attributed to rapid technological changes, evolving customer preferences, and disruptions in global supply chains. In this context, the strategic alignment of information technology (IT) with business objectives has emerged as a critical enabler for international success. IT is no longer a mere operational support tool but a strategic asset that, when effectively aligned with business goals, can drive organizational agility and global expansion capabilities (Ngai et al., 2011; Yoshikuni & Albertin, 2020). The capacity of SMEs to remain agile and strategically aligned with evolving environments becomes especially pertinent in navigating cross-border operations and seizing emerging market opportunities.

Strategic IT alignment refers to the harmonization of IT infrastructure and services with business strategies and processes to achieve long-term performance outcomes. While large corporations have long institutionalized strategic alignment practices, SMEs are only recently beginning to adopt formalized approaches to integrate IT with core strategic objectives. This adoption

is vital, as SMEs often operate with limited resources and under greater environmental uncertainty, making the payoff of alignment even more impactful (Groenewald et al., 2024; Yazdani & Darbani, 2022). The alignment enables firms to exploit technological innovations for superior decision-making, responsiveness, and strategic foresight—capabilities that are crucial for achieving international growth.

One of the key mechanisms through which strategic IT alignment impacts international success is strategic agility. Strategic agility refers to an organization's ability to swiftly sense, respond to, and seize opportunities in dynamic markets. It is the behavioral manifestation of an enterprise's dynamic capabilities, allowing for rapid adaptation and repositioning in response to external stimuli (Golmohammadi et al., 2021; Warner & Wäger, 2019). As such, strategic agility is not just a reactive trait but a proactive competency that is closely intertwined with IT capabilities. Research suggests that IT-enabled agility can drive international competitiveness by enabling SMEs to tailor their offerings, enter new markets efficiently, and innovate operational models to suit local contexts (Arsawan et al., 2022; Pereira et al., 2021).

The relationship between IT alignment and strategic agility has been extensively theorized but remains underexplored in empirical SME contexts. Most extant studies focus on large enterprises, leaving a gap in understanding how smaller, resource-constrained firms can strategically leverage IT for agility and, by extension, global performance. This oversight is significant considering that SMEs make up over 90% of businesses worldwide and are increasingly entering international markets through digital platforms and cross-border e-commerce (Groenewald et al., 2024; Guntumadugu, 2025). Strategic IT alignment can empower SMEs to transcend traditional scale-related disadvantages by enhancing their flexibility, responsiveness, and capacity for innovation. In particular, when such alignment fosters agility, it equips firms with a critical success factor for thriving in globalized environments.

Prior empirical work reinforces the central role of IT in enabling agility. Ngai et al. (2011) found that IT competencies significantly contribute to supply chain agility, which is a proxy for broader organizational agility in international operations (Ngai et al., 2011). Similarly, Yoshikuni and Albertin (2020) demonstrated that firms that align IT with business strategy and knowledge management processes can amplify firm performance, especially in dynamic and competitive markets (Yoshikuni & Albertin, 2020). Their findings suggest that strategic alignment is a precursor to agility and that this pathway can be instrumental in enhancing performance outcomes.

In the Iranian context, research by Sepahvand et al. (2015) explored how IT impacts intellectual capital and knowledge management strategies, moderated by organizational agility. The study emphasized the necessity of embedding agility in IT strategies to foster sustainable organizational performance (Sepahvand et al., 2015). Building on this, Golmohammadi et al. (2021) proposed a strategic agility model grounded in dynamic capabilities, confirming that agility can serve as a mediating variable between strategic assets such as IT and performance outputs (Golmohammadi et al., 2021). These findings corroborate the notion that IT alignment not only supports agility but may also indirectly influence performance through agility.

Meanwhile, recent global crises such as the COVID-19 pandemic have accentuated the importance of agility as a survival and success factor. Pereira et al. (2021), in their study of Indian IT and BPO offshoring firms, found that investments in agility strategies enabled firms to mitigate the adverse effects of the global financial crisis and adapt to the post-crisis environment with greater resilience (Pereira et al., 2021). This further underscores the potential of agility as a mediating mechanism that amplifies the benefits of IT alignment in times of disruption—conditions that SMEs frequently encounter in international markets.

Nonetheless, agility alone is insufficient if not supported by structural alignment and strategic direction. Organizational agility must be cultivated through deliberate alignment of resources, processes, and technologies. As Warner and Wäger (2019) highlight, dynamic capabilities for digital transformation emerge from ongoing strategic renewal processes, which are in turn supported by IT-driven innovations (Warner & Wäger, 2019). Therefore, strategic IT alignment is a foundational element that not only drives agility but also ensures that agile responses are coherent with long-term strategic objectives.

While the conceptual link between strategic IT alignment, agility, and performance is established, the empirical validation in SMEs—particularly in emerging markets—is still emerging. Studies such as those by Safardoust et al. (2023) and Sahafzadeh and Haghighi (2023) have explored strategic positioning and innovation in Iranian industries but have not explicitly connected alignment and agility to international success (Safardoust et al., 2023; Sahafzadeh & Haghighi, 2023). This represents a

research gap that the present study seeks to fill. By focusing on SMEs in both Iran and Iraq—regions where SMEs face compounded challenges of geopolitical risk, market fragmentation, and limited innovation infrastructure—this study adds a novel perspective to the strategic management literature.

Another important theoretical lens is the role of contextual moderators. Groenewald et al. (2024), in a systematic review, stress the role of contextual factors—such as firm size, market turbulence, and digital maturity—in influencing the IT-agility-performance nexus (Groenewald et al., 2024). Similarly, Janssen et al. (2020) argue for an integrated approach to technology adoption, encompassing institutional, technical, and market considerations (Janssen et al., 2020). These insights suggest that the interplay between alignment and agility cannot be understood in isolation from the broader organizational and environmental context.

Moreover, organizational learning and strategic intelligence play facilitating roles in reinforcing IT-driven agility. As Miri Rami et al. (2022) observe, effective managerial strategic intelligence can amplify the value of IT investments by ensuring that information systems are leveraged in line with evolving strategic goals (Miri Rami et al., 2022). Likewise, Mirfakhradini et al. (2021) argue that performance evaluation models that integrate human development indicators are better suited to foster organizational agility, particularly in knowledge-intensive sectors (Mirfakhradini et al., 2021).

To operationalize strategic agility, SMEs must cultivate not only technological readiness but also cultural and managerial adaptability. Vishlaghi et al. (2021), in designing a strategic agility model for sustainable manufacturing, emphasize the role of cultural receptivity to change and top-down commitment in enabling agile behavior (Vishlaghi et al., 2021). These findings are especially pertinent to SMEs where hierarchical decision-making and resource limitations can act as agility inhibitors.

The present study is thus situated at the intersection of IT strategy, agility, and international performance within SMEs. It proposes that strategic IT alignment directly enhances international success and indirectly contributes through its effect on strategic agility.

2. Methods and Materials

This research, based on the classification of research methods by purpose, is categorized as applied research. The research method in this study is descriptive in terms of data collection.

The statistical population targeted in this research includes small and medium-sized enterprises (SMEs) in Tabriz and Karbala, Iraq. Since the population comprises 32,000 companies in Tabriz and 23,000 companies in Karbala, the final sample size was determined to be 384 companies using Cochran's formula and random sampling.

Following the approval of the research topic, the study involved a review of specialized books, scientific-research articles, journals, and academic library sources.

The Business and IT Alignment (BITA) questionnaire, developed by Tallon in 2011, is designed to assess the degree of alignment between information technology (IT) strategy and business strategy within an organization. This instrument evaluates how effectively IT supports and integrates with overall business objectives and operations. The BITA questionnaire consists of eight items distributed across five key dimensions: strategic alignment, business value, organizational risk, IT governance, and leadership and resources. Strategic alignment measures the degree of consistency and coherence between IT strategies and business strategies, ensuring that IT initiatives contribute directly to achieving corporate goals. Business value examines how IT investments influence business performance, efficiency, and the creation of value for stakeholders. Organizational risk assesses the extent of dependency and vulnerability associated with IT implementation and operations. IT governance evaluates the robustness and clarity of decision-making structures, including how well IT resources are managed and how responsibilities are distributed. Leadership and resources addresses the quality and sufficiency of leadership support and resource allocation toward IT functions. The questionnaire employs a 7-point Likert scale (ranging from 1 = strongly disagree to 7 = strongly agree), where higher scores indicate a stronger alignment between IT and business strategy. This tool enables organizations to diagnose strengths and weaknesses in strategic alignment, providing insights for improvement. Tallon (2011) confirmed the content validity of the BITA questionnaire through literature review and expert feedback. Construct validity was evaluated using confirmatory factor analysis (CFA), with acceptable fit indices. Internal consistency reliability, measured using Cronbach's alpha, was reported at 0.93 for the overall scale, and ranged between 0.82 and 0.92 across subscales.

Composite reliability was reported at 0.95, exceeding the acceptable threshold of 0.70, thus confirming the questionnaire's strong psychometric properties for assessing IT-business alignment in organizational contexts.

The Organizational Agility Questionnaire, developed by Junni and colleagues in 2015, is a psychometric instrument designed to measure the level of agility within an organization. Organizational agility refers to the firm's ability to respond swiftly and adaptively to changes in the external environment, including market dynamics, technological advancements, and competitive pressures. This ability is crucial for maintaining resilience and performance in turbulent business environments. The questionnaire comprises eight items that collectively represent a single latent dimension of organizational agility. These items are structured to capture several core aspects of agility, including flexibility (the capability to shift resources and strategies quickly), responsiveness (the speed and effectiveness of the organization's reactions), integration (the coordination and coherence among departments and systems), and commitment (organizational dedication to adaptive practices and continuous improvement). Each item is rated on a 5-point Likert scale (ranging from 1 = strongly disagree to 5 = strongly agree), where higher scores denote a higher level of organizational agility. The tool has undergone rigorous validation. Content validity was established through an extensive literature review and feedback from academic and industry experts. Construct validity was confirmed through confirmatory factor analysis (CFA), which yielded acceptable results in terms of model fit and factor loadings. Reliability analysis demonstrated excellent internal consistency, with a Cronbach's alpha of 0.91 for the entire scale, indicating strong internal coherence among the items. Additionally, the composite reliability was reported at 0.93, which is well above the acceptable threshold of 0.70. These findings affirm the robustness of this instrument in capturing the multidimensional nature of organizational agility in small and medium-sized enterprises and other business settings.

The International Business Success Questionnaire, originally developed by Cavusgil and Zou in 1994 and further utilized by Tesar and Pisano, is a well-established instrument intended to assess the international performance of companies across diverse industries and markets. This questionnaire contains eight items grouped under a single overarching dimension of international success, offering a comprehensive measure of a company's performance in foreign markets. The instrument is constructed to evaluate multiple critical aspects of international business success, including revenue growth, market share expansion, profitability, overall satisfaction with international operations, and the ability to overcome operational and environmental challenges. It also assesses perceived effectiveness in navigating market entry barriers and sustaining a competitive advantage abroad. The questionnaire items are rated using a 7-point Likert scale (ranging from 1 = very poor to 7 = excellent), where higher scores reflect superior international performance. The simplicity of the single-factor design enables straightforward implementation and interpretation, making it particularly suitable for SMEs and large firms alike. The questionnaire's construct validity was examined through confirmatory factor analysis (CFA), with results indicating acceptable factor loadings and model fit. Internal consistency reliability was confirmed, with a Cronbach's alpha of 0.87 for the entire dimension, suggesting strong internal coherence among the items. Composite reliability was also high at 0.90, exceeding the commonly accepted benchmark of 0.70. The tool's reliability and validity have made it widely applicable in empirical research evaluating export performance, international strategy effectiveness, and global market penetration outcomes. Its continued use over the decades underscores its relevance in capturing nuanced aspects of international business success in contemporary and emerging market environments.

The reliability of the questionnaires was assessed using Cronbach's alpha coefficient. In addition, to enhance the validity of the instruments, standard questionnaires used in previous studies and expert opinions were taken into account.

To analyze the data and test the research hypotheses, both descriptive and inferential statistical methods were employed. Descriptive statistics included frequency and percentage distribution of descriptive characteristics. However, the main analyses in this study were based on inferential statistical methods. To test the normality of the data distribution, the Kolmogorov–Smirnov test was used. Hypotheses were analyzed using AMOS software.

3. Findings and Results

The demographic results indicate that the majority of the studied companies are located in Tabriz (57.55%) and that most of them are small enterprises with 10 to 49 employees (64.06%). In terms of industry sector, the largest share belongs to the manufacturing sector (40.89%), followed by the service sector (36.98%). This distribution reflects an appropriate sample diversity and broad coverage of different types of businesses in the study.

Table 1. Descriptive Statistics of Research Variables

Variable	Mean	Std. Dev.	Skewness	Kurtosis	Min	Max
Strategic IT Alignment	3.67	0.78	-0.32	-0.41	1.0	5.0
Strategic Agility	3.82	0.71	-0.45	0.12	1.0	5.0
International Success	3.43	0.85	-0.21	-0.48	1.0	5.0

The descriptive statistics in Table 1 show that all the main variables of the study have means above the average value of 3.0. Strategic agility has the highest mean (3.82), indicating its high importance in the studied companies. The skewness and kurtosis values for all variables fall within the acceptable range (between -2 and +2), which indicates the normal distribution of the data.

The outer model addresses the relationships between latent variables and their indicators. These results are presented in the tables below.

Table 2. Reliability and Validity Assessment

Construct	Cronbach's Alpha	Composite Reliability	Average Variance Extracted (AVE)	√AVE
Strategic IT Alignment	0.892	0.914	0.643	0.802
Strategic Agility	0.876	0.901	0.621	0.788
International Success	0.895	0.918	0.648	0.805

The results of reliability and validity assessment in Table 2 indicate high measurement instrument validity. All constructs have Cronbach's alpha and composite reliability values above 0.70, indicating adequate internal consistency. Additionally, AVE values for all constructs are above 0.50, confirming convergent validity.

Table 3. Discriminant Validity (Fornell–Larcker Criterion)

Construct	1	2	3
1. Strategic IT Alignment	0.802		
2. Strategic Agility	0.598	0.788	
3. International Success	0.301	0.396	0.805

As shown in Table 3, the results from the Fornell–Larcker criterion indicate that discriminant validity is established for all variables. The square root of AVE for each construct (on the diagonal) is greater than its correlations with other constructs, confirming that each construct is distinct and non-overlapping.

The inner model evaluates the relationships between latent variables. The results are as follows:

Table 4. Model Fit Indices

Fit Index	Value	Threshold	Result
χ^2/df	2.183	< 3.00	Acceptable
CFI	0.942	> 0.90	Acceptable
NFI	0.945	> 0.90	Acceptable
RFI	0.934	> 0.90	Acceptable
IFI	0.943	> 0.90	Acceptable
TLI	0.936	> 0.90	Acceptable
RMSEA	0.056	< 0.08	Acceptable
PCLOSE	0.196	> 0.05	Acceptable
SRMR	0.047	< 0.08	Acceptable

Based on Table 4, the model fit indices confirm that the research model has a good fit. All indicators fall within acceptable ranges. The χ^2/df ratio is less than 3, CFI and TLI exceed 0.90, and RMSEA and SRMR are both under 0.08, indicating the model appropriately fits the data.

Table 5. Direct Effects

Path	Path Coefficient	t-value	p-value	Result
Strategic IT Alignment → International Success	0.301	5.842	<0.001	Supported
Strategic IT Alignment → Strategic Agility	0.598	11.246	<0.001	Supported
Strategic Agility → International Success	0.396	7.432	<0.001	Supported

According to the findings in Table 5, all direct hypothesis tests are statistically significant at the 99% confidence level. The strongest relationship is between strategic IT alignment and strategic agility (β = 0.598). Additionally, strategic agility shows a strong effect on international success (β = 0.396).

Table 6. Mediation Analysis Results

Path	Direct Effect	Indirect Effect	Total Effect	VAF (%)	Mediation Type
Strategic IT Alignment → Agility → Success	0.301	0.237	0.538	44.05%	Partial Mediation

The mediation analysis results in Table 6 show that strategic agility plays a partial mediating role in the relationship between strategic IT alignment and international success. With a VAF of 44.05%, strategic agility exerts a meaningful mediating influence.

Table 7. Total Effects on International Success

Variable	Direct Effect	Indirect Effect	Total Effect
Strategic IT Alignment	0.301	0.385	0.686
Strategic Agility	0.396	-	0.396

The analysis of total effects in Table 7 indicates that strategic IT alignment has the strongest overall impact on international success (0.686), consisting of a direct effect (0.301) and an indirect effect (0.385) via mediating variables. These results underscore the strategic importance of IT alignment in achieving international success for SMEs.

Table 8. Coefficient of Determination (R^2 Values)

Variable	R^2 Value
Strategic Agility	0.358
International Success	0.452

The analysis in Table 8 regarding R^2 values for the dependent variables is interpreted as follows:

1. For strategic agility, the R^2 value of 0.358 indicates that approximately 35.8% of the variance in strategic agility is explained by the independent variables (e.g., strategic IT alignment). This moderate value suggests a notable impact of IT alignment on agility, though 64.2% of the variance remains influenced by other factors.
2. For international success, the R^2 value of 0.452 shows that 45.2% of the variance in international success is explained by predictor variables (strategic agility and IT alignment). This is the highest R^2 in the model and suggests that the model significantly accounts for international success based on the included variables.

Figure 1. Result of Hypothesis 1 (P-value < 0.05)**

In the first hypothesis, strategic agility plays a mediating role between strategic IT alignment and international success. According to the diagram, the path coefficient between IT alignment and strategic agility is 0.598, and the coefficient between strategic agility and international success is 0.396. These coefficients indicate that organizations with high levels of strategic agility benefit more from IT alignment and, consequently, perform better in international markets.

Figure 2. Result of Hypothesis 2 (P-value < 0.05)**

The second hypothesis posits that strategic IT alignment directly affects international success. The direct effect coefficient for this relationship is 0.686, indicating a strong and significant impact. This finding suggests that organizations achieving better alignment between IT and business strategies are more successful in international markets, as they are able to leverage technology as a tool for enhancing productivity and performance.

Figure 3. Result of Hypothesis 3 (P-value < 0.05)**

In the third hypothesis, strategic IT alignment is shown to have a positive effect on strategic agility. Given the path coefficient of 0.598, this hypothesis suggests that better IT alignment leads organizations to greater agility in responding to market changes. This increased agility enables firms to respond more rapidly to opportunities and threats, which in turn contributes to achieving international success.

Figure 4. Result of Hypothesis 4 (P-value < 0.05)**

The fourth hypothesis posits that strategic agility positively impacts international success. The path coefficient for this relationship is 0.396, indicating that strategic agility can help organizations respond more effectively to international market opportunities and thereby achieve superior performance. This finding underscores the critical role of strategic agility in driving international success for companies.

4. Discussion and Conclusion

The results of this study empirically validate the proposed model examining the impact of strategic IT alignment on international success in small and medium-sized enterprises (SMEs), with strategic agility serving as a mediating variable. The findings confirm that strategic IT alignment has a significant and direct impact on both strategic agility and international success. Additionally, strategic agility itself exerts a meaningful influence on international success, and partially mediates the relationship between IT alignment and international performance. These findings underscore the dual role of IT alignment—as both a direct enabler and an indirect catalyst for international growth—highlighting the importance of strategically managing IT resources and capabilities in dynamic, globally competitive environments.

The first major finding indicates that strategic IT alignment significantly influences international success, both directly ($\beta = 0.301$, $p < 0.001$) and indirectly through strategic agility (total effect $\beta = 0.686$). This result aligns with the conclusions of previous research, which has consistently emphasized the centrality of IT alignment in enhancing firm performance. Yoshikuni and Albertin (2020) demonstrated that alignment between IT and business strategy significantly enhances firm performance through better knowledge management and information utilization (Yoshikuni & Albertin, 2020). Similarly, Ngai et al. (2011) provided evidence that IT competence enhances supply chain responsiveness and operational flexibility, which are essential for international market adaptability (Ngai et al., 2011). In the SME context, where resource constraints are more pronounced, the ability to harmonize IT initiatives with business objectives enables firms to better allocate resources, streamline decision-making processes, and build digital capabilities that serve as a competitive advantage in international arenas (Safardoust et al., 2023; Yazdani & Darbani, 2022).

The second key result shows that strategic IT alignment positively influences strategic agility ($\beta = 0.598$, $p < 0.001$). This relationship confirms that firms with better-aligned IT systems and strategies are more capable of rapidly sensing and responding to changes in their environment. This finding echoes the insights of Groenewald et al. (2024), who argue that IT alignment is a primary antecedent of organizational agility by enhancing information flow, strategic foresight, and responsiveness to market dynamics (Groenewald et al., 2024). Additionally, the findings of Golmohammadi et al. (2021) support the notion that strategic agility is an outcome of dynamic capabilities such as IT responsiveness, digital literacy, and flexible processes (Golmohammadi et al., 2021). Warner and Wäger (2019) further emphasize that firms engaged in continuous strategic renewal—enabled by IT—are better positioned to sustain agility in the face of digital disruption (Warner

& Wäger, 2019). For SMEs, which often lack the hierarchical structure and rigid protocols of larger firms, IT alignment can be an agile enabler, allowing them to pivot quickly and innovate within shorter cycles.

The third major result demonstrates that strategic agility significantly contributes to international success ($\beta = 0.396$, $p < 0.001$). This finding highlights the value of agility not just as a reactive capability but as a proactive strategic resource that directly affects a firm's ability to enter and thrive in foreign markets. Previous research by Pereira et al. (2021) underlines the critical role agility played in enabling Indian IT and BPO firms to navigate the global financial crisis successfully (Pereira et al., 2021). Their study illustrates how firms that were agile could rapidly reconfigure operations, adopt digital channels, and reorient their value propositions for international clients. Similarly, Arsawan et al. (2022) found that innovation and strategic flexibility—core dimensions of agility—significantly enhance SME resilience and global competitiveness (Arsawan et al., 2022). For SMEs in volatile geopolitical regions such as Iran and Iraq, where the business landscape is frequently disrupted by policy shifts and macroeconomic uncertainty, strategic agility offers a viable pathway to sustaining international performance.

Moreover, the partial mediating role of strategic agility (VAF = 44.05%) between IT alignment and international success highlights the process-based nature of capability building. Strategic IT alignment lays the groundwork by establishing technological infrastructure and managerial clarity, while strategic agility operationalizes these enablers into tangible performance outcomes. This mechanism is consistent with the conceptual frameworks of dynamic capability theory, which posit that foundational capabilities must be transformed into higher-order capabilities to produce performance gains (Mirfakhradini et al., 2021; Warner & Wäger, 2019). Furthermore, the findings resonate with the work of Sepahvand et al. (2015), who noted that IT's impact on organizational performance is significantly moderated by agility, suggesting that technology alone is insufficient without strategic adaptability (Sepahvand et al., 2015).

An important implication from the model's explanatory power is seen in the R^2 values for strategic agility (0.358) and international success (0.452). These values indicate that the proposed predictors explain a substantial portion of the variance in both constructs. Compared to previous studies, this level of explanatory power is notable. For instance, Vishlaghi et al. (2021) found similar explanatory strength when modeling agility in the Iranian automotive sector, underscoring that well-designed strategic models can offer predictive insight even in uncertain industrial contexts (Vishlaghi et al., 2021). In this study, the high explanatory value of IT alignment emphasizes its foundational role not just in strategic processes but also in value delivery and global reach.

Another contextual contribution of this study is the incorporation of regional and sectoral diversity. The research focused on SMEs in both Tabriz (Iran) and Karbala (Iraq), offering cross-cultural and cross-market validation of the model. This is particularly relevant given the calls by Janssen et al. (2020) for more context-aware frameworks of IT adoption, especially in developing economies where institutional, market, and technical factors interact in complex ways (Janssen et al., 2020). The findings of this study affirm that even in environments characterized by resource scarcity, regulatory volatility, and technological lag, IT alignment and agility can serve as strategic levers for performance.

Lastly, the findings contribute to a growing body of literature emphasizing the role of managerial competencies and strategic intelligence in leveraging IT for performance. As Miri Rami et al. (2022) suggest, IT initiatives yield meaningful outcomes only when aligned with the strategic cognition and intelligence of decision-makers (Miri Rami et al., 2022). Therefore, building strategic agility is not merely a function of technology acquisition but also of developing a responsive, forward-looking managerial mindset. This insight is especially vital for SMEs, where strategic vision often rests in the hands of a few key actors and where leadership's ability to interpret environmental signals directly affects firm-level outcomes.

This study, while robust in design and analysis, has certain limitations that must be acknowledged. First, the cross-sectional nature of the research restricts the ability to infer causal relationships between variables. Although structural equation modeling provides statistical rigor in analyzing complex relationships, longitudinal data would allow for the observation of changes over time and provide stronger evidence for causality. Second, the study is geographically limited to SMEs in Tabriz and Karbala, which may limit the generalizability of the findings to other regions with different institutional, cultural, or technological contexts. Third, all data were self-reported by organizational respondents, raising the possibility of common method bias despite statistical controls. Future studies may benefit from triangulating data sources, such as performance indicators, external audits, or longitudinal case studies, to validate the results further.

Future research should consider employing longitudinal designs to examine how strategic IT alignment and agility evolve over time and how they jointly influence international success. Investigating temporal dynamics would provide deeper insights into capability development processes. Additionally, comparative studies across multiple countries and sectors could test the generalizability of the findings and explore contextual moderating factors such as digital maturity, industry turbulence, or organizational culture. Researchers could also explore the role of other potential mediators or moderators—such as innovation capacity, knowledge management, or leadership style—in the alignment–agility–performance pathway. Finally, qualitative research methods such as case studies or grounded theory could offer rich, contextual understanding of how SMEs implement IT alignment strategies in practice and how these strategies interact with organizational structures and external environments.

SME managers should prioritize aligning IT investments and operations with overall business strategies to enhance not only internal coherence but also the firm's responsiveness to external opportunities. Developing strategic agility requires not just technology, but leadership commitment to continuous learning, flexible processes, and a culture of innovation. Practitioners should embed agility principles into organizational routines, enabling rapid decision-making and adaptive behavior in international markets. Policymakers and industry bodies can also support SMEs by providing digital infrastructure, strategic advisory services, and training programs that equip firms with both technological tools and strategic capabilities necessary for global competitiveness.

Ethical Considerations

All procedures performed in this study were under the ethical standards.

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Conflict of Interest

The authors report no conflict of interest.

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