

ANALYZING THE IMPACT OF STRATEGIC AGILITY ON PERFORMANCE IN SMALL AND MEDIUM-SIZED ENTERPRISES: THE MEDIATING ROLE OF SUSTAINABLE COMPETITIVE ADVANTAGE AND BUSINESS MODEL INNOVATION

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Abstract

This study examines the impact of strategic agility (SA) on the performance of small and medium-sized enterprises (SMEs) and investigates the mediating roles of sustainable competitive advantage (SCA) and business model innovation (BMI). Furthermore, it explores how SA enhances SME competitiveness in dynamic and uncertain business environments. Drawing on the literature on SA, SCA, BMI, and SME competitiveness, this study adopts a quantitative research design. Data was collected through a structured questionnaire administered to 202 chief executive officers (CEOs) of SMEs in Isfahan Province, Iran. The proposed research model and hypotheses were tested using partial least squares structural equation modeling (PLS-SEM) with SmartPLS 3. The results indicate that SA has a positive and significant effect on SME performance. Furthermore, SA indirectly enhances performance through SCA and BMI, both of which serve as significant mediating mechanisms. The findings suggest that strategically agile SMEs are better positioned to develop distinctive competitive advantages, foster business model innovation, improve organizational effectiveness, and strengthen their competitiveness in highly volatile markets. This study extends the strategic agility literature by simultaneously examining the mediating roles of SCA and BMI in the relationship between SA and SME performance. Grounded in dynamic capabilities theory (DCT), the resource-based view (RBV), and entrepreneurial innovation theory, this framework offers a comprehensive explanation of how SA enhances competitiveness and organizational performance among SMEs operating in emerging economies.

Keywords: SMEs, Strategic Agility, Competitiveness, Business Model Innovation, Dynamic Capabilities

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1 INTRODUCTION:

Small and medium-sized enterprises (SMEs) are crucial drivers of economic growth and national development (Kosgoda, 2021; Fajarika et al., 2024). In recent decades, SMEs in emerging markets have attracted considerable attention from researchers (e.g., Falahat et al., 2020; Ali et al., 2020). These firms are increasingly expanding their operations into international markets, particularly in developed economies, where they have demonstrated strong performance (Falahat et al., 2020). Moreover, entrepreneurs in emerging economies, acting as institutional agents within their respective countries, strategically engage in international activities to capitalize on opportunities or mitigate the institutional constraints of their domestic environments (Li et al., 2022). SMEs also play a pivotal role in job creation, innovation, and productivity enhancement. They not only generate substantial employment opportunities but also serve as key contributors to innovation, economic resilience, and productivity growth (Herr & Nettekoven, 2018; Segarra-Blasco et al., 2025). Given their economic significance and the numerous challenges they face, ensuring the long-term sustainability and competitiveness of SMEs has become an important priority for both researchers and policymakers.

One of the most significant challenges confronting SMEs is their limited ability to respond rapidly and effectively to changing market conditions and environmental turbulence. Owing to their limited financial and organizational resources, SMEs typically prioritize operational activities such as production, service delivery, and financial management. Consequently, they often struggle to anticipate and respond promptly to environmental changes. Failure to react quickly—or to proactively anticipate such changes—can seriously undermine their competitiveness and long-term survival.

The business environment is inherently complex and uncertain, with many external factors remaining beyond firms' control (Beigi et al., 2023). These challenges became even more pronounced in the post-COVID-19 era, where rapid technological advancements, globalization, digital transformation, and increasing customer demand for customized products intensified market competition. As a result, sustaining competitive advantage and achieving superior organizational performance have become increasingly difficult (Mytelka, 2006). To remain competitive under such conditions, firms must continuously strengthen their capabilities, renew their competencies, and adapt proactively to changing business environments (Ferraris et al., 2017; Sadraei et al., 2025). However, the accelerating pace of environmental change has made it increasingly difficult for organizations to maintain superior performance over time (Hock-Doepgen et al., 2020).

In this context, SA has emerged as a critical organizational capability that enables SMEs to sense environmental changes, respond rapidly to emerging opportunities and threats, and pursue sustainable growth, competitiveness, and long-term profitability. For SMEs, customer acquisition is considerably more costly than customer retention, and unlike large organizations, they often lack the financial and strategic resources needed to absorb market disruptions. Consequently, maintaining organizational performance depends largely on their ability to adapt swiftly to environmental changes while retaining and strengthening customer relationships (Pelletier et al., 2025; Wilopo et al., 2026). Two organizational capabilities are particularly important in this regard: BMI and SCA. Given the continuous evolution of dynamic business environments, firms must regularly redesign and innovate their business models to remain competitive. BMI enables SMEs to create, deliver, and capture value more effectively while

responding to changing customer needs and market conditions. At the same time, developing and sustaining competitive advantage requires firms to continuously renew, reconfigure, and leverage their organizational resources and capabilities (Khouroh et al., 2020). Consequently, achieving long-term survival, growth, and superior performance depends not only on organizational adaptability but also on firms' ability to innovate their business models while simultaneously developing and sustaining competitive advantage.

Previous research has not yet clearly conceptualized the relationship between SA and firm performance (Arokodare & Asikhia, 2020). Moreover, existing empirical evidence has produced inconsistent findings regarding this relationship. For example, Ojha (2008) reported a negative association between SA and organizational performance among medium- and large-sized manufacturing firms in the United States. In contrast, empirical studies by Kale et al. (2019) and Clauss et al. (2021), conducted in the Turkish accommodation industry and among German electronics firms, respectively, found a positive relationship between SA and firm performance. Conversely, Shin et al. (2015) found no significant relationship between SA and financial performance among Korean firms. Other studies have suggested that SA influences organizational performance indirectly through mediating variables such as competitive capability and intellectual capital (Junni et al., 2015; Al-Azzam et al., 2017; Khoshnood & Nematizadeh, 2017). Collectively, these contradictory findings indicate that the relationship between SA and firm performance is complex rather than straightforward. Consequently, further empirical research is needed to clarify the mechanisms underlying this relationship (Vrontis et al., 2022).

One of the principal challenges associated with implementing SA lies in organizations' ability to effectively execute strategic initiatives by mobilizing and coordinating the necessary resources, including physical assets, intellectual property, human capital, and information technology (Combs et al., 2011). This challenge is particularly pronounced in emerging markets, where firms must continually adapt their strategies and resource configurations to dynamic, uncertain, and institutionally complex environments (Vrontis et al., 2022). Given the pivotal role of SMEs in promoting economic growth and development in emerging economies (Zygmunt, 2020; Isichei et al., 2020), and considering that entrepreneurship research characterizes SMEs as flexible, adaptive, and relatively young organizations (Reed, 2021), SMEs provide an appropriate context for examining the effects of strategic agility.

Furthermore, this study contributes to the literature on corporate internationalization by challenging the traditional assumption that firms engaged in international expansion from emerging markets are predominantly large and resource-rich (Luo & Tung, 2018). In reality, SMEs account for the majority of firms currently expanding into international markets, suggesting that conventional assumptions no longer fully reflect contemporary internationalization patterns (Child & Marinova, 2014). This study also provides a practical perspective on the factors influencing SME internationalization and the organizational outcomes associated with this process. In particular, it addresses the challenges SMEs face in pursuing growth, sustaining competitiveness, and achieving superior performance, including limited product development capabilities, the continuous need for product and service innovation, and the necessity of strengthening competitive capabilities in dynamic business environments. Developing strategic agility and fostering business model innovation may enable SMEs to overcome these challenges and enhance their long-term competitiveness. Accordingly, this study addresses the limitations of previous research by examining both the direct and indirect effects of SA on SME performance. Specifically, it investigates the mediating roles of

SCA and BMI in explaining how strategic agility contributes to improved organizational performance.

2 THEORETICAL BACKGROUND:

This study is primarily grounded in dynamic capabilities theory (DCT), which provides the overarching theoretical framework for explaining how firms adapt, renew, and sustain superior performance in dynamic environments. Dynamic capabilities refer to a firm's ability to sense environmental changes, seize emerging opportunities, and reconfigure resources and organizational processes in response to evolving market conditions (Teece et al., 1997; Teece, 2007). Within this perspective, SA is conceptualized as the strategic manifestation of dynamic capabilities, reflecting an organization's capacity to rapidly interpret environmental shifts, make timely strategic decisions, and realign resources to manage uncertainty and change (Doz & Kosonen, 2010; de Diego Ruiz et al., 2024). From a DCT perspective, SA enables firms to continuously transform their resource base and strategic orientation, thereby fostering both BMI and SCA. Agile organizations are better positioned to identify emerging customer needs, technological developments, and competitive threats, enabling them to redesign value creation, delivery, and capture mechanisms (Foss & Saebi, 2017). Accordingly, BMI represents an adaptive renewal mechanism through which firms modify their business logic, while SCA reflects the strategic outcomes resulting from the continuous reconfiguration and deployment of organizational capabilities (Teece, 2007).

The resource-based view (RBV) complements DCT by explaining why agile capabilities can generate sustained performance advantages. According to RBV, competitive advantage arises from resources and capabilities that are valuable, rare, inimitable, and non-substitutable (Barney, 1991). From this perspective, SA functions as a higher-order dynamic capability that enables firms to recombine resources, develop distinctive market positions, and strengthen sustainable competitive advantage. In addition, entrepreneurial innovation theory provides a complementary explanation of the innovative mechanisms linking SA to organizational outcomes. Rooted in Schumpeterian thought, this perspective emphasizes opportunity recognition, experimentation, and strategic renewal as key drivers of innovation and growth (Schumpeter, 1934). Accordingly, it offers a theoretical foundation for understanding how agile firms develop innovative business models and capitalize on emerging market opportunities. Taken together, DCT serves as the primary explanatory lens underpinning the relationships proposed in this study, while the RBV explains the development of SCA, and Entrepreneurial Innovation Theory clarifies the innovation processes reflected in BMI. The integration of these perspectives provides a coherent theoretical foundation for explaining how SA contributes to organizational performance through both competitive advantage-based and innovation-based pathways.

2.1 SA and performance

Agility can be defined as a firm's capacity to rapidly adapt to dynamic and unpredictable environmental conditions. SA refers to a firm's ability to identify and exploit strategic opportunities through flexibility, adaptability, and the reconfiguration of its business model (Debellis et al., 2021). Furthermore, SA can be understood as the capability to sustain organizational viability in the face of emerging developments, continuously adjust strategic orientation, and develop innovative solutions for value creation (Weber & Tarba, 2014). In the context of globalization, one of the most critical determinants of organizational success in

response to changing market conditions and consumer behavior is strategic agility (Morton et al., 2018). In addition, rapid technological advancement and increasing production and consumption customization have intensified competition, leading to highly complex and dynamic business environments. The COVID-19 pandemic further exacerbated these challenges by disrupting or altering prevailing business processes across countries, thereby posing a significant threat to firms' existing business models (Elali, 2021; Behl et al., 2023). Consequently, organizations—particularly SMEs in emerging economies—have been required to transform their operations and adopt timely and decisive strategic actions to effectively respond to the consequences of the pandemic (El Idrissi et al., 2023). As a result, strategic agility has received increasing attention from researchers, practitioners, and policymakers in the field of strategic management. This growing interest stems from its ability to enhance organizational responsiveness by enabling structural adjustments and the adoption of new operational practices that improve the speed and flexibility of decision-making and implementation. Accordingly, SA allows firms to transform environmental challenges, including those arising from the COVID-19 pandemic, into potential opportunities (Kosack et al., 2021; Agustin et al., 2026).

Regardless of the origin of environmental changes and disruptions, agile firms are better equipped to respond effectively and efficiently to unexpected events due to their enhanced flexibility, responsiveness, and strategic foresight. Reviewing the existing literature also highlights the prominent role of the SA approach across various theoretical perspectives, including dynamic capabilities theory, strategic innovation, and organizational ambidexterity, as well as in empirical research (Doz & Kosonen, 2008; Weber & Tarba, 2014; Shams et al., 2021). In this context, speed and responsiveness are particularly critical for SMEs, as they often lack the economies of scale, market visibility, and brand recognition typically enjoyed by larger firms (Shin et al., 2015). This issue is especially relevant for Iranian SMEs, which play a key role in Iran's GDP and hold a significant share of industrial and economic activity. Economic reports indicate that these firms account for approximately 50% of employment in industrial sectors (Akbari & Beigi, 2023; Jalali, 2023). Consequently, SA, as an organizational capability, plays a crucial role in enabling firms to perceive environmental changes, adapt rapidly to new conditions, and transform external threats into value-creating opportunities (Shin et al., 2015).

Empirical studies further support the positive role of SA in organizational outcomes. For instance, Suradi et al. (2020), in their study of the Indonesian textile industry, emphasize the positive impact of SA on firm performance. Similarly, Shin et al. (2015) found that SA positively affects operational performance and customer retention in Korean SMEs. In addition, Hemmati et al. (2016) argue that firms possessing SA are better able to achieve competitive advantage and enhance overall performance. From a broader perspective, SA has received increasing scholarly attention as a capability that enables firms to mitigate the negative effects of environmental turbulence, enhance readiness for future competition, and achieve superior performance and profitability (Appelbaum et al., 2017; Arokodare et al., 2019; Alokshie et al., 2025). Overall, the strategic management literature consistently suggests that SA enhances firm performance and contributes to sustained competitive superiority (Clauss et al., 2021). Empirical studies by Kale et al. (2019) and Kurniawan et al. (2020) also confirm a positive and significant relationship between SA and firm performance. Furthermore, multiple studies indicate that SA improves operational productivity, product reliability, service quality, and overall organizational speed and effectiveness (Appelbaum et al., 2017; Arokodare, 2020; Yildiz & Aykanat, 2021; Al Shawabkeh, 2024; Alokshie et al., 2025). Accordingly, the first hypothesis of this study is stated as follows:

Hypothesis 1: SA has a positive and statistically significant effect on SME performance.

2.2 SA and SCA

The intensification of changes in industrial and business environments in recent decades has led to a situation in which many traditional approaches to strategy formulation have lost their effectiveness for strategic managers in creating SCA (Karoney et al., 2025; Rawashdeh et al., 2026). In response to these intense market dynamics, some researchers have questioned the ability of these approaches to meet firms' needs in developing and sustaining competitive advantage (Eisenhardt & Martin, 2000; Priem & Butler, 2001; Wang & Ahmed, 2007). According to Barney's (1991) resource-based view, a firm's resources can serve as a basis for sustaining competitive advantage when they are valuable, rare, inimitable, and non-substitutable. Under these conditions, firms are able to achieve sustainable competitive advantage (Barney, 1991). Within this framework, the possession of unique resources and distinctive capabilities plays a central role in generating SCA. The value and rarity of organizational resources, along with their inimitability and non-substitutability, are key drivers of sustained competitive advantage. Accordingly, firms achieve SCA when they develop a unique set of resources and capabilities that enables them to outperform their competitors (Gupta et al., 2022). Consequently, most strategic models and analytical tools used in strategy formulation and implementation are fundamentally grounded in the concept of SCA. Thus, the ultimate objective of strategic management is the attainment of competitive advantage (McGrath, 2013; Na et al., 2019).

However, achieving competitive advantage in SMEs is associated with two fundamental challenges: first, overcoming resource constraints to establish a foundation for future growth and development; and second, effectively leveraging existing resources to compete in the market. In this context, the dynamic capabilities perspective provides a suitable framework for explaining how organizations adapt, develop, and reconfigure their resources and capabilities in response to environmental changes (Liu & Yang, 2020; Cristofaro et al., 2025). From this perspective, Brueller et al. (2014) argue that SA represents a valuable capability that enables organizations to sustain their operations in uncertain, unstable, and rapidly changing environments. SA is therefore a critical organizational capability for maintaining competitiveness and ensuring organizational survival in dynamic markets. To achieve agility, organizations must effectively respond to unexpected and unpredictable changes in the business environment (Charbonnier-Voirin, 2011; Shin et al., 2015; Tikkanen, 2014). Strategic agility enables firms to adjust their strategies in response to environmental changes; indeed, strategic change is widely recognized as a key mechanism through which firms respond to external disruptions (Liu et al., 2025). Prior studies also highlight the importance of SA in achieving competitive advantage through its positive effects on innovation, service quality, delivery reliability, operational flexibility, and cost efficiency (Al Shawabkeh, 2024). Accordingly, the second hypothesis of this study is formulated as follows:

Hypothesis 2: SA has a positive and statistically significant effect on SCA.

2.3 SA and BMI

The origins of BMI can be traced to the concept of open innovation introduced by Chesbrough (2007). BMI is often described as an "innovation tree" because it encompasses all domains in which a business can innovate (Taran, 2011) and enables firms to engage in activities beyond product and process innovation (Massa & Tucci, 2013; Hock-Doepgen et al., 2020). Today,

there is a broad consensus that BMI is a critical driver of business transformation and modernization (Zott et al., 2011). Technological advancements and the emergence of new business practices have disrupted the traditional equilibrium between firms and their customers and suppliers. As a result, business leaders are increasingly compelled to explore alternative strategic pathways for value creation (Kumar et al., 2023). SMEs, as the backbone of many economies, are not exempt from this transformation. However, this process is more challenging for SMEs due to their limited resources and capabilities, as well as the constraints associated with their small size (Jabeen et al., 2022).

Efforts by SMEs to determine how best to deliver value propositions to customers (Jagoda et al., 2010) have given rise to the concept of BMI (Salfore et al., 2023). BMI is conceptualized as a form of organizational innovation that redefines how firms create, deliver, and capture value for their stakeholders (Hock-Doepgen et al., 2020). In the context of evolving customer preferences and changing lifestyles, firms are increasingly required to pursue innovation as a critical mechanism for value creation and the sustained achievement of competitive advantage (Rowley et al., 2011). In this regard, SA plays a crucial role in enhancing innovation capability, responding effectively to market changes, and generating new value. This capability enables organizations to rapidly identify emerging opportunities, reconfigure resources, and adjust strategic orientations, thereby facilitating both market and organizational innovation (Mueller-Saegebrecht & Walter, 2025). From this perspective, several studies have identified SA as a foundational organizational capability that influences BMI (Arbussa et al., 2017). Accordingly, SA extends beyond the incremental improvement or modification of existing products and services. It reflects an organization's dynamic capability to adapt and transform its strategic orientation by redesigning business logic, reconfiguring value creation processes, and adopting innovative strategies in response to environmental changes. Therefore, SA enables organizations to achieve SCA through strategic flexibility, continuous learning, and the effective exploitation of environmental opportunities (Vrontis et al., 2022). Battistella et al. (2017) conceptualize SA as the ability of firms to adapt or reconfigure their business models in response to unforeseen changes in the external environment. Felipe et al. (2016) identify innovation as a core characteristic of SA. Similarly, Doz and Kosonen (2010) argue that successful business model transformation is one of the major outcomes of SA, suggesting a close interdependence between SA and BMI. Furthermore, empirical studies by Djaja and Arief (2015), Clauss et al. (2021), Bhatti et al. (2021), and Wirahadi and Pasaribu (2022) consistently demonstrate that SA has a positive and significant effect on BMI. Accordingly, the third hypothesis of this study is formulated as follows:

Hypothesis 3: SA has a positive and statistically significant effect on BMI.

2.4 SCA and performance

Relying solely on a single resource does not provide a sufficient foundation for organizational success in achieving competitive advantage. Rather, high-performing firms recognize the importance of continuously reassessing the sources of competitive advantage from multiple strategic perspectives and integrating a diverse portfolio of resources to sustain and strengthen their market position (Stalk, 1988). A firm's competitive advantage is sustainable when it persists despite competitors' imitation attempts or when replicating the firm's strategy is costly and difficult for competitors (Barney, 2001; Na et al., 2019). Competitive advantage can be sustained over time when a firm develops a distinctive strategy that creates superior value for customers and competitors are unable to replicate and implement the same value-creating

approach. When a firm successfully adopts such a value-enhancing strategy, it achieves sustainable competitive advantage while competitors fail to duplicate its strategic position (Hitt et al., 2001). Nevertheless, competition in business environments is inevitable. Therefore, firms must continuously monitor market dynamics, understand customer needs and preferences, and recognize environmental changes in order to maintain competitiveness. Accordingly, organizations must continually improve their ability to manage and leverage diverse resources to achieve competitive superiority and ensure long-term success (Kuncoro & Suriani, 2018). A substantial body of research indicates that firms possessing SCA are more likely to achieve superior performance, and the continuous maintenance of this advantage further contributes to improved organizational outcomes (Na et al., 2019). Competitive advantage is widely regarded as a critical determinant of firm performance (Correia et al., 2021), and achieving SCA—along with an adequate level of organizational effectiveness—is considered a fundamental prerequisite for long-term business success. Moreover, previous studies have consistently demonstrated a positive and significant relationship between competitive advantage and organizational performance (Ferreira & Coelho, 2020; Ferreira et al., 2020). Accordingly, the fourth hypothesis of this study is formulated as follows:

Hypothesis 4: SCA has a positive and statistically significant effect on SME performance.

2.5 BMI and performance

The research literature has long recognized product innovation as one of the primary drivers of value creation. In particular, technological change, driven by creative destruction and the willingness to embrace risk and uncertainty, often disrupts existing sources of value while enabling the creation of new value propositions. BMI represents a transformation in the design of the system that connects firms, customers, partners, suppliers, and other stakeholders involved in the value creation process (Zott & Amit, 2007; Visnjic et al., 2016). Existing studies have highlighted changes in the external environment as important antecedents of BMI (Cheah et al., 2018). A review of the management and business literature reveals diverse interpretations of the business model concept. It is commonly defined as a framework through which value is created, delivered, and captured (Osterwalder & Pigneur, 2011). Furthermore, a business model can be viewed as a configuration of interconnected activities that shapes the structural and operational design of an organization (Zott et al., 2011). BMI involves the introduction of novel activities and mechanisms that play critical roles in creating and delivering value, as well as strategically exploiting emerging opportunities (Casadesus-Masanell & Ricart, 2010; Günzel & Holm, 2013). Research on business models has expanded substantially over the past decade (Clauss et al., 2021) and has gained increasing attention in recent years due to the transformative influence of digital technologies and the Internet (Chesbrough, 2010). Numerous scholars have examined business models from an innovation perspective, emphasizing that innovation is a critical determinant of sustained organizational performance and long-term success (Chesbrough, 2010). A growing body of empirical research on BMI suggests that innovative business models represent important factors influencing firm performance (Cheah et al., 2018). Furthermore, the BMI literature highlights various motivations and strategic objectives. BMI enables firms to address latent customer needs by creating additional value for existing customers. At the same time, it allows organizations to attract new customer segments by developing new value creation mechanisms and enhancing value capture processes (Markides, 2006; Chesbrough, 2007; Frankenberger et al., 2013). Accordingly, BMI can be considered a strategic mechanism through which firms improve operational effectiveness, strengthen competitive positioning, and enhance organizational performance (Chesbrough, 2010;

Phangestu et al., 2020; Clauss et al., 2021). Therefore, the fifth hypothesis of this study is formulated as follows:

Hypothesis 5: BMI has a positive and statistically significant effect on SME performance.

2.6 The mediating role of SCA in the relationship between BMI and performance

Firms can enhance their performance through the establishment of a SCA. Within this conceptual framework, the attainment and maintenance of competitive advantage represent the primary objective of strategic management (Na et al., 2019; Ferreira et al., 2020). Competitive advantage emerges from strategic managerial decisions and refers to a firm's ability to outperform its rivals in terms of key performance indicators (Kim et al., 2020). Empirical evidence indicates a positive and statistically significant relationship between SCA and organizational performance (Khan et al., 2019; Na et al., 2019; Anwar & Ali Shah, 2018). To compete effectively and secure a sustainable position in dynamic markets, firms develop and implement various strategic approaches (Evans & Bosua, 2017). Firms possessing SCA are better able to withstand current and potential competitive pressures in the marketplace (Mbima & Tetteh, 2023). Accordingly, organizations are more likely to outperform competitors when they possess a sustained competitive advantage.

The sustainability of competitive advantage is primarily grounded in the possession of valuable and rare resources. Due to their scarcity, such resources are difficult for competitors to imitate or substitute, thereby enabling firms to maintain their competitive position over time (Barney, 1991). Furthermore, some scholars argue that maintaining SCA requires continuous innovation (Yang et al., 2021). Adopting an innovative approach is a key managerial task that involves implementing new managerial practices and aligning organizational processes, structural configurations, and operational methods, all of which contribute to the development of SCA (Heij et al., 2020). Within this context, BMI, as an increasingly important paradigm in strategic management research, plays a critical role because while individual product innovations can often be imitated relatively easily and at low cost, replicating an entire business model is considerably more complex and difficult (Clauss et al., 2021). In other words, BMI is a key mechanism for achieving SCA, particularly in volatile and dynamic market environments, thereby contributing to improved organizational performance (Bashir & Verma, 2019; Khan et al., 2019). Empirical findings by Akbari and Beigi (2023) demonstrate a significant relationship between BMI and SCA in emerging economies. Other studies similarly confirm that BMI has a positive and significant effect on SCA (Anwar & Ali Shah, 2018; Cheah et al., 2018; Khan et al., 2019). In line with the above arguments, the sixth hypothesis of this study is formulated as follows:

Hypothesis 6: SCA mediates the relationship between BMI and SME performance.

2.7 The Mediating role of SCA in the link between SA and Performance

In contemporary strategic management literature, the business environment is widely characterized as dynamic, uncertain, and subject to rapid and continuous change. Under such conditions, traditional strategy formulation approaches are increasingly considered insufficient to address evolving customer demands and shifting competitive pressures. As a result, firms and policymakers are progressively adopting capability-based strategic approaches aimed at enhancing market responsiveness, improving performance outcomes, and sustaining competitive positioning (Vrontis et al., 2022). From a strategic management and dynamic

capabilities perspective, firms are required to develop higher-order organizational capabilities that enable them to systematically sense environmental changes, seize emerging opportunities, and reconfigure internal resources and processes accordingly. In this regard, SA is conceptualized as a capability that integrates organizational learning, knowledge-sharing mechanisms, and adaptive organizational culture to enable timely and effective responses to environmental turbulence (Liu & Almor, 2016). Rather than representing a set of static practices, SA reflects a firm's capacity to continuously realign its strategic orientation in response to external changes. Empirical evidence across diverse industries further demonstrates that SA, as a dynamic capability, plays a significant role in enhancing firm performance. Specifically, strategic agility strengthens firms' ability to build and sustain competitive advantage by improving responsiveness, flexibility, and resource reconfiguration, thereby leading to superior organizational outcomes. Moreover, a large body of empirical research examining the relationship between SA and firm performance across various industries indicates that SA significantly enhances firms' competitive advantage and overall performance.

Accordingly, SA is increasingly recognized as a critical determinant of organizational success and long-term sustainability in dynamic environments (Arokodare et al., 2019). As an organizational capability, SA enables SMEs to effectively manage and reconfigure supply chain relationships, resource networks, and organizational interactions in response to changing environmental conditions. By enhancing the speed and flexibility of organizational responses, SA serves as an important source of competitive advantage (Pelletier et al., 2025). The effective deployment of this capability through organizational processes and practices enables SMEs to strengthen their strategic position and achieve sustainable long-term performance. Therefore, adopting SA in SMEs operating in emerging markets can facilitate the development and maintenance of SCA, ultimately contributing to improved profitability and enhanced organizational performance (Charbonnier-Voirin, 2011; Gagel, 2017; Tufan & Mert, 2023). Hemmati et al. (2016) also argue that firms possessing SA are better able to achieve competitive advantage and improve performance. Furthermore, other studies suggest that SA is an important mechanism for achieving competitive advantage in changing market conditions, enabling firms to respond effectively and promptly to environmental changes. In doing so, firms enhance labor market performance, improve quality, reduce costs, and increase productivity (Hosein & Yousefi, 2012; Tikkanen, 2014; Al Shawabkeh, 2024). Based on the preceding discussion, the seventh hypothesis of this study is formulated as follows:

Hypothesis 7: SCA mediates the relationship between SA and SME performance.

2.8 The mediating role of BMI

In the context of business complexity, dynamism, and uncertainty, SA enables organizations to rapidly recognize environmental changes, identify emerging opportunities, and align their strategic orientations with evolving conditions (Teece et al., 2016). Empirical evidence further suggests that SA enhances firm performance by influencing the scope, speed, and intensity of strategic actions. In particular, SA not only improves organizational performance directly but also facilitates the adoption of BMI. Moreover, the adoption of BMI through enhanced value creation mechanisms significantly improves firm performance by enabling organizations to identify and exploit market opportunities arising from evolving customer demands (Pang et al., 2019; Asemokha et al., 2019). A more detailed review of the literature indicates that, depending on environmental dynamism and resource availability, the mediating mechanisms in the

relationship between SA and performance may be shaped by either internally-driven capabilities or externally-oriented contextual factors.

The rationale for incorporating BMI as a mediating variable in this study is based on the premise that business models undergo continuous transformation before and during their implementation to improve organizational processes and performance outcomes (Clauss et al., 2021; AlTaweel & Al-Hawary, 2021). Several scholars conceptualize SA as a capability that enables firms to adapt and reconfigure their business models in response to unforeseen environmental changes. In this context, innovation is widely recognized as a defining characteristic of SA (Felipe et al., 2016; Battistella et al., 2017; Mueller-Saegebrecht & Walter, 2025). According to Doz and Kosonen (2010), successful business model transformation is one of the key outcomes of SA, and BMI should therefore be considered closely linked to strategic agility. Empirical studies examining the SA–performance relationship across various industries further demonstrate that SA-driven organizational activities significantly enhance BMI and, consequently, overall firm performance (Djaja & Arief, 2015; Kohtamäki et al., 2020; Clauss et al., 2021). Accordingly, the eighth hypothesis of this study is formulated as follows:

Hypothesis 8: BMI mediates the relationship between SA and SME performance.

Accordingly, Figure 1 illustrates the conceptual framework of this study.

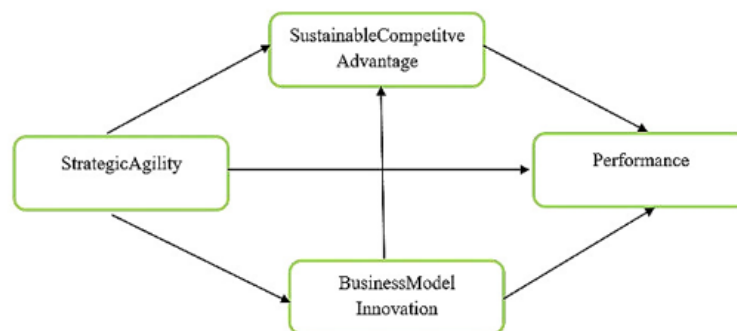


Fig. 1 – conceptual framework. Source: own research

3 RESEARCH OBJECTIVE, METHODOLOGY AND DATA:

This study is classified as applied research in terms of its objective and adopts a descriptive survey design in terms of its data collection method. Given that one of the defining characteristics of the business environment in developing countries is the prevalence of intense environmental fluctuations and instability (Yousuf et al., 2021), SA is increasingly recognized as a vital organizational capability that enables SMEs to sense, adapt to, and capitalize on changes in dynamic environments. The development of this capability is particularly critical for SMEs in emerging economies such as Iran, where organizations operate under distinctive economic and institutional conditions. Accordingly, the statistical population of this study comprises SMEs operating in the manufacturing sector located in Isfahan Province, Iran, which was selected due to its specific political and economic context and the presence of diverse industrial activities. Given the limitations associated with rule-of-thumb approaches to sample size determination (Hair et al., 2014), the sample size was calculated using a power analysis

approach with G*Power software (version 3.1) (Faul et al., 2007). By setting the significance level at 5% and assuming an effect size of 0.05, the required sample size was determined to be 222 observations. A structured questionnaire based on a five-point Likert scale was used to collect the required data. The questionnaire consisted of 20 items measuring the study constructs, including SA (Omoush, 2020), SCA (Guimarães, 2017), BMI (Asemokha et al., 2019), and firm performance (Clauss et al., 2019). The questionnaires were distributed electronically using a simple random sampling method, and a total of 202 valid responses were collected between October 2021 and January 2022. A response rate of at least 65% is generally considered acceptable for online surveys (Fincham, 2008); in this study, the achieved response rate was 90%. To collect the data, a link to the electronic questionnaire was sent to SME chief executive officers (CEOs) via email and social media platforms (mobile applications). Table 1 presents the demographic and professional characteristics of the participating CEOs. To provide a comprehensive profile of the respondents, variables such as gender, age, educational background, and managerial experience were analyzed.

Tab. 1 – Demographic characteristics (n = 202). Source: own research

Items	Description	Sample	Percentage (%)
Gender	Male	133	66
	Female	69	34
Age	Less than 40	110	54
	40-50	40	20
	51-60	45	22
	More than 60	7	3
Manager's Education	B.A.	124	61
	M.A.	74	37
	Ph.D.	4	2
Manager's Experience	Little experience >5 years	43	21
	Sufficient Experience: 5 – 10 years	73	36
	Wide Experience ;<More than 10 years	86	43

4 ANALYSIS AND FINDINGS

The PLS-SEM approach was employed for data analysis. PLS-SEM is a variance-based SEM technique that has been shown to exhibit stronger convergence properties and higher statistical power compared to covariance-based SEM approaches (Reinartz et al., 2009; Henseler, 2010). In addition, a review of the strategic management and marketing literature indicates a growing adoption of PLS-SEM due to its robustness, flexibility, and suitability for estimating complex models (Hair et al., 2014; Carrión et al., 2016). The measurement model assesses the

relationships between latent constructs and their observed indicators. In this study, a reflective measurement model was employed to evaluate these relationships. Figures 2 and 3 present the results of the confirmatory factor analysis and the structural model testing of the direct hypotheses, respectively.

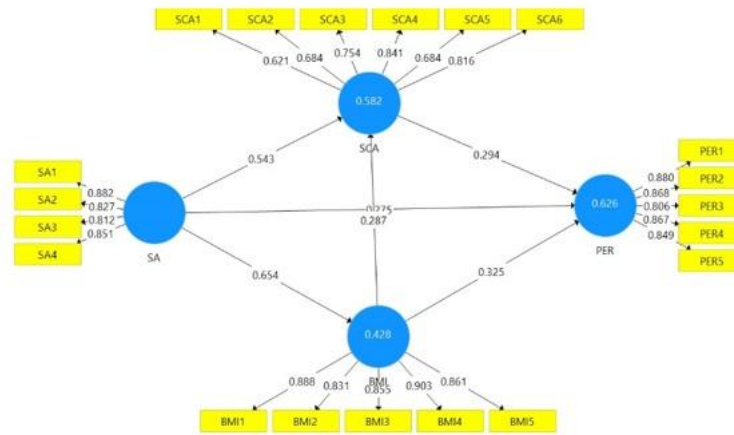


Fig. 2 – Confirmatory Factor Analysis. Source: own research

Initially, the outer loadings of the measurement items were assessed, with a value of 0.5 considered the minimum acceptable threshold. Subsequently, the reliability of the measurement model was evaluated using three key indicators: Cronbach's alpha (CA), composite reliability (CR), and rho_A. For all reliability measures, a minimum value of 0.70 is generally recommended as an acceptable level (Hair et al., 2019; Sarstedt et al., 2017). Convergent validity was further assessed using the average variance extracted (AVE), with a recommended threshold value of 0.50 or higher (Hair et al., 2019; Sarstedt et al., 2017). As presented in table 2, all outer loadings and reliability coefficients exceeded the recommended thresholds. Furthermore, the AVE values for all constructs were above the minimum acceptable level of 0.50. Therefore, the convergent validity and reliability of the measurement model were confirmed.

Tab. 2 – Reliability and convergent validity for the measurement model (n= 202). Source: own research

Latent Variables	Cronbach's Alpha	Rho_A	CR	AVE
Strategic Agility (SA)	0.865	0.870	0.908	0.711
Sustainable Competitive Advantage (SCA)	0.831	0.847	0.876	0.544
Business Model Innovation (BMI)	0.918	0.921	0.938	0.753
Performance (PER)	0.907	0.911	0.931	0.730

Additionally, the Fornell–Larcker criterion was used to assess the discriminant validity of the measurement model, and the results confirmed its adequacy. This approach involves comparing the square root of the average variance extracted (AVE) for each latent construct with the correlations between that construct and all other constructs in the model. A latent construct is expected to explain more variance in its own indicators than it shares with other constructs.

Accordingly, the square root of the AVE for each construct should be greater than its correlations with all other latent constructs (Hair et al., 2014) (see table 3).

Tab. 3 – Fornell–Larcker Criterion (n= 202). Source: own research

Latent Variables	SA	SCA	BMI	PER
SA	0.843			
SCA	0.731	0.737		
BMI	0.654	0.643	0.868	
PER	0.703	0.704	0.694	0.854

Another indicator used to assess discriminant validity is the heterotrait–monotrait (HTMT) ratio of correlations. Henseler et al. (2015) demonstrated the superiority of this method through a Monte Carlo simulation study, showing that HTMT achieves higher specificity and sensitivity rates (ranging from 97% to 99%) compared to the cross-loading criterion (0.00%) and the Fornell–Larcker criterion (20.82%). The HTMT approach involves comparing the computed value against a predefined threshold; discriminant validity is not established if the HTMT value exceeds this threshold. According to Henseler et al. (2015) and Hair et al. (2017), in variance-based structural equation modeling, HTMT values should remain below 0.90 to confirm discriminant validity. Based on the HTMT results, the measurement model demonstrates satisfactory discriminant validity across all constructs (see table 4).

Tab. 4 – Heterotrait–Monotrait Ratio (HTMT). Source: own research

Latent Variables	SA	SCA	BMI	PER
SA	1			
SCA	0.841	1		
BMI	0.729	0.718	1	
PER	0.776	0.785	0.749	1

Although the heterotrait–monotrait (HTMT) ratio between SA and SCA was relatively high (HTMT = 0.841), it remained below the conservative threshold of 0.85 recommended for conceptually related constructs. This relatively strong association is theoretically justifiable, as both constructs reflect a firm’s ability to respond to environmental changes and maintain competitiveness in dynamic markets. Nevertheless, SA and SCA represent distinct theoretical constructs. SA refers to an organizational capability that enables firms to sense environmental changes, adapt strategic orientations, and reconfigure resources, whereas SCA reflects the outcome of these capabilities, manifested in the creation and maintenance of superior value over time. Therefore, despite their conceptual proximity, the HTMT value below the recommended threshold confirms adequate discriminant validity and empirical distinctiveness between the two constructs.

Following the establishment of discriminant validity in the measurement model, the potential presence of common method bias (CMB) was assessed to further ensure the robustness of the empirical findings. First, Harman’s single-factor test was conducted, and the results indicated that a single factor accounted for 37.4% of the total variance, which is below the commonly accepted threshold of 50%. Accordingly, common method bias arising from the data collection procedure is unlikely to be a serious concern in this study (Vieira et al., 2025). However, given the well-documented limitations of Harman’s single-factor test, a full collinearity variance inflation factor (VIF) analysis was also performed as a more robust technique for assessing common method bias in partial least squares structural equation modeling (PLS-SEM) (Hair et

al., 2024). As presented in table 5, all VIF values were below the critical threshold of 3.3, indicating that collinearity-related common method variance is not a significant issue. This finding suggests that common method variance is unlikely to substantially bias the estimated structural relationships among the constructs. In addition to these statistical procedures, several methodological remedies were implemented during data collection to minimize the risk of common method bias. Specifically, respondents completed the questionnaire anonymously via an online platform. Furthermore, participants were informed that their participation was voluntary and that they could withdraw from the study at any time without any consequences. These procedural measures were adopted to reduce response bias and enhance the accuracy and reliability of the data.

Table 5. Assessment of Common Method Bias Based on Full Collinearity VIF Analysis

Measurement Indicators	Outer VIF Values	Measurement Indicators	Outer VIF Values	Measurement Indicators	Outer VIF Values	Measurement Indicators	Outer VIF Values
SA1	2.517	SCA1	1.487	BMI1	2.030	PER1	2.905
SA2	2.014	SCA2	1.705	BMI2	2.416	PER2	2.698
SA3	1.788	SCA3	1.755	BMI3	2.626	PER3	1.992
SA4	2.304	SCA4	2.283	BMI4	1.367	PER4	2.165
-	-	SCA5	1.388	BMI5	2.621	PER5	2.683
-	-	SCA6	2.145	-	-	-	-

The research hypotheses were tested using the partial least squares (PLS) algorithm and bootstrapping procedures at a significance level of 5%.

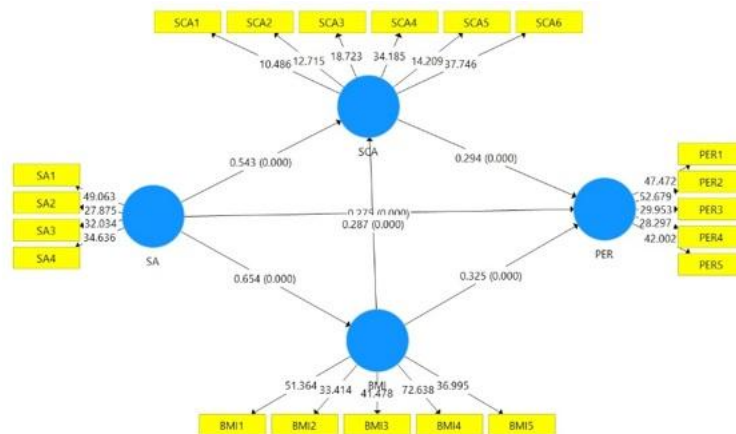


Fig. 3 – Result of direct hypothesis test. Source: own research

According to the findings presented in table 6, the first five hypotheses of the study were all supported at a 95% confidence level.

Tab. 6 – Direct Effects from PLS-SEM Path Analysis. Source: own research

Hypothesis	Path	Path Coefficient	p-Value	Result
H1	SA → PER	0.275	0.000	Supported
H2	SA → SCA	0.543	0.000	Supported
H3	SA → BMI	0.654	0.000	Supported
H4	SCA → PER	0.294	0.000	Supported
H5	BMI → PER	0.325	0.000	Supported

Considering the coefficient of determination (R^2) thresholds of 0.19, 0.33, and 0.67, which represent small, medium, and large predictive accuracy, respectively, the results presented in table 7 indicate that the predictive power of the structural model for the three endogenous variables is satisfactory. Furthermore, in addition to the assessment of the measurement model, the quality of the structural model was evaluated using the cross-validated redundancy index (Q^2), also known as Stone–Geisser’s Q^2 . In general, Q^2 values greater than zero for a specific endogenous construct indicate that the model has acceptable predictive relevance for that construct (Henseler et al., 2009).

Tab. 7 – Summary of Key Results. Source: own research

Latent Variables	R^2	Q^2
Strategic Agility (ST)	-	-
Sustainable Competitive Advantage (SCA)	0.582	0.293
Business model innovation (BMI)	0.428	0.310
Performance(PER)	0.626	0.418

Ultimately, to assess the overall model fit in the present study, two fit indices were employed: the standardized root mean square residual (SRMR), with an acceptable threshold of less than 0.08, and the goodness-of-fit (GOF) index, interpreted using benchmark values of 0.10, 0.25, and 0.36, corresponding to small, medium, and large effect sizes, respectively (Wetzels et al., 2009). The SRMR results indicated a satisfactory model fit. In addition, based on the GOF value, the overall research model demonstrated a strong level of explanatory power and predictive accuracy (table 8).

Table 8. Model Fit Indices. Source: own research

GOF	SRMR
$GOF = \sqrt{AVE \times R^2}$	Estimated Model= 0/074
$GOF = 0.610$	Saturated Model= 0/074
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4.1 Mediated Effects

The mediation effects were examined following the procedures recommended by Hair et al. (2016; 2022). First, the significance of the indirect effects was assessed using the bootstrapping procedure in partial least squares structural equation modeling (PLS-SEM). As reported in table 9, all indirect effects were statistically significant. Specifically, the indirect effect associated with H6 was positive and significant ($\beta = 0.084$, $t = 2.953$, $p = 0.003$, 95% CI = 0.034–0.149). Similarly, the indirect effects for H7 ($\beta = 0.160$, $t = 3.859$, $p < 0.001$, 95% CI = 0.085–0.247) and H8 ($\beta = 0.213$, $t = 4.074$, $p < 0.001$, 95% CI = 0.115–0.317) were also statistically significant. Since none of the bootstrap confidence intervals included zero, the indirect effects were confirmed, providing robust evidence for the existence of mediation. Among the examined relationships, H8 demonstrated the strongest indirect effect, followed by H7 and H6. To further evaluate the magnitude and type of mediation, the variance accounted for (VAF)

index was calculated and compared with the thresholds proposed by Nitzl et al. (2016). The VAF results are presented in table 10. The findings indicate that SCA partially mediates the relationship between BMI and SME performance. Similarly, SCA plays a partial mediating role in the relationship between SA and SME performance. Furthermore, BMI partially mediates the relationship between SA and SME performance. Overall, the results of both the bootstrapped indirect effect analysis and the VAF assessment consistently support the mediating relationships proposed in H6–H8, confirming these hypotheses and demonstrating the presence of partial mediation across all examined paths.

Table 9. Results of Bootstrapped Indirect Effects for Mediation Analysis: own research

Hypothesis	β	STDEV	T Statistics	P Values	CI
H ₆	0.084	0.029	2.953	0.003	0/034-0/149
H ₇	0.160	0.041	3.859	0.000	0.085-0.247
H ₈	0.213	0.052	4.074	0.000	0.115-0.317

Table 10. Variance Accounted For (VAF) Results and Mediation Classification: own research

Hypothesis	Path	Value	VAF	Result
H ₆	$VAF = (a \times b) / (a \times b + c')$	a=0/287 b=0/294 c'=0/325	0.206	Partial mediation
H ₇	$VAF = (a \times b) / (a \times b + c')$	a=0/543 b=0/294 c'=0/275	0.367	Partial mediation
H ₈	$VAF = (a \times b) / (a \times b + c')$	a=0/654 b=0/325 c'=0/275	0.435	Partial mediation

5 Discussion and Implications:

5.1 Discussion

The primary objective of this study was to investigate the influence of SA on the performance of SMEs operating in Isfahan Province, Iran, and to examine the mediating roles of SCA and BMI. By focusing on a specific regional context within an emerging economy, this study provides context-sensitive insights into the strategic mechanisms that enhance SME competitiveness and performance. Although the findings should be interpreted within the context of SMEs operating in Isfahan Province and may not be fully generalizable to all SMEs across Iran, they provide valuable empirical evidence regarding the role of SA, SCA, and BMI in improving SME performance and offer a foundation for future comparative studies across different regions and institutional contexts. Grounded primarily in DCT and complemented by the RBV and entrepreneurial innovation theory, the findings demonstrate that SMEs can enhance their competitiveness and organizational performance by developing the capability to sense environmental changes, seize emerging opportunities, and continuously renew their resources and business models. SA has become increasingly important for SMEs operating in contemporary business environments characterized by market uncertainty, intensifying competition, rapid technological transformation, and resource limitations. Unlike large organizations, SMEs often lack extensive financial, technological, and managerial resources; therefore, their ability to respond rapidly and strategically to environmental changes becomes a critical determinant of survival, growth, and long-term success. From the perspective of DCT

(Teece et al., 1997; Teece, 2007), SA represents a higher-order organizational capability that enables firms to sense external changes, seize emerging opportunities, and reconfigure internal resources and competencies to maintain competitiveness in dynamic markets.

The results indicate that SA has a positive and significant effect on SME performance ($\beta = 0.275$, $p < 0.001$). This finding is consistent with previous studies suggesting that agile firms achieve superior outcomes by responding more effectively to market changes, identifying emerging opportunities, and adjusting strategic actions more rapidly than less agile competitors (Appelbaum et al., 2017; Al Shawabkeh, 2024; Alokshet al., 2025). The finding also supports the central assumption of DCT, which argues that firms capable of sensing environmental changes, capturing opportunities, and reconfiguring resources are better positioned to improve performance in dynamic environments. The importance of SA is particularly evident for SMEs operating in emerging markets, where business environments are often characterized by uncertainty, institutional instability, changing customer expectations, and intense competitive pressures. Under such conditions, SA enables firms to overcome resource limitations by improving responsiveness, facilitating opportunity recognition, and enhancing strategic decision-making processes. These capabilities allow SMEs to adapt more effectively to environmental changes and sustain their competitive position despite limited resources. Although some previous studies have suggested that agility does not always lead to improved organizational outcomes, arguing that excessive flexibility may increase coordination complexity and operational inefficiencies (Ojha, 2008), the findings of this study indicate that the benefits of SA outweigh its potential costs in the context of emerging-market SMEs. This difference may be explained by variations in environmental conditions and organizational contexts. In relatively stable environments, excessive adaptation may create unnecessary adjustment costs; however, in turbulent and rapidly changing environments, the ability to rapidly reconfigure strategies, resources, and processes becomes a critical organizational capability. Therefore, the value of SA depends not only on the existence of this capability but also on the environmental conditions in which firms operate. In highly dynamic markets, SA enables SMEs to transform uncertainty into strategic opportunities and develop more sustainable pathways for improving performance.

The second hypothesis revealed that SA has a positive and significant effect on SCA ($\beta = 0.543$, $p < 0.001$). This finding highlights the role of SA as a critical strategic capability through which SMEs develop competitive advantages that are difficult for competitors to replicate. Consistent with DCT, sustainable competitiveness is not achieved merely through the possession of valuable resources; rather, firms must continuously renew, integrate, and reconfigure their resources and capabilities in response to changing environmental conditions. Agile SMEs are better positioned to identify market trends, adjust their strategic orientations, and allocate resources effectively, thereby enabling them to create superior value for customers and strengthen their competitive positions. This result is also consistent with previous studies emphasizing that agility enhances competitiveness by improving organizational flexibility, responsiveness, and speed of strategic adaptation (Weber & Tarba, 2014; Al Shawabkeh, 2024; Paulino et al., 2025). In emerging markets, SA enables SMEs to manage uncertainty and

resource constraints by strengthening their capacity to adapt proactively, exploit emerging opportunities, and respond effectively to environmental changes. Therefore, these findings extend prior literature by demonstrating that SA functions not merely as an operational capability but as a higher-order strategic capability that facilitates the development and maintenance of sustainable competitive advantage.

The findings further demonstrate that SA has a positive and significant effect on BMI ($\beta = 0.654$, $p < 0.001$). This relationship suggests that agile SMEs possess a greater capacity to redesign their approaches to value creation, value delivery, and value capture. Business model innovation requires firms to challenge existing assumptions, identify emerging opportunities, and reconfigure business activities and processes. This process is closely aligned with the logic of entrepreneurial innovation, which emphasizes opportunity recognition, strategic creativity, and proactive responses to market changes. The finding supports previous studies indicating that SA provides the organizational conditions necessary for successful BMI (Doz & Kosonen, 2010; Djaja & Arief, 2015; Clauss et al., 2021). Specifically, SA enhances strategic sensitivity, leadership adaptability, and resource flexibility, enabling firms to modify and renew their business models in response to evolving customer needs, technological developments, and competitive dynamics. In emerging markets, this capability becomes particularly valuable because SMEs often need to adapt their business models to underserved markets, institutional constraints, and rapidly changing customer expectations. Therefore, SA functions as a key enabler of BMI by facilitating continuous adaptation, organizational renewal, and the strategic transformation of value creation mechanisms.

The fourth hypothesis revealed that SCA has a positive and significant effect on SME performance ($\beta = 0.294$, $p < 0.001$). This finding supports the RBV (Barney, 1991), which suggests that firms achieve superior performance when they develop valuable, rare, and difficult-to-imitate resources and capabilities. From this perspective, SCA enables SMEs to create superior customer value, strengthen their market position, and improve organizational outcomes. However, this finding also highlights the contextual nature of the relationship between competitive advantage and performance. Previous studies, such as Grahovac and Miller (2009) and Kaleka and Morgan (2017), have argued that competitive advantage does not always automatically translate into superior performance because firms may differ in their ability to capture, appropriate, and convert the value generated from strategic advantages. Such differences may be attributed to variations in institutional environments, resource availability, managerial capabilities, and competitive conditions. In emerging-market contexts, SMEs often operate under resource constraints and institutional limitations; therefore, SCA may have a stronger performance impact by enabling firms to overcome environmental challenges, enhance resilience, and maintain competitiveness. Thus, although competitive advantage does not universally guarantee superior outcomes, its contribution becomes more significant when firms possess the capabilities required to transform strategic advantages into value creation and performance improvements.

The findings further indicate that BMI has a positive and significant effect on SME performance ($\beta = 0.325$, $p < 0.001$). This finding supports the perspective that innovation extends beyond

products and technologies to include the transformation of how firms create, deliver, and capture value (Chesbrough, 2010; Salfore et al., 2023). Innovative business models enable SMEs to respond more effectively to changing customer needs, identify new market opportunities, and differentiate themselves from competitors. However, this finding differs from the results reported by Latifi et al. (2021), who found that BMI does not necessarily have a direct effect on SME performance, and that its benefits are primarily realized through organizational capabilities and efficiency improvements. This difference may be explained by variations in contextual conditions and the characteristics of SMEs operating in emerging markets. In such environments, SMEs frequently face intense competitive pressures, high uncertainty, and rapidly evolving customer expectations. Consequently, BMI may generate more immediate performance benefits by enabling firms to access new markets, address unmet customer needs, and overcome institutional constraints. Accordingly, the performance implications of BMI depend largely on environmental conditions and the strategic capabilities that support the successful implementation of innovation initiatives.

Finally, the mediation findings provide deeper insights into the mechanisms through which SA creates organizational value. The results indicate that, in addition to its direct positive effect on SME performance, SA also enhances performance indirectly through SCA and BMI. These findings suggest that although SA can directly improve organizational outcomes by strengthening responsiveness, strategic decision-making, and adaptability, its broader strategic value emerges when firms effectively transform this capability into sustainable competitive positions and innovative mechanisms for value creation. In other words, SA functions as an enabling capability that facilitates the development of competitive advantages and the renewal of business models, thereby contributing to superior SME performance.

5.2 Theoretical Implications

This study contributes to the strategic management literature in several ways. First, it extends DCT by demonstrating that SA functions as a critical capability that enables SMEs to effectively respond to environmental turbulence and enhance organizational performance. While previous studies have reported inconsistent findings regarding the outcomes of agility, this study highlights that the effectiveness of SA is highly contingent on the environmental conditions in which firms operate. Particularly in emerging markets characterized by uncertainty, rapid change, and resource constraints, SA becomes an essential capability for organizational survival and growth. Second, this study extends the RBV by demonstrating that SCA does not arise solely from the possession of valuable resources, but also from firms' ability to continuously renew, integrate, and reconfigure those resources in response to environmental changes. The findings indicate that SA facilitates the development of valuable and difficult-to-imitate capabilities, which subsequently enhance competitiveness and organizational performance. Thus, this study bridges RBV and DCT by emphasizing the strategic importance of transforming and leveraging resources rather than merely accumulating them. Third, the findings contribute to entrepreneurial innovation theory by identifying SA as an important antecedent of BMI. While prior research has primarily focused on the outcomes of BMI, limited attention has been given to the organizational capabilities that enable firms to innovate their

business models. This study demonstrates that SA facilitates opportunity recognition, experimentation, strategic flexibility, and the continuous redesign of value creation mechanisms. Fourth, this study contributes to resolving inconsistencies in previous research regarding the relationships among agility, competitive advantage, innovation, and organizational performance. The findings suggest that contextual conditions provide an important explanation for divergent empirical results. Relationships identified in developed economies may not always be generalizable to emerging markets, as institutional conditions, resource availability, competitive intensity, and market dynamism influence the effectiveness of strategic capabilities. Fifth, this study extends the limited empirical evidence on SA among SMEs operating in emerging markets. A substantial proportion of prior research has focused on large organizations or developed economies; therefore, this study provides further insights into how SMEs achieve superior performance through dynamic capabilities, competitive advantage development, and innovative business models. The findings suggest that SME managers should invest in developing SA-related capabilities, foster innovation-oriented thinking, strengthen market-sensing capabilities, and build organizational flexibility to respond effectively to environmental changes.

5.3 Practical Implications

The intensity of the competitive environment and severe environmental changes have increased the need for responsiveness and adaptability of SMEs more than ever before. The most obvious feature of the business environment in today's era is the presence of rapid changes and environmental turbulence. Meanwhile, in order for SMEs to be capable of adapting to the current condition, it is necessary to have innovation and flexibility because they are the best approaches to adapt to changes in a constantly changing environment, and these two component lies in the SA approach. According to the findings of the study, it is suggested to managers and policymakers of SMEs, especially in emerging markets with a dynamic and uncertain environment, to discover new forms of value creation, attraction, and configuration of resources guided by agile strategies. In order to create an agile advantage, a balanced combination of dynamic and sustainable advantages should be created in SMEs. Dynamic advantages help SMEs to respond quickly to environmental opportunities and challenges. They have the advantage of stability and increases the effectiveness and efficiency of components of SMEs that do not need to be changed continuously. On the other hand, in emerging markets, BMI constitutes a critical determinant of growth and success for SMEs. Therefore, these enterprises must pay significant attention to the foundational elements and prerequisites for achieving effective BMI. Changeability emerges as a pivotal concern in this context; hence, SMEs should first create an enabling environment that encourages organizational members engaged in innovative initiatives by proactively managing change. Subsequently, managers and policymakers are required to strategically allocate organizational resources to facilitate the implementation of novel ideas, while internal processes must be realigned to support and integrate these innovations. Through the effective exploitation of resources via BMI, SMEs can attain SCA and consequently realize superior performance, thereby adapting in harmony with the dynamic forces shaping the business environment.

5.4 Limitations and suggestions for future studies

While extending prior studies, the results of this study contribute to the existing literature on SA, BMI, and SME performance by highlighting the mediating role of SCA in enhancing firm performance. Nevertheless, this study has several limitations. First, the data was collected at a single point in time using a cross-sectional design, which limits causal inference and generalizability. Therefore, future research is encouraged to adopt longitudinal designs to better capture dynamic changes over time. In addition, a case study approach may provide deeper qualitative insights into SA and BMI in SMEs. Second, the empirical context of this study is limited to SMEs operating in Isfahan Province, Iran, during a period of economic instability associated with the COVID-19 pandemic. Accordingly, caution should be exercised in generalizing the findings to other contexts. Future research should examine the proposed model across different industries and geographical regions to enhance external validity. Third, comparative studies across multiple sectors are recommended to test the robustness of the proposed relationships. Finally, based on the literature, SCA may be strengthened or weakened in uncertain and rapidly changing environments. Therefore, future studies could incorporate perceived environmental dynamism as a moderating variable to further refine the model and improve explanatory power.

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