

THE INFLUENCE OF STRATEGIC ALIGNMENT ON INNOVATION CAPABILITY IN CHINESE MICRO-ENTERPRISES: THE MEDIATING ROLE OF ORGANIZATIONAL RESILIENCE AND THE MODERATING EFFECT OF COMPETITIVE INTENSITY

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Abstract: This study examines the impact of strategic alignment on the innovation capability of Chinese micro-enterprises, emphasizing the mediating role of organizational resilience and the moderating effect of competitive intensity. A structured conceptual framework was developed, incorporating key variables such as strategic alignment, innovation capability, organizational resilience, and competitive intensity. Using a quantitative research approach, 500 questionnaires were distributed, with a response rate of 95.2%. Empirical analysis confirms that strategic alignment positively influences innovation capability, with organizational resilience playing a significant mediating role. However, competitive intensity does not significantly moderate this relationship. The findings highlight that micro-enterprises can enhance their innovation capability through effective strategic alignment and resilience-building measures. This study provides valuable insights for business managers and policymakers, suggesting that fostering adaptability and strategic coherence is crucial for sustaining innovation in competitive environments.

Keywords: Strategic Alignment, Innovation Capability, Organizational Resilience, Competitive Intensity

Introduction

In today's rapidly evolving business environment, innovation capability plays a pivotal role in determining an enterprise's long-term sustainability, market competitiveness, and adaptability to changing consumer demands. Innovation enables businesses to develop new products, improve operational efficiency, and create value in increasingly competitive markets. However, fostering innovation is not solely dependent on creativity or technological advancements; it also requires strategic alignment—a concept that refers to the effective synchronization of a firm's business strategy, resources, and external market conditions (Venkatraman, 1989). When businesses align their internal capabilities with external opportunities and challenges, they can better position themselves to drive

sustainable innovation and growth.

For micro-enterprises, which typically operate with limited financial capital, restricted access to technology, and constrained human resources, strategic alignment is even more critical. These businesses often struggle to compete with larger firms due to financial constraints, heightened market uncertainty, and intense industry competition. As a result, understanding how strategic alignment can enhance innovation capability becomes essential for ensuring their long-term viability (OECD, 2019). By identifying mechanisms through which micro-enterprises can leverage their resources more effectively and align their business strategies with emerging market trends, this study aims to provide insights into fostering innovation even in resource-scarce environments. Examining the role of strategic alignment in driving innovation can help micro-enterprises navigate challenges, remain competitive, and build resilience in uncertain economic conditions.

Organizational resilience, defined as a firm's capacity to adapt, recover, and thrive in the face of external disruptions, has emerged as a critical factor in sustaining long-term innovation. In an increasingly uncertain business environment, resilient organizations are better equipped to maintain operational stability while embracing change, enabling them to sustain innovation efforts even during periods of economic downturn or market volatility (Lengnick-Hall, Beck, & Lengnick-Hall, 2011). By fostering resilience, firms can continuously adapt their strategies, invest in new opportunities, and mitigate the risks associated with innovation, ensuring long-term competitiveness.

Additionally, competitive intensity—the level of rivalry within an industry—plays a significant role in shaping business strategies and resource allocation. High competition often forces firms to prioritize innovation as a means of differentiation, driving them to develop unique products, enhance efficiency, and adopt new technologies (Porter, 2021). However, excessive competition may also create resource constraints, forcing firms to focus on short-term survival rather than long-term innovation investments.

Despite the growing body of research in strategic management, the interaction between strategic alignment, innovation capability, organizational resilience, and competitive intensity remains an underexplored area, particularly in the context of Chinese micro-enterprises. These businesses operate in a dynamic and highly competitive market environment, where balancing innovation with resource limitations and industry pressures is crucial. Understanding how strategic alignment influences innovation capability while accounting for resilience and competition can provide valuable insights into how micro-enterprises in China can sustain growth, enhance adaptability, and build a competitive edge in the face of market uncertainties.

This study seeks to bridge the existing research gap by investigating how strategic alignment influences the innovation capability of micro-enterprises, particularly in dynamic and resource-constrained environments. Strategic alignment, which ensures that a firm's internal capabilities are in sync with external market conditions, is essential for fostering sustainable innovation. However, the

mechanisms through which strategic alignment enhances innovation capability remain insufficiently explored, especially in the context of micro-enterprises facing intense competition and financial limitations.

To provide a deeper understanding, this study examines the mediating role of organizational resilience—the ability of firms to adapt, recover, and maintain stability in the face of external disruptions. Organizational resilience is expected to strengthen the relationship between strategic alignment and innovation capability by enabling firms to navigate challenges while sustaining their innovation efforts. Additionally, this study considers competitive intensity as a moderating factor, analyzing how varying levels of market competition influence the effectiveness of strategic alignment in driving innovation.

By exploring these relationships, the findings of this research are expected to make both theoretical and practical contributions to the field of business management. The study will enhance academic understanding of how strategic alignment interacts with resilience and competition to shape innovation outcomes, while also providing actionable insights for micro-enterprises seeking to improve their strategic decision-making, adaptability, and long-term growth in competitive markets.

The concept of strategic alignment has its roots in strategic management literature and has undergone significant evolution over the past few decades. Initially introduced as a framework for understanding how businesses coordinate their internal and external strategies, strategic alignment has become a fundamental principle in achieving organizational success. Venkatraman (1989) defined strategic alignment as the extent to which an organization integrates its business strategies with its functional strategies to create coherence in decision-making and execution. This alignment ensures that a firm's goals, resources, and operational activities work in harmony to enhance overall efficiency and competitiveness.

The concept of strategic alignment is closely linked to the Resource-Based View (RBV) of the firm (Barney, 1991), which emphasizes that organizations achieve sustainable competitive advantages by effectively leveraging their internal resources, including human capital, technological capabilities, and organizational processes. From this perspective, strategic alignment allows firms to optimize their resource allocation, ensuring that they are directed toward areas that maximize performance and innovation. Wang et al. (2023) argue that firms with strong strategic alignment are better equipped to enhance productivity, respond to market changes, and maintain long-term sustainability. As businesses operate in increasingly complex and uncertain environments, the ability to align strategies with internal strengths and external opportunities is critical for maintaining competitive positioning and driving long-term success.

The Dynamic Capabilities Theory (Teece, Pisano, & Shuen, 1997) builds upon the concept of strategic alignment by emphasizing the importance of continuous adaptation in response to changing market conditions. This theory posits that firms must develop, integrate, and reconfigure their internal

and external competencies to sustain innovation and maintain a competitive edge. In an era of rapid technological advancements and shifting consumer demands, businesses that fail to align their strategies with evolving market conditions risk obsolescence. Strategic alignment, therefore, serves as a crucial mechanism for organizations to respond proactively to these changes, enabling them to refine their business models, optimize resource utilization, and seize emerging opportunities (Helfat & Raubitschek, 2021).

Recent research has further extended the discussion on strategic alignment by integrating it with digital transformation. The rise of digital technologies has reshaped business operations, making it essential for firms to align their technological capabilities with their broader strategic and innovation goals. Mikalef, Pappas, Krogstie, and Giannakos (2020) argue that firms leveraging digital transformation effectively can enhance strategic alignment by streamlining processes, improving decision-making, and fostering a culture of continuous innovation. By utilizing data analytics, artificial intelligence, and automation, businesses can ensure that their operational strategies are not only aligned with current market trends but also positioned for future disruptions. This intersection of strategic alignment, dynamic capabilities, and digital transformation highlights the evolving nature of business competitiveness in an increasingly digital and globalized economy.

For micro-enterprises, strategic alignment is especially critical due to their inherent resource constraints. Unlike large corporations that have the financial flexibility to invest in multiple initiatives simultaneously, micro-enterprises must carefully allocate their limited financial, technological, and human resources to maximize their innovation potential (Chen, Li, & Tang, 2020). Without proper strategic alignment, these small businesses risk misallocating resources, leading to inefficiencies, missed opportunities, and an inability to sustain long-term competitiveness.

Strategic alignment enables micro-enterprises to streamline decision-making processes, ensuring that their business strategies are in sync with their operational capabilities and market demands. By aligning their innovation efforts with their available resources, these businesses can focus on high-impact initiatives that drive growth without overextending themselves financially. Additionally, effective strategic alignment fosters better collaboration among different functional areas, ensuring that departments—such as marketing, operations, and product development—work cohesively toward shared innovation goals.

Another key advantage of strategic alignment for micro-enterprises is the ability to leverage technology more efficiently. By integrating digital tools such as cloud computing, e-commerce platforms, and data analytics, micro-enterprises can enhance their productivity and scale their innovations without the need for substantial capital investment. This alignment between business strategy and technology adoption allows micro-enterprises to compete more effectively in dynamic markets, driving sustainable innovation and long-term success.

Innovation capability is a critical factor that determines a firm's ability to create, develop, and

implement new products, services, or business processes to enhance its competitiveness and long-term sustainability (OECD, 2019). It reflects an organization's capacity to adapt to changing market conditions, integrate new technologies, and continuously improve its offerings to meet evolving customer needs. Firms with strong innovation capability can not only respond to industry disruptions but also proactively shape market trends, gaining a significant advantage over competitors.

The concept of innovation as a driver of economic growth was first introduced by Schumpeter (1934), who emphasized the role of entrepreneurial activity in fostering new ideas, technologies, and business practices. According to Schumpeter, firms must engage in continuous innovation to sustain market leadership, as stagnation can lead to competitive decline. Building on this foundation, subsequent research has categorized innovation into three main types: product innovation, process innovation, and business model innovation.

Product innovation involves the creation of new or improved goods and services that offer greater value to consumers. Process innovation focuses on enhancing operational efficiency by adopting advanced production methods, automation, or cost-effective supply chain management techniques. Business model innovation, on the other hand, entails reconfiguring the way a firm delivers value to customers, such as through new revenue models, digital transformation, or innovative customer engagement strategies (Tidd & Bessant, 2021). Collectively, these forms of innovation contribute to a firm's competitive advantage, enabling it to differentiate itself, increase efficiency, and sustain long-term growth in an increasingly complex business environment.

For micro-enterprises, innovation capability is often limited by several factors, including financial constraints, lack of technical expertise, and restricted market access (García-Sánchez, Gallego-Álvarez, & Zafra-Gómez, 2021). Unlike larger firms that can allocate substantial budgets toward research and development, micro-enterprises must operate with fewer resources, making it difficult to invest in advanced technologies, hire specialized talent, or expand into new markets. Additionally, these small businesses often struggle with limited access to funding, making it challenging to sustain long-term innovation efforts.

However, strategic alignment can help micro-enterprises overcome these constraints by ensuring that they focus their efforts on high-impact innovation areas that provide the most value for their limited resources. When business strategies are aligned with market demands, firms can prioritize innovations that directly address customer needs, maximize efficiency, and create competitive differentiation (Bustinza, Gomes, Vendrell-Herrero, & Baines, 2019). By leveraging strategic alignment, micro-enterprises can enhance their adaptability and improve decision-making processes, ensuring that innovation initiatives are both financially sustainable and market-driven.

Furthermore, strategic alignment allows micro-enterprises to optimize resource utilization by identifying synergies between existing capabilities and emerging opportunities. For example, firms that align their innovation strategies with digital transformation trends can leverage cost-effective

technologies such as cloud computing, automation, and e-commerce to enhance their competitiveness without requiring significant capital investment (Tsai & Liao, 2021). This approach not only helps micro-enterprises remain agile in dynamic markets but also enables them to scale their innovations in a sustainable and strategic manner.

Organizational learning is another key component of innovation capability. Firms that encourage knowledge sharing and collaboration tend to develop stronger innovation capabilities (Nonaka & Takeuchi, 1995). Research indicates that firms with a culture of continuous learning and adaptation are more likely to succeed in competitive markets (Hadjielias, Christofi, & Tarba, 2022). In this context, strategic alignment fosters an environment where employees and management work cohesively to drive innovation.

Organizational resilience is a critical factor that enables firms to navigate external disruptions, maintain stability, and continue pursuing long-term strategic objectives. It refers to an organization's ability to anticipate potential risks, prepare for challenges, and adapt to unforeseen circumstances while sustaining operational efficiency and business continuity (Lengnick-Hall et al., 2011). Resilient firms are not only able to withstand crises but can also turn challenges into opportunities by rapidly adjusting their strategies, reconfiguring their resources, and embracing innovative solutions.

In an increasingly volatile business environment, where economic uncertainties, technological disruptions, and shifting consumer demands pose constant challenges, resilience plays a crucial role in sustaining innovation. Firms that possess strong resilience mechanisms can quickly realign their business models, integrate new technologies, and explore alternative revenue streams to maintain their competitive edge (Duchek, 2020). For example, during economic downturns or industry disruptions, resilient companies are more likely to continue investing in research and development, adapting their product offerings, and leveraging digital transformation to sustain growth.

Moreover, resilience fosters a proactive mindset within organizations, encouraging leaders and employees to embrace change, learn from failures, and continuously refine their strategies. By embedding resilience into their corporate culture, firms can create an adaptive environment where innovation is not seen as a risk but as a necessity for survival and success. In this way, organizational resilience serves as a key enabler of sustained innovation, allowing firms to thrive even in the face of uncertainty.

The Dynamic Capabilities Theory (Teece, 2020) posits that an enterprise's ability to continuously adapt, reconfigure resources, and respond to changing environments is essential for sustaining a competitive advantage. Within this framework, resilience is a critical component, as it enables firms to navigate disruptions, mitigate risks, and maintain strategic focus even in volatile market conditions. Organizations with a high level of resilience are better equipped to allocate resources efficiently, ensuring that financial and operational constraints do not hinder their ability to innovate and grow. By effectively managing disruptions—whether they stem from economic downturns,

technological shifts, or supply chain disruptions—resilient firms can sustain innovation efforts and remain competitive in their respective industries (Hosseini, Ivanov, & Dolgui, 2019).

Furthermore, research has demonstrated that organizational resilience plays a significant role in enhancing a firm's ability to leverage strategic alignment effectively. Williams, Gruber, Sutcliffe, Shepherd, and Zhao (2021) suggest that resilient organizations can better synchronize their business strategies with external market dynamics, allowing them to respond proactively to industry changes while maintaining operational stability. This alignment ensures that firms not only adapt to challenges but also seize new opportunities for innovation and expansion. By fostering a resilient corporate culture, businesses can develop the agility required to realign strategies, optimize resource management, and continuously innovate, even under uncertain conditions. As a result, resilience serves as both a protective mechanism against external shocks and a strategic enabler that strengthens long-term innovation and competitiveness.

Micro-enterprises, due to their smaller scale, limited financial reserves, and constrained access to advanced technologies, are particularly vulnerable to market fluctuations and economic uncertainties. Unlike larger corporations that have diversified revenue streams and strong financial buffers, micro-enterprises often operate with minimal margins, making them more susceptible to disruptions such as sudden changes in consumer demand, supply chain constraints, and regulatory shifts. However, by strengthening their resilience, these businesses can improve their ability to withstand external shocks and sustain long-term operations (Chowdhury, Prayag, Orchiston, & Spector, 2020). Resilience enables micro-enterprises to remain flexible, adapt their strategies in response to changing market conditions, and identify opportunities even in times of uncertainty.

A fundamental aspect of resilience-building is the continuous reassessment and updating of business strategies to align with environmental changes. This involves proactive decision-making, resource reallocation, and leveraging external networks for support. Firms that regularly evaluate their market position and adjust their approaches accordingly are better equipped to survive disruptions and maintain innovation efforts (Conz & Magnani, 2020).

This study hypothesizes that organizational resilience serves as a mediating factor in the relationship between strategic alignment and innovation capability. In other words, firms that successfully align their strategies with external conditions but lack resilience may struggle to translate this alignment into sustained innovation. However, resilient firms can remain innovative despite external shocks by adapting their strategies, securing alternative resources, and maintaining a forward-thinking mindset. By investigating this relationship, the study aims to provide valuable insights into how micro-enterprises can enhance their innovation capability and long-term sustainability in an increasingly volatile business landscape.

Competitive intensity, defined as the degree of rivalry among firms within an industry, influences how businesses allocate resources and prioritize innovation efforts (Porter, 2021). Research

suggests that in highly competitive markets, firms must innovate aggressively to maintain market share (Schilling & Shankar, 2019). However, excessive competition can also create financial pressure, limiting firms' ability to invest in innovation (Gnyawali & Park, 2019).

For micro-enterprises, competitive intensity presents both opportunities and challenges. In industries with high competition, firms may need to adopt more aggressive innovation strategies to differentiate themselves (Wu, Chang, & Lin, 2021). Conversely, in less competitive industries, firms may focus on incremental innovation and gradual market expansion (Zhou, Zhang, & Song, 2022).

Existing literature has provided mixed findings regarding the moderating effect of competitive intensity on innovation (Tsai & Liao, 2021). Some studies suggest that competition fosters innovation by pushing firms to enhance product differentiation, while others indicate that extreme competition can stifle innovation due to resource constraints (Huang, Chen, & Kraus, 2021). Given these conflicting perspectives, this study seeks to clarify the role of competitive intensity in shaping the relationship between strategic alignment and innovation capability.

This study aims to bridge the gap in research on strategic alignment, innovation capability, organizational resilience, and competitive intensity in the context of Chinese micro-enterprises. Existing theories suggest that strategic alignment enhances innovation by optimizing resource utilization and market adaptability (Teece, 2020). Organizational resilience acts as a mediator, enabling firms to sustain innovation despite external uncertainties (Duchek, 2020). Meanwhile, competitive intensity may either amplify or weaken the impact of strategic alignment on innovation, depending on market conditions (Porter, 2021).

The findings of this study will contribute to both theoretical and practical knowledge in business management by providing insights into how micro-enterprises can strategically position themselves for innovation. The results will also inform policymakers and business managers on effective strategies for fostering innovation and resilience in competitive markets.

Research Objective (s)

1. To investigate the direct effect of strategic alignment on the innovation capability of Chinese micro-enterprises.
2. To evaluate the mediating role of organizational resilience in the relationship between strategic alignment and innovation capability.
3. To analyze the moderating effect of competitive intensity on the relationship between strategic alignment and innovation capability.
4. To examine the interactions between strategic alignment, organizational resilience, and competitive intensity in predicting innovation capability.
5. To identify and assess the impact of contextual factors (e.g., firm size, industry type, geographic location, and years of operation) on the core relationships among strategic alignment,

organizational resilience, competitive intensity, and innovation capability.

Literature Review

The dynamic business environment has increased the importance of strategic alignment in fostering innovation within enterprises. Strategic alignment ensures that business strategies, organizational structures, and resources are coordinated to optimize innovation capabilities (Venkatraman, 1989). This review synthesizes existing literature on strategic alignment, innovation capability, organizational resilience, and competitive intensity, with a focus on micro-enterprises. While previous studies have examined these concepts independently, the interaction between these variables remains underexplored, particularly in the context of Chinese micro-enterprises (OECD, 2019).

This section reviews the theoretical foundations and empirical findings on strategic alignment, innovation capability, organizational resilience, and competitive intensity. The discussion builds on theories such as the Resource-Based View (RBV), Dynamic Capabilities Theory, and Competitive Strategy Theory to highlight the importance of these variables in business management.

Strategic alignment is a widely recognized concept in business management, defined as the congruence between an organization's strategy and its operational processes (Venkatraman, 1989). Early studies emphasized its role in optimizing internal structures to enhance efficiency and market competitiveness (Miles & Snow, 1978). Porter (1980) further incorporated strategic alignment into Competitive Strategy Theory, arguing that businesses must align their strategies with external market conditions to maintain a competitive advantage.

In recent years, the focus has shifted towards dynamic strategic alignment, which enables firms to continuously adapt to changing environments (Teece, Pisano, & Shuen, 1997). Dynamic Capabilities Theory suggests that strategic alignment is a critical factor in ensuring long-term success by enhancing a firm's ability to sense and seize market opportunities (Helfat & Peteraf, 2015). This perspective is particularly relevant for micro-enterprises, which must optimize resource allocation and adjust strategies swiftly to remain competitive (Chen, Li, & Tang, 2020).

Recent studies also highlight the role of strategic alignment in digital transformation. Firms that effectively align technology with business objectives can improve innovation and competitiveness (Mikalef, Pappas, Krogstie, & Giannakos, 2020). For micro-enterprises, leveraging digital tools and aligning them with business goals can enhance flexibility and innovation capacity (Wu, Chang, & Lin, 2021).

Innovation capability is defined as a firm's ability to develop and implement new products, services, or business processes to sustain competitiveness (OECD, 2019). Schumpeter (1934) identified innovation as the driving force behind economic development, arguing that firms must continuously innovate to maintain market leadership. More recent studies categorize innovation into three main types: product innovation, process innovation, and business model innovation (Tidd & Bessant, 2021).

For micro-enterprises, innovation is critical for overcoming resource limitations and gaining market differentiation. However, they often face challenges such as financial constraints, lack of skilled labor, and technological barriers (García-Sánchez, Gallego-Álvarez, & Zafra-Gómez, 2021). Strategic alignment can help address these challenges by ensuring that firms focus their resources on high-impact innovation areas (Bustinza, Gomes, Vendrell-Herrero, & Baines, 2019).

Organizational learning has also been identified as a key determinant of innovation capability. Firms that foster a culture of continuous learning and knowledge-sharing tend to develop stronger innovation capabilities (Nonaka & Takeuchi, 1995). This is particularly relevant for micro-enterprises, as they rely on employee creativity and cross-functional collaboration to drive innovation (Hadjielias, Christofi, & Tarba, 2022).

Organizational resilience refers to a firm's ability to anticipate, adapt, and recover from external shocks while maintaining operational stability (Lengnick-Hall, Beck, & Lengnick-Hall, 2011). Resilience enables firms to navigate uncertain environments and sustain innovation activities (Duchek, 2020).

The Dynamic Capabilities Theory suggests that firms with high resilience are better equipped to adjust strategies and allocate resources effectively (Teece, 2020). Resilient firms can maintain innovation momentum even in times of crisis by reallocating resources and exploring new market opportunities (Hosseini, Ivanov, & Dolgui, 2019). Research also shows that resilience enhances firms' ability to leverage strategic alignment for innovation (Williams, Gruber, Sutcliffe, Shepherd, & Zhao, 2021).

Micro-enterprises, due to their size and resource limitations, are more vulnerable to market disruptions. However, by enhancing resilience, they can sustain long-term growth and competitive advantage (Chowdhury, Prayag, Orchiston, & Spector, 2020). Resilience-building strategies include improving supply chain flexibility, fostering an adaptive organizational culture, and enhancing crisis management capabilities (Conz & Magnani, 2020).

This study proposes that organizational resilience mediates the relationship between strategic alignment and innovation capability, allowing firms to maintain innovation efforts despite external challenges.

Competitive intensity is defined as the degree of rivalry among firms within an industry. High competitive intensity often forces firms to innovate to maintain market share (Porter, 2021). However, excessive competition can also create financial pressures that limit firms' ability to invest in innovation (Gnyawali & Park, 2019).

Research suggests that competitive intensity influences how businesses allocate resources for innovation. In highly competitive industries, firms must adopt aggressive innovation strategies to stay relevant (Schilling & Shankar, 2019). Conversely, in industries with lower competition, firms may focus on incremental innovation and cost-efficiency (Zhou, Zhang, & Song, 2022).

For micro-enterprises, the impact of competitive intensity is particularly complex. Some studies indicate that high competition fosters innovation by pushing firms to differentiate themselves (Tsai & Liao, 2021). Others argue that extreme competition can stifle innovation due to resource constraints and pricing pressures (Huang, Chen, & Kraus, 2021).

This study aims to clarify the moderating effect of competitive intensity on the relationship between strategic alignment and innovation capability. Understanding this relationship can help micro-enterprises develop effective strategies to balance competition and innovation investment.

This literature review highlights the critical role of strategic alignment in fostering innovation capability, particularly in micro-enterprises. The discussion integrates the Resource-Based View, Dynamic Capabilities Theory, and Competitive Strategy Theory to explain how strategic alignment influences innovation through organizational resilience and competitive intensity.

Existing research suggests that strategic alignment enhances innovation by optimizing resource utilization and market adaptability (Teece, 2020). Organizational resilience acts as a mediator, enabling firms to sustain innovation despite external uncertainties (Duchek, 2020). Meanwhile, competitive intensity may either amplify or weaken the impact of strategic alignment on innovation, depending on industry dynamics (Porter, 2021).

By synthesizing these findings, this study provides a foundation for further research on how micro-enterprises can leverage strategic alignment to enhance innovation capability in competitive environments.

Methodology

This study employs a quantitative research approach to examine the impact of strategic alignment on innovation capability in Chinese micro-enterprises, with organizational resilience as a mediating variable and competitive intensity as a moderating variable. Given the complexities of business environments and the necessity for empirical validation, a structured methodology is required to ensure the reliability and validity of findings (Creswell & Creswell, 2018). This section details the research design, data collection methods, sampling strategy, and statistical analysis techniques utilized in the study.

The study adopts a cross-sectional research design, which is appropriate for assessing relationships among variables at a specific point in time (Saunders, Lewis, & Thornhill, 2019). This design allows for the collection of quantitative data from a large sample, ensuring statistical robustness and generalizability (Bryman, 2016).

The research follows a deductive approach, testing hypotheses derived from existing theories, including the Resource-Based View (Barney, 1991), Dynamic Capabilities Theory (Teece, 2020), and Competitive Strategy Theory (Porter, 2021). Structural Equation Modeling (SEM) is used to analyze the relationships between strategic alignment, innovation capability, organizational resilience, and

competitive intensity. SEM is particularly suitable for examining complex causal relationships and validating theoretical models (Hair, Hult, Ringle, & Sarstedt, 2021).

The target population for this study consists of micro-enterprises operating in China. Micro-enterprises are defined as businesses with fewer than 10 employees and annual revenues below 10 million RMB, based on the classification provided by the National Bureau of Statistics of China (2023). These enterprises play a crucial role in China's economy, contributing to employment generation and technological innovation (Zhou, Wu, & Li, 2021).

This study employs a probability-based simple random sampling method to ensure that all micro-enterprises within the sampling frame have an equal chance of being selected. Simple random sampling is preferred over non-probability sampling because it minimizes selection bias and enhances the representativeness of the sample (Etikan & Bala, 2017).

The required sample size was determined based on the principles of Structural Equation Modeling (SEM), which recommends a sample-to-variable ratio of at least 10:1 for adequate statistical power (Hair et al., 2021). Given that the study involves multiple variables, including strategic alignment, innovation capability, organizational resilience, and competitive intensity, a minimum of 222 responses was required. To increase statistical reliability, 500 questionnaires were distributed, with 476 valid responses collected, yielding a response rate of 95.2%.

A structured questionnaire was developed to collect data on the key variables. The questionnaire was divided into five sections:

Demographic Information (gender, age, industry type, geographical location)

Strategic Alignment (based on Venkatraman's [1989] framework)

Innovation Capability (adapted from OECD [2019] innovation measurement guidelines)

Organizational Resilience (derived from Conner & Davidson Resilience Scale [CD-RISC])

Competitive Intensity (based on Porter's Five Forces Model [1980])

Each section employed a five-point Likert scale (1 = strongly disagree, 5 = strongly agree) to measure respondents' perceptions of these constructs. The use of Likert scales is widely recommended for business research as it allows for the quantification of subjective perceptions (Krosnick & Presser, 2010).

A pilot study was conducted with 30 micro-enterprises to assess the reliability and validity of the questionnaire. Cronbach's alpha values for all constructs exceeded 0.80, indicating high internal consistency (Nunnally & Bernstein, 1994). Based on pilot feedback, minor wording adjustments were made to improve clarity.

Both online and offline methods were used for data collection:

Online surveys were distributed through professional networks, WeChat business groups, and Chinese industry associations.

Offline surveys were conducted in industrial parks, entrepreneurship incubators, and business

expos to capture a more diverse sample.

To encourage participation, respondents were assured of anonymity and confidentiality in line with ethical research standards (Bell, Bryman, & Harley, 2018).

Strategic alignment was measured using a 15-item scale adapted from Venkatraman (1989).

Key items assessed:

Clarity of strategic goals

Coordination between strategic direction and operational activities

Resource allocation alignment with long-term objectives

Sample item: “Our company ensures that operational decisions are aligned with strategic goals.”

Innovation capability was assessed using an 18-item scale based on OECD (2019).

A 14-item scale from Lengnick-Hall et al. (2011) was used to measure organizational resilience.

Competitive intensity was evaluated using a 10-item scale derived from Porter (1980).

Descriptive statistics were computed to analyze respondent demographics and provide an overview of the data distribution (Field, 2018).

Cronbach’s alpha was used to test internal consistency, with all constructs exceeding 0.80 (acceptable threshold) (Nunnally & Bernstein, 1994).

Confirmatory Factor Analysis (CFA) was conducted to assess construct validity, ensuring that the measurement model met goodness-of-fit criteria ($RMSEA < 0.08$, $CFI > 0.90$) (Kline, 2016).

Structural Equation Modeling (SEM) was used to examine relationships between strategic alignment, innovation capability, organizational resilience, and competitive intensity.

Multiple Regression Analysis tested the direct effects of strategic alignment on innovation capability.

Mediation Analysis (Baron & Kenny, 1986) assessed whether organizational resilience mediates this relationship.

Moderation Analysis evaluated whether competitive intensity moderates the impact of strategic alignment on innovation.

To mitigate common method variance (CMV):

Harman’s one-factor test was applied, confirming that no single factor accounted for more than 50% of variance (Podsakoff, MacKenzie, & Podsakoff, 2012).

Reverse-coded items were introduced to reduce response bias.

This study adhered to ethical research standards by:

Obtaining informed consent from participants

Ensuring data confidentiality and anonymity

This study adopts a rigorous quantitative research methodology to examine the relationships between strategic alignment, innovation capability, organizational resilience, and competitive intensity

in Chinese micro-enterprises. By employing SEM, CFA, and regression analysis, the research aims to provide robust empirical evidence on how micro-enterprises can optimize strategic alignment to enhance innovation in competitive markets.

Results

This section presents the findings of the study, which investigates the impact of strategic alignment on the innovation capability of Chinese micro-enterprises, with organizational resilience as a mediating variable and competitive intensity as a moderating factor. The results were derived from a sample of 476 micro-enterprises, analyzed using Structural Equation Modeling (SEM), regression analysis, and mediation/moderation analyses. The study confirms significant relationships between strategic alignment, innovation capability, and organizational resilience, while competitive intensity does not significantly moderate these relationships.

A total of 476 valid responses were analyzed. The sample consisted of 55% male and 45% female respondents, with the majority of participants aged 18-35 years old (88.6%). Regarding industry distribution, 42.3% were from the traditional manufacturing sector, 38.8% from the service industry, and 18.9% from the high-tech industry. Geographically, most enterprises were located in the eastern region of China (49%), followed by the central (27.2%) and western regions (23.9%).

Mean values and standard deviations for key variables were calculated. The mean scores for strategic alignment ($M = 4.32$, $SD = 0.76$) and innovation capability ($M = 4.19$, $SD = 0.82$) suggest that respondents generally perceive their firms as well-aligned with their strategic goals and innovative. The mean scores for organizational resilience ($M = 4.11$, $SD = 0.79$) and competitive intensity ($M = 3.89$, $SD = 0.91$) indicate moderate perceptions of resilience and competitive pressure among micro-enterprises.

Pearson correlation analysis revealed significant positive relationships among the key variables. Strategic alignment was strongly correlated with innovation capability ($r = 0.954$, $p < 0.01$), organizational resilience ($r = 0.940$, $p < 0.01$), and competitive intensity ($r = 0.773$, $p < 0.01$). Additionally, innovation capability was significantly correlated with organizational resilience ($r = 0.920$, $p < 0.01$) and competitive intensity ($r = 0.827$, $p < 0.01$). These findings suggest that firms with strong strategic alignment tend to exhibit higher innovation capacity and resilience, supporting prior research emphasizing the role of alignment in enhancing firm performance (García-Sánchez, Gallego-Álvarez, & Zafra-Gómez, 2021).

Multiple regression analysis was performed to assess the direct effects of strategic alignment on innovation capability. The model explained 91.0% of the variance in innovation capability ($R^2 = 0.910$, $p < 0.001$), confirming that strategic alignment is a strong predictor of innovation performance.

Direct Effect of Strategic Alignment on Innovation Capability: The regression coefficient was $\beta = 0.830$, $p < 0.001$, indicating that firms with well-aligned strategies are more likely to innovate

successfully.

Effect of Organizational Resilience on Innovation Capability: The results show a significant positive impact ($\beta = 0.673$, $p < 0.001$), suggesting that firms with higher resilience are better positioned to sustain innovation activities.

Effect of Competitive Intensity on Innovation Capability: While competitive intensity was positively correlated with innovation capability, its regression coefficient was lower ($\beta = 0.492$, $p < 0.05$), indicating that although competition plays a role, it is not the strongest driver of innovation in micro-enterprises.

These findings align with recent literature emphasizing the importance of strategic alignment in fostering innovation, particularly in resource-constrained firms (Kim, Hall, & Maytorena, 2022).

To test whether organizational resilience mediates the relationship between strategic alignment and innovation capability, a structural equation model (SEM) approach was used. The mediation analysis revealed that:

The total effect of strategic alignment on innovation capability was $\beta = 0.830$ ($p < 0.001$).

The direct effect, after accounting for organizational resilience, was $\beta = 0.667$ ($p < 0.01$), indicating partial mediation.

The indirect effect of strategic alignment on innovation capability through organizational resilience was $\beta = 0.163$ ($p < 0.01$), accounting for 18.75% of the total effect.

This confirms that organizational resilience acts as a partial mediator, meaning that while strategic alignment directly enhances innovation capability, part of its influence is exerted through resilience. This is consistent with research suggesting that resilient firms are better able to adapt and sustain innovation efforts in uncertain environments (Hadjielias, Christofi, & Tarba, 2022).

A moderation analysis was conducted to test whether competitive intensity moderates the effect of strategic alignment on innovation capability. Results showed that the interaction term between strategic alignment and competitive intensity was not significant ($\beta = 0.0003$, $p = 0.705$), indicating that competition does not significantly strengthen or weaken this relationship.

This contradicts some studies suggesting that competition can drive innovation by pressuring firms to differentiate themselves (Tsai & Liao, 2021). However, it aligns with findings that excessive competition may divert resources away from innovation, especially in small firms with limited financial capacity (Zhou, Zhang, & Song, 2022). The non-significant moderating effect suggests that strategic alignment independently enhances innovation, regardless of competitive intensity.

One-way ANOVA tests were conducted to examine industry and regional differences in strategic alignment, innovation capability, and organizational resilience.

Industry Differences: Firms in the high-tech sector showed significantly higher strategic alignment ($F = 2.627$, $p < 0.05$) and innovation capability ($F = 2.695$, $p < 0.05$) compared to traditional manufacturing firms. This supports the argument that innovation is more prominent in industries that

rely on technological advancements (Kim et al., 2022).

Regional Differences: No significant differences were found in strategic alignment and innovation capability across different regions ($p > 0.05$). This suggests that firms across China face similar strategic and innovation challenges, regardless of their location.

The findings provide strong empirical support for the hypothesis that strategic alignment significantly enhances innovation capability in Chinese micro-enterprises. Additionally, organizational resilience partially mediates this relationship, confirming its role in sustaining innovation amid market fluctuations. However, competitive intensity does not significantly moderate the effect of strategic alignment on innovation, suggesting that firms should focus on internal strategic coherence rather than external competitive pressures.

These results align with recent studies emphasizing the importance of internal strategic coordination and resilience in driving firm innovation (Ortiz-de-Mandojana & Bansal, 2019). The implications suggest that micro-enterprises should prioritize strategic alignment and resilience-building efforts rather than relying solely on external competitive factors.

Discussion

This study explores the impact of strategic alignment on the innovation capability of Chinese micro-enterprises, incorporating organizational resilience as a mediating variable and competitive intensity as a moderator. The results confirmed a significant positive relationship between strategic alignment and innovation capability, with organizational resilience playing a partial mediating role. However, contrary to some prior research, competitive intensity did not significantly moderate the relationship between strategic alignment and innovation capability. This section discusses the implications of these findings, compares them with existing literature, and highlights theoretical and practical contributions.

The study found that strategic alignment significantly enhances innovation capability ($\beta = 0.830$, $p < 0.001$), supporting previous research that emphasizes the role of strategic alignment in improving firm performance and innovation outcomes (García-Sánchez, Gallego-Álvarez, & Zafra-Gómez, 2021). This finding aligns with the Resource-Based View (RBV), which suggests that firms achieve a competitive advantage by effectively managing internal resources (Barney, 1991). When micro-enterprises align their strategic goals with operational activities, they are better able to allocate limited resources to innovation initiatives, leading to improved business performance (Kim, Hall, & Maytorena, 2022).

Moreover, the Dynamic Capabilities Theory posits that firms need to constantly realign their strategies to adapt to changing market conditions (Teece, 2020). The study's findings confirm that strategic alignment enables micro-enterprises to identify market opportunities, integrate new technologies, and optimize resource utilization, thereby enhancing their ability to innovate (Tsai & Liao,

2021). This highlights the importance of continuous strategic evaluation in fostering innovation among micro-enterprises.

However, while strategic alignment strongly predicts innovation, its effectiveness may vary across industries. The study found that firms in high-tech sectors exhibit higher levels of strategic alignment and innovation capability compared to traditional manufacturing firms. This is consistent with the view that technological industries require more agile strategic alignment to keep pace with rapid innovation cycles (Hadjielias, Christofi, & Tarba, 2022).

A key finding of this study is that organizational resilience partially mediates the relationship between strategic alignment and innovation capability (indirect effect = 0.163, $p < 0.01$). This supports research suggesting that resilient organizations can sustain innovation efforts even under challenging conditions (Ortiz-de-Mandojana & Bansal, 2019). Firms that develop resilience through adaptive strategies, crisis management, and resource reallocation are more likely to maintain competitive advantage despite external disruptions (Lengnick-Hall, Beck, & Lengnick-Hall, 2018).

This finding aligns with the Dynamic Capabilities Theory, which argues that firms with strong resilience are better positioned to reconfigure resources, learn from past experiences, and sustain innovation in turbulent environments (Teece, 2020). Given that micro-enterprises often face financial constraints and limited market influence, building resilience is crucial to sustaining their innovation capability (Conz & Magnani, 2020).

Additionally, resilience helps micro-enterprises mitigate risks associated with market volatility, supply chain disruptions, and regulatory changes (Hosseini, Ivanov, & Dolgui, 2019). The study's findings suggest that investing in employee training, fostering an innovation-oriented culture, and developing flexible operational models can enhance resilience and, consequently, drive innovation performance.

However, while organizational resilience plays a mediating role, it does not fully explain the link between strategic alignment and innovation. This indicates that other factors, such as technological investment, leadership effectiveness, and market orientation, may also contribute to strengthening the relationship (Schilling & Shankar, 2019). Future research could explore how these additional factors influence micro-enterprises' innovation capabilities.

The study found that competitive intensity does not significantly moderate the relationship between strategic alignment and innovation capability ($\beta = 0.0003$, $p = 0.705$). This contrasts with some studies suggesting that competitive pressure fosters innovation by compelling firms to differentiate themselves (Zhou, Zhang, & Song, 2022). However, it aligns with research indicating that excessive competition may divert resources away from innovation, especially for resource-constrained micro-enterprises (Gnyawali & Park, 2019).

One possible explanation is that micro-enterprises face greater financial and operational constraints, limiting their ability to engage in aggressive innovation strategies when competition

intensifies (Kim et al., 2022). Unlike larger firms, which can invest heavily in R&D and market expansion, micro-enterprises may adopt a conservative approach, focusing on incremental improvements rather than disruptive innovations.

Additionally, the results suggest that competitive intensity may not be the primary driver of innovation for micro-enterprises. Instead, internal strategic factors—such as organizational culture, leadership vision, and innovation ecosystems—play a more critical role in shaping innovation outcomes (Hadjielias et al., 2022). These findings imply that micro-enterprises should focus more on internal strategic alignment and resilience-building rather than solely reacting to market competition.

Future research could explore whether different competitive environments (e.g., monopolistic vs. fragmented markets) impact micro-enterprises differently. Additionally, studies could examine whether government policies, industry regulations, or digital transformation strategies influence the relationship between competition and innovation.

Enhancing Strategic Alignment: Micro-enterprises should adopt a continuous strategy evaluation model to ensure that their business objectives align with market trends and technological advancements.

Building Organizational Resilience: Firms should invest in crisis management training, agile business models, and adaptive leadership to maintain innovation momentum.

Deprioritizing Market Competition as a Direct Innovation Driver: Instead of reacting to competition, micro-enterprises should focus on internal strategic coherence and incremental innovation.

This study extends the Resource-Based View (RBV) and Dynamic Capabilities Theory by demonstrating the importance of strategic alignment and resilience in driving innovation among small firms.

It challenges previous assumptions about competitive intensity as a universal innovation driver, emphasizing the need for a context-specific approach when analyzing small business environments.

This study reinforces the critical role of strategic alignment and organizational resilience in fostering innovation capability among Chinese micro-enterprises. While strategic alignment directly enhances innovation, organizational resilience partially mediates this relationship, underscoring the need for firms to develop adaptive capabilities in uncertain markets. However, competitive intensity does not significantly moderate the relationship, suggesting that internal strategic alignment plays a more vital role than external market competition.

These findings contribute to the broader discourse on micro-enterprise management, offering valuable insights for business owners, policymakers, and researchers. Future studies should further explore longitudinal effects, industry-specific influences, and alternative moderating variables to gain a deeper understanding of how small firms navigate innovation challenges in complex business environments.

Conclusions

This study examined the impact of strategic alignment on innovation capability in Chinese micro-enterprises, with organizational resilience as a mediating factor and competitive intensity as a moderating factor. The findings confirm that strategic alignment significantly enhances innovation capability, while organizational resilience partially mediates this relationship. However, competitive intensity does not significantly moderate the relationship. These results provide both theoretical and practical contributions, offering valuable insights for business managers, policymakers, and scholars on how micro-enterprises can enhance innovation through strategic alignment and resilience.

The results demonstrate that strategic alignment significantly enhances the innovation capability of micro-enterprises ($\beta = 0.830$, $p < 0.001$). This confirms previous studies that highlight strategic coherence as a critical success factor in fostering innovation (García-Sánchez, Gallego-Álvarez, & Zafra-Gómez, 2021). Firms that align their business strategy with resource allocation and market demands are more likely to develop and sustain innovation (Kim, Hall, & Maytorena, 2022).

These findings support the Resource-Based View (RBV), which asserts that firms achieve a competitive advantage through internal resource optimization (Barney, 1991). Micro-enterprises often face resource constraints, making efficient strategic alignment essential for leveraging limited financial and human capital to drive innovation (Ortiz-de-Mandojana & Bansal, 2019). By ensuring that all business functions align with their strategic vision, firms can effectively allocate resources to innovation-driven activities (Tsai & Liao, 2021).

The study confirms that organizational resilience partially mediates the relationship between strategic alignment and innovation capability (indirect effect = 0.163, $p < 0.01$). This finding highlights the importance of adaptive capacity in sustaining innovation, particularly in volatile environments (Conz & Magnani, 2020).

Resilient firms can reconfigure their resources, respond proactively to market changes, and maintain stability amid external disruptions (Lengnick-Hall, Beck, & Lengnick-Hall, 2018). Given that micro-enterprises operate in highly uncertain environments, building resilience is essential for sustaining innovation (Hosseini, Ivanov, & Dolgui, 2019). The results suggest that investment in leadership training, organizational flexibility, and knowledge-sharing practices can enhance resilience and, in turn, improve innovation capability.

These findings align with the Dynamic Capabilities Theory (DCT), which states that firms with higher adaptability and learning capabilities are better positioned to maintain sustainable innovation performance (Teece, 2020). Future research should explore additional factors, such as entrepreneurial orientation and digital transformation, that may further strengthen this relationship.

Contrary to some expectations, the study found that competitive intensity does not significantly moderate the relationship between strategic alignment and innovation capability ($\beta = 0.0003$, $p = 0.705$). This contradicts research suggesting that high competition fosters innovation by pressuring firms to

differentiate themselves (Zhou, Zhang, & Song, 2022).

A possible explanation is that micro-enterprises, due to their limited resources, may struggle to compete aggressively in highly competitive environments (Kim et al., 2022). Instead of responding to competitive pressures through large-scale innovation investments, these firms may adopt incremental innovation strategies focused on cost-efficiency and product improvements (Schilling & Shankar, 2019).

This finding suggests that micro-enterprises should prioritize internal strategic alignment over reacting to external competition. Instead of focusing solely on market competition, firms can gain a sustainable advantage by strengthening internal processes, enhancing resilience, and fostering a culture of continuous innovation (Hadjielias, Christofi, & Tarba, 2022).

Continuous Strategy Evaluation – Micro-enterprises should regularly assess and adjust their strategic alignment to remain competitive.

Investment in Organizational Resilience – Firms should develop resilience-building mechanisms, such as crisis management training and flexible work structures.

Focus on Internal Innovation – Instead of reacting to competition, firms should cultivate an innovation-driven culture that supports long-term growth.

Government Support for Micro-Enterprises – Policies should encourage financial support, tax incentives, and training programs to strengthen strategic alignment.

Resilience-Building Initiatives – Policymakers should create frameworks that help micro-enterprises develop crisis management strategies to sustain innovation.

Promoting Industry Collaboration – Encouraging collaborative innovation between micro-enterprises and larger firms could help smaller firms access technology and resources.

While this study provides valuable insights, it has some limitations that suggest opportunities for future research:

Cross-Sectional Design – The study used a single-time data collection approach, which limits causal inference. Future research should employ longitudinal studies to assess how strategic alignment and resilience evolve over time (Kim et al., 2022).

Industry-Specific Differences – The study found that high-tech firms exhibited stronger innovation capability than traditional manufacturing firms. Future research should explore sector-specific strategies to enhance innovation (Tsai & Liao, 2021).

Alternative Moderating Variables – While competitive intensity did not moderate the relationship, other factors—such as government regulations, digital transformation, or international market expansion—may influence how strategic alignment impacts innovation (Hadjielias et al., 2022).

This study provides strong empirical evidence that strategic alignment enhances innovation capability in Chinese micro-enterprises, with organizational resilience acting as a partial mediator. However, competitive intensity does not significantly moderate this relationship, suggesting that

internal strategic alignment and resilience-building are more critical than external competition.

These findings contribute to strategic management and innovation literature by reinforcing the importance of internal coherence, adaptability, and resource optimization. The results offer actionable insights for business managers, policymakers, and researchers, emphasizing that micro-enterprises must prioritize resilience-building and strategic alignment to sustain innovation in a dynamic market environment.

Future research should explore long-term strategic adaptation, industry-specific challenges, and alternative moderating variables to provide a more comprehensive understanding of how small businesses navigate innovation and competitive pressures.

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