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The Role of Entrepreneurial Capabilities and Organizational Resilience in Strategic Change: Evidence from High-Tech Enterprises in the GBA

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Abstract

This study examines how entrepreneurial capabilities and organizational resilience drive strategic change in high-tech enterprises within the Guangdong-Hong Kong-Macao Greater Bay Area (GBA). Using a quantitative approach, data from 316 respondents were analyzed to explore the direct and indirect effects of entrepreneurial capabilities and organizational resilience on strategic change, with a focus on the mediating role of creative effect. The results reveal that both entrepreneurial capabilities and organizational resilience significantly influence strategic change, while creative effect serves as a key mediator, enhancing the impact of the former two variables. These findings offer valuable insights into the mechanisms that enable organizations to adapt to technological disruptions and market changes. The study underscores the importance of fostering entrepreneurial leadership, building organizational resilience, and promoting creativity to successfully implement strategic change in high-tech enterprises. This research provides practical implications for business leaders and policymakers in the GBA, highlighting strategies for improving organizational adaptability and innovation.

Keywords: *Entrepreneurial Capabilities, Organizational Resilience, Strategic Change, Creative Effect, High-Tech Enterprises, Guangdong-Hong Kong-Macao Greater Bay Area, Innovation, Organizational Adaptation.*

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1. Introduction

The rapid evolution of the global economy, driven by technological innovation and digital transformation, has reshaped industries and necessitated constant strategic adaptations by enterprises. Within this context, high-tech enterprises in the Guangdong-Hong Kong-Macao Greater Bay Area (GBA) face an increasingly complex set of opportunities and challenges. The GBA, which comprises nine cities, including Hong Kong, Macao, and key regions of Guangdong Province, represents a hub of economic dynamism, with an emphasis on technological innovation, high-quality manufacturing, and regional integration. This area is central to China's broader

ambition to create an internationally competitive, innovation-driven economy. However, amidst this transformation, high-tech enterprises must navigate not only fierce competition but also changing regulatory landscapes, technological disruptions, and evolving market demands. Understanding the factors that enable these enterprises to adapt to such a dynamic environment has never been more critical.

The GBA development strategy, outlined in the "Outline Development Plan for the Guangdong-Hong Kong-Macao Greater Bay Area" (2019), aims to integrate economic, technological, and human resources across this geographically diverse region. This development plan places significant emphasis on fostering innovation, improving infrastructure, and leveraging the collective strengths of Hong Kong, Macao, and Guangdong's cities to enhance regional competitiveness on a global scale (China State Council, 2019). The strategy envisions the GBA as a model of sustainable, technology-driven growth. Yet, despite the promise of these reforms, the implementation of such expansive goals requires enterprises to undergo strategic changes—adjusting business models, embracing digital transformation, and cultivating resilience in the face of new challenges.

Among the various factors contributing to strategic change, entrepreneurial capabilities and organizational resilience stand out as key drivers. Entrepreneurial capabilities, defined as the ability to identify, create, and exploit business opportunities, are critical to an enterprise's adaptability and innovation capacity (Liu & Chen, 2022). Organizational resilience, on the other hand, refers to a company's ability to anticipate, respond to, and recover from disruptions, ensuring its long-term survival and competitiveness (Duchek, 2020). Both factors play a crucial role in helping firms achieve strategic change, yet the mechanisms by which they influence this process remain under-explored. Furthermore, the role of creative effect—a concept representing the generation of new ideas and market opportunities within firms—has garnered increasing attention in recent years, particularly in relation to how it mediates the impact of entrepreneurial capabilities and organizational resilience on strategic change (Shah & Rahman, 2021). This research addresses these gaps by examining the relationship between entrepreneurial capabilities, organizational resilience, and strategic change in the context of high-tech enterprises in the GBA. Specifically, it investigates the role of creative effect as a mediating variable that enhances the influence of entrepreneurial capabilities and organizational resilience on strategic change. The research aims to provide both theoretical insights and practical recommendations for businesses in the region, helping them better navigate the complex landscape of technological transformation and regional integration.

The significance of this research lies in its potential to inform both theory and practice in the fields of entrepreneurship, organizational behavior, and strategic management. Theoretically, it contributes to the understanding of how entrepreneurial capabilities and organizational resilience interact to foster strategic change, especially in a highly competitive and rapidly evolving economic environment. Practically, it offers actionable recommendations for high-tech enterprises in the GBA, helping them leverage their entrepreneurial capabilities and organizational resilience to drive innovation and adapt to changing market conditions.
The research questions guiding this study are as follows:

i. How do entrepreneurial capabilities and organizational resilience influence strategic change in high-tech enterprises within the Guangdong-Hong Kong-Macao Greater Bay Area?
ii. What role does creative effect play in mediating the relationship between entrepreneurial capabilities, organizational resilience, and strategic change?
iii. How can high-tech enterprises in the GBA effectively harness entrepreneurial capabilities, organizational resilience, and creative effect to promote strategic change and enhance their competitiveness?

By addressing these questions, this study seeks to advance the understanding of strategic change mechanisms in high-tech enterprises, particularly within the dynamic and rapidly developing environment of the Guangdong-Hong Kong-Macao Greater Bay Area.

2. Literature Review

2.1 Strategic Change

Strategic change is a fundamental concept in the field of strategic management, and it refers to the process by which an organization adjusts its strategies in response to internal or external shifts. The need for strategic change arises from various factors, such as technological advancements, shifts in consumer preferences, or changes in the competitive landscape. According to Mintzberg (2009), strategic change can be either planned or emergent, depending on how organizations navigate the complexities of the environment. While some organizations initiate strategic change through deliberate planning, others may undergo changes as a reaction to unforeseen challenges or opportunities. In the context of high-tech enterprises, strategic change becomes even more critical as firms must continuously innovate to remain competitive. In the Guangdong-Hong Kong-Macao Greater Bay Area (GBA), which is characterized by rapid technological advancements and evolving market dynamics, high-tech enterprises are particularly vulnerable to the pressures of strategic change. The integration of digital technologies and the rise of artificial intelligence (AI) has necessitated significant strategic shifts among firms in this region. As such, understanding the drivers of strategic change in these enterprises is essential for ensuring their long-term success and sustainability.

2.2 Entrepreneurial Capabilities

Entrepreneurial capabilities have been widely recognized as a critical factor in facilitating organizational adaptation and innovation. These capabilities refer to the skills, knowledge, and resources that entrepreneurs and managers possess, enabling them to identify new opportunities, take calculated risks, and implement innovative solutions. Several scholars have explored the various dimensions of entrepreneurial capabilities, including innovation capability, risk management, and market orientation. A study by Hmieleski and Ensley (2017) emphasizes the role of entrepreneurial capabilities in fostering strategic change, noting that entrepreneurs who possess strong innovation capabilities are better equipped to drive organizational transformation. Furthermore, research by Zahra et al. (2020) highlights the importance of dynamic capabilities—particularly the ability to reconfigure resources and capabilities in response to changing market conditions—in facilitating strategic change. In the GBA, where technological innovation is a driving force behind economic development, entrepreneurial capabilities play a pivotal role in enabling high-tech firms to navigate complex challenges and seize emerging opportunities. Moreover, entrepreneurial capabilities are not limited to individual entrepreneurs but also extend to organizational structures that support innovation and strategic change. For instance, a study by Sun and Zuo (2023) reveals that entrepreneurial leadership, which emphasizes vision, adaptability, and risk-taking, is integral to the successful implementation of strategic change in organizations. In the GBA, high-tech enterprises that foster a culture of entrepreneurship within their organizations are more likely to successfully align their strategies with the rapidly evolving technological landscape.

2.3 Organizational Resilience

Organizational resilience is another key factor influencing strategic change. Organizational resilience refers to the ability of an organization to anticipate, respond to, and recover from disruptions or adverse events. It encompasses both adaptive and proactive behaviors, allowing organizations to maintain their core functions during times of crisis and to emerge stronger from these challenges. A resilient organization is capable of adapting to external shocks while continuing to meet its strategic objectives (Duchek, 2020). In the context of strategic change, organizational resilience can enhance an organization's ability to navigate through periods of uncertainty and volatility. High-tech enterprises in the GBA, which are often at the forefront of

technological disruption, need to be particularly resilient to maintain competitiveness. A study by Lengnick-Hall et al. (2011) argues that organizations that invest in building resilience are better positioned to capitalize on strategic changes that arise from external disruptions, such as shifts in consumer behavior, technological breakthroughs, or regulatory changes. Organizational resilience can also be understood in terms of its three main dimensions: adaptability, recovery, and situational awareness. Adaptability allows organizations to modify their strategies in response to changing conditions; recovery refers to the ability to return to normal operations after a crisis; and situational awareness enables organizations to perceive and respond to environmental changes (Fugate et al., 2009). In the high-tech sector, where the pace of change is rapid, organizational resilience is crucial for firms that must pivot quickly in response to new technological advancements or shifts in the business environment.

2.4 Creative Effect

The concept of the creative effect refers to the generation of novel ideas and market opportunities within an organization. Creative effect encompasses both innovation creation—developing new products, services, or processes—and market creation—identifying and exploiting new market segments. This effect has been recognized as a key driver of strategic change, as it enables organizations to differentiate themselves from competitors and gain a competitive edge in the marketplace (Shah & Rahman, 2021). Creative effect is particularly relevant in the context of high-tech enterprises, where continuous innovation is necessary for survival. In the GBA, the integration of cutting-edge technologies such as artificial intelligence and big data analytics has opened up new avenues for creative effect. Firms that can leverage these technologies to create innovative solutions are more likely to experience successful strategic change. Research by Sun et al. (2024) suggests that fostering a culture of creativity within an organization not only encourages innovation but also facilitates the implementation of strategic change by enabling organizations to develop and capitalize on novel business models. Furthermore, creative effect plays an essential role in bridging the gap between entrepreneurial capabilities and strategic change. As firms develop their entrepreneurial capabilities, they are better able to generate creative ideas that drive strategic change. In this sense, creative effect acts as a mediating variable, linking the entrepreneurial actions of individuals within the organization to broader organizational outcomes (Shah & Rahman, 2021). This relationship is particularly salient in high-tech enterprises, where creative effect can lead to the development of new technologies, products, or services that drive the organization's strategic direction.

2.5 Theoretical Framework

Several theoretical perspectives inform the understanding of the relationships between entrepreneurial capabilities, organizational resilience, creative effect, and strategic change. These include dynamic capability theory, high-level echelon theory, and strategic choice theory.

i. **Dynamic Capability Theory**: Dynamic capabilities are defined as the abilities of an organization to integrate, build, and reconfigure internal and external competencies to address rapidly changing environments (Teece, 2007). In the context of strategic change, dynamic capabilities enable organizations to modify their existing capabilities to respond to new market demands and technological advancements. Entrepreneurial capabilities and organizational resilience are both crucial components of dynamic capabilities, as they allow firms to sense and seize opportunities and adapt to disruptions.

ii. **High-Level Echelon Theory**: High-level echelon theory posits that the experiences, values, and characteristics of top management teams influence organizational outcomes, including strategic change (Hambrick & Mason, 1984). In this context, entrepreneurial capabilities are closely linked to the strategic decision-making of top management teams. These teams play a crucial role in shaping the direction of strategic change by leveraging their entrepreneurial capabilities and fostering organizational resilience. The leadership exhibited by top managers in high-tech enterprises can significantly influence the organization's ability to navigate through periods of strategic change.

iii. **Strategic Choice Theory**: Strategic choice theory suggests that organizations actively make decisions regarding their strategic direction, often in response to both internal and external pressures (Child, 1972). In the case of high-tech enterprises, strategic change is often driven by managerial decisions that are shaped by entrepreneurial capabilities and organizational resilience. The creative effect, in this regard, provides the innovative ideas that guide these decisions, allowing firms to align their strategies with emerging opportunities and challenges.

2.6 Research Hypotheses

Based on the theoretical framework and literature reviewed, the following research hypotheses are proposed:

i. **Hypothesis 1**: Entrepreneurial capabilities positively influence strategic change. Entrepreneurial capabilities enable firms to identify new opportunities and innovate, which are essential components of strategic change in high-tech enterprises.
ii. **Hypothesis 2**: Organizational resilience positively influences strategic change. Organizational resilience allows firms to adapt to disruptions and maintain their strategic direction during periods of uncertainty, facilitating successful strategic change.
iii. **Hypothesis 3**: Creative effect mediates the relationship between entrepreneurial capabilities and strategic change. The creative effect generated by entrepreneurial capabilities helps drive innovation and new market opportunities, acting as a bridge to strategic change.
iv. **Hypothesis 4**: Creative effect mediates the relationship between organizational resilience and strategic change. The creative effect, fostered by organizational resilience, enables firms to exploit new opportunities during periods of recovery and adaptation, facilitating strategic change.

The literature review has highlighted the significance of entrepreneurial capabilities, organizational resilience, and creative effect in driving strategic change, particularly in high-tech enterprises. Despite the substantial body of research on these concepts, gaps remain in understanding the interplay between these variables, particularly in the context of the GBA's dynamic economic environment. The proposed research hypotheses aim to address these gaps by examining how entrepreneurial capabilities and organizational resilience, through the mediating role of creative effect, influence strategic change. The findings from this research will contribute to both theoretical advancements and practical insights for high-tech enterprises in the GBA, helping them navigate the complexities of strategic change in an increasingly competitive and technologically driven marketplace.

3. Methodology

3.1 Research Design

This study adopts a quantitative research design to explore the relationships between entrepreneurial capabilities, organizational resilience, creative effect, and strategic change in high-tech enterprises within the Guangdong-Hong Kong-Macao Greater Bay Area (GBA). The use of a quantitative approach allows for the precise measurement of variables and the identification of statistical relationships between them (Sun & Zuo, 2024a). A questionnaire survey is used as the primary method of data collection, as it provides a systematic and reliable way to gather information from a large number of respondents across different high-tech enterprises in the GBA. The quantitative nature of this research allows for the testing of hypotheses through statistical analysis, specifically multiple regression analysis, to determine the strength and direction of the relationships between the variables of interest (Sun & Zuo, 2024b). This method is appropriate for examining how entrepreneurial capabilities, organizational resilience, and creative effect contribute to strategic change. The research is cross-sectional in nature, meaning that data is collected at a single point in time, allowing for the analysis of relationships between the variables under study.

3.2 Sampling Method

The target population for this study consists of employees and managers from high-tech enterprises operating in the Guangdong-Hong Kong-Macao Greater Bay Area. High-tech enterprises were selected as the focus of this study because they are at the forefront of innovation and are particularly sensitive to the dynamic forces of technological and market changes. These enterprises are crucial to the region's economic development and play a significant role in driving strategic change. A purposive sampling technique was used to select participants who possess relevant knowledge and experience regarding the organizational factors influencing strategic change. Specifically, the sample includes individuals who hold managerial positions or who are involved in decision-making processes within their respective organizations. This sampling approach ensures that the data collected is relevant to the research questions, as it captures the perspectives of those who are most familiar with the variables being studied. The sample size for this study is determined by the need for sufficient statistical power to test the hypotheses. A total of 350 questionnaires were distributed to high-tech enterprises across the GBA, and a final sample of 316 valid responses was obtained. This sample size is considered adequate for the statistical analyses to be conducted, providing a reliable basis for drawing conclusions about the relationships between the variables.

3.3 Data Collection

Data for this study was collected using a structured questionnaire designed to measure the key variables of interest: entrepreneurial capabilities, organizational resilience, creative effect, and strategic change. The questionnaire was developed based on established scales from the literature, ensuring that the instruments used are reliable and valid for the specific context of high-tech enterprises in the GBA. The questionnaire consists of several sections, each corresponding to one of the primary constructs under study. These sections include items designed to assess entrepreneurial capabilities, organizational resilience, creative effect, and strategic change. All items are measured on a Likert scale, ranging from 1 (strongly disagree) to 5 (strongly agree), allowing participants to indicate their level of agreement with each statement. This scale provides a consistent and standardized method of measurement, ensuring that the data collected can be reliably analyzed. Before the full-scale survey was administered, a pilot study was conducted with a small group of respondents to test the clarity of the questionnaire items and to identify any issues with the instrument. Based on feedback from the pilot study, minor adjustments were made to ensure the questions were clear and easy to understand. The final version of the questionnaire was then distributed to the participants via both online and paper formats. Online distribution was preferred due to its efficiency and convenience, while the paper version was provided to participants who preferred a hard copy. Data collection took place over a period of two months, during which time reminders were sent to encourage participation and ensure a high response rate. The final sample of 316 valid responses was deemed sufficient to perform the necessary statistical analyses.

3.4 Data Analysis

The data collected from the questionnaire survey were analyzed using descriptive statistics and multiple regression analysis. Descriptive statistics were used to summarize the demographic characteristics of the respondents, including their age, gender, educational background, and professional experience. This provided an overview of the sample and helped to ensure that the responses were representative of the broader population of high-tech enterprises in the GBA. To test the research hypotheses and examine the relationships between the variables, multiple regression analysis was conducted. Multiple regression analysis is an appropriate technique for examining the predictive relationships between independent variables (entrepreneurial capabilities and organizational resilience) and the dependent variable (strategic change), as well as the mediating role of the creative effect. This technique allows for the assessment of the direct and indirect effects of the independent variables on strategic change, as mediated by the creative effect. For each hypothesis, a separate regression model was developed to test the relationships

between the variables. In addition, mediation analysis was conducted to determine whether the creative effect serves as a mediator in the relationships between entrepreneurial capabilities, organizational resilience, and strategic change. The mediation analysis was performed using the Sobel test, which is commonly used to assess the significance of indirect effects in regression models (Preacher & Hayes, 2008).

3.5 Reliability and Validity

Ensuring the reliability and validity of the research instruments is essential for ensuring the robustness of the study's findings. Reliability refers to the consistency of the measurements, while validity refers to the extent to which the instrument measures what it is intended to measure. Several steps were taken to ensure both reliability and validity.

3.5.1 Reliability

The reliability of the scales used in the questionnaire was assessed using Cronbach's alpha, which measures the internal consistency of the items within each scale. A Cronbach's alpha value of 0.7 or higher is considered acceptable for ensuring reliable measurement (Nunnally, 1978). For each of the constructs—entrepreneurial capabilities, organizational resilience, creative effect, and strategic change—the Cronbach's alpha values were calculated, and all were found to exceed the threshold of 0.7, indicating satisfactory reliability.

3.5.2 Validity

To ensure the validity of the instrument, both content validity and construct validity were assessed. Content validity was ensured by developing the questionnaire based on established scales from the literature, which have been tested and validated in previous research. Expert feedback was sought during the development of the questionnaire to ensure that the items covered the full range of each construct and were relevant to the specific context of high-tech enterprises in the GBA. Construct validity was assessed through factor analysis, which was conducted to determine whether the items within each construct loaded onto the expected factors. The results of the factor analysis showed that the items grouped together in a way that was consistent with the theoretical framework, providing evidence of construct validity. In addition to these steps, the survey was translated into Chinese to ensure that it was accessible to the participants in the GBA. The translation process followed standard procedures to maintain both linguistic and conceptual equivalence, ensuring that the items measured the same constructs across different languages (Brislin, 1970).

3.6 Ethical Considerations

Ethical considerations were central to the design and implementation of this study. Participation in the survey was entirely voluntary, and participants were informed of their right to withdraw at any time without consequence. Informed consent was obtained from all respondents, and they were assured that their responses would be kept confidential and used solely for academic purposes. The data were anonymized to protect the identities of the participants, and all procedures adhered to ethical guidelines for research involving human subjects. Furthermore, the study was conducted in accordance with the ethical standards outlined by Sun and Zuo (2024b), ensuring that the rights and well-being of the participants were safeguarded throughout the research process. The research also adhered to the guidelines set forth by the relevant institutional review board.

4. Results

4.1 Overview of Respondents

The sample used in this study consisted of 316 valid responses from high-tech enterprises in the GBA, with a variety of managerial and non-managerial employees participating. Table 4.1 provides a breakdown of the demographic characteristics of the respondents, including their

educational background, years of experience in the industry, and the roles they occupy within their organizations.

Table 4.1: Demographic Profile of Respondents

Demographic Characteristic	Frequency (n = 316)	Percentage (%)
Gender		
Male	185	58.5
Female	131	41.5
Age		
18-29	47	14.9
30-39	128	40.5
40-49	92	29.1
50+	49	15.5
Educational Background		
Bachelor's Degree	120	38.0
Master's Degree	143	45.2
Doctorate	53	16.8
Years of Experience		
Less than 5 years	65	20.6
5-10 years	120	38.0
More than 10 years	131	41.4
Role in Organization		
Executive/Manager	94	29.7
Supervisor	111	35.1
Employee	111	35.1

As shown in Table 4.1, the sample is relatively balanced in terms of gender, with 58.5% of respondents being male and 41.5% female. The respondents were primarily aged between 30 and 39 years, accounting for 40.5% of the total sample. In terms of education, most respondents held a master's degree (45.2%), followed by bachelor's degree holders (38.0%). Regarding work experience, 41.4% of respondents had more than 10 years of experience in the industry. In terms of roles, a substantial portion of the sample were either supervisors or employees, each accounting for 35.1% of the total responses.

4.2 Descriptive Statistics of Key Variables

Before proceeding with regression analysis, descriptive statistics for the key variables—entrepreneurial capabilities, organizational resilience, creative effect, and strategic change—were calculated. These statistics provide an overview of the mean scores and standard deviations for each construct.

Table 4.2: Descriptive Statistics for Key Variables

Variable	Mean	Standard Deviation
Entrepreneurial Capabilities	4.12	0.72
Organizational Resilience	4.05	0.68
Creative Effect	4.18	0.75
Strategic Change	4.09	0.70

The mean scores for all variables were above the neutral point of 3.0, indicating that respondents generally agreed with the items representing each construct. Among these, the creative effect had the highest mean score (4.18), suggesting that respondents perceived their organizations as being particularly effective at generating innovative ideas and market opportunities. Entrepreneurial capabilities and organizational resilience both had relatively high mean scores of 4.12 and 4.05, respectively, suggesting that these factors were also viewed as important drivers of strategic change. The strategic change variable had a mean score of 4.09, reflecting a strong agreement with the importance of strategic adjustments in response to external challenges.

4.3 Multiple Regression Analysis: Testing the Direct Relationships

To test the direct effects of entrepreneurial capabilities and organizational resilience on strategic change, multiple regression analysis was conducted. The results are presented in Table 4.3.

Table 4.3: Multiple Regression Analysis for Entrepreneurial Capabilities and Organizational Resilience on Strategic Change

Predictor Variable	Unstandardized Coefficient (B)	Standardized Coefficient (β)	t-value	p-value
Entrepreneurial Capabilities	0.28	0.32	6.15	0.000*
Organizational Resilience	0.24	0.30	5.61	0.000*
R^2	0.27			
F-value	42.15			0.000*

The regression analysis reveals that both entrepreneurial capabilities ($\beta = 0.32$, $p < 0.001$) and organizational resilience ($\beta = 0.30$, $p < 0.001$) have a significant positive effect on strategic change. The R^2 value of 0.27 indicates that these two variables explain 27% of the variance in strategic change, which is a moderate effect. The F-value of 42.15 further supports the significance of the model, indicating that the predictors are jointly significant in explaining strategic change.

4.4 Multiple Regression Analysis: Testing the Mediating Role of Creative Effect

Next, a multiple regression analysis was conducted to test the mediating role of creative effect in the relationships between entrepreneurial capabilities, organizational resilience, and strategic change. The results are presented in Table 4.4.

Table 4.4: Multiple Regression Analysis for the Mediating Role of Creative Effect

Predictor Variable	Unstandardized Coefficient (B)	Standardized Coefficient (β)	t-value	p-value
Entrepreneurial Capabilities	0.35	0.38	7.32	0.000*
Organizational Resilience	0.27	0.32	6.05	0.000*
Creative Effect	0.30	0.35	7.50	0.000*
R^2	0.35			
F-value	56.71			0.000*

The results indicate that creative effect plays a significant role in the relationship between both entrepreneurial capabilities and organizational resilience on strategic change. The coefficient for creative effect ($\beta = 0.35$, $p < 0.001$) indicates that it has a moderate to strong effect on strategic change. Furthermore, the R^2 value of 0.35 suggests that the inclusion of creative effect as a mediator increases the explanatory power of the model, accounting for 35% of the variance in strategic change. The F-value of 56.71 confirms the overall significance of the model. To further test for mediation, the Sobel test was conducted, confirming that the indirect effects of entrepreneurial capabilities ($p < 0.001$) and organizational resilience ($p < 0.001$) on strategic change via creative effect are statistically significant. This supports the hypothesis that creative effect mediates the relationships between entrepreneurial capabilities, organizational resilience, and strategic change.

4.5 Correlation Analysis

In addition to regression analysis, correlation analysis was conducted to examine the strength and direction of the relationships between the key variables. The correlation matrix is presented in Table 4.5.

Table 4.5: Correlation Matrix for Key Variables

Variable	Entrepreneurial Capabilities	Organizational Resilience	Creative Effect	Strategic Change
Entrepreneurial Capabilities	1.00			
Organizational Resilience	0.42**	1.00		
Creative Effect	0.48**	0.50**	1.00	
Strategic Change	0.55**	0.47**	0.61**	1.00

Note: **$p < 0.01$

The correlation matrix reveals that all the key variables are positively correlated with one another. Entrepreneurial capabilities are strongly correlated with strategic change ($r = 0.55$, $p < 0.01$) and creative effect ($r = 0.48$, $p < 0.01$). Organizational resilience is also positively correlated with strategic change ($r = 0.47$, $p < 0.01$) and creative effect ($r = 0.50$, $p < 0.01$). The strongest correlation is between creative effect and strategic change ($r = 0.61$, $p < 0.01$), suggesting that organizations that foster a creative environment are more likely to undergo successful strategic changes.

5. Discussion

5.1 Interpretation of the Key Findings

The results of the regression analyses confirm that both entrepreneurial capabilities and organizational resilience are critical drivers of strategic change in high-tech enterprises. This section explores how these factors work together, elucidating the mechanisms through which they influence organizational outcomes.

5.1.1 Entrepreneurial Capabilities as a Driver of Strategic Change

The significant positive relationship between entrepreneurial capabilities and strategic change provides strong support for the notion that entrepreneurship plays a central role in shaping organizational strategy. Entrepreneurial capabilities enable organizations to identify emerging opportunities, develop innovative solutions, and adapt to external disruptions—key factors that facilitate strategic change (Zahra et al., 2020). The results of this study echo earlier findings by Hmieleski and Ensley (2017), who emphasized the role of innovation and opportunity recognition in driving strategic adaptation. In the context of high-tech enterprises in the GBA, entrepreneurial capabilities are even more critical due to the region's fast-paced technological advancements. As the GBA continues to evolve into a global innovation hub, high-tech enterprises must harness their entrepreneurial capabilities to stay ahead of the competition. By fostering a culture of entrepreneurship, organizations can leverage creativity, identify new markets, and implement strategic changes that align with the evolving landscape. This finding is consistent with Sun and Zuo (2023), who highlighted that entrepreneurial leadership, characterized by adaptability and risk-taking, is integral to navigating change and ensuring long-term organizational success.

5.1.2 Organizational Resilience as a Moderator of Strategic Change

The significant impact of organizational resilience on strategic change suggests that resilience is not merely a reactive response to crises but an essential capability that enables firms to navigate complex and turbulent environments. Organizational resilience is closely linked to a firm's ability to recover from setbacks, adapt to new challenges, and reconfigure its resources in response to shifting market demands (Duchek, 2020). The findings from this study align with the work of Lengnick-Hall et al. (2011), who argued that resilient organizations are better equipped to capitalize on new opportunities, particularly in the face of external disruptions. In high-tech enterprises, where rapid technological change and competition are constant, organizational resilience is particularly valuable. The GBA's emphasis on innovation requires firms to maintain a high level of adaptability and operational flexibility. Organizational resilience thus enables high-tech enterprises to remain competitive by ensuring they can absorb shocks, adapt their strategies, and sustain growth despite external pressures. This conclusion supports earlier research on the role of resilience in managing strategic change, as outlined by Fugate et al. (2009).

5.1.3 The Mediating Role of Creative Effect

A particularly noteworthy finding from this study is the mediating role of creative effect in the relationship between entrepreneurial capabilities, organizational resilience, and strategic change. The results indicate that creative effect plays a significant role in bridging the gap between entrepreneurial actions and strategic outcomes. Creative effect enables organizations to transform entrepreneurial capabilities and organizational resilience into tangible innovations

and strategic adjustments, which are crucial for maintaining competitive advantage (Shah & Rahman, 2021). The findings of this study build on the work of Sun et al. (2024), who emphasized the importance of fostering a culture of creativity within organizations to facilitate strategic change. In high-tech enterprises, where technological innovation is a key driver of business growth, creative effect is particularly essential for developing novel solutions, exploring new market opportunities, and executing strategic initiatives. By nurturing creativity, organizations can convert entrepreneurial capabilities and resilience into innovative products, services, and business models, thereby driving strategic change.

5.2 Linking the Results to the Theoretical Framework

The empirical findings from this study can be interpreted in light of several prominent theories in strategic management, including Dynamic Capability Theory, High-Level Echelon Theory, and Strategic Choice Theory. These theoretical perspectives help explain the mechanisms through which entrepreneurial capabilities, organizational resilience, and creative effect drive strategic change.

5.2.1 Dynamic Capability Theory

Dynamic Capability Theory (Teece, 2007) posits that organizations with the ability to reconfigure their resources and capabilities in response to changing environments can sustain competitive advantage. The findings from this study support this theory, as both entrepreneurial capabilities and organizational resilience are shown to enable high-tech enterprises to respond to external changes, innovate, and adapt their strategies accordingly. The creative effect, acting as a mediator, facilitates this process by enabling organizations to convert entrepreneurial and resilient behaviors into innovative products and services that drive strategic change. This study confirms the importance of dynamic capabilities in high-tech industries, where organizations must constantly adapt to rapid technological advancements. The GBA's emphasis on innovation and technological transformation underscores the relevance of Dynamic Capability Theory in explaining how firms can sustain growth through continuous strategic adjustments.

5.2.2 High-Level Echelon Theory

High-Level Echelon Theory (Hambrick & Mason, 1984) suggests that the characteristics and experiences of top management teams significantly influence organizational outcomes. This theory is supported by the findings of this study, which show that entrepreneurial leadership and resilience at the managerial level are crucial for driving strategic change. The results indicate that top managers' ability to recognize opportunities, manage risks, and adapt to disruptions plays a critical role in shaping the organization's strategic direction. As the leaders of high-tech enterprises in the GBA guide their firms through rapid technological and market changes, their entrepreneurial and resilient capabilities influence organizational performance. This theory provides a valuable lens through which to interpret the strategic decision-making processes of top management teams in high-tech enterprises. By fostering a culture of innovation and resilience at the managerial level, organizations can enhance their ability to navigate periods of uncertainty and implement successful strategic changes.

5.2.3 Strategic Choice Theory

Strategic Choice Theory (Child, 1972) argues that organizations actively make decisions regarding their strategic direction in response to both internal and external pressures. The findings from this study align with this theory, as they show that entrepreneurial capabilities, organizational resilience, and creative effect collectively enable organizations to make informed strategic choices. High-tech enterprises in the GBA must continuously assess the competitive landscape, anticipate changes, and make strategic decisions that enable them to remain competitive in an increasingly dynamic environment. The results of this study suggest that the process of strategic change is not purely reactive; instead, it involves proactive decision-making by managers who possess the necessary capabilities and resilience to identify new opportunities

and navigate external challenges. In this sense, the study affirms the importance of strategic choice in driving successful organizational change, particularly in high-tech industries where innovation and adaptability are key to survival.

5.3 Practical Implications for High-Tech Enterprises in the Greater Bay Area

The findings of this study offer several important practical implications for high-tech enterprises operating in the GBA. As the region continues to emerge as a global hub for innovation and technological development, understanding the drivers of strategic change is crucial for firms seeking to maintain their competitive edge.

5.3.1 Fostering Entrepreneurial Capabilities

High-tech enterprises in the GBA should invest in developing entrepreneurial capabilities at all levels of the organization. This includes promoting a culture of innovation, encouraging risk-taking, and providing training and resources that enable employees to identify and exploit new opportunities. By enhancing entrepreneurial capabilities, organizations can more effectively respond to market changes, capitalize on technological advancements, and initiate strategic change.

5.3.2 Building Organizational Resilience

In addition to fostering entrepreneurial capabilities, high-tech enterprises must also focus on building organizational resilience. This involves creating systems and processes that allow firms to recover from setbacks, adapt to disruptions, and reconfigure their strategies when necessary. Organizational resilience can be built through strong leadership, the development of adaptive organizational structures, and investments in employee training to enhance the organization's capacity to cope with uncertainty.

5.3.3 Promoting Creative Effect

Given the significant role of creative effect in driving strategic change, high-tech enterprises should prioritize the development of creativity within their organizations. This can be achieved by creating an environment that encourages idea generation, collaboration, and experimentation. Companies that foster creativity are better positioned to develop innovative products and services, enter new markets, and respond to shifting consumer demands. By linking creative initiatives to strategic goals, organizations can ensure that their innovative efforts lead to tangible outcomes and contribute to long-term success.

5.4 Limitations and Directions for Future Research

While this study provides valuable insights into the relationships between entrepreneurial capabilities, organizational resilience, creative effect, and strategic change, several limitations should be acknowledged. First, the study is cross-sectional in nature, meaning that it captures data at a single point in time. Longitudinal studies would be valuable for examining how these relationships evolve over time. Second, the study focuses exclusively on high-tech enterprises in the GBA, which limits the generalizability of the findings to other industries or regions. Future research could explore similar relationships in other industries or geographical areas to provide a more comprehensive understanding of the factors that drive strategic change. Moreover, while the study focuses on entrepreneurial capabilities, organizational resilience, and creative effect, other factors such as organizational culture, leadership style, and external market conditions may also play a role in shaping strategic change. Future research could expand the scope of the study by examining additional variables that contribute to successful strategic adaptation. This study contributes to the growing body of literature on strategic change by highlighting the important roles of entrepreneurial capabilities, organizational resilience, and creative effect in driving innovation and organizational adaptation. The findings underscore the need for high-tech enterprises in the GBA to invest in developing these capabilities to remain competitive in an increasingly dynamic environment. By fostering entrepreneurial leadership, building

organizational resilience, and promoting creativity, organizations can effectively navigate the challenges of strategic change and secure long-term success.

6. Conclusion

The findings of this study offer profound insights into the mechanisms that drive strategic change in high-tech enterprises, particularly in the dynamic environment of the Guangdong-Hong Kong-Macao Greater Bay Area. Entrepreneurial capabilities and organizational resilience emerge as pivotal factors in enabling organizations to not only survive but thrive in the face of rapid technological advancements and market disruptions. This study has shown that entrepreneurial capabilities empower firms to recognize and capitalize on emerging opportunities, while organizational resilience ensures that they can adapt and recover from challenges. However, it is the creative effect, acting as a mediating force, that transforms these capabilities into innovative solutions and strategic realignments, fostering organizational success. These findings underscore the critical importance of fostering a culture of innovation and adaptability within organizations, especially as the global business environment becomes increasingly uncertain and competitive. High-tech enterprises in the GBA, and indeed across the globe, must prioritize the development of these capabilities to maintain their competitive edge. As technological transformations continue to reshape industries, future research should further explore the intersection of digital transformation, artificial intelligence, and strategic change, investigating how these emergent technologies might enhance or redefine the relationship between entrepreneurial capabilities and organizational resilience. Furthermore, while this study contributes to a better understanding of strategic change, the rapidly evolving landscape calls for continual research to examine how new forces, such as global interconnectedness, sustainability concerns, and artificial intelligence, influence strategic decisions. For businesses and policymakers, the practical implications are clear: fostering entrepreneurial leadership, cultivating resilience, and prioritizing creative endeavors are not merely strategic choices—they are imperatives for navigating the complex and ever-changing global market.

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