

Study on the “Leadership-Resilience-Performance” Transmission Mechanism of
High-Tech New Ventures from the Perspective of Multi-Theoretical Integration:
Boundary Effects of Environmental Characteristics and Empirical Verification in the
Context of China’s Transitional Economy

Thesis Submitted for the Degree of Doctor of Management

By

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Declaration

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Abstract

The leadership-resilience-performance transmission mechanism is a core issue that business leaders and scholars worldwide seek to thoroughly understand. The ability of high-tech new ventures to leverage entrepreneurial leadership and build organizational resilience typically determines their survival and high-quality development amid resource constraints and environmental uncertainty. Often these capabilities reshape the competitive landscape of China's transitioning economy by enabling firms to address resource gaps, navigate policy shifts, and counter predatory challenges. Although these types of capacity-building efforts are rooted in sound theoretical frameworks that promote innovation and resource orchestration, business leaders and incumbent enterprises in China must examine every contextual opportunity to remain competitive amid unique institutional pressures. The opportunity investigated in this explanatory quantitative study is the understanding of the contextualized mechanism of how entrepreneurial leadership drives performance through organizational resilience, shaped by China's dual policy-market dynamics.

This quantitative study focused on incumbent leaders and founders of high-tech new ventures in mainland China to explore the chain mediation effect of organizational resilience and the adaptive moderation effects of environmental dynamism and competitiveness on the leadership-performance link. The data was collected from a stratified random sample of 258 incumbent-led high-tech new ventures established over the past decade in China's fast-growing economy, characterized by an emerging middle class and rapid technological innovation cycles. This research took place during a period of evolving global trade dynamics and ongoing tensions between the governments of China and the United States. The outcome of this study could assist all business leaders and policymakers by understanding and appreciating the Sino-Western differences in the innovation-resilience-performance relationship, as well as providing actionable guidance for optimizing management practices and supporting the development of new quality-producing productive forces in China's transitioning economy.

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The completion of this dissertation marks the end of my doctoral journey, yet also the beginning of a new chapter in my long-term research on the dynamics of Chinese high-tech entrepreneurship.

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CHAPTER 1 INTRODUCTION

1.1 Background

For high-tech enterprises, there are always two key challenges: resource scarcity inside and environmental uncertainty outside. Resource scarcity inside is due to insufficient resource acquisition in the initial stage of development, such as a lack of capital, technology, and human resources. Environmental uncertainty outside is due to the effects of external environment pressures, such as rapid technology advancement and fluctuating market demands (Yi et al., 2022). In the post-pandemic context, with the accumulation of compound effects from global supply chain disruption, frequent updates in regulations, and increasingly fierce competition in industries, it is increasingly challenging for these high-tech new ventures to survive in such an environment characterised by ‘short lifespans and unstable performance.’ Statistical data indicates that the survival rate of China’s high-tech new ventures over the past three years has declined by 12% compared with the pre-pandemic context (Zhang et al., 2023).

This practical problem raises an underlying research question in modern management research: under the dual constraints of resource scarcity and environmental uncertainty, what are the possible paths of development for high-tech new ventures to ensure sustainable survival and continuous performance? In order to answer this research question in an effective way, it is imperative to explore the improvement of organisational capabilities and adaptation to environmental changes, which can lay a foundation for further research.

In this regard, the existing body of academic literature indicates that entrepreneurial leadership (EL) is an important driver of new venture performance with fundamental aspects including opportunity identification, risk-taking propensity, resource mobilization, and vision formulation (Renko et al., 2015). Entrepreneurial leadership is the fundamental impetus for new ventures to sustain themselves against external threats. Existing academic studies have confirmed that entrepreneurial leadership significantly and positively impacts new venture performance (Alenezi et al.,

2024). However, the mediating process in this regard has not been sufficiently explored.

Organisational resilience (OR) is the ability of the organisation to respond and adapt to changes in the external environment. This is indispensable for the maintenance of stable operations and innovative development in the organisation (Carnes et al., 2019). According to the dynamic capability theory, organisations must make adjustments in the resource allocation and utilisation capabilities to sustain the competitive advantage in the changing environment (Teece, 2023). However, the process by which entrepreneurial leadership contributes to organisational performance by building organisational resilience has not been sufficiently explored in the existing body of academic literature. Existing studies have mostly focused on either the direct impact of entrepreneurial leadership on organisational performance or the buffering impact of organisational resilience on organisational performance (Gupta et al., 2004; Jia et al., 2014), with little emphasis on the process by which entrepreneurial leadership contributes to organisational resilience.

Although Situational Leadership Theory emphasizes the impact of extreme external environmental factors on organisational leadership and management, little research has been carried out in extremely adverse conditions such as the pandemic. Environmental dynamism and competitiveness are widely regarded as important factors in corporate strategy and organisational performance. However, the moderating impact of these factors on the relationship between entrepreneurial leadership and organisational resilience has not been explored in the existing body of academic literature.

Thus, in conclusion, there is an urgent need in the field of academia to further comprehend the internal mechanism whereby entrepreneurial leadership affects the performance of new ventures through organisational resilience in complex and uncertain environments. Moreover, the exploration of the boundary conditions of contextual moderating variables is considered an essential area of research in the field of entrepreneurship management that demands further investigation.

1.2 Problem Statement

The enhancement of Chinese high-tech new ventures' quality is directly related to the

science and technology innovation ecosystem and serves as a strategic measure to promote core technologies and build high-quality productive forces. They confront challenges of triple dilemmas (Zhang, 2024), including self-dilemma, management dilemma, and operation dilemma. Thus, around 70% of new ventures struggle to build environmental adaptive mechanisms (Cardoso et al., 2025; Sayyam et al., 2022). The impact of this crisis reveals two competence weaknesses, due to either internal resources and/or environmental uncertainties, requiring exploration of leadership and organisational capabilities.

Endogenously, capabilities limitations are a fundamental obstacle for entrepreneurs. High-tech innovative ventures typically have weak resource foundations and inefficient resource allocation (Gupta et al., 2004). Insufficient R&D resources, shortage of key skills, and failure to identify opportunities via inter-departmental coordination led to inefficient innovation input-output (Carnes et al., 2019).

Exogenously, environmental uncertainties in a digital economy have manifested ultra-dynamism characteristic. The technological innovation cycles have shortened to less than 18 months in generative AI. Thus, a required skill in this volatile context is to develop a dynamic capability of sense, seize, and reconfigure (Teece, 2023), which is the ability to recover from crises and convert uncertainty into innovation opportunities in the digital economy (Jia et al., 2024).

Existing research points out two important weaknesses. Firstly, it focuses on established firms rather than high-tech new ventures, which characterised by unique resource constraints and heavy reliance on innovative capabilities (Zhang et al., 2021); Secondly, it fails to systematically clarify the transmission mechanism between entrepreneurial leadership (EL), OR, and firm performance (FP), nor explain the role of dynamic capabilities in this relationship (Lin et al., 2020; Alenezi et al., 2024).

This research fills the above-mentioned gap by exploring how EL positively affects new venture outcomes through improved OR. The underlying theory encompasses environmental dynamism (ED) and environmental competitiveness (EC) variables to analyse their respective roles within this context. This research work further clarifies the role of EL within the context of OR.

1.3 Rational for the research

The rationale for this doctorate project stems from two interconnected gaps: one theoretical, one practical.

Theoretically, existing research on entrepreneurial leadership often treats organisational resilience as a single, undifferentiated construct, and rarely integrates environmental contingencies into a unified moderated mediation framework. Most studies focus on direct leadership-performance links rather than unpacking the behavioural and capability mechanisms through which leadership shapes organisational resilience and performance. Furthermore, much of the literature is derived from Western mature markets, with limited empirical grounding in China's transitional economy characterised by resource constraints and institutional dynamism.

Practically, high-tech new ventures in China frequently struggle to translate entrepreneurial leadership into improved organisational resilience and sustainable performance. Many leaders lack clear, contextually appropriate guidance on how to strengthen opportunity identification, resource mobilisation, adaptive response, and crisis recovery in volatile environments. Without empirically validated frameworks, practitioners rely on experience rather than evidence, leading to inconsistent organisational outcomes and increased failure rates.

This study therefore addresses both the theoretical gap in integrated leadership-resilience-performance research and the practical gap in actionable guidance for venture leaders. Its central purpose is to generate rigorous, context-specific insights that advance academic understanding while directly supporting practitioners in enhancing leadership effectiveness, building organisational resilience, and improving the sustainable performance of new ventures.

1.4 Research Questions

Against the context of resource constraints and institutional transition in China's emerging economy (Zhao & Chen, 2024; Zhang et al., 2023), this study addresses key gaps in both scholarly understanding and managerial practice by proposing four sequential research questions:

Research Question 1

Drawing on multi-dimensional conceptualisations of entrepreneurial leadership (Renko et al., 2015), and in response to the literature gap regarding how sub-dimensions of entrepreneurial leadership relate to venture performance, this study examines whether and how entrepreneurial leadership and its five dimensions (opportunity recognition, risk-taking, resource mobilisation, innovation leadership, and vision creation) directly and positively influence the performance of new ventures, and whether significant differences exist in the strength of effects across these dimensions.

This question primarily focuses on the direct connection between leadership traits and performance achievements and addresses the literature gap of insufficient empirical exploration into the direct connection between the subdimensions of entrepreneurial leadership and performance indicators.

Research Question 2

While organisational resilience has been proposed as a mediator in prior research, empirical support remains fragmented and incomplete. This study tests whether entrepreneurial leadership indirectly improves new venture performance by strengthening overall organisational resilience. It further explores whether each of its three core components—responsiveness to environmental change, effective crisis recovery, and precise risk situational awareness—exerts distinct mediating effects between entrepreneurial leadership and new venture performance.

This question is to ascertain the transmission logic of the “Entrepreneurial leadership → Organizational resilience → New venture performance” model in detail, verifying the theoretical rationality of organizational resilience as a mediator. It addresses the literature gap where prior studies only hypothesized organizational resilience’s mediating role without empirical validation.

Research Question 3

Based on the environment–resource matching logic of Resource Orchestration Theory, this study addresses the literature gap in which environmental moderators are often treated as undifferentiated, with unclear boundary conditions. It investigates the degree to which environmental dynamism and environmental competitiveness positively moderate the relationship between entrepreneurial leadership and

organisational resilience, and whether meaningful differences exist in the direction and strength of moderation between these two contextual factors.

This question seek to explain the unique values of the moderating effects of two different characteristics in the environment, where current literature has startlingly obscured boundaries in exploring the values of multiple environment variables on organizational performance together in one study.

Research Question 4

Integrating the preceding questions, this study addresses the gap of insufficiently integrated moderated mediation models that incorporate environmental contingencies across the full causal chain. It specifically examines how environmental dynamism and environmental competitiveness moderate the EL–OR–FP mediating pathway by shaping the link between entrepreneurial leadership and organisational resilience, and whether the mediating role of organisational resilience varies across contexts characterised by different levels of environmental dynamism and competitiveness.

The principal goal of this question is to empirically validate the “environmental characteristics → mediating effect strength → full chain effect” moderation logic, clarify how the mediating effect of organizational resilience varies under high or low dynamism and high or low competitiveness; enhance the scientific understanding of contextual boundaries shaping core variable relationships; address the existing theoretical gap of neglecting the environmental moderated mediation effect in the full chain.

Collectively, the four research questions build logically upon one another: establishing direct relationships → unpacking mediating mechanisms → identifying contextual boundary conditions → integrating variables into a unified moderated mediation framework. Together, they clarify the direct relationship between entrepreneurial leadership and firm performance, open the ‘black box’ of the EL–OR–FP mechanism, distinguish the unique moderating roles of environmental dynamism and competitiveness, and ultimately develop an integrated framework for entrepreneurial leadership, resilience, performance, and context.

1.5 Purpose of the Study

The purpose of this study is to address the practical challenges of resource scarcity and institutional transition faced by high-tech new ventures in China's transitional economy. Focusing on core relationships among entrepreneurial leadership, organizational resilience, and firm performance, this research uses Chinese high-tech start-ups as its empirical setting and draws on three complementary theoretical lenses: Entrepreneurial Leadership Theory, Dynamic Capability Theory, and Resource Orchestration Theory.

Rather than pursuing abstract theoretical debate, the study aims to generate empirically grounded, practice-relevant insights to support venture leaders in improving organisational resilience and sustainable performance. The specific objectives are as follows:

1. Clarify the influence pathway

By applying Dynamic Capability Theory, this study proposes and tests a sequential mediation model: Entrepreneurial Leadership → Organisational Resilience → Firm Performance, to identify clear causal relationships and mechanisms among the focal variables.

2. Verify distinct dimension-level mediation

This study examines how entrepreneurial leadership operates through the three dimensions of organisational resilience—adaptability, recovery capability, and situational awareness—and compares the relative strength of each mediating pathway.

3. Analyse contextual moderating effects

It investigates how environmental dynamism and environmental competitiveness shape the strength and nature of the relationship between entrepreneurial leadership and organisational resilience.

4. Moderated mediation effect of environmental characteristics

This study addresses the gap of insufficiently integrated moderated mediation models that incorporate environmental contingencies across the full causal chain.

5. Develop an applied practical framework

Based on empirical findings, this study constructs a practice-oriented framework of entrepreneurial leadership and organisational resilience, providing actionable guidance

for leaders to enhance leadership effectiveness, strengthen organisational resilience, and improve sustainable performance in high-tech new ventures.

1.6 Significance of the Study

1.6.1 Theoretical Significance

Within the context of resource constraints and institutional dynamism in China's transitional economy (Zhao & Chen, 2024; Zhang et al., 2023), this study advances scholarly understanding of the causal chain linking entrepreneurial leadership, organisational resilience, and new venture performance. Its key theoretical contributions are:

1. Unpack the 'black box' between entrepreneurial leadership and organisational resilience

Existing studies primarily focus on the direct relationship between leadership and performance (Alenezi et al., 2024) and typically regards organisational resilience as a single dimension (Carnes et al., 2019). It identifies and quantifies the distinct mediating roles of the three dimensions stated above and reveals the mechanism by which EL increases OR. It further fills up the research space within the leadership-competence transmission mechanism for entrepreneurship management.

2. Integrate multiple theoretical perspectives

This research integrates concepts from Entrepreneurial Leadership Theory, Dynamic Capability Theory, and Resource Orchestration Theory for the first time, which are leadership-oriented, organization-oriented, and resource-oriented, respectively. This leadership-resource-capability-performance approach has been adopted to overcome the drawbacks of using only one framework on resources and capabilities, as it is incapable of explicating their interplay with environments simultaneously.

3. Expand contextual boundaries of organisational resilience research

Existing research on organisation resilience has mainly focused on established corporations or Western market environments, typically ignore the particular dynamics between policy shifts and the struggle to gain access to resources characteristic for China's transitional market context. The proposed study will incorporate environmental dynamism and environmental competitiveness within its theoretical model to address

their moderating roles in studying entrepreneurial leadership and its relation to resilience in organisations.

Together, these contributions deepen theoretical understanding of entrepreneurial leadership and organisational resilience while maintaining strong relevance to real-world venture management.

1.6.2 Practical Significance

High-tech new ventures in China's transitional economy face acute practical challenges: persistent resource constraints, high environmental uncertainty, and frequent difficulties translating entrepreneurial leadership behaviours into improved resilience and performance. This study provides clear, actionable value for practitioners, venture leaders, and ecosystem supporters across three key areas:

1. Support leaders in managing the full crisis lifecycle

New ventures require more than reactive crisis response, they need leadership practices tailored to pre-crisis preparation, in-crisis adaptation, and post-crisis learning. This study helps leaders design structured leadership development strategies that strengthen opportunity identification, resource orchestration, and adaptive decision-making, enabling ventures to maintain operational vitality during disruptions and recover more quickly.

2. Enable contextually appropriate organisational resilience building

By grounding the leadership–resilience pathway in China's institutional and resource context, this study offers locally relevant guidance for building organisational resilience that avoids generic Western models. It helps venture managers design targeted capabilities in resource allocation, process flexibility, and risk awareness, improving organisational robustness under resource constraints.

3. Guide sustainable growth under ongoing environmental volatility

This is particularly true in an era of repeated disruptions. This study is aimed at helping leaders improve their internal management in terms of cash flow management, incentives for talents, dynamic risk monitoring systems, while also helping leaders sense market changes more accurately in order to make appropriate adjustments in terms of product or service strategies. Only in this way can ventures go beyond survival

to sustainable high-quality development.

In summary, this study offers strategic advice that is useful to venture managers and policymakers who wish to improve the survival and long-term growth of new high-tech ventures in China. The study helps the transition from the survival mindset to the growth mindset and contributes to the development of a better entrepreneurial ecosystem in the digital economy.

1.7 Definition of Terms

1.7.1 Definition of Variables

1. *Entrepreneurial Leadership (EL)* - Comprehensive leadership capabilities empower leaders to guide organizations through uncertain environments by identifying and developing opportunities, integrating resources, and providing visionary leadership (Gupta et al., 2004).
2. *Organizational Resilience (OR)* - an organization's ability to quickly resume operations from crises, and leverage crises to achieve long-term sustainability and resilience (Carnes et al., 2019).
 - Situational awareness - an organisation's sensitivity to shifts in its internal operational environment and external market conditions, policies and other environmental factors.
 - Adaptation capability - an organisation's ability to respond flexibly to environmental changes.
 - Recovery capability - an organisation's ability to recover or bounce back after experiencing a shock.
3. *Environmental Characteristics* - the rate of environmental change and the unpredictability of change (Jansen et al., 2009).
 - Environmental Dynamism (ED) - high-frequency and uncertain environmental changes, such as technological changes, shifts in customer preferences, and fluctuations in product demand.
 - Environmental Competitiveness (EC) - number of competitors in the market and market-oriented product differentiation.
4. *Firm Performance (FP)* - The aggregate results attained by an organisation through

resource allocation, capability enhancement, and strategic implementation, concerning financial returns, market competitiveness, innovation outputs, and sustainable development (Richard et al., 2009).

- Financial Performance - capital operation and profitability.
- Market Performance - market share and customer loyalty.

1.7.2 Definition of Theories

1. *Dynamic Capability Theory (DCT)*: A set of higher-order capabilities that enable firms to integrate, build, and reconfigure internal and external resources and competencies to adapt to rapidly changing environments (Teece et al., 1997).
2. *Entrepreneurial Leadership Theory (ELT)*: A leadership paradigm that takes opportunity recognition as the starting point, risk taking as the feature, and resource mobilization as the means. It promotes organizations (especially new ventures) to overcome resource constraints, respond to environmental uncertainty, and achieve sustainable growth through vision building and innovation leadership (Gupta et al., 2004; Renko et al., 2015).
3. *Resource Orchestration Theory (ROT)*: A theoretical framework in which firms transform scattered, static resources into dynamic, competitive capabilities through a systematic process of structuring, bundling and leveraging to respond to environmental changes and improve performance (Sirmon et al., 2011; Yi et al., 2022).

1.8 Delimitations of the Study

This study imposes specific constraints on research subjects, context, variable dimensions, and methodologies to prevent divergence from the research's objective caused by an excessively broad area of study (The detailed content is in Chapter 3).

1. Definition of research objects and sample selection

High-tech industry: Biopharmaceuticals, Electronic Information Technology, Aerospace, New Energy, High-end Equipment Manufacturing, and New Materials (Classification of High-Tech Industries (Manufacturing) issued by the National Bureau of Statistics of China).

New venture: Registered and founded in China, within 10 years of inception,

with a workforce of ≤ 100 employees, prioritising technology or business model innovation as their primary competitive advantage.

Selection standard: Must meet at least one of the following criteria: In the incubation period; Establishment time ≤ 10 years; Not yet publicly listed.

The reason for this delimitation is that businesses under ten years old are more vulnerable to organisational resilience and entrepreneurial leadership because they are in the crucial survival and growth phase. By concentrating on innovative businesses, it is also possible to lessen the variation in business models and performance standards among non-innovative industries. This keeps these variations from interfering with the measurement of innovation performance, which enhances the accuracy of testing the relationships between core variables.

2. Research scope of the moderating variable

This study focuses on two contextual variables within the external environment: environmental dynamism (technological/policy iterations) and environmental competitiveness (market competition intensity). It temporarily excludes other contextual factors, such as institutional distance (e.g., differences between domestic and foreign markets) and cultural environment (e.g., regional cultural differences).

This delimitation is justified by existing literature, which confirms that dynamism and competitiveness are core contextual factors influencing the resilience and performance of new ventures (Teece, 2023; Zhang et al., 2023). By concentrating on these two specific moderating variables, the research is prevented from becoming overcomplicated. In this way, core mechanisms of mediating effects and moderating effects are examined accurately.

3. Research scope of variables

The study excludes other dimensions of leadership styles (e.g., ethical leadership, transformational leadership) and focuses exclusively on the five dimensions of entrepreneurial leadership styles: opportunity identification, risk-taking capacity, resource mobilization, innovation leadership, and vision building. The study focuses on three core dimensions of organizational resilience: adaptation, recovery, and situation awareness. Justification for this delimitation is because the dimensions selected are

compatible with Dynamic Capabilities Theory and supported by established scales (Renko et al.,2015; Sirmon et al.,2011).

4. Excluded variables

This study excludes external variables that significantly impact the innovation performance of new businesses, including institutional disparities and regional cultural variances. Instead, it focusses on research the effect of environment dynamic and environment competence.

This delimitation prevents unnecessary external variables from complicating the model, ensuring study concentration on essential variables, and consequently sustains the accuracy and reliability of the analytical results.

1.9 Assumptions and Limitations

1.9.1 Assumptions

Assumptions are statements presumed to be accurate for a specific purpose without the necessity of verification (Vogt & Johnson, 2015). The following assumptions are presented to support rationale and viability of the research methodologies.

1. *Theoretical Adaptability Proposition*

It is assumed that three theories (Entrepreneurial Leadership Theory, Dynamic Capability Theory and Resource Orchestration Theory) can effectively explain the relationships among core variables in the context of China's transitional economy, particularly the internal mechanism of the entrepreneurial leadership-organizational resilience-new venture performance pathway.

2. *Variable Assessment Proposition*

It is assumed that the questionnaire survey method can accurately assess the core variables: independent variable (Entrepreneurial Leadership), mediating variable (Organisational Resilience), moderating variable (Environmental Characteristics), and dependent variable (New Venture Performance). It is assumed that established measuring scales for variables that demonstrate high reliability and validity. It is assumed that all questionnaire respondents possess a thorough understanding of the research, provide objective responses without subjective conformity bias.

3. *Sample Representativeness Proposition*

This research carried out a structural analysis on the final sample regarding regional distribution, industrial structure, and distribution of enterprise scale. By secondary screening, the proportion of the sample on each variable was calibrated to effectively cover various subfields (e.g., AI, advanced manufacturing, biomedicine) and enterprise scales (e.g., firm age, employee number) for the respective core clusters. It is assumed that samples obtained through stratified sampling can be representative of the overall characteristics of new ventures in the context of China's transitional economy.

1.9.2 Limitations

Although this study has made a comprehensive examination of the relationship between organizational resilience and performance, the generalization of research findings may be limited by the study's design and methodological choices.

1. Sampling limitation

This study's sample is mainly drawn from the eastern coastal and core cities in central and western parts of China (e.g., Chengdu and Chongqing, Xi'an). Enterprises within these areas share similarities concerning "high policy dynamics and fierce market competition," and similar acquisition logic concerning core resources such as technical talents and capital. It will be noted that this research methodologically strengthens the external validity of its results by considering samples from four main high-technology industrial clusters based on a stratified sample design. As suggested by Bryman (2020), external validity can be promoted if the sample represents better the main diversification of the population. Based on an analysis involving stratified sample designs, as adopted for this research, not only are general contexts incorporated, such as policy-driven models, market-driven models, and collaboration-driven models, but there is also compatibility in regard to size and industrial stratification. As a result, it becomes possible to generalize more than 70% of Chinese high-tech industry subjects, as suggested by the China High-Tech Industry Development Report (2024); therefore, there is transferability of conclusions. However, for new ventures in remote central and western parts of China, resource acquisition primarily relies on government support amid weak market competition, which is very different from enterprises within the east region and their survival logic of "market-driven and relationship-network dependence,"

thus the conclusions have limited applicability to these remote-region ventures.

2. Methodological Limitation

This study employs cross-sectional questionnaire survey to examine the relationships among entrepreneurial leadership, organizational resilience and firm performance. However, as cross-sectional data only provides a static snapshot, it fails to capture the dynamic changes of entrepreneurial leadership, organizational resilience, and performance throughout the corporate life cycle. Although this study uses “firm age” as a stratification variable and conducts a stratified analysis on samples grouped by firm age (1-3 years, 3-5 years, 5-10 years) to compare differences in the leadership-resilience-performance across enterprises at different stages of growth, thus indirectly reflects the dynamic change trends. Therefore, the explanatory power of the study’s conclusions regarding the long-term evolutionary process is somewhat limited.

3. Variable Measurement Limitations

Although important variables (e.g., business performance, organisational resilience, and entrepreneurial leadership) have been carefully considered in this study’s design, the complexity and multidimensionality of certain variables may not be well captured by the current measurement methods. For example, organisational resilience is largely contingent on managerial perceptions, which may not fully reflect a given organisation’s actual capacity to respond to external disturbances.

In conclusion, this paper offers valuable insights into the leadership-resilience-performance chain relationship for high tech ventures. Future research could broaden the sample scope, adopt a longitudinal research design, and employ more comprehensive variable measurement approaches to address these limitations.

1.10 Organization of the Study

This thesis examines the core chain of entrepreneurial leadership, organizational resilience and new venture performance in China’s transitional economy, aiming to explore how entrepreneurial leadership influences new venture performance through the mediating role of organizational resilience and the moderating role of the external environment. It consists of six key chapters:

Chapter 1 Introduction: Presents the research background, objectives, questions,

and theoretical and practical implications. It defines core variables, delimits the research scope, clarifies assumptions and limitations, and outlines the technical roadmap and content structure.

Chapter 2 Literature Review: Comprehensively analyzes the research status, measurement dimensions, Sino-Western comparisons, and empirical findings of entrepreneurial leadership, organisational resilience, entrepreneurial environment, and firm performance. It identifies key research gaps and establishes a theoretical foundation for subsequent research design and model development.

Chapter 3 Methodology: Develops a theoretical framework (entrepreneurial leadership as independent variable, organisational resilience as mediating variable, new venture performance as dependent variable, and environmental dynamism and competitiveness as moderating variables) based on Entrepreneurial Leadership Theory, Dynamic Capability Theory and Resource Orchestration Theory. It details empirical methods, data analysis procedures, constructs an analytical framework, and proposes research hypotheses and a moderated mediation framework.

Chapter 4 Findings: Tests hypotheses' direct, mediating, and moderating effects using descriptive statistics, reliability and validity tests, common method bias tests, and correlation analysis, with cross-validation via multiple statistical methods. It analyzes data tables and clarifies the results of all research hypotheses.

Chapter 5 Discussion: Synthesizes research findings, deliberates on direct, mediating, and moderating effects (highlighting East-West contextual disparities), and outlines theoretical and practical contributions.

Chapter 6 Conclusions: Restates main research questions and objectives, summarizes key conclusions from previous chapters, interprets empirical findings, reveals hypothesis implications, and provides actionable suggestions for new ventures, policymakers, and future researchers.

Based on the above research framework, the technical roadmap of this study is presented in Figure1- 1.

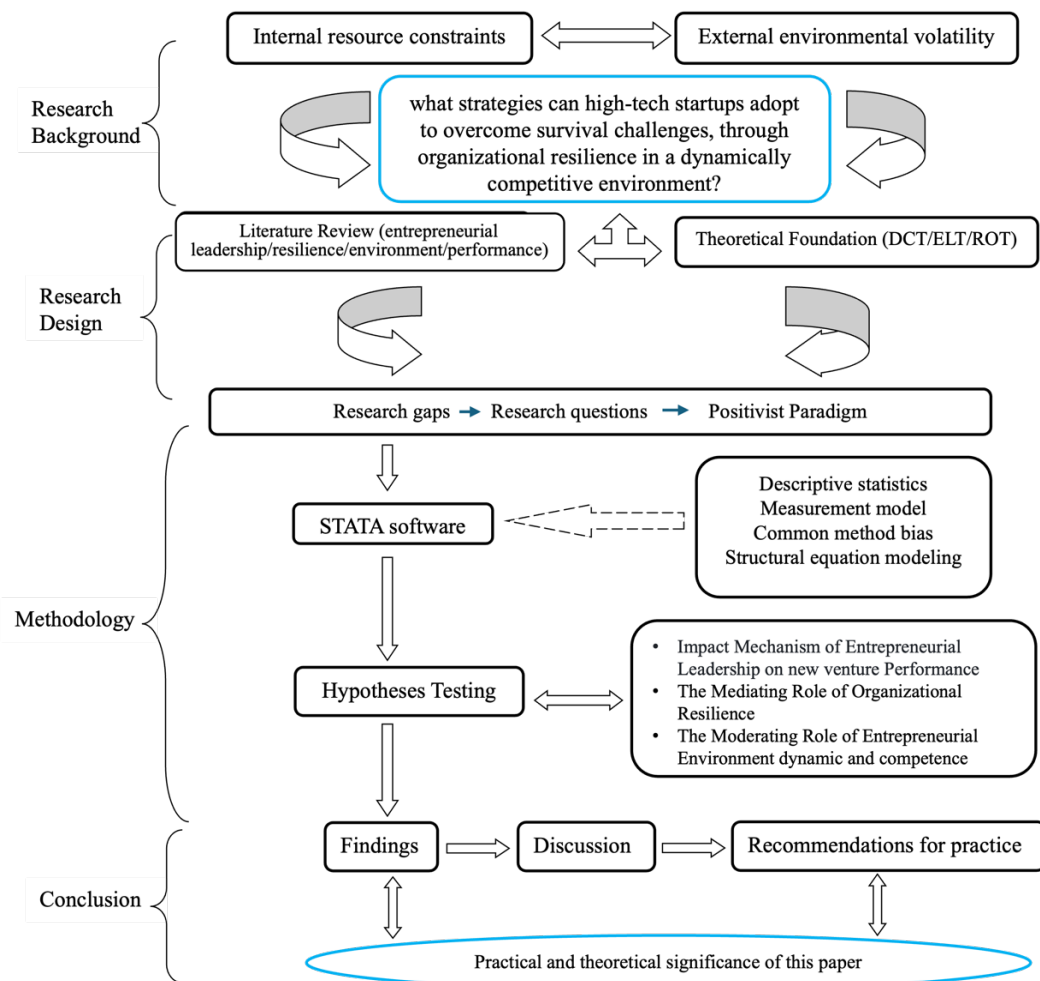


Figure1- 1 Research Technical Roadmap

CHAPTER 2 LITERATURE REVIEW

The aim of the literature review is to address the core research question proposed earlier: How does entrepreneurial leadership help new ventures overcome developmental challenges and improve performance in complex environments? Furthermore, it serves to establish the theoretical foundation essential for the subsequent development of theoretical models and empirical research.

As clarified in the introduction, high-tech new ventures face two key challenges: the “liability of newness” (Stinchcombe, 1965) and the unpredictability of the external environment. However, existing research has three notable gaps: first, it inadequately delineates the mechanisms through which entrepreneurial leadership affects new venture performance; second, it has conducted limited exploration of organizational resilience’s mediating role in this relationship; third, there remains a clear gap in understanding how environmental dynamism and competitiveness, which are two key attributes of the external context, may either constrain or enhance this relationship.

This chapter constitutes the theoretical background of the research work, commencing with an extensive literature review on the four central variables, namely, Entrepreneurial Leadership, Organizational Resilience, Entrepreneurial Environment, and New Venture Performance. For each variable, the definitions, measures, previous empirical findings, and important differences in the context of Chinese transitional economy have been described in detail. After this, the evolution of the problem statement has been traced, followed by identification of the essential theoretical gaps that exist in the EL-OR-FP sequence and moderation effects of environmental variables on the relationship. On the basis of this, a theoretical framework has been proposed using Dynamic Capabilities theory, supported by other theories such as Entrepreneurial Leadership and Resource Orchestration Theories.

2.1 The Current State of Research on Entrepreneurial Leadership

2.1.1 *Definition of Entrepreneurial Leadership*

Preliminary international research has defined entrepreneurial leadership as “organizational founders and leaders,” focusing predominantly on leadership

techniques in nascent enterprises. Consequently, scholarly discourse has consistently examined the correlation between entrepreneurship and leadership. Certain researchers classify it under the leadership domain (Lippitt, 1987); others consider it fundamental to leadership (Kuratko, 2007), while some promote independent investigation (Shane & Venkataraman, 2000). The field evolved into the empirical stage only after Gupta et al. (2004) undertook empirical research. Previous research has employed methodologies including semi-structured interviews and case analyses to examine the subject from diverse viewpoints, encompassing the female perspective (Dean & Ford, 2017), the process perspective (Sklaveniti, 2017), and contexts such as higher education and high-tech industries (Bagheri et al., 2013; Simba & Thai, 2019). A cohesive concept remains elusive in academia, with the definition put forth by Gupta et al. (2004), “building a vision to mobilize followers and developing strategic value”, being the most emblematic. The current emphasis in academics is on its characteristics and leadership dynamics.

The academic community has established two primary viewpoints on the conception of entrepreneurial leadership (Table 2- 1): the trait perspective and the process perspective. The Trait approach broke down its basic features into five dimensions: visionary power, risk-taking preference, innovation-driven intellect, aptitude for identifying opportunities, and unflinching determination, with recent scholarship extending this framework to include spiritual leadership (Sundararajan et al., 2012), exploration and exploitation capabilities (Oluwafemi et al., 2025), and AI-driven entrepreneurial cognition alongside digital trust-building traits (Mostafiz et al., 2025). The Process approach examined entrepreneurial leadership from a dynamic behavioural perspective and regarded it as a systematic procedure where leaders encourage and guide their followers to move the venture forward by identifying and harnessing opportunities, with contemporary extensions emphasizing distributed decision empowerment and flexible resource orchestration (Hussain & Li, 2022), as well as ESG opportunity sensing, multi-stakeholder collaboration, and sustainable resource integration (Majorana et al., 2025).

However, both classifications have drawbacks. To begin with, trait approach

emphasizing the qualities of successful leaders, the proposed attributes tend to overlap with one another just as those of other types of leadership, thus making it difficult to differentiate among them. This approach gives no deep insight into the link between entrepreneurship and leadership but only makes a superficial analysis. Conversely, the approach to processes, which emphasizes the dynamic chain of behaviours, provides an ambiguous explanation for the motives behind behaviours, does not give a satisfactory explanation for situational contingency factors, and fails to establish any decisive nexus to outcomes at the organizational level (Harrison et al., 2015). Both perspectives are thus thoroughly biased. A detailed description of entrepreneurial leadership should preferably focus on its distinctive features and its role vis-à-vis functions related to entrepreneurship.

Perspective	Researchers	Core Connotation
Leadership Traits	Lippitt (1987)	Venture, focus, learning from practice.
	Cunningham & Lischeron. (1991)	Prospects, independence, inter-organizational unity, HR frameworks.
	Nicholson (1998)	Resilience, self-assurance, competitiveness.
	Covin & Slevin (2002)	Disruptive innovation, opportunity creation, strategy linkage.
	Ireland et al. (2003)	Resource management, opportunity-seeking.
	Cogliser & Brigham (2004)	Vision, impact, transformation, innovation.
	Fernald et al. (2005)	Motivation, results orientation, creativity, risk-taking.
	Kuratko (2007)	Vision, innovation, team development, opportunity recognition.
	Sundararajan et al. (2012)	Spiritual Leadership
	Oluwafemi et al. (2025)	Exploration, Exploitation.
Leadership Process	Mostafiz et al. (2025)	AI-Driven Entrepreneurial Cognition, Digital Trust-Building Traits
	Ireland et al. (2003)	Strategic resource acquisition, opportunity leverage.
	Gupta et al. (2004)	Follower loyalty via organizational vision.
	Roomi & Harrison (2011)	Vision communication, competitive advantage via opportunities.
	Renko et al. (2015)	Guiding members, opportunity cultivation.
	Leitch & Volery (2017)	Behaviours/roles in entrepreneurial ventures.
	Hussain & Li (2022)	Distributed Decision Empowerment, Flexible Resource Orchestration.
	Majorana et al. (2025)	ESG Opportunity Sensing, Multi-Stakeholder Collaboration, Sustainable Resource Integration.

Table 2- 1 Classification of Entrepreneurial Leadership Concepts

Therefore, this study defines entrepreneurial leadership as a systematic leadership behaviour wherein leaders formulate a constructive vision informed by market insights, garner followers' recognition through entrepreneurial actions and risk-taking, thereby cultivating an organizational entrepreneurial environment, orchestrating

entrepreneurial activities to bolster competitiveness, and ultimately attaining sustainable organizational development.

2.1.2 Structural Model of Entrepreneurial Leadership

New ventures are becoming crucial drivers of economic growth in the context of ongoing global entrepreneurship. Thus, entrepreneurial leadership, as a key determinant in new venture survival and growth, has garnered attention for its theoretical and practical value.

Academic research on entrepreneurial leadership conceptual frameworks worldwide follows a dual path of theoretical advancement and empirical growth. On one hand, researchers have crossed disciplinary boundaries to systematically analyse entrepreneurial leadership's fundamental attributes and behavioural logic across several areas, such as opportunity identification, resource management, and organizational resilience, developing comprehensive theoretical constructs. The main study path, on the other hand, has changed into a series of “conceptual clarification-definition of structural dimensions-construction of measurement models” as investigations proceed. These two strategies are advancing entrepreneurial leadership research from qualitative descriptions to quantitative assessments.

Significant contrasts exist between global entrepreneurial ecosystems in academia and the specific context of China, particularly regarding resource constraints, institutional structures, and cultural environments. Contemporary research necessitates a comprehensive integration of concepts, dimensional frameworks, and the localized application of measurement tools. Thus, this subsection starts by reviewing important contributions to the conceptual framework of entrepreneurial leadership from the international academic community, emphasizing the key consensus and theoretical advancement. Then, it concentrates on research undertaken in China, examining the comprehensive insights offered by experts concerning the model's adaptability to a transitional economy and the characteristics of rising firms. At last, through comparative analysis, it identifies the merits of current studies and highlights areas for further research.

2.1.2.1 Perspectives of International Scholars

1. Cross-Cultural Entrepreneurial Leadership Framework

Notably, Gupta et al. (2004)'s cross-cultural entrepreneurial leadership framework provides a highly influential integrated model that advances prior monocultural perspectives. Grounded in entrepreneurial decision-making processes and combined with the GLOBE cross-cultural leadership project, this model identifies opportunity recognition and risk management as core dimensions. It structures entrepreneurial leadership into two overarching dimensions: scenario enactment and cast enactment, along with five key roles: defining challenges, managing uncertainty, clarifying paths, building commitment, and elaborating constraints (Table 2- 2). Empirically supported by 7,000 samples across 62 countries and validated at individual, organizational, and societal levels, this framework establishes a foundational benchmark for global leadership research.

Dimensions	Characters	Features
Scenario Enactment	Outline a challenging yet attainable result.	Achievements Orientation Ambitious Well-informed Exceptional insight
	Uncertainty absorption (taking responsibility for future failures)	Vision Foresight Confidence-Building Skills
	Pathway clarity (negotiation with opponents and clarification of the pathway to realizing the scenario).	Rich Strategies Effective Negotiation Skills Convincing/Encouraging
Cast Enactment	Build commitment (create an inspiring goal)	inspiring Enthusiastic Team-building skills Continuous improvement orientated
	Elaborate on restrictions (specify the permitted actions and those that are prohibited).	Integration skills Promote thinking Positive
		Decisive

Table 2- 2 Theoretical Framework for Entrepreneurial Leadership

Nonetheless, its constraints are considerable. Initially, there exists a contextual incongruity between the instrument and the database. The GLOBE project sampling mainly involves middle to senior managers of Fortune 500 companies or large multinational enterprises like regional managers at Toyota and IBM. The management style of this group tends to accentuate stability for established organizations rather than innovation, response to scarcity, and response to crisis associated with entrepreneurs' management style. This gives rise to divergences in meaning and produces a

misalignment of meaning at the setting of entrepreneurship. Secondly, there are deficiencies in measurement validity, encompassing inadequate cross-cultural equivalence and absent construct dimensions. The scale rating is sensitive to subjective perception bias, since it strongly depends on respondents' views, which can be influenced by cultural and individual differences, rendering meaningful comparisons of leadership attributes across many cultures unfeasible. The limitations of generalisability are unclear: the study neglects the moderating influence of entrepreneurial stage and industry characteristics. The actual research paradigm fails to consider these imperative modulating factors, thus inducing serious shortcomings to generalisability.

These limitations reveal a critical, unresolved issue in the literature: existing cross-cultural entrepreneurial leadership models are not sufficiently tailored to the context of new ventures in China's transition economy.

2. A Multi-Factor Entrepreneurial Leadership Model

Siddiqui (2007) examined the connection between entrepreneurial leadership and entrepreneurial traits. The study constructed a trait-based multi-factor model by integrating relevant theoretical frameworks and empirical survey data to overcome the barrier of previously separating leadership actions and individual qualities.

This model makes two key contributions. First, Entrepreneurial leadership is classified into seven dimensions: subordinate, intellectual, physical, behavioural, neurotic, task-oriented, and innovative. This categorization identified 14 essential characteristics to establish a dimension-feature analytical framework. Second, the empirical methodology involved the design of items grounded in 15 factors associated with entrepreneurial success. However, this model carries a critical limitation related to sampling and generalizability. The sample is geographically restricted to New Delhi, which constrains the external validity and broader applicability of the findings.

This limitation further highlights a consistent gap in the literature: few are tailored to the contextual realities of new ventures in transition economies.

3. A Multi-Dimensional Entrepreneurial Leadership Model

Hejazi et al. (2012) noted two major problems in the field of comprehensive evaluation of entrepreneurial leadership: fragmented assessment tools and challenges in

responding to changing circumstances. They characterized entrepreneurial leadership as the dependent variable, designating communication skills, strategic vision, personal attributes, and motivating efficacy as independent variables to develop a multidimensional, comprehensive assessment model.

This study offers two notable contributions. Initially, it utilizes a sample of 386 founders and executives from newly established enterprises. Through factor analysis, it clarifies the structural relationships among core competencies, thereby providing an empirical basis for the development of assessment tools. Secondly, by conducting the investigation in Iran, the analysis of dependability and validity, along with dynamic interpretation, provides a benchmark for research in growing markets. However, the model relies heavily on respondents' self-reported data, and the issue of potential bias in self-reporting was not adequately addressed, which may lead to systematic errors and reduce data accuracy.

Agbim (2013) further validated and improved the framework using confirmatory methods while retaining the original measurement structure. Key contributions include validating the direct correlation between the four dimensions and entrepreneurship success rates and identifying the strengths of leaders among young female entrepreneurs at the early stages of their endeavours to improve the analysis of group differences. Still, the intrinsic limits of attitudinal instruments persist. One criticism of self-reporting is that it fails to address discrepancies within self-reported data, and such an oversight may lead to inaccuracies in results. Such constraints limit their applicability to resource-constrained new ventures in highly dynamic contexts, thereby reinforcing the need for a more context-appropriate measurement approach adopted in the present study.

4. Other Typical Entrepreneurial Leadership Models

By focusing on opportunity dimension scale development and multidimensional integration, Renko et al. (2015) and Afsaneh and Christian (2020) improved the field of empirical and further research on the entrepreneurial leadership model.

Renko et al. (2015) focused on opportunity recognition and development. To remedy the lack of measurement instruments in this field, they utilized a combination

of deductive and inductive approaches to develop the ENTRELEAD scale, comprising eight components. The deductive technique provided a theoretical framework for opportunity discovery-evaluation-development, whereas the inductive approach derived behavioural descriptions from empirical situations. The study's principal contributions encompass the validation of the scale through several rounds and the provision of a standardized measurement instrument, alongside the innovative distinction between founders and non-founders in leadership characteristics (e.g., founders exhibit heightened sensitivity to opportunities). Despite all these, however, it should be noted that this study contains limitations because its scale exclusively concentrates on behaviours linked to opportunities while neglecting any linked activities referring to dimensions like resource orchestration or team empowerment. It also does not uncover information referring to its industry classification or geographic distribution among the sampled population.

Afsaneh and Christian (2020) broke the boundaries established by unidimensional approaches by outlining a rich framework four dimensions: skills, competencies, behaviours, and roles. By employing a triangulation strategy for validation, they ensured minimal bias associated with reliance on single-source information. The major contributions of the study include: First, it provides a cross-cultural setting. Secondly, it clarifies the definitions of each dimension, for instance, the skill dimension includes resource integration and negotiation abilities. Third, it strengthens the theoretical links among entrepreneurial leadership, innovation, and opportunity identification. However, due to inadequately defined sample size and geographic context, the representativeness of its conclusions was restricted.

Chen et al. (2025) further extended the framework to digital entrepreneurial ecosystems, adding two new core dimensions: AI literacy (as a foundational skill) and digital trust-building (as a critical behavioural role). This addressed the prior model's neglect of digital transformation, explicitly linking technical competencies to stakeholder trust in algorithmic decision-making. Yet, the scale relied heavily on self-reported perceptions of digital behaviour, lacking objective metrics (e.g., actual AI tool adoption rates or data privacy compliance outcomes) and longitudinal evidence of long-

term venture performance.

5. *Implications for Chinese Research*

All four models adhere to the empirical framework of abstract construct → operational dimensions → scale measurement → empirical testing, with the objective of rendering entrepreneurship and leadership quantifiable and comparable. All rely heavily on quantitative methods while neglecting contextual embeddedness and dynamic management characteristics, creating a theory-practice bias.

Each model faces tensions between general management methods and entrepreneurial context specificity. Gupta et al. (2004) used multinational managers rather than entrepreneurs; Siddiqui (2007) relied on a small, geographically confined sample; Renko et al. (2015) prioritized measurement standardization over dimensional completeness; Afsaneh and Christian (2020) lacked clear sample representativeness. All used subjective self-report scales without objective behavioural measures, and none incorporated key moderators such as venture stage or industry attributes (Table 2- 3).

These limitations reveal a critical research gap: existing models are not tailored to China’s transition economy and cannot sufficiently explain how entrepreneurial leadership shapes organizational resilience and performance among resource-constrained, high-dynamism high-tech new ventures. Given China’s digital-driven, policy-guided, and social network–based entrepreneurial ecosystem, Chinese research must advance contextually adapted leadership frameworks. Implications include integrating digital culture into cross-cultural models, incorporating local competencies such as digital literacy and policy sensitivity, and using objective indicators to measure resource integration. Chinese studies should emphasize leadership competencies under resource constraints and develop context-specific dimensions of digital entrepreneurial leadership, including data sensing, cross-boundary collaboration, and organizational change capability. This study responds to these needs by establishing a localized conceptual foundation for high-tech new ventures in China.

Model Type	Scholars	Breakthrough vs Prior Models	Limitations
Cross-Cultural	Gupta et al. (2004)	First integrated cross-cultural framework (breaks single-cultural limits)	Weak contextual fit (mature vs new venture), insufficient cross-cultural equivalence

Model Type	Scholars	Breakthrough vs Prior Models	Limitations
Multi-Factor	Siddiqui (2007)	First linked “entrepreneurial traits” with “leadership behaviours” (breaks behaviour-trait separation)	Single sample, uncontrolled key vars (e.g., age)
Multi-Dimensional	Hejazi et al. (2012); Agbim (2013)	First focused on emerging market contexts (breaks Western sample monopoly)	Subjective measurement bias, no unified scale
	Renko et al. (2015)	First developed opportunity-specific scale (breaks dimension over-broadening)	One-sided dimensions (only opportunity), missing sample info
Other Typical	Afsaneh & Christian (2020)	First integrated “skill - ability - behaviour - role” (breaks single-dimension limits)	Insufficient sample representativeness, unquantified dimension importance
	Chen et al. (2025)	First embedded AI literacy and digital trust into the multi-dimensional framework (breaks analogy-only context limits)	Over-reliance on self-reported digital behaviour, lacks longitudinal validation

Table 2- 3 Theoretical Summary of Four Models

2.1.2.2 Research Based on the Chinese Context

The structural model and measuring methodology for entrepreneurial leadership originate from Western (traditional) organizational contexts. International academic study has yielded systematic results cantered on dimensional deconstruction, including performance orientation and vision formulation, with scale development involving reliability and validity assessment. Due to their extensive development, these tools functioned as the principal reference for initial empirical research in China. Domestic researchers’ investigations into the structural models of entrepreneurial leadership in China reveal a progressive evolutionary framework defined by the sequence of “foundation-laying-contextual segmentation-element deepening.”

1. Theoretical Complementarity in Research Contexts and Research Methods

Chinese scholars have developed theoretical complementarity throughout the range from generalized to specific situations. Cai and Tang (2006), as pioneers in the research of indigenous entrepreneurial leadership structures, broke the reliance on Western scales and formulated an analytical structure for constructing a theory based on reality in the region. Subsequent research supplemented contextual factors including business life cycle, ownership characteristics, cultural context, and industrial features to address the gap of unconsidered contextual variations in leaders’ behaviour.

Niu et al. (2011) developed a four-dimensional framework focused on opportunity exploitation and resource bricolage, improving measurement under

resource constraints, though with limited regional representativeness. He et al. (2015) proposed a five-dimensional framework for family firms, highlighting strategic foresight and succession. Chen et al. (2020) integrated cultural dimensions, while Li et al. (2021) designed a scale tailored to high-tech enterprises in the digital economy.

Methodological and sample design advancements reflect the evolution of indigenous research: Cai and Tang (2006) used open-ended questionnaires as their primary study methodology, although their sample was limited to small and medium-sized firms in Shanghai. Yang and Wang (2013) employed grounded theory to examine female entrepreneurs, while He et al. (2015) integrated it with questionnaire surveys to establish a mixed research paradigm. Zhou et al. (2018) improved the reliability and validity of the scale's evaluation by implementing a multi-region validation step. Recent studies have further advanced this trajectory: Peng et al. (2021) developed a context-specific scale for high-tech new ventures and validated it using nationwide multi-site sampling; Liu et al. (2019) adopted a mixed-methods design combining grounded theory and structural equation modelling to enhance indigenous measurement; Guo et al. (2024) conducted large-sample cross-regional tests across eastern, central, and western China to strengthen generalizability.

Accordingly, sample coverage has evolved from a specific geographical area (Shanghai; Cai et al., 2006) to a regional concentration (the Beijing-Tianjin-Hebei region; Niu et al., 2011) and subsequently to cross-regional studies (Zhou et al., 2018). The samples developed successively from gender-neutral to female-only (Yang et al., 2013) and from single-scale enterprises (SMEs) to new ventures, family businesses, or high-tech enterprises (Zhang et al., 2011; He et al., 2015; Li et al., 2021; Lin et al., 2025). This progressive improvement strengthens sample complementarity and improves the explanatory power of indigenous entrepreneurial leadership theories.

2. Academic disagreements within Chinese context

Academic controversies remain serious regarding the logic of variable choice, criteria for scale designs, definitions of boundaries for universals, and comparisons between Chinese and traditional studies' dimensions. Further research is required to address these issues and establish indigenous entrepreneurial leadership theory.

Four major conflicts prevalent within the conceptual framework of entrepreneurial leadership structure in China:

First, Yang Jing et al. (2013) created a scale tailored for female entrepreneurs, He et al. (2015) implicitly considered ownership of a company as the principal determinant when they researched family enterprises. Secondly, there is a discourse over the trade-offs in scale items. Zhou et al. (2018) emphasized measuring comprehensiveness through their 22-item scale, leading to elevated administrative expenses and respondent weariness. while Li (2021) and Chen (2019) adopted 15 questions and 17 questions, respectively, emphasizing efficiency in their studies. Thirdly, concerns for representativeness of samples remain topical. Regional studies, like Cai et al. (2006) and Zhang et al. (2011), targeted Shanghai and Beijing-Tianjin-Hebei areas. He et al. (2015) and Li et al. (2021), targeted industrial and high-tech industries. Fourthly, studies including Cai et al. (2006), and Yang et al. (2013) neglected to undertake a dimensional comparison between theoretical developments emerging in China and traditional Western theories, given rise to criticisms regarding their failure to delineate the theoretical boundaries of the aforementioned Chinese emerging theories.

To summarize, domestic researchers have developed a multi-layered theoretical integration within the model of entrepreneurial leadership in China by enhancing the contextual aspects and improving research methodologies. This lays the foundation for further research by establishing initial indigenous frameworks integrating business types, cultural traits, institutional contexts, and industrial attributes. Key future research directions are highlighted: first, exploring how contextual factors (e.g., gender, industry) moderate leadership structures; second, developing a balanced model of measurement comprehensiveness and administrative efficiency to define scale design criteria; third, conducting cross-regional and cross-industry validation to clarify theoretical applicability boundaries; fourth, constructing a Sino-Western theoretical comparison framework to promote the development and internationalization of indigenous models.

2.1.3 Sino-Western Differences in Entrepreneurial Leadership Measurement

Leadership behaviour shows large geographical differences. Traditional measurement scales emphasise individualism and risk preference, concentrating on “goal-result”

orientated competencies (e.g., specific insight); conversely, the Chinese context is shaped by collectivism and relational orientation, requiring entrepreneurial leaders to exhibit different competencies such as situational adaptability to evaluate circumstances and respond appropriately and team empowerment to cultivate innovation. Traditional scales inadequately represent Chinese practices, as they neglect relationship coordination and fail to encapsulate the rationale of adapting to changing circumstances, hence constraining the validity of research. The specific variances are primarily evident in following dimensions:

1. Cultural Embeddedness: From Risk-Taking to Assessing and Adapting to Circumstances.

Western researchers such as Gupta have defined entrepreneurial leadership as the generation of value through vision and have focused primarily on risk and the combination of resources from an individualistic point of view. However, Chinese scholars have progressed beyond this paradigm. Cai et al. (2006) focused on opportunism realization and emphasized the dual-awareness factor of market and policy dimensions addressing the one-dimensionality of traditional opportunism realization. Chen et al. (2019) incorporated situational assessment and opportunism and emphasized the importance of dynamic awareness to respond to market and policy changes. Lin et al. (2025) deepen the research on entrepreneurial leadership effectiveness from the psychological perspective and cross-level process.

2. Relationship Orientation: From Visionary Inspiration to Collective Synergy.

Traditional research emphasizes vision building as a core function (Gupta et al., 2004), highlighting the significance of rational persuasion alongside personal charisma. Conversely, Chinese academics focus on relationship coordination and team empowerment. Yang et al. (2013) proposed relationship coordination specifically for female entrepreneurs. Chen et al. (2022) provided another framework called “cooperate-for-win-win-situation” to demonstrate collectivism values emphasizing value integration and cooperation. Additionally, Cai et al. emphasized the challenge of motivation by applying it to emotional commitment-driven leadership. This aligned with local leadership philosophy.

3. Process shift: From Trait Description to Behavioural Dynamics.

While features such as vision and risk-seeking are often emphasized by Western researchers (Covin et al., 2006), researchers from China use terms identifying opportunities, actuating resources, and co-creating value for defining leaders' activities (Cai et al., 2006). While role-modelling by leaders is considered vital by researchers like Cai et al. (2006), self-discipline to establish authority is crucial for Chen et al.'s study (2020), thus highlighting efforts to build leaders' authority through moral governance and competent governance; Wei et al. (2024) focused on opportunity identification and resource integration as core entrepreneurial behaviours.

2.1.4 Multi-level Influence Mechanism of Entrepreneurial Leadership in Chinese context

The role of entrepreneurial leaders is founded on strategic entrepreneurship theory, which is dynamic and comes from divergent fields of study. It is based on the need to respond to environments full of unknown uncertainty while being able to spot opportunities for development within organizations to create innovations. There is no general definition because of uneven progress in empirical research.

1. Influence on organizational level performance driven.

Research conducted domestically has investigated how entrepreneurial leadership influences organizational performance, developing analytical frameworks where organizational resilience (Zhao et al., 2020) and strategic flexibility (Zhang et al., 2016) act as mediating factors, while environmental dynamism (Qu, 2005) is viewed as a moderating element. Li et al. (2006) highlighted its importance in promoting corporate growth, and Xu et al. (2013) provided empirical evidence supporting its positive relationship with entrepreneurial performance as well as its advantageous effects on innovation capabilities within teams. A major drawback is failing to analyse beyond intermediaries' interplay while placing emphasis mainly on successful ventures.

2. Influence on individual level-interaction between leader and employee.

Yang (2013) examined how female leadership affects employees' innovation. Li et al. (2014) used aligned leadership-employee data to demonstrate the favourable impact on organizational commitment. Chen (2007) explored the mechanisms influencing

employee innovative behaviour. These studies use matching data and gender perspectives to fill in the gaps surrounding worldwide research. Although extensive research has been carried out, no single study addressed analyses of employee heterogeneity nor exploratory analyses of negative pathways.

3. Influence on team level tentative exploration.

Research on Team dynamic processes has been mostly restricted. Lin et al. (2020) have established the role of motivation regarding team-related entrepreneurship skills, and Xu et al. (2020) have confirmed team affiliation as a mediate for these processes. However, Studies have failed to delve deeper into team dynamic processes to any significant extent in science because small overall sample size and dominance of small team samples are considered to be key concerns.

To conclude, the investigation of multi-level influence mechanisms drives theoretical progress from one-dimensional portrayals to cross-level integration, moving from generalized assumptions to context-specific constructions, and shifting from static assessments to dynamic transformations. Nonetheless, shortcomings remain in the areas of cross-level integration, dynamic assessment, and the examination of domestic mechanisms. Thus, future advancements should emphasize multi-level integration and dynamic monitoring.

2.1.5 Summary

This subsection shows that the exploration of conceptual models pertaining to entrepreneurial leadership in domestic and international context, has become comparatively extensive with significant insights.

At the conceptual level, researchers primarily characterize entrepreneurial leadership through three perspectives: capability-oriented, behaviour-oriented, and process-oriented. However, the diversity of research approaches has made it challenging to clearly define its conceptual boundaries. Furthermore, existing literature relies on external concepts, dimensions, while paying insufficient attention to entrepreneurial leadership in China's transitional economy.

To address these gaps, future research should focus on the contextual uniqueness of China and proceed in two key directions: First, by developing context-

specific measurement instruments, it could clarify the conceptual definition and dimensional framework of entrepreneurial leadership applicable to China's transitional economy. Second, enhance team-level context-specific research to analyse the mechanisms of entrepreneurial leadership across different cultural and economic environments.

2.2 Current State of Research on Organizational Resilience

The origin of resilience in organizations traces its roots from psychological resilience. From the perspective of developmental psychology, resilience is a procedural task of adjusting to challenges successfully. Meyer (1982) extended its meaning to contemporary business environments exploring its key dimensions that include learning within organizations, managing human resources, and strategic management of resources. In organization environments, resilience is special talent or capability to anticipate and react to prospective factors possibly impacting the profitability of its central business activities (Shook et al., 2003).

Today's complex, dynamic business environment involves high pressures for globe business enterprises. It is crucial to have resilience on the part of organizations and management to overcome such pressures and utilize them for business development. The role or need for resilience among business organizations is being largely recognized and discussed within various contexts associated or linked to management techniques practiced within China. Numerous studies on management functions have provided preliminary insights into its conceptual framework and developmental stages.

2.2.1 Definition of Organizational Resilience

Organizational resilience refers to the ability to address risks, anticipate changes, adapt to environments, and learn from experience to sustain organizational survival (Denhardt & Denhardt, 2010). Buliga et al. (2015) further define it as the dual capacity to withstand environmental changes and crises while retaining operational efficiency and adaptability.

As a multidisciplinary concept, organizational resilience presents diverse interpretations and risks of over-conceptualization (Linnenluecke, 2017). It can be distinguished between dynamic process-based and static trait-based views (Kantur &

Iseri-Say, 2012). This study synthesizes four established perspectives to provide a structured definition (Table 2-4):

- Capability perspective: It represents integrated dynamic capabilities including risk anticipation, adaptation, and learning (Carvalho & Areal, 2016; Lengnick-Hall & Beck, 2005).
- Process perspective: It involves dynamic practices such as identity management, resource integration, and network coordination (Ishak & Williams, 2018; McCarthy et al., 2017).
- Trait perspective: It denotes stable characteristics that support adaptation to uncertainty (Horne & Orr, 1997; Wang & Cai, 2019).
- Outcome perspective: It reflects an organizational state that enables rapid recovery and sustainable survival under adversity (Sahebjamnia et al., 2018; Sincorá et al., 2018).

	Content	Researchers
Theoretical Perspectives	System-Element Dimension Complementarity	Horne & Orr (1997): Systemic holistic perspective Bimol et al. (2003): Strategic element adjustment Lengnick-Hall et al. (2005): Micro behavioural elements Ma et al. (2025): Digital ecosystem element orchestration
	Adaptation-Recovery Dimension Complementarity	Nedonalds et al. (2006): Adaptation and Recovery Seville et al. (2008): Survival in crisis Carvalho et al. (2016): Development after recovery Cardoso et al. (2025): Adaptive resilience in post-pandemic digital transformation
	Process-Resource/Attribute Complementarity	Denyer et al. (2017): Dynamic adjustment process Lahak et al. (2018): Static resource support Saiko et al. (2021): Static-dynamic dual attributes Asare-Kyire et al. (2023): organizational reconfiguration, absorptive capability
	Chinese-Foreign Application Complementarity	Sawalha et al. (2015): Multidimensional theories such as anticipation-response Wang et al. (2019): Crisis response scenarios of local enterprises
	Core Orientation (Adaptation vs. Recovery)	Bimol et al. (2003): Adaptation priority Nedonalds et al. (2006), Seville et al. (2008): Recovery priority
Core Controversies	Capability Attribute (Dynamic vs. Static)	Denyer et al. (2017): Dynamic process view Saiko et al. (2021): Static-dynamic dual view
	Dimension Integration (Single-Dimension vs. Multi-Dimension)	Horne et al. (1997), Bimol et al., (2003): Single-dimension focus Sawalha et al. (2015), Ducheck et al. (2020), Leonelli et al. (2025): Multi - dimension integration

Table 2- 4 The Detailed Perspectives of Organizational Resilience

In conclusion, this essay defines organizational resiliency as the ability to formulate

effective strategies for the prevention and defence against various internal and external disturbances during normal business operations within complex and unpredictable environments. Furthermore, this essay emphasizes that organizations should achieve a rapid return to normal business operations following unforeseen events and simultaneously stimulate the emergence of new initiatives to promote sustainable organizational growth.

2.2.2 Dimensions and Measurement of Organizational Resilience

Resilience at an organisational level is viewed as having complex and diverse dimensions, which result from relationships between any organisation and its environmental setting. It is viewed as having dimensions of being a dynamic system and at the same time is measurable and concrete as a social and cultural notion and approach. Because of its ambiguous and uncertain features, classifications of its dimensions and measures have many differences among scholars.

2.2.2.1 Research from International Perspective

Research focused on assessing organizational resilience within the global academic community has progressed along a notable path, involving the theoretical basis, shifting of dimensions, measurement simplification, and expansion of measurement scenarios. However, a significant need for additional theoretical consolidation persists, as discrepancies in conceptual definitions and considerable differences in scale dimensions continue to exist. Table 2- 5 summarizes the development path of organizational resilience from an international perspective.

1. Theoretical basis of organizational resilience measurement

Conner (1993) constructed the Organizational Resilience Questionnaire (ORQ) composed of 66 items intended to capture seven dimensions. This paradigm shift is the initial attempt to quantitatively define what constitutes organizational resilience by leveraging dual measures for external and internal processes of adaptations. Nevertheless, the extensive nature of the questionnaire led to increased costs for administration and risks measurement accuracy due to redundant dimensions. Drawing from Conner's research, Weick (1993) focused on the concept of restoring activity capacity. Later, he created a comprehensive analytical framework that encompassed

both static traits (stability) and dynamic capabilities (resilience) with Sutcliffe (2007). However, this framework has largely stayed within the realm of theoretical concepts, as no quantitative instruments have been produced.

2. Shifting of measurement dimensions

Building upon Weick's work, Mallak (1998) provided six crucial factors pertinent to the healthcare industry, representing the initial application of resilience traits within clinical service context. Somers (2009) built upon Mallak's findings by creating the ORPS scale, which for the first time included governance structures and decision-making mechanisms in measuring resilience. However, these results were based upon non-random sampling, leading to insufficient population representativeness.

3. System integration and dimension simplification

McManus (2007) also proposed the Relatively Organisational Resilience (ROR) Model, which had 15 components divided into three dimensions. This unified vulnerability management and situational awareness as crucial dimensions, offering a whole system perspective on resilience that bypasses linear framework constraints. Yet, it suffers from insufficient dimensional density. A two-dimensional version of the scale was developed by Stephenson et al. (2010) to focus on adaptability and planning and execution skills at the organisational level. It is easy to apply but sacrifices minor precision. Stolker et al. (2013) linked resilience assessment and performance assessment at the organisational level to assess resilience-building outcomes through quantifiable results. However, his notion is partly dependent on subjective measures and reduces level of objectivity and reproducibility.

4. Expansion of measurement scenarios

Kantur and Iseri-Say (2015) developed a three-dimensional scale covering adaptability, resilience, and situational awareness. This scale is widely adopted for use within emergency situations, especially during the COVID-19 era. Patriarca et al. (2018) proposed a four-dimensional scale (monitoring, response, prediction, learning) from Resilience Assessment Grid (RAG) concepts. It is one of the first attempts to capture learning capability within its assessment structure for resilience itself but is yet to overcome its difficulties related to operational complexity and need for professional

expertise for adequate use at all levels.

Stage	Author (Year)	Core Contribution	Limitation
Conceptual & Early Scale	Conner (1993)	First resilience scale (OQ, 66 items, 7 dimensions)	Lengthy; redundant dimensions
Resilience Cognition	Weick (1993); Weick et al. (2007)	Recovery capability core; static and dynamic integration	Only theoretical; no empirical proof
Industry-Specific Adapt.	Mallak (1998)	Healthcare-focused resilience; 6 key factors identified	Narrow industry focus
	Somers (2009)	ORPS scale; added governance/decision-making to measurement	Biased sampling; untested across contexts
System & Simplification	McManus (2007)	ROR model (15 items, 3 dimensions); systemic framework	Shallow dimensions; unclear dimension interactions
	Stephenson et al. (2010)	2D scale; simplified for easier use	Precision loss; incomplete complexity capture
	Stoker et al. (2013)	Linked to performance (e.g., revenue); enabled effect verification	Qualitative; low repeatability
Crisis-Focused Refinement	Kantur & Iseri-Say (2015)	3D scale; used in crises (COVID-19, disasters)	Crisis-only; ignores non-crisis resilience
	Patriarca et al. (2018)	RAG framework; added learning ability	Complex to use; hard to scale (e.g., SMEs)
Digital & Sustainable Integration	Tasic et al. (2020)	Cross-level multi-dimensional framework; integrated individual-team-organisation-ecosystem resilience	Complex to operationalize; requires longitudinal data
	Somasundaram & Pillai (2024)	AI-driven resilience measurement; real-time risk monitoring and predictive adaptation	Over-reliance on data quality; privacy and ethical concerns

Table 2- 5 Development Summary of Resilience of International Organizations

5. Practical Implications of Resilience Research

International research on organizational resilience measurement has evolved toward dynamic and systematic frameworks, offering a scientific basis to address the tension between scale expansion and risk control in high-growth enterprises and to inform targeted policy support for entrepreneurial ecosystems (Table 2-6).

For enterprises, a dynamic resilience system is essential. McManus’s ROR model supports early risk detection during expansion; Kantur & Iseri-Say’s scale aids crisis diagnosis; Stephenson’s scale monitors routine operations. Weick’s model strengthens financial resilience, while Patriarca’s framework helps convert crises into capabilities. Enterprises should set stage-based resilience thresholds and use digital tools for real-time monitoring of supply chains and cash flow.

For policymakers, differentiated policies are required: prioritize technological resilience for tech firms and supply chain resilience for manufacturers, support early-stage enterprises with diagnostic tools, and incentivize growing firms via tax and

financing benefits. Cooperation with academia can simplify measurement tools, subsidize testing, and build industry-university-research platforms. Official guidelines, data-sharing platforms and targeted research funding are also critical.

Overall, international resilience theories facilitate sustainable development and policy refinement. Enterprises must balance growth and resilience, and policymakers should implement precise, differentiated measures to enhance organizational resilience and drive high-quality economic development.

Role	Key Implications
Enterprise Managers	1. Adopt stage-specific tools (expansion/risk response/daily self-assessment) 2. Strengthen strategic, capital, collaboration, and learning resilience 3. Enable measurement-action loops via early warning, dynamic adjustment, and digitalization
Policy Makers	1. Differentiate support by industry (e.g., tech resilience) and stage (e.g., growth incentives) 2. Promote simplified tools and subsidize enterprise use 3. Establish local standards, data platforms, and fund research

Table 2- 6 Practical Implications Resilience Research for Enterprises and Policymakers

2.2.2.2 *Research from the Chinese Context*

The development approach adopted by domestic academia involves building measures, extending theoretical systems, and unearthing dynamic mechanisms while striking a balance between international exploration and regional features.

1. *Preliminary Development of Localized Measurement Tools*

Wang et al. (2019) developed a localized organizational resilience scale for China. It is based on a theory founded on four dimensions: adaptability, planning capability, situational awareness, and resilience commitment. Based on one of the key management attributes identified, which is the preventive proactive reaction found within Chinese companies, the paper avoids the limitations of crisis-focused scales, such as Kantur and Iseri-Say (2015). Zhang & Teng (2021) focused on uncovering the role of policy uncertainty as a moderating factor for organisational resilience while stressing the uniqueness associated with China's institutional setting and incorporating risk anticipation capabilities.

2. *Expansion of Theoretical Perspectives*

Zhang et al., (2008) is the first researcher to reconstruct the concept of organisational resilience from a cognitive psychology point of view. This novel approach overcomes the limitations associated with classic theories and integrates concepts such as institutional consensus and adaptability to the external environment. However, it has some limitations concerning its generalizability and comprehensive measurement instrument. Zhang's team (2020) introduced individual psychological resilience into organizational resilience measurement, expanding research into micro-psychological level. Such approaches, however, have failed to address the association between the resilience index and organisational performance measures; organisational functionality (e.g., stability of earnings and efficiency of crisis recovery) remains unexamined.

3. Revelation of Dynamic Mechanisms

Lu et al. (2024) proposed a four-phase mechanism including pre-, during-, post-, dynamic stages. It alleviated the limitations faced by static quantitative instruments regarding measurements to accurately identify the process-oriented characteristics. Nevertheless, this study is limited by the absence of relevant quantitative measuring aids for its research.

2.2.3 Limitations and future research of organizational resilience

Based on the above analysis, existing organizational resilience research lacks a detailed treatment of the key dimensions, which limits the robustness of research conclusions. For example, there are disagreements among academics globally regarding capabilities, processes, and outcomes. From cross-cultural research, significant findings emerged regarding divergences towards resilience, such as Eastern collectivist societies that consider support structures in resilience, contrasted with Western individualist societies' focus on their organizations' adaptability. In manufacturing, performance metrics focus on recovery from production disruptions, overlooking supply chain coordination and digital change. This negligence causes a large gap between measuring results and real-world needs. Traditional evaluation frameworks struggle to address quickly changing environmental challenges.

Addressing these practical dilemmas of current research, breakthroughs need to be achieved in three aspects in the future. First, refine conceptual models with cultural

adaptability and integrating pre-crisis readiness, crisis response, and recovery-growth, as well as indigenous cultural characteristics (e.g., collectivist attitudes, relational networks). Second, it is imperative to apply a quantitative-qualitative dual-track measurement system. Combined metrics, such as linking objective metrics (e.g., supply chain concentration, digital transformation) with subjective ones (e.g., organizational learning environments, leadership resilience). Third, digital transformation represents an entirely larger movement. Future efforts should focus on understanding digital platform operational dynamics, especially OA collaborative systems, to build information resilience, process resilience, and talent resilience.

2.2.4 Summary

This subsection presents a comprehensive review of organisational resilience, with key findings summarised as follows:

First, it establishes a conceptual framework of “multi-perspective interpretation- controversy complementarity”. However, the integration of cultural elements into the definition (e.g., relational networks under collectivism) remains ambiguous, which means further synthesis of the theoretical boundaries between Chinese and Western studies is required.

Second, in dimensional measurement, a dual-track approach of “international dynamic evolution-domestic localisation adaptation” has emerged. Nevertheless, current scales lack digital transformation (e.g., supply chain collaboration and information resilience), leading to a disconnect with enterprises’ practical needs.

Third, it analyses empirical findings of both international and domestic scholars, constructing a comprehensive “concept-dimension-empirical” research framework. Domestic academic circles have not yet reached a consensus on the conceptual definition and measurement standards of organisational resilience, providing clear guidance for future research.

2.3 Theory of Entrepreneurial Environment

2.3.1 Concept of Entrepreneurial Environment

Existing studies on the entrepreneurial environment can be divided into three categories.

First, some studies only consider external factors of entrepreneurship, while

ignoring internal parameters such as organizational resources and decision-making environments. Porter (1980) proposed that an organization's business environment is defined by the industry it is in, including competitive threats such as existing competitors, new entrants, and substitute products. Gartner (1985) proposed entrepreneurial models, emphasizing the role of the environment in decision-making, which was defined as external factors affecting difficulties in innovative development. According to Bruyat and Julien (2001), there is a dynamic interaction between entrepreneurs and organizations, depending on external environments. Cai et al. (2007) and Li et al. (2021) proposed that the entrepreneurial context involves all external factors affecting entrepreneurs during the development process of new ventures. Khezri et al. (2024) examined one of the external factors, i.e., societal acceptance, and found that it significantly influences the entrepreneurial environment. Huang (2026) further applied the PEST framework to theoretically evaluate the combined impacts of political, economic, social, and technological external forces on entrepreneurial activities.

Second, the literature suggests that the entrepreneurial environment should consider both the external and the internal factors, avoiding the one-sided external perspective. According to Daft and Marcic (2005), the concept of the entrepreneurial environment is "the external and internal aspects of the setting in which the organization operates, including owners, decision makers, and employees." Aldrich (2006) and Hu et al. (2009) suggest the integration of the internal and external factors. Du and Li (2012) found that the policy and infrastructure environments have significant impacts on the access to the operating resources. Liu et al. (2025) revealed the significant changes in the entrepreneurial environment after the pandemic. Compared to the motivation, capability, and readiness of the students, the environmental factors, namely, the economic, social, campus, and family factors, are more important to the students when they engage in entrepreneurial activities. However, the relevant studies are not fully applicable to the new venture.

Third, literature emphasizes the entrepreneurial environment within an incubator system and landscape, considering its distinctiveness in different business contexts as a diverse multi-unit system for new ventures. Dess and Beard (1984) have

linked it with resource tolerance, competition, and resource endowment within an entrepreneurial environment. Yang (2004) pointed out that the dynamic and increasingly complex nature of entrepreneurship highlights the necessity of understanding and researching its landscape. Cai (2018) considered it a complex social system where policy, culture, technology, and economic factors are considered. Hong (2024) further added that it is a dynamic market for steady growth.

This conceptual framework provides a basis for classifying entrepreneurial environments and facilitates research from multiple perspectives and dimensions.

2.3.2 Dimensions and Measurement of Entrepreneurial Environment

Scholars have regarded the entrepreneurial environment as a complex and multidimensional concept (Child, 1972; Lawrence & Loach, 1967). Dill (1958) extended the traditional concept of the entrepreneurial environment to include the task environment and the general environment. Dess & Beard (1984) based their approach on the three-dimensional concept of the entrepreneurial environment, which measured the permissiveness, competitiveness, and dynamism of the environment in relation to entrepreneurial behaviour, since the entrepreneurial environment provides an opportunity to entrepreneurs to enhance their businesses.

By thoroughly studying the components of the entrepreneurial environment, the concept has been defined in various dimensions, which include the integral components, essential factors, and structural features of the entrepreneurial environment (Table 2-7).

Representative Scholars	Main Dimensions
Pfeffer & Salancik (1978)	Laxity, Interconnectedness, Concentration, Contradiction, Interdependence, Uncertainty
Porter (1980)	Barriers to entry, Competitive status of existing competitors, Threat of substitute products, Bargaining power of buyers, Bargaining power of suppliers
Mille & Friesen (1982)	Environmental dynamism, Competitiveness, Heterogeneity
Dess & Beard (1984)	Dynamism, Complexity, Laxity
Justin & Litschert (1994)	Scarcity, Dynamism, Complexity
Fred luthans (2000)	Political and economic environment, Transformation conflicts, Imperfect legal environment, Policy instability, Informal constraints, Underdeveloped and irregular financial environment, Cultural environment
Lumpkin & Dess (2001)	Environmental dynamism, Environmental competitiveness
Desai, Gompers & Lemer (2003); Spencer & Gomez (2003)	Institutional environment (Normative, Cognitive, Regulatory)

Representative Scholars	Main Dimensions
Stott Shane (2003)	Economic environment (income, capital and property taxes, economic growth and social wealth, inflation rate and economic condition stability, etc.), Political environment (freedom, law and property protection measures, local decentralization, etc.), Socio-cultural environment (social respect for entrepreneurship, entrepreneurial pressure, and specific cultural beliefs, etc.)
Marc J. Dollinger (2003)	Political, Economic, Ecological, Technological, Social demographic, Industry environment, Entrepreneurial enterprise environment and other circles
Wickind et al. (2005)	dynamism and permissiveness
Zhou & Li (2006)	Natural environment, Social environment, Economic environment, as well as five supporting systems: Policy and law, Financial services, Intellectual technology, Social services, Industry
Cai & Li (2007)	Science and technology environment, Financing environment, Talent environment, Policy and regulation environment, Market environment, Cultural environment
Ying (2009)	Policy environment, Financial environment, Market environment, Service environment, Cultural environment
Huang, Ding & Chen (2014)	Environmental dynamism (moderator), distinguishing between exploratory innovation and exploitative innovation contexts
Majid & Yasir (2017)	Turbulent entrepreneurial environment (high dynamism, uncertainty, and complexity), linking entrepreneurial knowledge to start-up behavior
Ouyang (2025)	Digital-sustainable entrepreneurial environment (digital infrastructure, green finance, ESG regulation, cross-border data governance, national innovation policy)

Table 2- 7 The Classification of Entrepreneurial Environment Dimensions

The research regarding the entrepreneurial environments that operate has primarily contributed to identifying two aspects: competitiveness and dynamism.

There is a consensus among researchers that environmental dynamism has two main underlying aspects: change and unpredictability. Main arguments and theories: Miller and Friesen (1982) related dynamism to innovation and customer/competitor unpredictability; Dess and Beard (1984) referred dynamism to the rate and unpredictability of environmental changes; Keats and Hitt (1988), Lumpkin and Dess (2001), and Jansen, Vera, and Crossan (2009) defined dynamism as unpredictable rates of environmental changes and future uncertainty; Liu (2011) proposed that dynamism includes the frequency and unpredictability of environmental changes; Xu et al. (2024) related dynamism to uncertainty and macro risks in a post-pandemic period, characterized by growing competition in industrial digitalization.

The theoretical understanding of environmental competitiveness has developed into a holistic concept that incorporates the dimensions of resource scarcity, competition, and competitive markets. Essentially, it is linked to the availability of environmental resources, the level of competitive forces (Zahra & Covin, 1995; Lumpkin & Dess, 2001), and the level of competition among players (Auh & Menguc, 2005; Yang & Li, 2011). It may also be described as a perceived level that is required

to exploit opportunities and obtain scarce resources (Cai et al., 2014; Cao et al., 2021), or a high level of competition intensity because of the number of players and limited opportunities (klein, 2023).

Environmental dynamism and competitiveness are two important contextual factors to be considered in the study of corporate innovation. Prior studies have established the link between dynamism and complexity. However, the moderating effects of both traits have never been examined. This study includes both traits in the framework. Environmental dynamism is defined as the unpredictability of customers, competitors, markets, and the growth of new ventures. Environmental competitiveness is defined as the number and difficulty of critical decisions to exploit outside entrepreneurial opportunities.

2.3.3 *Relevant Empirical Research on Entrepreneurial Environment*

The context of entrepreneurship is one of the key points that define and influence business performance and actions with regard to organizational theory and strategic management studies, as summarised in Table 2- 8.

Researchers	Core Contribution	Core Limitation
Child (1972)	Laid foundation: environment constrains/enables strategy	Qualitative/small sample; no environmental dimension quantification
Gartner et al. (1985)	Made environment a core entrepreneurship theme	Unclear sample/measurement; non-replicable
Eisenhardt et al. (1990)	Linked environment (resources/uncertainty) to strategy/innovation	Unclear sample size; high-tech only
Zhong & Chen (2007)	Chinese sample: environment indirectly affects performance	Unclear sample region/scale validity
Li et al. (2009)	Chinese context: environment for resource/institutional adaptation	Invalid variables; no life cycle distinction
Ding (2006)	Environmental dynamism moderates learning-performance	Unclear sample/sampling; no cross-industry test
Waldman et al. (2001)	Environmental volatility moderates leadership-performance	Incomplete environment dimensions; North America only
Ensley et al. (2006)	Leadership-performance differs in high-dynamism environments	No mediating effect test; no firm size distinction
Lumpkin & Dess (1996, 2001)	Environmental dynamism moderates entrepreneurial orientation-performance	Early validity issues; no industry/cross-cultural test
Zahra, & Garvis, (2000); Calantone et al. (2010)	Environmental dynamism and hostility moderate the effect of entrepreneurial orientation on growth; validated cross-European sample	Limited to SMEs; no digital/sustainability dimensions
Syunturenko, (2015); Xiao, (2020)	Digital environment (platform access, data availability) moderates the relationship between business model innovation and firm performance	Platform-centric; no cross-industry generalizability
Zheng, (2024); Jan, (2025)	Global digital-sustainable environment (ESG regulation, digital infrastructure, cross-border data flows) moderates the performance of SMEs	Emerging market focus; lacks comparison with mature Western contexts

Table 2- 8 Summary of Empirical Research on Environmental Characteristics

Based on the literature review in Table 2-8, empirical studies on the entrepreneurial environment, while laying a theoretical foundation, have multi-dimensional and systematic methodological and content limitations: flawed sample design (e.g., insufficient sample size, ambiguous sampling methods, and narrow regional, industrial, and firm-type scenarios in studies like Child (1972) and Gartner et al. (1985) restricts conclusion generalizability; incomplete environmental dimension construction and non-standard conceptual operationalization fail to capture core environmental characteristics or adapt to contemporary contexts; inadequate variable relationship testing (lack of mediating mechanisms and insufficient boundary condition testing) causes theoretical logical gaps; non-standard reliability and validity disclosure, lagging research contexts, and methodological deficiencies (e.g., invalid variables, lack of cross-industry testing) further exacerbate these limitations.

Given these limitations, this study is theoretically and practically necessary: to address methodological flaws, it will build a large-sample database covering multiple regions, industries, and firm sizes for cross-dimensional tests to enhance external validity and statistical robustness; to tackle inadequate variable testing, it will systematically examine the direct effects, mediating paths, and moderating boundaries of environmental dynamism and competitiveness on entrepreneurial performance, clarifying internal logic and filling theoretical gaps.

2.3.4 Summary

This subsection was predominantly concerned with the systematic review of the entrepreneurial environment. First, through inductive analysis of the entrepreneurial environment's core connotation and dimensions, two central dimensions were identified: environmental competitiveness and environmental dynamism. Both dimensions inherently reflect two key attributes: the variability and unpredictability of the environment, and an enterprise's reliance on resources within the environment. Second, based on the perspective of moderating effects under contingency theory, scholars verified that the levels of environmental dynamism and competitiveness exert a dual impact. Specifically, this dual impact manifests in two aspects: it influences enterprise leaders' innovation decision-making choices and affects the effectiveness of

different innovation decisions on enterprise performance.

Nevertheless, the existing literature contained inconsistencies in its conclusions, with no academic consensus on two key points: the moderating effects of environmental dynamism and competitiveness on the “innovation-enterprise performance” relationship; the impacts of these two environmental factors on different leadership styles. Further investigation is needed to address these contradictions by exploring the moderating effects of environmental dynamism and competitiveness on the relationships among various variables in the entrepreneurial process, while considering the different stages of the enterprise life cycle and the leadership styles of participants.

2.4 Theory of New Venture Performance

2.4.1 Characteristics of New Ventures

New ventures are legal entities established by entrepreneurs through resource aggregation and entrepreneurial opportunity exploitation, with profit generation and growth as core objectives (Sandberg, 1987; Ma, 2008). Academic definitions of new ventures vary: Gartner et al. (2012) conceptualised them as a dynamic process of interdependent business actions, while Yang & Wang (2013) and Yang (2016) defined them as immature organizational entities with independent accounting systems and full-time staff. A key academic controversy lies in the timeframe for defining new ventures: Lussier et al. (2014) proposed a 10-year threshold, whereas Zahra (2005) and Batjargal et al. (2013) advocated for 8 years.

This research proposes that new ventures are firms founded within 10 years and are in the early stages of their life cycles, which are normally characterized by small size, high growth rates, fluid organizational structures, innovation opportunities, high risk tolerance, and environmental flexibility, while at the same time experiencing salient new entrant deficits in terms of insufficient social connections, unclear role definitions, lack of strategic assets, and insufficient organizational legitimacy.

2.4.2 Measurement of New Venture Performance

New venture performance, as the ultimate outcome of entrepreneurial activities and a critical indicator of business success, is a complex concept without a universally recognized operational definition, requiring customization to specific research

theoretical frameworks (Rutherford, Coombes & Mazzei, 2012; Liu, 2026); it can also be reflected as competitive advantage (Porter, 1985; Yu, 2012).

Early performance measurement relied on individual economic indicators, based on the assumption that organizational ultimate goal is profit maximization (Capon, Farley & Hoening, 1990). Scholars later argued that new venture performance evaluation requires tailored approaches due to differing organizational objectives (Sapienza & Grimm, 1997). Kaplan and Norton (1990) proposed the Balanced Scorecard, integrating four core dimensions: customer, financial, internal process, and growth. Murphy, Trailer, and Hill (1996) synthesized relevant empirical studies (1987–1993) and identified the most widely used performance dimensions (Meng, 2022) (Table 2-9).

Dimension	Frequency
Efficiency	30
Growth	29
Profit	26
Scale	15
Liquidity	9
Success / Failure	7
Market Share	5
Asset - liability Ratio	3

Table 2- 9 Performance Dimensions and Frequency of Use

Based on similarities in theory, the framework for assessing new venture performance can be divided into three main categories. Although these categories provide a theory for evaluating performance, there are limitations within each category, which are relevant to the methodology used in this study.

1. Performance Measurement and Core Dimensions

This section is concerned with establishing the core dimensions of performance for new ventures, with particular stress on the point that short-term financial performance is an inadequate measure of long-term viability and growth opportunities (Brush & Vander Werf, 1992; Chaganti & Mahajan, 1989). The general consensus is that there is a need to integrate profitability and growth in performance evaluations (Antoncic, 2001; Lin, 2022), but there is a lack of clear parameterization for profitability and growth, as well as industry differences.

2. Systematic Definition of Measurement Indicators

This section centers on the operationalization of conceptual dimensions into measurement indicators. Wiklund & Shepherd (2005) were the first to use the hierarchical dimension-indicator system, which changed the focus from qualitative to quantitative analysis. However, most of the studies overuse financial and growth-related quantitative measures, ignoring non-financial factors and implicit performance (Guo et al., 2019). Moreover, they use static data without taking into consideration the weighting effects of lifecycle variations.

3. Comparative Evaluation of Objective vs. Subjective Methods

This section compares the objective method of financial assessment (Covin & Slevin, 1989) with the subjective perceptual method of evaluation (Birley & Westhead, 1990; Liu, 2011). Although the objective method ensures precision, it has problems of accessibility and comparability. In contrast, the subjective method has problems of precision, but these are addressed in terms of validity and reliability (Wall et al., 2004; Long et al., 2022).

The methodology adopted in the present study is specifically designed to address the core limitations of existing performance evaluation frameworks, employing an integrated dual-dimensional approach that combines financial and market dimensions, utilising financial parameters (e.g., gross profit, cash flow) for short-term profitability and market parameters (e.g., market share, customer loyalty) for long-term growth to resolve the ambiguity and industry insensitivity of dual-dimensional profitability-growth approaches while adhering to the profitability-growth principle, supplementing objective financial data with validated subjective market perceptions to mitigate over-reliance on and inaccessibility of quantitative financial metrics and ensure comprehensive coverage of new ventures' explicit and implicit performance, and balancing short-term efficiency and long-term growth to address the static nature of prior frameworks and accommodate the dynamic lifecycle characteristics of new ventures.

2.4.3 New Venture Performance: Influencing Factors (Empirical)

The performance of new ventures has evolved dramatically from single dimensions to

multi-dimensional approaches, incorporating contextual, organizational, and individual dimensions simultaneously. Researchers have explored this topic area under different viewpoints, including cognitive, resource-based, strategic, leadership, and environmental theories (Table 2- 10).

1. Cognitive perspective: exploration of entrepreneurial traits

The cognitive approach centers on individual entrepreneurial traits as performance drivers. Homaday and Aboud (1971) set up the framework for individual influence, which was based on three dimensions: direct personal ability effect, indirect personal characteristic effect, and combined personal history/social network effect.

Studies on individual influence for direct capability effect verified personal skills. Duchesneau and Gartner (1990) found entrepreneurs' communication skills to be linked to venture performance. Chandler and Hanks (1993) verified resource integration and opportunity recognition as key individual capability effects. Studies on individual influence for indirect personal characteristic effect concentrated on individual influence as mediated by personal factors. Hollenbeck and Whitener (1988) negated the direct relationship between traits and performance, supporting mediation via motivation and competence. This was verified in China by Liu (2006), confirming the indirect effect of risk propensity and locus of control on performance.

With respect to personal background and network synergies, there has been an evolution towards multi-factors. The personal background factor on success has been verified by Jo and Lee (1996). Lee and Tsang (2001) verified this for 168 firms on the effects of multi-factors.

Despite its contributions, cognitive perspective research has three methodological limitations. First, inadequate sample reporting: Lee and Tsang (2001) specified 168 enterprises, but Duchesneau and Gartner (1990) and Chandler and Hanks (1993) did not disclose sample sizes; undefined industry/geographic scopes also cause sampling biases. Second, the narrow context and the lack of specification of variables: Previous research (Hollenbeck & Whitener, 1988; Begley & Boyd, 1987) was conducted in Western countries, with extensions by Liu (2006) to China. However, the absence of external factors such as market competition, institutional support, and

technological dynamism creates endogeneity. Third, the inconsistent performance measurement and the operationalization of the traits' meaning: Performance has not been clearly defined. Risk propensity (Liu, 2006), communication skills (Duchesneau & Gartner, 1990), and other relevant factors have not been clearly measured.

2. Resource Theory Perspective: Resource Dilemmas and Resource Mechanisms

The resource perspective holds that entrepreneurial performance is shaped by resource types. Ostgaard and Birley (1996) pioneered exploring social networks as critical for entrepreneurs to obtain vital resources. Li and Zhang (2007) confirmed a significant positive relationship between Chinese high-tech firms' performance and managers' political connections/functional experience, with ownership structure and environmental competitiveness as key moderators. West and Noel (2009) highlighted knowledge resources (technological opportunities, market insights, exploitation capacity) as pivotal for competitive differentiation and converting opportunities into performance, clarifying the performance value of diverse resources.

Despite these contributions, there are three shortcomings in the resource theory. First, poor sample disclosure, with only Li and Zhang (2007) providing clear information on 300 high-tech enterprises, whereas Ostgaard and Birley (1996) and West and Noel (2009) failed to do so. Second, limited industry scope, with most studies focusing on mature high-tech firms (Li & Zhang, 2007) or excluding micro and small non-high-tech firms. Third, failure to consider integration efficiency and acquisition costs, with most studies focusing on "which resources to acquire" but failing to consider "how to integrate" resources, as well as acquisition costs, assuming that resource acquisition has a direct effect on performance.

3. Strategic Perspective: The Mediating Mechanism of Resources and Performance

The strategic perspective was developed by McCarthy et al. (1994) based on the idea of integrating resources, while Hrebiniak & Joyce (1985) focused on the alignment of strategies with reality concerning the environment and the availability of resources. Sandberg & Hofer (1987) proposed the model of performance based on the industry structure-strategy-entrepreneur model, which was extended by Chrisman et al. (1998) by incorporating the elements of resources and structure. Chaganti et al. (1989) proved

that new firms use innovation and differentiation strategies as tools for countering competition, while Cai et al. (2010) (192 enterprises) proved that market-oriented strategies have a direct and indirect impact on performance through the integration of resources.

While the strategic perspective has improved the resource-performance conversion mechanism, its static nature and singularity limit its practical explanatory power and generalisability, with key limitations as follows:

First, insufficient sample validity: Cai et al. (2010)'s mediating effect conclusion (192 samples) may be unstable; Hrebiniak & Joyce (1985) did not disclose sample size, hindering sampling error and robustness assessment. Second, inconsistent strategic measurement impedes theoretical cumulative verification. Third, overemphasis on single strategies (Cai et al., 2010: market-oriented; Chaganti et al., 1989: innovation/differentiation) and a static design assuming unchanging strategies—ignoring strategic iteration speed (e.g., adjustment frequency, market response time) in dynamic environments—with most studies using cross-sectional data, failing to capture dynamic strategy-performance changes.

4. Leadership Perspective: The Role of Leadership Behaviours in New Venture Performance

Cogliser and Brigham (2004) were the first to assert that effective leadership behaviours are crucial to the success of new ventures. Hmieleski and Ensley (2007) focused on interaction effects, revealing that leadership, executive team heterogeneity, and environmental dynamism collectively impact performance. Morales et al. (2007) investigated indirect mechanisms, proposing that transformative leadership enhances performance indirectly via organisational learning and creativity. Fu et al. (2008) examined the characteristics of developmental stages in Chinese new ventures and established that environmental dynamism moderates the association between transformational leadership and firm performance during the development phase.

Leadership viewpoint has revealed the basic role of leadership behaviour, but narrow scope and insufficient rigour in methodology limit its completeness and practicality. First, inadequate sample disclosure and representativeness: Cogliser &

Brigham (2004), Hmieleski & Ensley (2007), and Morales et al. (2007) did not disclose sample size or composition; “new ventures” are not clearly defined (e.g., ≤ 3 years vs. ≤ 5 years since establishment) and new ventures of different sizes are not fully covered. Second, studies focus on transactional and transformational leadership but lack comparisons with entrepreneurial leadership’s performance effects, confined to a “top-level, single-type leadership” cognitive framework. Neglect of middle and grassroots leadership: existing studies focus on “top-level leaders” (e.g., founders, CEOs) and ignore the impact of “middle and grassroots leaders” (e.g., department supervisors, team leaders) on performance.

5. Environmental Perspective: Macro And Micro Environmental Factors on Performance

The environmental perspective examines the impact of macro and micro environmental factors on performance. For instance, Colombo et al. (2016) investigated 247 high-tech firms in Italy and established the impact of government support on survival and development. Robinson et al. (2001) investigated 199 publicly traded enterprises and established the impact of the stage of industry development and the degree of market concentration on the performance of new ventures. Zahra (1993) contended that a highly dynamic environment forces new ventures to focus on innovation, thus enhancing new ventures’ performance. Despite the environmental perspective’s contribution to understanding the moderating effect of the context on new ventures’ performance, the methodological contextual narrowness and dynamism limit the practical value and comprehensiveness. For instance, three limitations emerge. First, the study by Robinson et al. (2001) focused on “listed enterprises” and not “new ventures.” Secondly, the study by Robinson et al. (2001) and Zahra (1993) did not clearly indicate the regions where the samples were collected. Thirdly, the static and single context cognitive bias, such as the failure to analyze the macro and micro environmental interaction and the failure to address the new ventures’ adaptability to environmental mutations such as the rupture of the capital chain.

In conclusion, the research on performance-influencing factors of new ventures has developed from an initial stage focusing on single factors to a multi-dimensional

and synergistic approach to cognition, resources, strategies, leadership, and environment. Although these perspectives are mutually supplementary, existing research has some common shortcomings: first, insufficient integration of various perspectives, with the majority of research based on a single dimension and failing to sufficiently explore the synergistic effect; second, insufficient exploration of the impact of the unique China environment (e.g., the digital economy and the dual circulation pattern) on performance mechanisms; and third, over-reliance on cross-sectional data to explore static effects and insufficient exploration of dynamic evolutionary mechanisms.

Perspective	Core Viewpoints	Core Limitations	Key Scholars
Cognitive	Entrepreneur individual dominates performance; ability, traits, background and network affect performance	Sample flaws; insufficient cross-cultural/stage context verification; inconsistent measurement of performance and traits	Homaday & Aboud (1971); Duchesneau et al. (1990); Chandler et al. (1993); Begley et al. (1987); Hollenbeck et al. (1988); Jo et al. (1996); Lee et al. (2001); Liu (2006); Watson, & Tony (2013); Syed (2024)
Resource	Resource type determines performance mechanism; social networks, knowledge resources affect performance	Sample biased toward high-tech enterprises; ignores resource integration efficiency and cost; low adaptability for micro-small firms	Ostgaard et al. (1996); Li et al. (2007); West et al. (2009); Peng (2011); Wei et al. (2025)
Strategic	Resource-strategy-performance linkage; strategy matching environment/resource affects performance	Small sample size with missing info; single/static strategic research; inconsistent measurement standards	Hrebiniak et al. (1985); Sandberg et al. (1987); Chaganti et al. (1989); McGarthy et al. (1994); Chrisman et al. (1998); Cai et al. (2010); Luoma (2015); Ogollah (2022)
Leadership	Effective leadership behaviour drives performance; leadership interacts with team/environment	Serious sample info loss and poor representativeness; lacks comparison of entrepreneurial leadership and middle-grassroots leadership research	Cogliser et al. (2004); Hmieleski et al. (2007); Morales et al. (2007); Fu et al. (2008); E. Nordbäck, & Espinosa (2015); Xie et al. (2025).
Environmental	Macro (government funding) and micro (industry characteristics) contexts affect performance; involves innovation intermediaries	Samples include listed firms with unclear regions; no macro-micro interaction and ignores environmental mutations; vague measurement of environmental variables	Zahra (1993); Robinson et al. (2001); Zhao et al. (2010); Colombo et al. (2016); Putra et al. (2025)

Table 2- 10 Summary of Research on New Venture Performance

2.4.4 Summary

This section provides a thorough theoretical analysis of new venture performance, following a clear logical sequence: (1) to facilitate the understanding of the nature of new ventures by distinguishing their traits and challenges in comparison with existing

firms in order to lay the groundwork for further studies; (2) to examine the definition and measurement of performance by assessing the criteria and identifying three categories of performance indicators: single vs. multiple, financial vs. non-financial, and objective vs. subjective; (3) to review the five key influencing factors: cognitive, resource, strategic, leadership, and environmental, in order to lay the groundwork for the final theoretical model.

Based on previous research and its shortcomings, two approaches can help improve the measurement of new venture performance in the following period: First, improving the industry specificity of the indicators by refining the adaptability criteria and the weights of “profitability-growth” (e.g., including R&D growth for technology-based firms to improve cross-industry applicability). Second, developing a dynamic evaluation system with different tools for different stages of the new venture lifecycle (e.g., technology for the seed stage, market share growth for the growth stage).

2.5 The Formation of This Research Topic

2.5.1 Theoretical Foundation and Literature Origin of the Research Topic Formation

The research theme emerges from the integration of three theories (ELT, ROT, DCT) and ends with the consolidation of empirical data from previous studies to fill the theory gaps.

The Entrepreneurial Leadership Theory (ELT) sets out explicitly the process through which entrepreneurial leadership generates resilience in the organization via the core behavioural factors of entrepreneurial leadership itself: challenge construction, uncertainty absorption, path clarification, commitment creation, and constraint definition. The Resource Orchestration Theory (ROT) defines the process in terms of “leadership behaviour-resource action-organizational capability” transformation. Sirmon et al. (2011) stated, “Leaders can thereby shape the firm’s asset base and unlock valuable capabilities from limited resources through specific forms of leadership behaviour, such as resource identification, acquisition, allocation, and reconstruction.” This framework established the theoretical link between entrepreneurial leadership and

organization resilience with transformation of resources to capabilities. Dynamic Capability Theory (DCT) illustrates the interaction between organizational capability and performance. Tece et al. (1997) pointed out that dynamic capabilities, characterized by organizational resilience in times of crisis, improve organizational performance in terms of sensing opportunities in the environment and reconfiguring resources. This provides the theoretical rationale for the correlation between organization resilience and firm performance.

Empirically, existing studies have explored relationships between these constructs separately: Zhang et al. (2022) confirmed that entrepreneurial leadership (EL) significantly enhanced firm performance (FP) ($\beta=0.23$, $p<0.01$) with data from 327 high-tech new ventures. This suggests the potential existence of unknown mediation relationships; Wang (2021) discovered that the recovery aspect of organisational resilience explains 31% of the variation in post-crisis firm performance but ignored the antecedents of organisational resilience; Chen et al. (2025) proposed that “entrepreneurial leadership may affect firm performance via organisational capabilities,” without explaining the mediation process of resilience and the transmission mechanisms implicated in the process. Collectively, these fragmented empirical findings together offer the formulation of an integrated paradigm but fail to address the “lack of chain pathways” and the “ambiguous contextual boundaries.”

2.5.2 Research Status and Theoretical Gaps of the EL-OR-FP Chain

Relationship

2.5.2.1 Fragmented Research on Bivariate Relationships

Currently, there are three core study areas in terms of the interconnected relationships between entrepreneurial leadership (EL), organisational resilience (OR), and firm performance (FP), but studies remain highly fragmented.

1. Direct Influence of EL on FP

Early studies focused on the direct promotion effect of EL on FP. Gupta et al. (2004, Journal of Business Venturing) proposed a two-factor model of entrepreneurial leadership (risk-taking and vision-building) largely used to verify the positive effect on entrepreneurial performance ($\beta=0.21-0.35$). The follow-up meta-analyses revealed that

the strength of the direct effect in high-tech companies has been comparatively less robust than in conventional sectors (coefficients=0.14, $p < 0.05$). This shows the presence of crucial mediating variables in technology-intensive settings (Rauch et al., 2020). Xu (2021) conducted an empirical study on 189 new ventures in the Yangtze River Delta area, finding that the “opportunity capture” factor of EL has the highest predictive power for revenue growth ($\beta = 0.32$, $p < .001$), with no examination of mediating factors. Zhang (2023) showed that the direct impact of EL on innovation performance is significant only in the initial three years after the establishment of enterprises ($\beta = 0.28$, $p < 0.01$). The impact is not adequate in enterprises that are more than five years old. The result clearly underscores the complexities of possible transmission channels in the further growth of businesses.

2. *Analysis of the Distinct Influence of OR and FP*

Organisational resilience is an essential core competency for new ventures that mitigates the “liability of newness.” Wang et al. (2023) conducted a meta-analytical study by gathered data from “198 empirical studies” to ascertain the average effect size of organisational resilience on firm performance to be 0.41. The association between the adaptability dimension and sustained innovation performance ($R^2=0.47$), the stress resistance dimension and immediate survival performance ($R^2=0.52$), both demonstrate statistically significant differences ($p < 0.05$). Zhao, (2020) surveyed 217 high-tech businesses in the Pearl River Delta region, indicated that the protective effect of organisational resilience on performance during crises is 27% stronger than in normal conditions (interaction effect $\beta=0.19$, $p < 0.05$). This study, however, did not examine the formation mechanism of organisational resilience. Williams et al. (2022) chose 153 biotech new ventures in various years and concluded that environmental sensing mechanism for organisational resilience decrease risks to performance from technological progress by 40%. It did not cover correlation with managerial decision-making tendencies.

3. *Research gaps of the Causal Relationship Between EL and OR*

The investigation of the causal relationship between entrepreneurial leadership and organisational resilience becomes a substantial academic gap, as current studies mainly

comprise theoretical propositions. Zhang et al. (2019) found a potential correlation between the development of organisational resilience and the resource allocation strategies of entrepreneurs in qualitative research of 32 businesses, but it did not include any empirical validation. Lengnick-Hall et al. (2011, Academy of Management Perspectives) also advocated for a theoretical framework depicting how leadership styles can contribute to growth in the resilience capacity of the organisation, without examining transmission channels for factors of resources. Khan et al. (2023) added that “the beneficial role of entrepreneurial leadership in organisational resilience is significant only when resources are ample, not when limited.” This highlights resources’ critical role in the EL-OR relationship, though prior research has not systematically explored resource restoration processes.

Taken together, this review reveals the fragmented nature of existing bivariate studies and identifies clear theoretical and empirical gaps regarding how entrepreneurial leadership shapes organisational resilience and subsequent firm performance through resource-related mechanisms. These gaps directly motivate the integrated theoretical model and research hypotheses developed in this study, provide a clear rationale for the analyses that follow.

2.5.2.2 Integrated Research on Chain Relationships and Core Gaps

1. Limitations of Partial Chain Exploration

The integration of the three variables (EL, OR, and FP) has been attempted in several previous studies, but a comprehensive “EL-OR-FP” chain structure has not yet been established. There are two categories of constraints:

a) Mediating Variable Substitute

Some scholars have adopted alternative capability variables to construct chain models. For example, Yi et al. (2022) proposed “entrepreneurial leadership → strategic flexibility → firm performance” ($\beta=0.29$, $p<0.01$). However, strategic flexibility focusses on short-term adaptability, which is different from the multidimensional dynamic characteristics of organisational resilience. Udayasankar (2021) used “innovation capability” as a mediating component in worldwide research and found that 42% of the total effect is the indirect result of entrepreneurial leadership on firm

performance. However, important elements of resilience (e.g., crisis recovery) were left out of this study.

b) Disintegration of the Chain Connection

Few studies have examined particular sections in the chain, but the whole mechanism has not been well integrated. Zhao et al. (2021) examined data on 213 new organizations in the Yangtze River Delta and found that “organisational resilience has played a mediating role between firm performance and entrepreneurial leadership (indirect effect=0.18, $p<0.05$)”. Yet they did not explore how EL internally enhances OR’s dimensional heterogeneity. Essuman et al. (2020) implies that companies possessing higher operational resilience can ensure their core operations when dealing with either supply fluctuations or certain other types of shock to the market. This increases their efficiency and overall corporate performance by reducing losses, hence ensuring efficiency. But failed to link it to EL’s antecedent influence.

2. *Dimensional Differentiated Transmission Research Gap*

Existing research typically fails to consider the dimensionally diverse transmission effects of organisational resilience and regards it as an overall entity:

a) Inadequate Dimensional Decomposition: Wang et al.’s (2023) meta-analysis showed that only 12% of studies have effectively divided organizational resilience’s dimensions. Moreover, the differences in chain transmission for various dimensions are not studied in any of the above-mentioned studies. Zhao (2020) also conceptualized differences between recovery capacity and adaptability but only validated their distinct effects on firm performance.

b) Absence of Resources Mechanism Integration: Sirmon et al. (2011) first conceptualized resource orchestration’s dynamic processes (identification, acquisition, allocation, reconstruction). Nevertheless, this framework has not been integrated into the EL-OR-FP chain. Li et al. (2020) found resource orchestration mediates entrepreneurial orientation and FP ($\beta=0.27$, $p<0.01$), but failed to identify any direct link between entrepreneurial leadership and organisational resilience.

2.5.3 Research Status and Gaps on the Moderating Impact of ED and EC

2.5.3.1 *Moderation Impacts of Environmental Factors*

1. Impact of Environmental Dynamism (ED)

Lumpkin et al. (2019) concluded that ED, which is measured through technological change rates, has a positive correlation with the reconfiguration speed of resources in organisations ($\beta=0.43$, $p<0.01$). When the level of ED in an environment goes higher, the cycles of resource reconfiguration reduce by 40%. Ding et al. (2021) indicated that entrepreneurial dynamism positively influenced the association between technology orientation and innovation performance, with the interaction term being significantly positive ($\beta=0.22$, $p<0.01$), by researching 152 chip companies in China. However, it did not examine the EL-OR association. Stephan et al. (2023) showed that in high-tech industries, emotional intelligence has a relatively stronger moderating impact on the leadership behaviour-resource management association in comparison to conventional industries, with a large effect-size difference of 0.17 ($p < 0.05$).

2. Impact of Environmental Competitiveness (EC)

Miller et al. (2018) emphasized that EC has a strongly positive association with improved corporate resilience outcomes, as measured by CR5 (concentration ratio for top five firms within an industry), when CR5 is below 30%, the size of the impact on financial performance from corporate resilience is 0.52 ($p < 0.001$), but above 50%, it becomes 0.21 ($p < 0.05$). Chen et al. (2020) researched on 231 new energy Chinese corporations, it was revealed that in high EC settings, the strength of the association between organisational resilience and corporate financial performance was 35% stronger than in low EC settings ($\beta = 0.24$, $p < 0.01$). This study did not test the direct effect of entrepreneurial leadership on resilience.

2.5.3.2 Systematic Gaps in Environmental Moderation of Chain Relationships

Existing studies have not rigorously incorporated Environmental Dynamism (ED) and Environmental Competitiveness (EC) in the “EL-OR-FP” chain structure to properly define the context parameters. There appear to be different shortcomings in the following areas:

1. The absence of the Moderating Mechanism of ED

Although previous research has confirmed that ED affect resource reconstruction efforts (Lumpkin et al., 2019), it has not examined how moderation functions within

the equation pertaining to entrepreneurial leadership to resource orchestration to organisational resilience to adaptability. Two principal gaps exist:

a) Unclear Moderating Links: Essuman et al. (2020) identified that ED plays the role of moderation between entrepreneurial leadership and integration of resources but did not investigate the association entrepreneurial leadership with development of resource orchestration. Zhao (2021) explained that “ED affects the direct association between enterprise lead and organisational resilience ($\beta=0.16$, $p < 0.05$) but did not investigate the mediation role of resource orchestration.

b) Lack Of Dimensional Alignment: Few studies conduct the alignment between ED and the adaptability dimension of organisational resilience. Williams et al. (2022) declared that as technology advancement accelerates, corporate adaptability becomes critical. However, they failed to investigate how the leadership process within facilitating adaptation via resource orchestration is impacted by ED.

2. Gap in Differentiated Moderation of EC

Current research mainly focuses on validating the full moderating role of EC on the link between organizational resilience and firm performance. However, it ignores dimensional differences or integration within the chain.

a) Dimensional Differentiation: Miller et al. (2018) studied only OR without contrasting it with adaptability and situational awareness. Chen et al. (2020) proved that emotional intelligence acts as a moderation variable between organisational resilience and innovation performance but failed to examine various organisational resilience dimensions. Zhang et al. (2023) revealed that the moderating power of EC on resilience and short-term performances ($\beta=0.31$, $p < 0.01$), whereas its power on adaptability and long-term performances ($\beta=0.18$, $p < 0.05$) is significant. This research did not include entrepreneurial leadership.

b) Insufficient Chain Integration: Existing literature does not integrate both the construct of EC moderation with its antecedent construct EL. In high EC contexts, few research explore whether EL is required to develop resiliency by means of improving certain types or patterns of orchestration behaviours (e.g., resources acquisition).

3. Lack of Research on the Joint Moderating of Two Environmental Elements

The entrepreneurial environment is change-intensive and highly dynamic. Yet, most existing studies only focus on either the impact of ED or EC individually, with scarce studies on joint effect.

a) Absence of Interaction Effect

Wang et al. (2023) found that fewer than 3% of studies are concerned with the combination of ED and EC. Jiao et al. (2022) concluded that the combination of ED and EC has been shown to greatly affect the link between strategic flexibility and financial performance but did not include environmental leadership and organizational resilience in its analysis.

b) Blind Spot in Contextual Relevance: The existing literature does not explore whether there are intrinsic differences in the mechanism of action on the chain route in situations where ED is high and EC is also high (as in AI) or when ED is low and EC is also low (as in traditional equipment manufacturers).

2.5.4 Study Contributions, Theoretical Framework, and Innovations

The study fills in on three key theoretical gaps explored in the literature review: chain routes, resource systems, and contextual moderation dilemmas. The study adopts the tri-theoretical approach based on Entrepreneurial Leadership Theory, Dynamic Capability Theory and Resource Orchestration Theory. In China's transitional economy, entrepreneurial leadership brings about the special enhancement of the three attributes encompassed in organisational resilience: adaptability, recovery and situational awareness, through resource orchestration behaviours (identification, acquisition, allocation, reconstruction). This further affects the performance of high-tech enterprises, forming the dual-layer mediating chain: EL → resource orchestration behaviours → OR (three dimensions) → FP. This mediating chain is respectively moderated by environmental dynamism (ED) and environmental competitiveness (EC). ED specifically moderates the initial stage of the process (EL → resource orchestration → OR), whereas EC impacts the latter stage (OR → FP), and the two exhibit a synergistic moderating effect.

The key innovations of this study are as follows: It introduces the concept of resource orchestration behaviours with a dual mediating factor, thereby combining the

numerous variables in ‘EL-OR-FP.’ It explores the transmission characteristics of OR’s three dimensions, challenging the general view that “OR acts as a universal mediator.” The model elaborates on the specific moderating and synergistic roles in the cases of ED and EC.

The methodology addresses prior theoretical gaps and offers practical implications for leadership strategies and resilience-building in new high-tech enterprises.

2.6 Theoretical Foundation and Model Construction

2.6.1 Theoretical Foundation - Contributions and Innovative Applications of Core Theories

This paper systematically integrates the logic of Dynamic Capabilities Theory, Entrepreneurial Leadership Theory, and Resource Orchestration Theory. With regards to this integration of three theories, it should be noted that it involves more than a mere summation, as it creates a “Scenario Response-Mechanism Complementarity-Model Closed Loop,” which represents a reflection of this dual nature of China’s transitional economy, wherein there coexist policy dynamism, a collectivist culture in a rather dominant form, as well as a substantial amount of resource constraints for new businesses. Together, this integration of theories further enhances the “Leadership-Resilience-Performance” model. Table 2-11 illustrated the three theories’ contributions to the research model and innovative applications adapted to China’s transitional context.

	Core Contributions	Overlaps with Other Theories	Innovative Applications
Dynamic Capabilities Theory (DCT)	1. Core Framework Support: It provides the basic analytical paradigm of “environment-capability-performance,” which accurately responds to the context of frequent policy fluctuations in China’s transitional economy and explains the underlying logic for new enterprises to cope with uncertainties. 2. Definition of Variable Dimensions: It defines two dimensions of environmental dynamism and competitiveness, which serve as the moderated variables of the model. 3. Theoretical Integration Role: Functions as an important bridge in theoretical integration, integrating activation effect of entrepreneurial leadership, whereby leadership triggers the evolution of dynamic capabilities, with the capability foundation for resource orchestration, whereby dynamic capabilities shape the allocation efficiency and orientation.	1. Both DCT and ROT lay emphasis on integration of resources. While emphasis in DCT is on building capabilities, in ROT, it is on the process of using resources. 2. Both DCT and ELT emphasize environmental adaptability. While DCT concentrates on capabilities on an organizational level, ELT concentrates on an individual-organizational mechanism of transmission.	1. It breaks through the traditional stable market assumption in Western theories and takes policy dynamism, including changes in regulatory policies, as part of the antecedent variables in dynamic capabilities. 2. Combined with the characteristics of China’s policy-driven innovation, it completes policy interpretation capabilities as a distinct form of dynamic capabilities, thereby different from Western market-oriented dynamic capabilities.
Entrepreneurial Leadership Theory (ELT)	1. Role of a Transmission Mechanism: acts as an intermediary between individual traits and organizational performance, answering “who activates dynamic capabilities.” 2. Variable Definition: three dimensions, vision leadership, risk taking, and team empowerment, that are defined, which comprise a transmission mechanism of “leadership behaviour → dynamic capability enhancement.” 3. Supplement to ROT: it provides a human-driven motive for acquiring and allocating resources as a result of leaders’ allocation decisions, hence increasing the integrity of the theoretical chain.	1. Both ELT and DCT focus on environmental response; ELT concentrates on proactive leadership, whereas DCT accentuates passive adaptation. 2. Resource allocation appears in both ELT and ROT. While ELT studies leaders’ resource allocation decisions, ROT highlights systematic resource operation processes.	1. Suitability to Chinese cultural characteristics: This adjusts the traditional Western “individualism-oriented” model of leadership to suit Chinese collectivistic cultural traits and proposes a model of leaders’ behaviour that accords with a balance of centralization and empowerment. 2. Institutional adaptation in a Chinese setting: With a focus on China’s environment of constant interactions between government and business, this study proposes a new entrepreneurial leadership characteristic, “relationship coordination capability,” to describe how entrepreneurs leverage government resources for enhanced resilience.
Resource Orchestration Theory (ROT)	1. Enhancing the transformation process: develop a comprehensive tool that integrates “resource acquisition—configuration—utilization—reconstruction” to address the theoretical void with regards to “how dynamic capabilities facilitate transformation towards organizational resilience” and define the ultimate result point for the model. 2. Identifying three mediator	1. Both ROT and DCT are related to the interaction of resources and capabilities, with ROT putting stress on the operation of resources, whereas DCT concentrates on the nature of capabilities. 2. Both DCT and ELT are related to decisions	1. Break through the single logic of market-acquired resources in western theories. with China’s high proportion of policy resources, it describes in detail how policy dynamism shapes resource operations. 2. Address resource constraints in Chinese economy, introduce a mechanism of “leveraged

Core Contributions	Overlaps with Other Theories	Innovative Applications
variables: adaptability, recovery and situational capabilities. 3. Providing a theoretical closed loop: environmental stimuli → individual actions → organizational capabilities → resource management → performance outcomes.	concerning resources, but DCT focuses on operation, whereas ELT concentrates on the motivations of decision-making and leader styles.	resource orchestration” (e.g., leveraging external resources through industrial parks), which differs from the “owned-resource-dominated” orchestration model of Western enterprises.

Table 2-11 Comparison of The Three Theories

2.6.1.1 *Dynamic Capabilities Theory*

The Dynamic Capabilities Theory (DCT) proposed by Teece et al. (1997) emerged as a reaction to increased uncertainties in their environment. The principal question is: How can organisations overcome limitations in resources and capabilities to better respond to changing market environments? As proposed in DCT, dynamic capabilities (DCs) differ from stable resource sets. Rather, it is they constitute a creative mechanism enabling firms to leverage existing resources for synergy, develop new skills and resources, and optimize resource allocation in response to market opportunities and threats. DCs are known as “higher-order capabilities” and distinct from “operational capabilities” (e.g., improved industrial process efficiency), which ensure routine performance. The key importance of dynamic capabilities is that they are essentially concerned with adaptation to change and not “preserving status quo.” Therefore, organisations with substantial of DCs are better poised to foresee changes in the market and react to environmental shocks, develop a sustainable edge against competitors (Liu, 2011).

Various researchers have contributed to a better understanding and measures for dynamic capabilities: Helfat et al. (2007) considered dynamic capability to be “the ability to meaningfully alter and extend its resource base through intention and effort” and proposed a classification of resources into three categories: tangible resources (equipment and capital), human resources (core team and employee skills), and organisational resources (processes and corporate culture). The proposed definition has created a basis for a practical evaluation of dynamic capabilities (Eisenhardt & Martin, 2000); Macher & Mowery (2009) and Zollo & Winter (1999) emphasized the importance of applying consistent learned behavioural patterns to implement DCs.

Operational strategy adjustments can be achieved through repeated resource evaluation and cross-departmental collaboration frameworks, mitigating irrational resource allocation and enhancing adaptive efficiency.

In the Chinese context, Wang (2021) classified DC into three key attributes that are relevant to the observed behaviour of domestic companies:

1. Perception capability: The ability to accurately and efficiently collect environmental change information (e.g., market demand, technological advancements, policy shifts).
2. Capture capability: The capacity to make rapid decisions and reallocate resources to implement strategies in response to identified opportunities/threats.
3. Transformation capability: The ability to realign strategic resources and develop organizational capabilities to systematically adapt to market changes.

The evolution and development of dynamic capabilities encompass not only behavioural patterns within organisations but also largely impacted by individual leadership traits. Guo et al. (2024) argue that individual personality traits of an entrepreneur related to risk-taking and learning abilities, and leadership skills related to decision-making and coordination abilities, directly impact the success of building dynamic capabilities. In the perception stage, leaders can direct the organisation to focus on key information sources like niche market requirements to alleviate concerns regarding information overload. In the capture stage, leaders can upgrade procedures related to decision-making to transform opportunities into meaningful solutions. In the transformation component, effective leadership can better manage conflict coordination related to interdepartmental resources to speed up this stage.

The leadership-based dynamic capability has a substantial impact on individual resilience within organisations. Folke (2006) stated that leadership creates a basis for organisational resilience through building an organisational culture, boosting commitment to team members, and building risk awareness. Denyer (2017) further added that resilience building and refining relies on skill application in a crisis scenario: assessing crisis risks (perception), developing contingency strategies (capture), and reallocating resources (transformation). Leadership styles like empowering leadership and crisis management approaches can assist in building a resilient organisation

through optimising individual and collective effectiveness in skills for perception, grasping, and transforming in a crisis scenario (Ignatiadis & Nandhakumar, 2007; Syed, 2024).

New ventures require more intensive development of dynamic capabilities because they are faced with distinct challenges when adapting to their distinctive environments, including limited resources (e.g., capital, talent shortages), underdeveloped organizational routines, risk aversion, and operations in emerging markets with high uncertainty. Conventional approaches to competitiveness via static resources are not enough. Hence, it is important for new ventures to leverage their dynamic capabilities to drive innovations through capability-based resource development. The above involves relying on one's senses to quickly select specific possibilities without encroaching on larger corporations and relying on transforming capabilities to effectively rebalance resources and prevent wastage. Conversely, characteristics associated with small-scale business within new firms, including quick decision-making and high degrees of organizational flexibility and agility, provide a platform that is ideal for building a dynamic capability. Within this step of perception, one can interact directly with clients to develop suitable market monitoring tools. Within this step of capture, decisions can be made promptly to forestall multiple approval levels. In this step of transition, resources can be rebalanced effectively through changes in some team members' roles without undergoing cumbersome procedures (Zhang, 2022).

The theoretical framework of this study base on the role of dynamic capability theory, improving resiliency and creating competitive strengths in new ventures. Firstly, it expounds on how the three aspects of dynamic capabilities (perception, capture, and transformation) are exhibited in resource-poor new ventures. In perception, it primarily focuses on identifying a certain market need and not a broad market monitoring. In transformation, it is on adaptive resource allocation in terms of shared resources and temporary collaborations and not on substantial resource changes. Secondly, it examines the specific pathways via which leadership, particularly entrepreneurial leadership, fosters the development of dynamic capacities in businesses. This involves

improving perceptual concentration through visionary leadership, increasing capture efficiency through assigned duties, and optimising transformation results through cross-role cooperation. Thirdly, it links organisational resilience to competitive advantage, demonstrating how new ventures employ dynamic capabilities to create a prevention-adaptation resilience foundation during routine operations (e.g., managing risks through sensitive insights and gathering emergency resources via acquisition) and implement recovery-iteration resilient strategies during crises (e.g., rapidly adjusting business models through transformative capabilities). As a result, a transmission mechanism of dynamic capabilities-organisational resilience-long-term competitive advantage is produced.

The Dynamic Capabilities Theory (DCT), on which this study is based, describes how firms use dynamic capabilities to convert resilience into sustained business success. However, there are two key limitations. Firstly, it insufficiently discusses the role of entrepreneurial leadership in supporting changes in organisation resilience. The concept largely targets capabilities within resources in an organisation. Second, it neglects procedures involved in building changes in organisational resilience. The concept only relies on capabilities in relation to a “resource-processes” entity, without clearly defining the logical link to risk resistance capabilities.

This study addresses these gaps by integrating two complementary theories: Entrepreneurial Leadership Theory (ELT) and Resource Orchestration Theory (ROT).

2.6.1.2 Entrepreneurial Leadership Theory

The Entrepreneurial Leadership Theory (ELT) emerged in the 1980s as a synthesis of leadership and entrepreneurship research. The traditional literature on entrepreneurship primarily centered on individual entrepreneurs’ behaviour, as captured in Schumpeter’s “Theory of Creative Destruction” in 1934. There has been a tendency to underestimate leadership’s role in keeping entrepreneurial ventures afloat. Conventional leadership theories (e.g., Transformational and Transactional theories) focus on established organizational context and therefore, are less applicable to the volatile context in which new ventures operate. To address this gap, Covin & Slevin (1989) proposed the concept of entrepreneurial leadership. The development of this theory and ideas were

subsequently advanced by Gupta & MacMillan & Surie (2004), They defined entrepreneurial leadership as a role focusing on innovative ventures or entrepreneurial divisions within large corporations. This marked the establishment of ELT as a distinct academic field. Subsequent empirical studies further refined its dimensions and mechanisms (Zacca et al., 2015; Rauch et al., 2019), solidifying its status as a critical theory linking leadership behaviour and organizational adaptability.

The core principles of ELT place emphasis on the role of entrepreneurial leaders in helping organisations overcome difficulties and achieve success in an ever-changing world, summarised in three key statements (Liu, 2019):

1. *Situational Adaptability Proposition*: The effectiveness of entrepreneurial leadership depends on a given level of environmental uncertainty. In situations where there are uncertain technological changes and shifting market requirements and where resources are limited and where organisations have to cope with crises in order to sustain their performance, there is a need to shift from controlling to more adaptive and flexible leadership techniques.
2. *Behavioural Dimensions*: The leadership behaviours of entrepreneurs can be classified into four categories that are quintessential for improving resilient capabilities in organisations.

Firstly, Identifying and Utilising on Opportunities: Identifying and making use of hidden opportunities like recognising demands in online markets amidst the pandemic can usher in a revolutionary age for improving resilient capabilities in organisations. Secondly, Embracing and Managing Risks: The essence of this behavioural category relates to accepting risks for entrepreneurial ventures within permissible limits, as in making calculated decisions to deploy risk-contingency resources. The adopting of a new business model in that context enhances resilient capabilities in organisations. Thirdly, Organising and Integrating Resources: The significance of this category primarily focuses on binding resources scattered across different entrees. Networking with partners in a supply chain and tapping tacit knowledge of workers will develop a reinforcing resource base for engrossing resilient capabilities in organisations. Fourthly, Expressing Vision and Promoting

Empowerment: The importance of this category primarily and simply relates to communicating a vision for efficient management in a crisis situation to all workers. The assignment of goals and responsibilities in a crisis will assist in effective human resource mobilisation for engrossing resilient capabilities in organisations.

3. *Outcome-oriented proposition*: The actual worth of entrepreneurial leadership is generalized in its effect on enterprise performance through intermediary variables like enterprise resilience and innovativeness. It is therefore evident that leaders' behaviours first affect risk-resilience in the organization and are indirectly measured through enterprise performance. This aligns with the study's proposed framework: entrepreneurial leadership → organizational resilience → new venture performance.

This study argues that entrepreneurial leadership enhances organizational resilience, thereby positively impacting new venture performance. While the core theoretical foundation, Dynamic Capabilities Theory (DCT), focuses on resource reconfiguration as the mechanism converting resilience to performance. But it fails to identify a process that is leadership-driven. ELT addresses this gap and strengthens the study's framework through two key contributions:

1. *Linking entrepreneurial leadership to organizational resilience*: DCT inadequately explains how organizational resilience is built, whereas ELT's behavioural dimensions (e.g., constructing challenges, absorbing uncertainty, defining paths, building commitment, articulating constraints) clearly delineate how entrepreneurial leadership fosters resilience. As a consequence, ELT offers a comprehensive foundation for understanding the challenges and opportunities that exist between entrepreneurial leadership and organisational resilience.

2. *Identifying the initiator of resource reconfiguration*: DCT is based on a presumption that organisations possess an ability to identify and recombine its resources. However, this theory fails to provide a precise identification of the individual or entity that initiates these capabilities. ELT fills this gap by emphasizing entrepreneurial leaders as the key agents of resource integration, enabling organizations to convert resilience-derived resource surpluses into dynamic capability reconfiguration.

In conclusion, the concept of entrepreneurial leadership encapsulates an understanding of how successful leadership occurs. Due to their distinct features and traits, leaders can emerge as important catalysts for making a business's resources and capabilities more efficient. Integrating ELT with DCT, by delineating dynamic capabilities to be developed and their transformation processes provide a balanced and encompassing understanding of how a business can leverage leadership to build dynamic skills and improve its performance in an entrepreneurial context.

2.6.1.3 Resource Orchestration Theory

Resource Organisation Theory (ROT) emerged in the 1990s, represents a distinct evolution of Resource-Based View (RBV). The fundamental tenets of RBV (Wernerfelt, 1984; Barney, 1991) asserted that sustained competitive advantage can be gained through diverse strategic resources that are hard to imitate. However, RBV has two critical limitations: Firstly, it largely emphasized the number of resources held within an organisation without addressing how such resources are utilised for value creation; Secondly, it has not adequately elaborated upon the dynamics involved in how resources are converted to capabilities. Hence, RBV has remained poorly equipped in the face of challenges that entail changes in a firm's resources in response to a crisis. To address this gap, Sirmon, Hitt, and Ireland (2011) introduced ROT, delineates the intermediate process between resources, capabilities, and performance. It clarifies how leaders optimize organizational responsiveness to uncertainty through pragmatic resource allocation and integration. In recent times, researchers have adapted this theory (Carnes et al., 2019; Xu et al., 2024) in relation to studying crisis and resilience strategies in relation to its explanatory power in pointing to how resources affect an organization's resilience against risk.

The key ideas in ROT are concerned with explaining how leaders can leverage resources to achieve a heightened level of performance through making those resources more dynamic and less passive in their capabilities. The key ideas can be distilled down into its three key views:

1. The non-equilibrium of resources

The idea of resource non-equilibrium holds that the resources possessed by a given

organization have some basic properties of redundancy and dispersal. The fact that Resource acquisition alone does not generate competitive advantage; rather, dispersed resources are brought together as a coordinated entity through a well-thought-out strategy that seeks to build resources into a reservoir for countering risks and uncertainties in a more resilient and flexible organization.

2. The three phases of orchestration

ROT involves a cyclic process of Resource structuring, bundling and utilization, with expert leadership is critical in building a resourceful organization: Resource Structuring is a leadership strategy that categorizes and ascertains resource utilization according to strategic changes in the business environment. The strategy is pivotal in building a fundamental resource base for a more flexible organization; Resource Bundling is a strategy that combines different resources like technological and human resources for better synergy. The strategy is fundamental in building a unified resource base for a more agile organization in different scenarios; Resource Utilization is a strategy whereby a leader combines a group of resources to perform in a specific scenario like in a crisis. The strategy is critical in building a fundamental base that underpins resource development in a scenario related to organizational flexibility. The strategy is fundamental in building a fundamental base that underpins resource development in a scenario related to organizational flexibility.

3. Leadership-driven proposition

The cognitive and operational skills of leaders play a significant role in influencing resource orchestration. The ability to recognize resources is important for leaders to ensure that those resources can be used to strengthen resilience and improve coordination between departments. Furthermore, their strategies in overseeing resources can contribute to changes in different crises that arise. The effectiveness of resource conversion and the whole performance as well as resilience of the organization will be directly related to how leaders orchestrate. The above is in line with this study's fundamental proposition that argues that entrepreneurial leadership is the key catalyst.

Based on DCT, one fundamental concept established for this paper is that “entrepreneurial leadership → organisational resilience → new venture performance.”

The theory states that it is through the distinct capabilities that the impact of entrepreneurial leadership has on enhanced corporate performance. While it is imperative that the theory recognizes the significance and role of dynamic capabilities in enhanced corporate performance in relation to perceiving, integrating, and reconfiguring resources, there is ambiguity in relation to how corporate resilience triggers this skill. Consequently, these gaps make DCT incomplete in explaining the “resilience → dynamic capabilities → performance” chain, as it omits resource-related mediating steps.

ROT provides a distinct mediating process that involves three steps to address theoretical inconsistencies in DCT. The mediation can be described as follows: entrepreneurial leadership → resource orchestration → organizational resilience. This aligns with entrepreneurial leadership dimensions (opportunity identification, resource mobilization, risk-taking) and organizational resilience dimensions (resource redundancy, collaborative synergy, dynamic adaptation). Moreover, this is in line with perception, reconfiguration, and application dynamics related to resources within organisations, providing critical support in addressing changes from resilient to dynamic capabilities. In summary, ROT expands and enriches DCT’s explanation of how organizational resilience enhances dynamic capabilities and ultimately impacts performance, strengthening the theoretical framework’s rigor.

2.6.2 The Adaptability of Theories to China’s Transition Economy Context

This study is grounded in Dynamic Capabilities Theory (DCT), which explains how organizations convert resilience into long-term competitive advantage. It does not merely transplant Western theories; rather, it addresses the fundamental contextual variables that influence the survival logic of new ventures in transition economies. By applying three major theories to the challenges presented by China’s transition economy, this study performs “contextual adaptation” to ensure compatibility with the survival logic of Chinese new ventures. The specific correlations are as follows:

1. Dynamic Capabilities Theory: Adapted to China’s dynamism of institutional environment and market transformation

The essential element of the transitional economy within China is the tendency to make

frequent corrections to institutional policies (e.g., setting up a STAR Market, supportive for specialized, distinctive, sophisticated and novel (SDSN) enterprises) and simultaneous market evolution from incremental growth toward stock competition, which is quite different from “institutional stability and market saturation” observed in Western market economies.

This study contextualizes DCT dimensions for China’s context: This paper argues that it is necessary to localize perceptual capability to policy perception and market segmentation perception within Dynamic Capabilities Theory. For example, new ventures can perceive government subsidies and policy shifts within industries via “policy perception,” while they can avoid direct competition with giant corporations via “market segmentation perception”; The second part, transformative capability can be localized to policy adaptation transformation. For example, within the background of “dual carbon policy,” new energy corporations accomplish capability evolution by transforming resources (shifting from traditional energy equipment to photovoltaic energy storage solutions).

2. Entrepreneurial Leadership Theory: Adapted to China’s relational network embeddedness and collectivist culture

In China’s transitional economy, new venture survival is largely dependent on relational networks, including government relations, supply chain networks, and industrial clusters. Moreover, due to the collectivist nature of Chinese culture, “team synergy” takes precedence over “individualism,” which is very unlike Western entrepreneurial approaches to management that emphasize entrepreneurial management centered on individual risk-taking.

This paper particularized the resource mobilization capability within the context of the resource mobilization dimension of entrepreneurial leadership into relational network mobilization capability. For instance, new ventures increase organizational resilience via “supply chain relationship integration.” This directly maps to the resource mobilization dimension within entrepreneurial leadership but is essentially about relationship-oriented business dynamics within the context of China. The vision empowerment capability is localized into collective goal empowerment because:

Compared to Western “individual incentives,” Chinese new ventures’ leaders have to coordinate teams across different departments via “a shared vision (such as breaking foreign technological monopoly).” This is consistent with the vision communication dimension role of entrepreneurial management but is sensitive to priority of team collaboration, which is unique to collectivist cultures.

3. Resource Orchestration Theory: Adapted to China’s Resource Allocation Imbalance and Policy Uncertainty

China’s transitional economy is characterized by regional resource disparities (e.g., between eastern coastal and inland regions) and high policy volatility (e.g., pandemic prevention measures, industry regulatory tightening), which created high difficulty and low stability in entrepreneurship to acquire resources, and it is very different from easy resource availability and policy stability environment in the West.

This paper specifies the “resource allocation stage” within Resource Orchestration Theory to “flexible slack allocation”: For example, because there is uncertainty in centralized procurement policies, new biomedical enterprises have to allocate policy-response slack resources (like R&D slack resources) because they have to deal with sudden policy shifts within China, which is part of the allocation dimension of resource orchestration. The resource integration stage is specific to “cross-regional/cross-entity integration” because to deal with “regional resource imbalance,” new ventures within the Yangtze River Delta region incorporate technological resources via their cross-regional collaboration (e.g., jointly forming R&D centers with universities in central and western regions) and thereby improve their adaptive capability to deal with organizational resilience. This is done on the basis of integration dimension with resource orchestration but keeping within the constraints of regional development disparities present within China.

Accordingly, this research theoretically merges Dynamic Capabilities Theory, Entrepreneurial Leadership Theory, and Resource Orchestration Theory (Figure 2-1). The main reason is attributed to their strong responsiveness to the environment within the transitional economy in China and their capability to perfectly cope with the paramount challenges posed to new ventures during their growth. The merging of these

theories is not a simple overlaying on each other, but rather due to a unique environment created by the transitional economy in China, which makes up a complete logical chain like “response to environmental change-activation of organizational dynamics-optimal utilization of resources.”

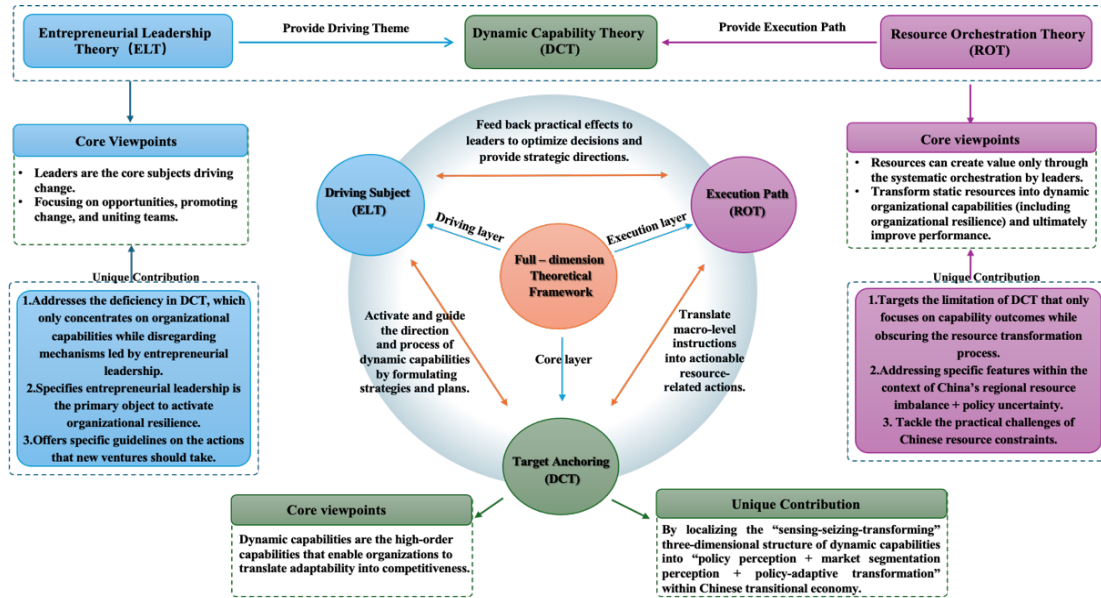


Figure 2- 1 Theoretical Synergy Diagram

2.6.3 The core contradictions between Western-centric theories and China's transitional economy context

There are certain contradictions between the implicit applicable premises of Western theories and the Chinese transitional economy. This section will concentrate on two issues, in line with contradiction dismantling-mechanism revision-debate of theoretical tensions. This refers to both challenges of acclimatizing Western theories in a Chinese context and fundamental revisions of theories due to this context.

2.6.3.1 Collectivism and Entrepreneurial Leadership Behaviour: The Core Contradiction Between Western “Individual-Centeredness” and China’s “Collective and Relational” Orientation

1. Implicit Premises of Western Entrepreneurial Leadership Theories

Centered on individualism, Western theories default to the logic of leadership behaviour as “individual risk-taking driven and individual incentive orientation.” For instance, these theories emphasize entrepreneurs’ personal risk decision-making capabilities and incentive mechanisms centered on individual achievements, while neglecting the

determinant role of relational networks and team collaboration (Sun, 2024).

2. Contradictions in the Chinese Context

In China's transitional economy, collectivist culture is not a simple supplement to Western theories but directly subverts their "individual-centered" behavioural logic (Kuai, 2022). On the one hand, collectivism emphasizes that team collaboration takes precedence over individual performance, which conflicts with the Western emphasis on individual risk-taking as paramount. On the other hand, entrepreneurial survival in China is highly dependent on relational networks such as government ties, supply chains, and industrial clusters, while Western theories have not regarded relational embeddedness as a core variable of leadership behaviour.

3. Core of the Argument: Revisiting Entrepreneurial Leadership Behaviour with Collectivism

- **Resource Mobilization Behaviour:** "Resource mobilization" is where, under Western thought, individual entrepreneurs mobilize their individual resources or market resources. With a collectivist outlook, there is a shift in leadership behaviour from relational network mobilization, which builds organizational robustness by mobilizing group resources like supply chain associations and government-enterprise ties, in addition to individual resources (Chen, 2024). Here, this goes against "individual(resource) integration" as described in Western thought, as individual risk-taking attitudes overlook that in China, "Relationships are a key production factor."
- **Vision Empowerment Behaviour:** Western theories focus on "individual incentives" (e.g., equity and personal promotion), while collectivism requires leaders to transform "personal visions" into "collective goals" (e.g., breaking foreign technological monopolies) and achieve these goals through cross-departmental team collaboration (Zhao, 2023). The essence of this revision lies in the fact that Western "individual incentives" may lead to insufficient team cohesion in China due to collectivist culture, whereas collective goal empowerment can adapt to the cultural logic of harmony as the most valuable and team supremacy, forming a unique leadership behaviour model.

2.6.3.2 Policy Dynamism and Resource Orchestration: The Logical Contradiction Between Western Stable Institutions and China's Policy Fluctuations

1. Implicit Premises of Western Resource Orchestration Theory

Based on an environment characterized by institutional stability and balanced resource allocation, these theories default to the core of resource orchestration as “dominated by internal resources and static process optimization.” For example, Western enterprises rely on stable policies and sufficient internal resources to conduct standardized resource acquisition-allocation-integration, without the need to address frequent policy changes.

2. Contradictions in the Chinese Context

The “policy dynamism” of China’s transitional economy (e.g., subsidy adjustments, sudden changes in volume-based procurement policies, and tightened industrial supervision) is in fundamental conflict with the Western “stable institutional environment”. The unpredictability of policies renders the Western orchestration model of “being dominated by internal resources” ineffective; meanwhile, uneven regional resource allocation further exacerbates the difficulty of resource orchestration (Li, 2024). This constitutes a core contradiction that has not been covered by Western theories.

3. Core of the Debate: Policy Dynamism and Resource Orchestration

- **Resource Allocation Logic:** Under the stable Western environment, the logic is static internal resource optimization, while China’s policy dynamism requires flexible redundant allocation. For example, biopharmaceutical enterprises need to reserve policy-responsive R&D redundancy to cope with sudden changes such as volume-based procurement policies and subsidy withdrawal. This is contrary to the Western logic of no redundancy and efficient utilization of internal resources. Its essence is the risk hedging demand brought by policy fluctuations, which revises the “stability assumption” of Western.
- **Resource Integration Model:** In the stable Western environment, the model is “internal resource integration”; however, China’s policy dynamism coupled with uneven resource allocation has driven the integration model toward “leveraged and cross-regional integration” (Zhang, 2022). For instance, enterprises leverage external resources through industrial park policies (instead of relying on internal resources); enterprises in the Yangtze River Delta and universities in central and western China

jointly establish R&D centers to achieve cross-regional technology integration. This subverts the Western orchestration logic of “being dominated by internal resources”, because policy dynamism makes it impossible to timely capture policy dividends and respond to policy risks by solely relying on internal resources. Only the leveraged and cross-regional orchestration model can adapt to China’s context of “policy-driven resource flow”.

2.6.3.3 The Boundary of Western Theories and the Value of Chinese Context

The applicable boundaries of Western-centric theories lie in “individualism and institutional stability”, while the “collectivism and policy dynamism” of China’s transitional economy precisely breaks through this boundary, leading to the ineffectiveness of the core behavioural logics of Western theories in China (e.g., individual risk-taking leadership, internal resource-dominated orchestration). This “failure-revision” process is exactly the debate and reflection on the “universality of Western theories”. Ultimately, it is demonstrated that the Chinese context is not a special case of Western theories, but a “contradiction field” that promotes theoretical reconstruction, and the revised theoretical mechanism can better explain new venture behaviours in transitional economies.

2.6.4 Formulation of Research Hypotheses

2.6.4.1 Research Hypotheses on the Relationship between Entrepreneurial Leadership and New Venture Performance

1. The Development Dilemmas of New Ventures and the Key Roles of Leaders

New ventures face numerous challenges in a competitive market scenario: intense competition from established firms (Zahra & Bogner, 2000), strong supplier bargaining power (Delmar & Shane, 2004), customer-related risks (Amason et al., 2006), market entry barriers (Ensley et al., 2002), and resource constraints (Townsend et al., 2010). Thus, when considered cumulatively, all these factors significantly increase the possibility of failure for new ventures in comparison to more established firms (Su et al., 2011). In a context of rapid uncertainty, top management’s leadership capabilities, particularly in strategic guidance and decision-making, are pivotal to new ventures’ success (Swiercz & Lydon, 2002; Townsend et al., 2010).

2. Multidimensional Support Mechanisms of Entrepreneurial Leadership

Entrepreneurial Leadership is a concept that combines entrepreneurial and leadership characteristics and offers development assistance in new ventures through different channels.

To start with, environmental adaptation and confidence building are crucial aspects that make a leader in entrepreneurial ventures. Entrepreneurial leaders address employee concerns about environmental uncertainty, formulate growth strategies, and shape a resilient organizational culture. This enhances team flexibility in volatile environments and improves goal achievement efficiency (Baum et al., 1998; Coglisier & Brigham, 2004). Moreover, they promote team efficacy and growth potential. As leaders in this context, they remove growth obstacles for their employees, develop challenging goals and ensure that the teams are committed through trust, enhances the employees' entrepreneurial efficacy. There is a direct link between team effectiveness and growth potential in new ventures (Breugst et al., 2012; Kamm et al., 1990). In addition to that, through effective communication, leaders secure critical development resources and reduce growth constraints, clarifying new ventures' value creation path (Breugst et al., 2012; Kansikas et al., 2012). At last, the improvement of performance through innovation is essential. Entrepreneurial leaders have the ability to make rapid strategic decisions and develop innovative solutions, allowing them to efficiently recognise market possibilities (Ireland et al., 2009). This therefore supports employee creativity and enhances organisational innovation (Chen, 2007). Performance advantages for new ventures are ultimately determined by their capacity to capitalise on opportunities and innovation (Puhakka, 2007; Mueller, 2007).

3. Adaptive Fitness of Entrepreneurial Leadership

The uncertainty of new enterprises is focused on three dimensions, complex business environments, innovation-driven resource demands, and weak risk resilience, whereas the characteristics of entrepreneurial leadership facilitate the precise addressing of these challenges.

Complex environment adaptation: Entrepreneurial leaders can benefit, and help ventures adjust their strategies in line with changes in the environment due to their own

perception of market changes (Shang & Zhu, 2018); Innovation resource guidance: For Emerging ventures, innovation is considered their core competence, requiring much resource input to develop skills in scientific and technological innovation (Ma et al., 2020). Entrepreneurial leaders can provide orientations for innovations through creative vision building, accurate market demand identification, optimal resource utilization, and establishment of a positive and innovative environment within organizations to enable enterprises to utilize resources for innovation and achieve market superiority (Chen, 2015); Risk resilience enhancement: risk resilience for new ventures is lower as they have less capital and resources (Fan & Nie, 2017). In a crisis scenario, entrepreneurial leaders are proficient in aligning market opportunities with less resources and can quickly change strategies to provide scope for surviving and growing within enterprises (Sarabi et al., 2020).

4. Development of Research Hypotheses

The above evaluation makes it clear that entrepreneurial leadership has a capability to mitigate development challenges associated with new ventures and tackle uncertainties within new ventures through approaches like adapting to their environment, motivating team members, integrating resources, and implementing innovations. Therefore, in this study, the following hypothesis is developed:

H1: Entrepreneurial Leadership has a positive effect on New Venture Performance

2.6.4.2 Research Hypotheses on the Relationship between Entrepreneurial Leadership and Organisational Resilience.

1. Delimitation of the Dynamic Capability Attribute of Organizational Resilience

The specification of the dynamic capability aspect of organisational resilience is a foundation for validating a mediating mechanism for entrepreneurial leadership and new venture performance. Dynamic capabilities are considered to represent the new skills that organisations develop through integration, improvement, and rebounding of both internal and external resources and skills (Pavlou & El Sawy, 2011), encompassing core elements such as sensing, learning, integration, and coordination capabilities.

In this context, an example of organisational resilience in Dynamic Capabilities is given

as follows.

- **Sensing Characteristic:** The capability of the organisation to sense and respond to changes in its environment is a manifestation of organisational resilience. The organisation that exhibits superior resiliency in a crisis is one that is well-versed in detecting warning signs of a crisis.
- **Integration and Coordination Characteristic:** The capability to drive proactive organization transformation in response to internal and external changes during a crisis. Hamel & Välikangas (2003) refer to a critically resilient organisation that can effect changes in a pre-emptive and compensative manner to neutralise external shocks. Hence, this characteristic is a manifestation of a resilient organisation's capability to develop and effect changes by utilising various sources during a crisis.
- **Learning Characteristic:** Resiliency makes a difference in a post-crisis scenario as it helps to sum up experience. Vogus & Sutcliffe (2007) define a resilient organisation as one that is capable of achieving a resilient recovery to a firmer rebound.

Thus, organizational resilience is a critical organizational dynamic capability that enhances leadership effectiveness and strengthens firm performance.

2. Alignment between the Core Traits of Entrepreneurial Leadership and Organizational Resilience

The relationship between the fundamental characteristics of entrepreneurial leadership and organisational resilience is based on the alignment of leadership qualities with the developmental requirements of organisational resilience.

Entrepreneurial leadership can be viewed as an approach to leadership that combines visionary thinking, resource optimization, and the identification of opportunities (Gupta et al., 2004). The process promotes the survival and resilience of organizations and acts as an efficient tool for new organizations to deal with external risks and challenges in the event of a crisis. The salient features of entrepreneurial leadership, including structuring cognitive challenges, handling uncertainty, identifying developmental paths, obtaining commitment, and defining constraints, help new

organizations develop resilience in organizational terms on various fronts. On the external front, it equips organizations to deal with the rapidly changing external environment and the level of competition in the market.

3. Multidimensional Mechanisms of Entrepreneurial Leadership for Facilitating Organizational Resilience

Using the analytical model proposed by Lengnick-Hall and Beck in 2005, entrepreneurial leadership builds resilience in new organisations on three domains: cognitive, behavioural, and context.

- Cognitive Domain: The key benefit of entrepreneurial leadership is that it allows senior executive leadership to apply subjective entrepreneurial initiative in identifying market variations and crisis points while establishing lofty goals and predicting the context for organisational resilience on the cognitive level.
- The behavioural aspect of entrepreneurial leadership allows senior executive leadership to identify market opportunities, steer the organisation to adjust strategies, and improve the executive capability for organisational resilience on the behavioural level by acting on behaviours.
- Contextual Dimension: Entrepreneurial leadership allows the senior leadership in organizations to adequately detect changes in the external environment, unlock the paths of strategic planning in response to the challenges met by new businesses, and after the occurrence, it promotes self-reflection on experiences, establishing a dynamic feedback process, and improvement in organizational resilience.

4. Development of Research Hypotheses

The qualities and processes involved in entrepreneurial leadership provide particular assistance in establishing resilience in new companies and can be viewed as one of the key drivers of resilience enhancement. Accordingly, this study proposes the following hypothesis:

H2: Entrepreneurial leadership has a direct positive impact on organizational resilience.

2.6.4.3 The Mediating Effect of Organisational Resilience.

1. The Positive Effect of Organizational Resilience on New Venture Performance

Dynamic Capability Theory has proposed that dynamic capabilities play an important role in improving the performance of businesses. Dong & Ge (2014) noted that Chinese firms with strong dynamic capabilities can rapidly respond to external environmental changes, drive organizational transformation, and optimize resource combinations to sustain superior performance. Linnenluecke (2017) further confirmed that organizational resilience, as an embodiment of dynamic capabilities, assists entrepreneurial leaders in navigating organizational adversity.

Resilience in organisations amplifies the effectiveness of new businesses in three different stages:

- Routine Phase: The importance of resilience in organisations can be defined by highlighting the need to develop organisational structures in order to properly deal with any crisis that may arise in the organisation. The leadership becomes aware of the shortcomings in organisations and refines techniques to help develop varying and adaptable organisational models for businesses and strategies (Hamel and Välikangas, 2003).
- Crisis Events Phase: Resilient organisations have incorporated mechanisms to effectively deal with different shifts in the environment. These organisations can restore themselves in crisis situations through internal structural reforms, process rejuvenation, and reformation (McManus et al., 2007). They can even retain and improve performance levels despite the crisis (Hollnagel et al., 2006).
- Post-crisis Restoration Phase: Resilient organisations help in institutionalising and normalising crisis consciousness. The organisations can correct any deficiencies in operation and management by assessing and thinking about past experiences while exploring entrepreneurial and inventive opportunities in the wake of the crisis to allow for speedy restoration and resurgence.

2. *The Intrinsic Association of Entrepreneurial Leadership, Organizational Resilience and New Venture Performance*

Entrepreneurial leadership, which can be viewed as a dynamic capability, involves key dimensions of entrepreneurship: opportunity exploitation, challenge management, and crisis-driven innovation (Gupta et al., 2004). These dimensions are in close touch with

the improvement of the resilience of organisations: entrepreneurial leadership enhances firms' adaptability to technological and market changes, supports efficient execution of innovation-related tasks, and strengthens system performance (García-Barzallo et al., 2016). Empirical studies support this linkage: Zhu (2019) argued that resilient organizations enable leaders to optimize resource allocation and overcome growth challenges; Linnenluecke (2017) emphasized that organizational resilience helps entrepreneurial leaders steer firms through adversity. In summary, with respect to Dynamic Capability Theory, there is strong correlation between entrepreneurial leadership, resilience in organisations, and new businesses' performance. The trait of entrepreneurial leadership enhances organisational structures with respect to efficient resource growth and allocation, in addition to exploring new opportunities and thereby increasing resilience to improve performance.

To deepen the analysis (unlike prior studies treating organizational resilience as an aggregated mediator, this study adopts the Organisational Resilience Scale, designed by Kantur & Iseri-Say in 2015, which has three dimensions:

- The Adaptability dimension mainly concentrates on the flexibility to deal with the changing environment, adjusting one's own strategies and activities rapidly.
- The Recovery capability dimension emphasizes the capability to come back to normal after being interrupted or to return to the state before being interfered with in any manner.
- The Situational Awareness dimension emphasizes the perceptiveness and foresightedness of the organisation towards internal workings and external factors, which can be market or any kind of statutory regulations.

3. Development of Research Hypotheses

Based on previous studies, organizational resilience (and its three dimensions) mediates the relationship between entrepreneurial leadership and new venture performance: entrepreneurial leadership indirectly improves performance by enhancing organizational resilience. Therefore, the following hypotheses are proposed:

H3: Organizational resilience has a significant mediating effect between entrepreneurial leadership and new venture performance.

H3a: Organizational adaptability has a significant mediating effect between entrepreneurial leadership and new venture performance.

H3b: Organizational recovery capability has a significant mediating effect between entrepreneurial leadership and new venture performance.

H3c: Organizational situational awareness has a significant mediating effect between entrepreneurial leadership and new venture performance.

2.6.4.4 Moderating Effects of External Environmental Characteristics.

1. Definition of External Environmental Attributes

The Dynamic Capability Theory argues that the ability to change in enterprises, known as dynamic capabilities, is vital in explaining the process of sustained and increased competitive advantages in turbulent environments. Jansen et al. (2009) identified two major external environmental attributes: Environmental dynamism involves regular and unpredictable changing processes within the environment (e.g., technological advancements, shifting consumer preferences, fluctuating product demand); environmental competitiveness involves variations in market structure, with respect to the number of competitors and competitive industries.

The external environmental dynamic attributes affect the strength of the link between entrepreneurial leadership and organizational resilience, acting as an essential boundary condition to study and interpret the connection between them, in accordance with Kahn et al., (2018).

2. The Moderating Mechanism of Environmental Dynamism

The defining factor of Environmental Dynamism is the unpredictable and recurring nature of the environment, thereby forcing organisations to develop agility to either react to it or take advantage of it. The key to Entrepreneurial Leadership, as asserted by Renko et al. (2015), is to direct individuals to work towards meeting organisational objectives in the dynamic environment that surrounds them. Through instilling creativity in employees and solving the difficulties created by Environmental Dynamism in organisations, Entrepreneurial leadership can turn Environmental Dynamism to the advantage of organisations in terms of growth and capabilities.

Organisational resilience is dynamic and path-dependent rather than static in

nature, shaped by the interaction of the organisation with the external environment (Li & Zhu, 2021; Ortiz-de-Mandojana & Bansal, 2016). The concept of resilience largely encompasses the process where organisations can heal and learn to refocus on growing in unpredictable settings. In high-dynamism contexts, entrepreneurs are more motivated to seize transient opportunities, enhancing organizational resilience. Conversely, low environmental dynamism may underutilize entrepreneurial leaders' opportunity-detection and challenge-response capabilities, hindering resilience development.

3. The Moderating Mechanism of Environmental Competitiveness

The essence of environmental competitiveness can be seen in the intensity of market pressure, which directly relates to the difficulties that new organisations encounter in terms of accessing resources and market share. For new organisations, high levels of environmental competitiveness can trigger the entrepreneurial spirit that is inherent in entrepreneurial leadership, senior management becomes more knowledgeable about the competitive environment and makes structural changes to improve feedback processes, leverages resource management and opportunity-identification strengths to address resource constraints and market competition, ultimately enhancing organizational resilience. In contrast, low competitiveness reduces market pressure, diminishing entrepreneurial leaders' motivation for resource mobilization and crisis resilience, which hinders their contribution to organizational resilience.

4. The Moderating Role of External Environmental Attributes

The processes of resilience and innovation, as well as transformation, of organisations are greatly impacted by external environment factors. The resilience and innovation potential of an organisation can be greatly amplified by the efficient use of the capabilities of entrepreneurial leadership, thus increasing the performance of the organisation (Baron & Tang, 2011). Specifically, higher environmental dynamism and competitiveness strengthen the effectiveness of entrepreneurial leadership in enhancing organizational resilience and, consequently, new venture performance.

5. Development of Research Hypotheses

This study assumes that the attributes of the external environment, competitiveness and

dynamism, play an affirmative moderation role in the correlation between organisational resilience and entrepreneurial leadership, in light of the extensive analysis presented in this study. The results indicate that the positive effect of entrepreneurial leadership on organisational performance can be enhanced by the enhanced understandings of environmental dynamism and competitiveness on the part of entrepreneurs, with organisational resilience mediating in the process. The study thereby presents the following hypotheses:

H4a: Environmental Dynamism plays a positive moderating role between Entrepreneurial Leadership and Organizational Resilience.

H4b: Environmental Competitiveness plays a positive moderating role between Entrepreneurial Leadership and Organizational Resilience.

The current study focuses on the mediating effect of organizational resilience and the moderating effect of external environment attributes. The study shows that external environment attributes can affect the entrepreneurial leadership-organizational resilience relationship, as well as the mediating impact of organizational resilience in the transition from entrepreneurial leadership to new ventures' performance. The strength of the mediating effect is dependent on the external environment attributes.

H5: Environmental characteristics (environmental dynamism and competitiveness) positively moderate the mediating role of organizational resilience between entrepreneurial leadership and new venture performance, manifested as a moderated mediating role: the higher the environmental characteristics, the stronger the indirect impact of entrepreneurial leadership on new venture performance through organizational resilience.

2.6.5 Construction of Research Model

The current study, founded on Dynamic Capability Theory, combines Entrepreneurial Leadership, Organisational Resilience, New Venture Performance, and External Environmental Attributes in one analytical paradigm (Figure 2- 2). The study hypothesizes that organisational resilience acts as a mediator between entrepreneurial leadership and new venture performance, which is driven by external environmental attributes.

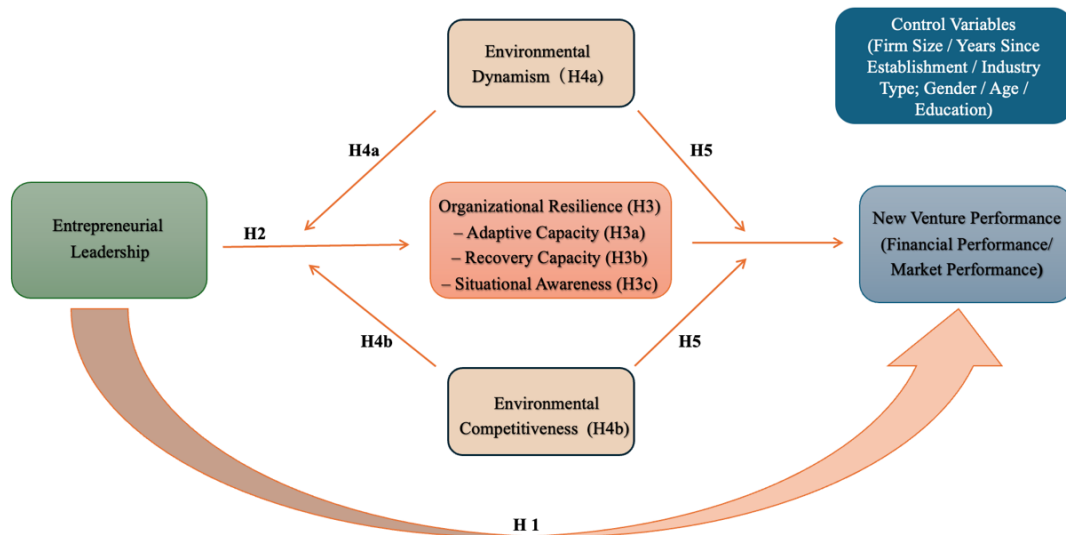


Figure 2- 2 Proposed Research Model

2.7 Chapter Summary

In conclusion, Chapter 2 provides a thorough review of the existing literature on the four main constructs discussed in this study, identifies the gaps in the relevant theories concerning the relationship between entrepreneurial leadership, organizational resilience, and new venture performance as well as the moderating effect of environmental dynamism and competitiveness, develops a context-based theoretical framework using the concepts of Dynamic Capabilities Theory, and formulates an empirical hypothesis for testing the developed theoretical model. Based on the established theoretical basis, Chapter 3 focuses on the positivist methodology for investigating the problem at hand, which comprises philosophical assumptions, research approach, design, sampling, questionnaire development, variables, data collection, and analysis techniques.

CHAPTER 3 RESEARCH METHODOLOGY

The literature review chapter has systematically analysed Sino-Western differences in theoretical frameworks of the “entrepreneurial leadership-organizational resilience-new venture performance” relationship. In addition, it has interpreted the logic for scientific studies on Chinese entrepreneurial leadership and extensively analysed literature related to “entrepreneurship” in China. Therefore, this chapter aims to examine the research design in Chinese context and validate its theoretical framework. The methodology for this study described in this chapter is rooted in China’s distinctive national context. The definitions of key variables, sample design and measurement tool are directly aligned with the unique features of Chinese high-tech ventures. This proposed methodology is theoretically grounded as it takes into account Sino-Western contextual variations and designed to meets the scientific rigor required for empirical testing.

3.1 Restatement of Research

In today’s volatile and competitive market environment, the ability to adapt to external changes and respond to disruptions is essential for new ventures to achieve sustainable growth. This is particularly critical for Chinese high-tech start-ups, which operate within a transitional economy characterised by resource scarcity and institutional uncertainty (Lengnick-Hall et al., 2011; Zahra et al., 2006). Organisational resilience enables firms not only to withstand environmental shocks but also to reconfigure resources and pursue growth under uncertainty (Duchek, 2020; Kahn et al., 2018). Meanwhile, entrepreneurial leadership supports opportunity-seeking, strategic adaptation, and organisational change, helping new ventures overcome resource constraints and improve performance (Renko et al., 2015; Shang & Zhu, 2018).

Despite established links between leadership, resilience, and performance, existing literature offers limited insight into the causal mechanisms and boundary conditions governing these relationships, especially in China’s transitional high-tech sector. Against this backdrop, this study addresses real-world challenges faced by emerging technology ventures and explores the interplay of entrepreneurial leadership,

organisational resilience, and firm performance. Grounded in Entrepreneurial Leadership Theory, Dynamic Capability Theory, and Resource Orchestration Theory, it moves beyond abstract theoretical debate to deliver empirically grounded and practice-relevant implications.

3.2 Philosophical Position of the Study

Research philosophy is considered to play a pivotal role in improving researchers' understanding of social phenomena (ontology) and methods of knowledge acquisition (epistemology) (Saunders et al., 2020). It provides a logical platform for designing a study and interpreting its findings. The current study investigates the mediating role of organizational resilience in the relationship between entrepreneurial leadership and new venture performance and aims to examine two moderating variables: environmental dynamism and environmental competitiveness. Thus, it is important to have a solid philosophy for this empirical study.

3.2.1 Ontological and Epistemological Stance

Ontologically, the current study assumes objectivism, whereas epistemologically, it adopts positivism, which aligns with its focus on practical insights based on evidentiary findings. In particular, the constructs under study (i.e., entrepreneurial leadership, organizational resilience, and new venture performance) are argued to exist objectively, independent of researchers' views, with laws describing inter-variable associations being observable and testable (Bryman, 2016).

Ontology and epistemology underlying the study are predicated upon two fundamental premises:

1. *Operationalization of validated constructs*: The main constructs under study (entrepreneurial leadership, organizational resilience, and new venture performance) are quantified using validated measures, characterized by consistent dimensional classifications and measurements empirically tested. This ensures non-arbitrary operationalization that corresponds to objectivist philosophy.
2. *Objective causalities*: The assumed causations (e.g., entrepreneurial leadership → organizational resilience → new venture performance) are grounded in empirical data obtained by means of replicable observations to avoid subjective biases, thus remaining

true to positivist epistemology.

With respect to epistemology, the current stance reflects positivism where knowledge is acquired from observable and measurable facts. Thereby, positivist epistemology is achieved via the following three practices:

- objective sampling and measurement (e.g., the use of standardized surveys and controlled sampling schemes);
- objective validation of analyses carried out, including tests for reliability and causality verification, ensuring result replicability;
- consistency between theoretical constructs (e.g., dynamic capabilities, situational leadership theories) and empirical evidence.

It should be highlighted that the selected epistemology/ontology combination focuses heavily on practical considerations. Indeed, despite the recognized inability to account for all context-specific elements, the current framework prioritizes obtaining pragmatic insights that can assist in solving real-world problems in new ventures.

3.2.2 Justification of Objectivist-Positivist's Adaptability

Based on the above-mentioned ontological and epistemological views, this study openly adopts the Objectivist-Positivist paradigm. This paradigm emphasizes “validating causal links and striving for universal conclusions,” and focusing on variables operationalization and sample representativeness (Bryman, 2016). The appropriateness of this study paradigm is demonstrated through four aspects: alignment with research objectives, adaptation to research design, compatibility with theoretical framework and adaptation with research value.

1. Alignment with Research Objectives

The main purpose of this study is to address the moderating role of organizational resilience within the relationship of entrepreneurial leadership and the performance of new ventures and also the impact of dynamism and competitiveness of the environment within this chain model. This requires quantitative analysis of causation relationships and boundary conditions among variables, which is supported by positivist methodologies.

- Chain mediation analysis: The Positivist method of bootstrap technique has the

capability of determining the significance concerning three distinctive sub-paths. Additionally, this method utilizes the bootstrap technique in order to eliminate the risk of biased regression significance assessments concerning the underestimated indirect significance of the mediating effect significance.

- Moderation effect testing: Through stepwise regression in a positivist paradigm, statistical significance in interaction coefficients is determined after adding control variables, main effect variables (e.g., organizational resilience), and interaction variables (e.g., environmental dynamism). This method clarifies the direction and mechanism of boundary condition, which is not reliant on theoretical assumptions alone.

In contrast, the interpretivist paradigm (emphasizing the study of meaning) and the pragmatist paradigm (applying a mixed methods approach that focuses on solving problems) are not suited for direct quantitation verification of causal relationships, which deviates from this study's core objectives.

2. Adaptation to Research Design

The research design in this study, encompassing sample delimitation and control of confounding variables, is deeply entwined in positivist philosophy.

- Sample delimitation: This study explicitly targets innovative enterprises that have emerged over the past decade, consequently excluding those that were established more than 10 years ago and those in non-innovative sectors (e.g., traditional wholesale and retail sectors). This is in line with positivist philosophy regarding managing sample diversity, thus precluding possible confounding factors impacting relationships between key variables that might arise through variations in enterprise life cycle phases (mature enterprises display more solid underpinnings for resistance) and industry-specific business patterns (non-innovative sectors adopt different perspective for performance metrics). Hence, this strategy ensures that all sample-related parameters are determined on a consistent basis.
- Confounding variable control: This study incorporates control variables including firm size (measured by employees), firm age as well as industry type. This step is

imperative in positivist methodologies that aim to nullify all factors that can produce erroneous interpretations of discoveries. It ensures that all discoveries are not mistakenly interpreted as indicating a cause-and effect relationship between variables. For example, larger organizations have more redundancy in resources and different strategies for encouraging innovations in state-owned businesses.

3. Compatibility with Theoretical Framework

The main theoretical bases of this study include Resource Orchestration Theory, Entrepreneurial Leadership Theory, and Dynamic Capability Theory. The detailed analysis of these theories' ontological and epistemological bases proves that these theories have philosophically sound and consistent backgrounds and, hence, are suitable for integration within the positivist/objectivist paradigm of this thesis.

Regarding ontology, all the theories are based on the objectivist worldview. They treat organizational phenomena, strategic behaviours, and firm performance as externally observable, measurable, and relatively stable realities that exist independently of individual interpretation. Resource Orchestration Theory focuses on the structured deployment of tangible and intangible resources; Entrepreneurial Leadership Theory examines observable leadership behaviours and their organisational impacts; and Dynamic Capability Theory analyses identifiable, actionable capabilities that enable firms to adapt to environments.

Epistemologically, all these theories are characterized by positivism, according to which empirically observed facts and data measurement, hypothesis testing, and generalization of cause-and-effect relationships. Each theories emphasize the fact that the effectiveness of organizations can be determined by what goes into the organization. This similarity in epistemological perspectives makes it possible to integrate both theories into one model of empirical theory without philosophical discrepancies.

These theories can be integrated due to the similarity of their epistemological and ontological positions since Resource Orchestration Theory focuses on resource orchestration, Dynamic Capability Theory addresses organizational adaptation to the external environment, and Entrepreneurial Leadership Theory explains leaders' behavior which connects these two concepts together.

4. Adaptation with Research Value

The value proposition in this study is a combination of theoretical and practical value. Theoretically, it seeks to address literature gaps in integrating entrepreneurial leadership and organizational resilience. Practically, it seeks to provide actionable insights for improvement in innovation capability for new ventures. The transferability of findings, a basic component of the positivist paradigm, ensures that this value proposition can indeed be achieved.

- Practical value: Since the results obtained in this study are proved to have authenticity through a number of samples in innovation centers across China (e.g., Yangtze River Delta, Pearl River Delta, Beijing-Tianjin-Hebei region), enabling generalization to the broader category of “innovative businesses established within the past ten years.” It identifies key focus areas for entrepreneurial leadership (e.g., resource mobilization, innovation leadership) and overcomes the limitations of findings applicable only to isolated instances.
- Theoretical value: The positivist paradigm (hypothesis development → data gathering → analysis → conclusion development) facilitates direct comparison with previous works. For instance, the findings of the research regarding the dynamic moderating effect of the environment confirm the theory presented in the study of Teece (2023) about the necessity of the pace of change of the environment being aligned with the pace of the development of dynamic capabilities.

3.2.3 Limitations of objectivist-positivist and Research Prospects

The fundamental flaw within positivism is its inherent tendency to reduce intricate social processes to a lower level through its concentration on measurable variables, which might lead to an oversight of factors like the individual experience of entrepreneurs or institutional constraints unique to Chinese high-tech enterprises, thus affecting the relationships being studied. In addition, the objectivist presumption of an objective reality might underestimate the dynamic and context-dependent nature of resilience and entrepreneurial leadership in organizations, which could vary from one industry or region to another. Finally, the objectivist-positivist approach could limit the scope of understanding the reasons for the existence of particular relationships;

however, this issue is addressed by the use of three theoretical perspectives to interpret the results.

Despite these weaknesses, the objectivist-positivist research paradigm is still the best choice for this study. The advantages associated with objectivity, replication, and causal explanation correspond to the research's requirement for pragmatic and data-driven approaches, making sure that the conclusions of the research would be useful for high-tech venture entrepreneurs.

The mixed-method design combining positivism and interpretivism could be used in future research. By combining in-depth interviews and case studies to unpack the micro-processes involved in mechanisms of variables, this would establish a unified framework in “quantitative validation of causal relationship and qualitative explanation of action mechanism,” enhancing the theoretical richness and practical applicability of subsequent studies.

3.2.4 The Influence of Researcher Stance

The objectivist ontological viewpoint assumes the existence of social reality independent from the researcher, whereas positivism presupposes the need for value-free empirical research testing cause-and-effect relationships. This paragraph makes a clear connection between objectivism and positivism by describing what the researcher means by taking up the positivist stance and why there should be no contradiction between philosophical assumptions and methodology. The paragraph explains methodologically the validity and reliability of the research in the framework of positivism, proving the importance of particular methodologies (such as sample selection, use of standardized measures, statistical techniques). Academically speaking, this paragraph satisfies all requirements of a doctoral thesis by increasing the transparency of research procedures: explaining how the stance informed particular decisions made by the researcher, as well as what kind of biases could be controlled during this process. Specifically, this study investigates the interplay between the factors of entrepreneurial leadership, organizational resilience, and new venture performance. The researcher has more than 11 years of experience working directly as an investor in high-tech projects in China, specializing in projects related to hard

technology, artificial intelligence, and biopharmaceuticals within the last decade. In such a situation, one must consider the risks that come with the enabling strength of the researcher's background in relation to the study.

1. Positive Support of Researcher's Experience for the Research Process

The duties and responsibilities of the researcher include due diligence for projects, post-investment management, and growth monitoring, whereas the primary responsibility includes assessing and establishing strong ties with high-tech new ventures with innovative ideas. The researcher has developed networks across the Yangtze River Delta, Pearl River Delta, and Beijing-Tianjin Hebei regions in the last 11 years of career, thereby facilitating efficient sampling and addressing the challenge of ensuring sample diversity in new ventures research.

In fieldwork, the researcher uses tools such as due diligence questionnaires and executive interviews to assess the leadership competency, resilience level, and innovation capability of organisations. This practical experience provides the essential foundation for selecting applicable measurement scales (e.g., entrepreneurial leadership scales), mitigating risks associated with the application of incompatible or unvalidated measurement tools.

Furthermore, investment practice involves the monitoring of actions taken by corporate leadership and the resulting effects on organisational resilience and growth. The experience of constantly observing has the effect of allowing the researcher to study and understand the implications of statistical data, thereby formulate practical recommendations rather than basing them on theories only.

2. Potential Biases and Control Strategies

While investment experience strongly supports the study, it may introduce unconscious biases in terms of industry experience and investment viewpoint. To address this, the study uses the multi-dimensional control proposed by Podsakoff et al. (2003), designing targeted control mechanisms for key research activities (e.g., sampling or choice of scale).

- Sample selection bias: The researcher's previous investment portfolio has predominantly consisted of high-tech enterprises in the growth stage (established

for 3-7 years), this may lead to potential bias against sample selection. This stage is marked by mature business models and a strong willingness for data disclosure, which promote investment due diligence. Consequently, the researcher's experience inertia may result in unconscious bias favouring growth-stage enterprises when extending sample invitations, thereby unintentionally omitting early-stage new ventures (operating for 1-2 years). To address this bias, the study implements an intentionally even distribution of enterprise establishment years during the sampling and screening phases (e.g., establishing allocations for groups of 1-2 years, 3-5 years, and 6-10 years), thus avoiding an over-representation of samples in the mature stage and ensuring sample representativeness.

- Scale construction bias: Aside from sample-related bias, the researcher's investment background unavoidably emphasises enterprises' hard indicators (e.g., R&D expenditure, patent counts, commercial income). This implies that if the researcher were to create scales independently, there would be an increased chance of unconscious bias favouring quantitative items, therefore minimising essential qualitative dimensions (e.g., employees' psychological impression of organisational resilience). To address this issue, the study uses pre-validated, established scales from current literature. These scales are designed to incorporate both objective (quantitative) and subjective (qualitative) indicators, ensuring a thorough and balanced assessment of fundamental constructs (e.g., entrepreneurial leadership, organisational resilience) while maintaining analytical consistency.

3.3 Research Design

To further address the literature gap with respect to the adoption of Western methods of research in local settings and to reaffirm the innovative achievements of indigenous methods in global entrepreneurship studies, this study focuses specifically on Chinese high-tech new ventures as its research context.

By designing context-adaptive conceptual operationalization tools, measurement scales and criteria, and data collection approaches, this research incorporates indigenous research methods, taking on the dynamic nature of the high-

tech industry characterized by quick technological progress and being heavily reliant on innovation. It restricts the sample to six different sectors of high technology and integrates elements of technological resilience in the measurement tools. The aim is to ensure that the study methods adapt to differences between China and the West in terms of the operation of constructs and flexibility to context and provide a context in which studies in high-tech new ventures across the world can benefit. This section explains sequentially the criteria used to select the study samples, the nature of regional and industry distributions of the study samples, choosing the measurement tools for key variables in studies, data collection tools, and demonstrating consistency in methodology.

3.3.1 Ethical considerations

The ethical requirements of the project are carefully examined and adhered to during data collection. In the beginning, all participants are provided with a detailed overview of the academic background of the research, the voluntary character of their participation, and the possibility of withdrawing from the survey at any time. The participants receive no financial compensation or other kinds of motivation for completing the survey; informed consent is implied when the online questionnaire is filled out. The evidence of ethical implementation of the survey can be found in the appendices of the current report and includes the university ethical approval letter as well as informed consent forms for the online questionnaire.

In order to prevent participants' confidentiality or identity disclosure, the information collected is fully anonymous. No personal or organizational data (names, contacts, confidential company information) are included in the data collection. Only group-level analysis of responses is performed, while all the data is stored electronically and password protected on the computer. It is possible that some risk of participant bias and misunderstanding could arise due to unclear and potentially loaded wording of survey items. In order to overcome this problem, clear wording of all survey questions is ensured. The respondents are informed that their responses will be used solely for academic purposes and would never be distributed or commercialized.

3.3.2 Research Samples

The design of this study fully considers Chinese and Western academic differences in sample selection, noting that “Western studies primarily focus on established enterprises or individual entrepreneurs, whereas the Chinese context requires an emphasis on the collaborative nature and environmental adaptability of emerging ventures.” In the preceding literature review chapter, it is evident that scholars offer ambiguous sample definitions for key variables; inadequate exploration of mediating mechanisms (e.g., ignoring sub-dimensions of mediators); overreliance on static environmental moderators while neglecting dynamic environmental changes. This work first defines explicit criteria for sample selection, incorporates environmental dynamics into the moderating effect, and disaggregates organisational resilience into three aspects to examine its mediating effect.

- Sample definition

This research specifically defines the samples as “Chinese high-tech new ventures that have been operational for ≤ 10 years and are not publicly listed” (Chen, 2007; Wang et al., 2021). This criterion not only extends beyond the typical “ ≤ 5 years” threshold in Western studies (e.g., Zahra et al., 2006) but also aligns with the unique attributes of Chinese new ventures: “gradual resource accumulation and extended growth cycles” (Huang, 2015). The inclusion of the high-tech industry defined to cover six broad areas such as biomedicine and electronic information because of the immense need for relationship coordination or supply chain alliance and environmental adaptability or technological scouts in it, fits in aptly with the principal conclusion drawn from the literature survey, which holds that the “Chinese model values collectivism and adaptability.”

- Sampling Method

This study focuses on Chinese high-tech enterprises and adopts stratified sampling with two stratification dimensions: regional industrial clusters as the primary level, and enterprise size and industrial segmentation as the secondary level. This approach yields a total sample of 258 valid firms. Stratified sampling enhances the external validity of research by improving representativeness in line with key population attributes (Creswell, 2018). For high-tech industries, regional policy differences and

marketisation levels significantly shape enterprise behaviour (Franczak et al., 2024), whereas simple random sampling may lead to regional overrepresentation and limit the generalisability of findings (Bryman, 2020).

Accordingly, four major economic regions form the stratification framework: Beijing-Tianjin-Hebei, the Yangtze River Delta, the Pearl River Delta, and the Chengdu-Chongqing area. The sample covers typical high-tech development models in China, including policy-driven, market-driven, and collaboration-driven patterns (China High-Tech Industry Development Report, 2024).

- **Respondent Selection**

Considering the relatively flat organizational structure and dispersed internal members of new ventures, respondents are limited to founders, CEOs, or senior managers, ensuring they understand entrepreneurial leadership styles in depth. This key-informant method for team and organizational characteristics assessment has been validated in prior research (Wang, 2012; Chen, 2007). Before proceeding to fill out the survey questionnaire, every respondent was informed of the academic importance of the survey, with an anonymous method applied to ensure the reliability of the data gathered.

3.3.3 Research Questionnaire Design

1. Overall Structure of the Questionnaire

The questionnaire is divided into two functional sections, which are summarized in detail as follows:

Part 1: Basic Information

It clarifies the purpose of this survey, defines the principles behind confidentiality and anonymity. Apart from that, it contains basic demographic details, such as respondent gender, age, education level, organizational position, firm age, industry category, and number of employees. These serve as control variables for the study.

Part 2: Structured Measurement Elements

The questionnaire includes four constructs with a total of 56 items, which considers the complexities associated with the constructs to be measured in entrepreneurship studies:

- Entrepreneurial Leadership (26 items)
- Organisational Resilience (9 items)

- Entrepreneurial Environment (10 items)
- New venture Performance (11 items)

2. *Core Measurement Design*

The study adopts internationally and domestically validated scales to measure key variables. To ensure translation accuracy and consistency, the back-translation method proposed by Brislin (1980) was applied to translate the original validated Likert scales into Chinese.

All variables are measured using a 5-point Likert scale: 1 = strongly disagree, 5 = strongly agree. The measurement tool format was adopted from valid literature in English language documents to ensure measurement reliability.

3.3.4 *Research Variables and Measurement*

1. *Explanatory Variable: Entrepreneurial Leadership*

Western entrepreneurial leadership models (e.g., Gupta et al., 2004), emphasize individual opportunities and risk-taking, while the Chinese context focus on the enhancement of team empowerment and connectivity (Shang & Zhu, 2018). Instead of directly adopting Western scales, this study uses the China-adapted scale developed by Huang (2015) (Cronbach's $\alpha = 0.961$), which builds on Western core dimensions (e.g., overcoming challenges, managing uncertainty) and adds a unique inter-departmental connectivity dimension (e.g., Leaders facilitate cross-departmental resource allocation and partnership integration). This adaptation aligns with the literature highlighting collectivism and relationship management in the Chinese context.

The purpose of this scale is to capture the entrepreneurial qualities and leadership competence of Chinese managers in a competitive context, so it is very relevant to new ventures or innovation-based transformations in existing businesses in China. The scale has five dimensions: Constructing Challenges, Absorbing Uncertainty, Clarifying Paths, Building Commitment, and Clarifying Constraints, with 26 items in total. The Cronbach's α reliability estimate is 0.961, and it has very good validity, which is appropriate for this study.

2. *Mediating Variable: Organisational Resilience*

Organisational resilience acts as the mediator variable and has multi-level and multi-

dimensional properties. This study adopts the scale developed by Kantur & Iseri-Say (2015), based on Dynamic Capabilities Theory and Organizational Adaptation Theory. It proposed three core dimensions of organisational resilience: Adaptability, Recovery, and Situational Awareness, with a total of 9 items.

- **Adaptability:** It defined as the capability of organisation to adjust strategies and processes in response to the changing environment in an efficient manner. The company can develop methods to cope with unforeseen circumstances, while the management is able to turn crisis into opportunities efficiently.
- **Recovery:** It defined as the capability to bounce back from crisis with basic operations intact. The company can continue with vital functions with big losses, while the team works towards preserving employee continuity in key areas during such challenging times.
- **Situational Awareness:** It defined as the capability to detect external threats and opportunities in the industry. The company can efficiently uncover market risks, while the external factors covered include industry laws and technological innovations.

The proposed measurement tool is meant to capture an organization's crisis resource allocation and response capabilities, making it suitable for new ventures in uncertain contexts. It has high internal consistency, with Cronbach α values exceeding 0.85 for each factor and an overall α of 0.914 in total, which is applicable to the study being conducted in this thesis.

3. Moderating Variable: Environmental Characteristics

The Entrepreneurial Environment acts as the moderating variable in the study, while the scale devised by Jansen et al. in 2009 is one of the classics in the field of entrepreneurial environment studies, which includes 9 items across two dimensions:

- **Environmental dynamism (5 items):** Reflects the volatility of the market environment, including technological change speed, consumer preference fluctuations, and market transformation rates.
- **Environmental competitiveness (4 items):** Reflects market competition intensity, including price competition, resource rivalry, and new entrant threats.

The scale has roots in the Dynamic Capabilities Theory and the Organisational Adaptation Theory. The scale demonstrates good reliability: Environmental Dynamism ($\alpha = 0.778$), Environmental Competitiveness ($\alpha = 0.820$), and overall ($\alpha = 0.820$).

4. Dependent Variable: New Venture Performance

The performance of new ventures is considered the dependent variable in the study, measured using Hogan & Coote's (2014) scale. The approach taken in the study focuses on the multi-dimensional evaluation of new ventures in the dynamic environment of competition, with the key unit of measurement being the quantification of synergy efficiency in dynamic adaptation in the two-dimensional paradigm related to financial and market performance. The scale is built upon the theory of Resource-Based Views and Dynamic Capabilities Theory, emphasizing that the performance of new ventures involves an integrated and adaptable capability with respect to resources and the environment. The proposed scale not only overcomes the static nature of general performance models but also help new entrepreneurs to follow an optimisation process in terms of adjusting resources to resource capabilities in the performance measurement process, especially in technology-intensive industries and disaster scenarios.

The scale has two core dimensions with 11 items in total:

- Financial Performance (5 items): short-term financial measures (e.g., growth in core company sales, expansion in cash flow, and improvement in profits).
- Market Performance (6 items): Long-term indicators (e.g., brand equity)

It integrates both subjective and objective information: the items rely on managers' subjective judgments (e.g., customer satisfaction) and simultaneously integrate objective information (e.g., market share), thereby enabling cross-validation to reduce subjectiveness to the desired level. The Cronbach α values for the scale stand at 0.932 with α values for individual dimensions above 0.85, thereby establishing high internal consistency in the scale.

5. Control variables

Control variables are chosen at both the firm level and management level to reduce any unnecessary empirical relationships between unrelated constructs and ensure the empirical validity and reliability of the findings with respect to the proposed primary

relationship between constructs (Entrepreneurial Leadership → Organisational Resilience → New Venture Performance). The selection is based on the well-established control rationale presented in contemporary literature on the subject (Jansen et al., 2006; Kollmann & Stockmann, 2012; Chen, 2007).

- Firm-level control variables

Company Size: It has significant effects on resource allocative capability and decision-making flexibility. Larger companies tend to have better access to resources, while smaller companies tend to outperform in terms of decision-making speed in innovation-related tasks (Hogan & Coote, 2014).

Firm Age: Newly formed companies, because of fewer years since establishment, tend to rely on intuitive innovation and dynamic shifts, while mature firms tend to adopt planned strategies. The transformation routes of organizational resilience and performance show differences between new and established companies (Jansen et al., 2006).

Industry Type: There appear to be considerable variations between different industry settings in terms of the pace of innovation, competitive intensity, and regulatory constraints (e.g., high-tech industries demonstrate higher innovation intensity in comparison to conventional industries; biopharmaceutical industries face higher regulatory constraints). These variations can, in an indirect manner, affect the interaction between the basic variables (Li & Atuahene-Gima, 2001).

- Managerial Level Control Variables

Respondent Gender: There may be variations in gender that can affect styles of leadership (e.g., female managers prefer team leadership while male managers prefer risk-taking leadership), thereby creating an imbalance in the correlation between entrepreneurial leadership style and resilience in organizations (Huang, 2015).

Respondent Age: There is an alignment between manager age and management experience/innovation receptiveness: younger managers are more likely to adopt disruptive innovation in contrast to older managers, who emphasize risk management, resulting in different practices to enhance resilience in organizations (Renko et al., 2015).

Respondent Education Background: The education background reflects knowledge base and the level of strategic thinking cognitive skills, with higher-degree managers being able to identify technology opportunities and policy indicators more effectively, which might improve the efficiency of organizational resilience about performance (Kantur & Iseri-Say, 2015).

3.3.5 Data Collection and Sample Analysis

1. Data Collection Overview

In total, 300 questionnaires are distributed in the survey work. Invalid questionnaires (e.g., incomplete data, inconsistent responses, duplicate submissions) are excluded. Finally, 258 valid questionnaires are gathered with an actual effective response rate of 86%. The detailed information is presented in Table 3-1.

2. Respondent Selection

Gender: 194 males (75%) and 64 females (25%).

Age of respondent: 41% of respondents are 41-50 years old, only 2% of respondents are over 60 years old.

Educational background: 93% of respondents hold at least a bachelor's degree, with 21% hold master's/Ph.D. degrees.

Position category: 109 founders (42%), 60 CEOs (23%) and 89 senior managers (35%).

3. Sample Enterprise Characteristics

Company location: The regional distribution is relatively even across China: Beijing-Tianjin-Hebei (25%), Yangtze River Delta (35%), Pearl River Delta (20%), and Chengdu-Chongqing (20%).

Years since Establishment: The sample covers enterprises with 1-10 years: 1 year (22 firms), 1-3 years (85 firms), 3-5 years (38 firms), 5-7 years (74 firms), and 7-10 years (39 firms).

Company size: Small enterprises with 31-50 employees represent the largest proportion (40%).

Industry type: The industry structure is balanced: electronic information (24%), biopharmaceuticals (19%), high-end equipment manufacturing (21%), new energy (20%), aerospace (7%), and new materials (10%).

All sample enterprises meet the criteria of “non-listed high-tech new ventures with ≤ 10 years of operation.” The sample is well-balanced and representative.

Variables	Category	Frequency	Percentage
Gender	Male	194	75.19%
	Female	64	24.81%
Age of Respondent	30 years old or younger	34	13.18%
	31-40 years old	78	30.23%
	41-50 years old	105	40.70%
	51-60 years old	37	14.34%
	Over 60 years old	4	1.55%
Education Background	Below college education	18	6.98%
	Bachelor's degree	187	72.48%
	Master's degree	50	19.38%
	Doctoral Degree	3	1.16%
Position Category	Senior manager	89	34.50%
	CEO	60	23.26%
	Founder	109	42.25%
Company Location	Beijing-Tianjin-Hebei	65	25.19%
	Yangtze River Delta	90	34.88%
	Pearl River Delta	51	19.77%
	Chengdu-Chongqing	52	20.16%
Years since Establishment	Within 1 year	22	8.53%
	1-3 years	85	32.95%
	3-5 years	38	14.73%
	5-7 years	74	28.68%
	7-10 years	39	15.12%
Company Size	Fewer than 10 employees	14	5.43%
	11-30 employees	30	11.63%
	31-50 employees	103	39.92%
	51-70 employees	45	17.44%
	More than 70 employees	66	25.58%
Industry Type	Electronic Information	61	23.64%
	Biopharmaceuticals	49	18.99%
	High-end Equipment Manufacturing	55	21.32%
	New Energy	51	19.77%
	Aerospace	17	6.59%
	New Materials	25	9.69%

Table 3- 1 Sample and Questionnaire Distribution (N=258)

3.4 Data Analysis

This study adopts a quantitative research method since it involves the evaluation of data to validate assumptions in theory as the key aim of the study. The procedure involves the logical sequence “data preparation → measurement model testing → structural model testing → robustness verification.” Statistical analysis is conducted by utilizing Stata software version 18 in the process, as detailed in Table 3-2.

Test Name	Scope of Application	Execution Code (Stata)	Judgment Criteria
Data Cleaning	Raw data processing (input, standardization, missing value handling, invalid sample removal)	1. Check Sample Validity and Quality Report duplicates based on a key identifier duplicates report id Identify and remove "straight-lining" (low-quality data) egen row_sd = rowstd(q1-q30) drop if row_sd == 0 2. Ensure Data Integrity and Range, Recode invalid values for categorical variables to missing replace gender = . if !inlist(gender, 0, 1, .) Recode out-of-range values for scale items to missing foreach var of varlist q1-q30 {replace `var' = . if !inlist(`var', 1, 2, 3, 4, 5, .)} 3. Standardize Data for Analysis Rename variables to a consistent format Apply descriptive variable and value labels label variable gender "Gender (Categorical)" label define gender_label 0 "Male" 1 "Female" label values gender gender_label	1. Check Sample Validity and Quality, ensure all responses are unique by removing duplicates based on a key identifier (e.g., id). Key Action: Identify and remove low-quality data, such as "straight-lining" (e.g., responses where rowstd == 0), to ensure only attentive and valid responses are retained for analysis. 2. Ensure Data Integrity and Range, scan all variables (both categorical and scale items) for out-of-range or invalid values (e.g., a 6 on a 1-5 scale, or a 3 for gender if only 0 and 1 are valid). 3. Standardize Data for Analysis, confirm that all variable names have been renamed to a consistent, English-based, and analysis-friendly format.
Descriptive Statistics	Preliminary analysis of variable relationships and data distribution characteristics	1. Scale Construction (Create Entrepreneurial Leadership scale from its sub-dimensions) egen el = rowmean(construct_chal, absorb_uncert, clarify_paths, establish_commit, elucidate_const) 2. Descriptive Statistics (Generate Mean, Std. Dev., Min, Max for key variables) summarize el or pf ec age education firm_size 3. Correlation Matrix (Generate pairwise correlation with significance) pwcorr el or pf ec age education firm_size, star(.05) sig 4. Table Export (Export the descriptive statistics table to a Word document) asdoc summarize el or pf ec age education firm_size, /// save(Descriptives_Tables.doc)	1. Check Descriptive Statistics (summarize) Ensure the Mean and Std. Dev. (Standard Deviation) values align with theoretical expectations, reflecting the sample's central tendency and dispersion. 2. Check Correlation Matrix (pwcorr) Use significance (p-value / sig < 0.05) to determine if a statistically significant relationship exists between variables, and use the coefficient's sign to determine the direction (positive or negative correlation). 3. Check Scale Reliability and Data Distribution (Prerequisites) Ensure all items or dimensions used to create composite scales (egen) have passed a reliability test (e.g., Cronbach's Alpha > 0.7), proving the combination is reliable. Key Check: To prepare for subsequent parametric tests (like regression analysis), check if the core variables approximate a normal distribution (e.g., the absolute value of Skewness < 2 and the absolute value of Kurtosis < 7).

Test Name	Scope of Application	Execution Code (Stata)	Judgment Criteria
Measurement Model Testing	Assessment of scale reliability and validity (convergent validity, discriminant validity, reliability)	1. Reliability Test (Cronbach's Alpha) Test Reliability: Example for 'construct_chal' and 'absorb_uncert' alpha q1-q6, item alpha q7-q10, item 2. Scale Construction (1st-Order) Generate 1st-Order construct mean score) egen construct_chal = rowmean(q1-q6) egen absorb_uncert = rowmean(q7-q10) (... (repeat for all 12 1st-order constructs) ...) 3. Measurement Model Validation (2nd-Order CFA) Second-Order CFA / Test Validity sem (el -> construct_chal absorb_uncert clarify_paths ... or -> adaptability resilience ...), standardized method(mlmv) 4. Model Fit Assessment Get model fit indices estat gof, stats(all) ```eof	1. Check Reliability (Cronbach's Alpha) Assess the internal consistency for each scale (e.g., 'q1-q6') by checking the output from the 'alpha' command. Key Criterion: The overall scale Cronbach's Alpha should be > 0.70 to be considered reliable. 2. Check Convergent Validity (CFA Factor Loadings) Examine the 'standardized' coefficients (factor loadings) from the 'sem' output. These show the correlation between an item (e.g., 'q1') and its latent factor (e.g., 'construct_chal'). Key Criterion: All standardized factor loadings should be > 0.50 (preferably > 0.70) and statistically significant (p < 0.05). 3. Check Overall Model Fit (CFA Fit Indices) Evaluate the 'estat gof' output to determine how well the theoretical model fits the actual data. Key Criteria: An acceptable model fit is generally indicated by: RMSEA < 0.08, CFI > 0.90, TLI > 0.90, SRMR < 0.08
		1: Harman's Single Factor Test (EFA) Run EFA on all 55 items, unrotated) efa q1-q55, unrotated 2: Single Factor CFA Test (Force all 55 items onto one factor and check model fit) sem (CMB -> q1 q2 q3 q4 q5 q6 q7 q8 q9 q10 ///...), standardized method(mlmv) (Get the fit indices for the single-factor model) estat gof, stats(all)	1. Evaluate Harman's Single Factor Test (EFA) Examine the efa q1-q55, unrotated output Key Criterion: The "Cumulative" variance explained by the first unrotated factor (Factor1) should be well below 50% (e.g., < 40%). This suggests no single factor dominates the data. 2. Evaluate the Single Factor CFA Test Examine the estat gof output from the sem (CMB -> ...) command. Key Criterion: The goal is to find an unacceptably poor model fit, as this falsifies the hypothesis that all items measure one thing. Look for: CFI / TLI Well below 0.90 (e.g., 0.45), RMSEA Well above 0.08 (e.g., 0.17)
Structural Equation Modeling (SEM)	Verification of serial mediating effects and moderating effects	1. Simple Mediation Test (Hayes model 4&Bootstrap Method) Test: el -> or -> pf asdoc bootstrap r(ind_eff), reps(500) seed(1) replace /// save(mediation_results.doc) : /// sgmediation2 pf, iv(el) mv(or) /// cv(gender age education position region firm_size firm_age) 2. Moderation Test (Hierarchical Regression) Test if 'dynamism' moderates the 'el' -> 'pf' relationship (Generate interaction term) gen el_x_dynamism = el * dynamism (Run hierarchical regression) reg pf gender age education position region firm_size firm_age el dynamism est store m1 reg pf gender age education position region firm_size firm_age el dynamism el_x_dynamism est store m2	1. Simple Mediation (Bootstrap sgmediation2 Output) The mediation is significant if the 95% Confidence Interval (CI) for the "Indirect Effect" (ind_eff) does not contain zero. 2. Moderation (Hierarchical Regression Output) The moderation is significant if the regression coefficient (b) for the interaction term (e.g., el_x_dynamism) is statistically significant (e.g., p-value < 0.05, as indicated by * stars). 3. Moderated Mediation The moderated mediation is significant if the 95% Confidence Interval (CI) for the "Difference (High - Low)" (also known as the Index of Moderated Mediation) does not contain zero

Table 3- 2 Statistical Analysis Process

3.4.1 Reliability and Validity Tests

1. Reliability Analysis

Reliability assessments (Cronbach's α and composite reliability) for all core variables indicate adequate internal consistency and data stability, which supports subsequent analyses. Specifically, all Cronbach's α and CR values exceed 0.749, well above the 0.7 threshold (Table 3-3).

2. Convergent Validity Analysis

Convergent validity was evaluated by Average Variance Extracted (AVE) and factor loadings:

- Fully compliant variables: AVE values for environmental dynamism (0.586) and environmental competitiveness (0.557) exceed the 0.5 benchmark, with factor loadings ranging from 0.67 to 0.92, which confirming strong convergent validity.
- Marginally compliant variables: AVE values for external environmental characteristics (0.411) and new venture performance (0.386) are close to 0.5, but all factor loadings exceed 0.5, which meeting basic convergent validity requirements.
- CR-compensated variables: AVE values for entrepreneurial leadership (AVE < 0.5, CR = 0.82) and organizational resilience (AVE < 0.5, CR = 0.79) fall below 0.5, but their CR values exceed 0.7. As Hair et al. (2017) stated, high CR can partially compensate for low AVE to maintain item internal consistency.

3. Discussion on Low AVE of Organizational Resilience

The AVE value for Organizational Resilience is relatively low at 0.263. It primarily indicates insufficient construct representation, and its root reason is based on cross-cultural adaptational discrepancies between mature Western scales and the Chinese high-tech firm context.

The organizational resilience scale adopted within this research, conceptualized by Kantur and Iseri-Say (2015), is rooted in the Western market economy framework. Its construct focuses on the core concept of "market resilience" and describes it as an organization's response to risk created via market-based approaches, including dynamic adjustment to product strategies, customer relationship optimization, and supply chain empowerment (Kantur and Iseri-Say, 2015). Typical items of this scale include: "Firms

can dynamically adjust product pricing arrangements based on market competition” and “Firms can rapidly optimize service processes in response to changes in customer demands.” However, there are specific elements within the resilience practices adopted among Chinese high-tech enterprises that form a core “policy-social network dual-drive” dynamic, which clearly falls outside the construct boundaries set within the Western scale.

This discrepancy directly leads to a mismatch between measurement items and research objectives, thereby reducing the AVE value and factor loadings. Three typical market-response items vividly illustrate this issue: First, the item “Predict risks through market research and make advance arrangements” has a factor loading of 0.52 (close to the ideal threshold) in market-oriented enterprise clusters in the Yangtze River Delta and Pearl River Delta. In contrast, its loading is only 0.28 in policy-driven enterprises in the Beijing-Tianjin-Hebei region and as low as 0.2 in collaborative enterprises in Chengdu-Chongqing. The core risk prediction of such enterprises relies on “government-enterprise communication mechanisms” (e.g., policy briefings, park-specific seminars) rather than market research. For example, an AI enterprise in Beijing proactively laid out computing power infrastructure in 2023 through the “policy early warning” from the Zhong Guan Cun Administrative Committee; among its decision-making bases, “policy document interpretation” accounted for 62%, while “market research reports” only accounted for 18%. The item fails to capture this core resilience behaviour.

Second, the overall loading for the item “Rely on internal resource reserves to respond to sudden crises” is 0.21 within China’s hi-tech industry, indicating dependence on “industrial chain collaboration” and “policy emergency subsidies.” A case in point is an automotive chip firm based in Chongqing: during the 2022 supply chain crisis, it addressed risks either by reallocating inventory via the “Sichuan-Chongqing Chip Industry Alliance” or applying for “specialized, refined, distinctive, and innovative” emergency subsidies. The proportion of internal resource reserves utilized was less than 20%, which is fundamentally misaligned with the “individualistic resilience perspective” of the Western scale.

Third, the item “Respond to fluctuations in market demand by optimizing internal control and product portfolios” has a loading of only 0.23 in aerospace industry clusters (e.g., Xi’an). Taking an aero-engine enterprise in Xi’an as an example, its core strategy to address demand fluctuations is “applying for high-tech special subsidies to maintain production capacity” (subsidies account for 45%), rather than adjusting product portfolios. The behaviour measured by this item is therefore completely disconnected from the actual resilience strategies of relevant enterprises.

Collectively, the Western scale presupposes market behaviour as the core carrier of resilience, whereas Chinese enterprises prioritize policy response and network collaboration. This mismatch renders the items unable to effectively capture the core dimensions of the construct, ultimately resulting in low factor loadings.

This study adopts this mature scale based primarily on two academic considerations: First, the Kantur & Iseri-Say (2015) scale has been validated through more than a decade of international research (cited in over 800 SSCI papers). It has formed academic consensus regarding construct dimension division and item expression standardization. Adopting this scale ensures the foundation for dialogue between this study and cutting-edge international research, mitigating the risk of diminished research credibility caused by “insufficient academic recognition” of self-developed scales. Second, one core objective of this study is to “test the cross-cultural adaptability of Western scales,” and the low AVE value and loading differences precisely serve as key empirical evidence for this objective. This adaptation deviation itself reveals the uniqueness of resilience among Chinese high-tech enterprises, providing a clear revision direction for the subsequent development of localized scales (e.g., adding items related to policy response speed and network collaboration capability).

4. Handling of Negative Factor Loadings

Negative factor loadings are typically attributed to reversed-scored items. The negative values of the factor loadings are typically due to the effect of reversed scoring in items, which can be resolved via standard scoring procedures which can be mitigated with standard scoring methods.

Variables	Factor Loadings	Cronbach's α	Composite Reliability	Average Variance Extracted (AVE)
Entrepreneurial Leadership	0.36-0.67	0.92	0.922	0.316
Environmental Characteristics	-0.75 - -0.52	0.859	0.861	0.411
Organizational Resilience	-0.63 - -0.3	0.749	0.753	0.263
New Venture Performance	-0.71- -0.54	0.871	0.873	0.386
Dynamism	-0.83 - -0.73	0.875	0.876	0.586
Competitiveness	-0.92 - -0.67	0.827	0.832	0.557

Table 3- 3 Factor Loadings, Cronbach's Alpha, Composite Reliability, Average Variance Extracted

3.4.2 Confirmatory Factor Analysis

Confirmatory Factor Analysis (CFA) is an analytical procedure with the purpose of validating data to determine the consistency of the researcher's model with data on item-factor relationships in establishing relationships between variables and factors.

Model fit evaluation criteria:

- $\chi^2/df < 3$ (ideal fit)
- $RMSEA < 0.08$ (acceptable fit)
- $RFI, TLI, CFI > 0.90$ (good fit); values close to 0.85 are marginally acceptable

Table 3-4 presents the fit indices of different measurement models, revealing significant discrepancies in model fit.

1. Four-Factor Model (Proposed Model)

The four-factor model (EL → ORE → EC → PF) exhibits marginal fit:

- $\chi^2/df = 3.445$ (close to the ideal threshold of 3)
- $CFI = 0.909$ (meets the ≥ 0.90 criterion)
- $RMSEA = 0.128$ (slightly above the 0.08 threshold)
- $RFI = 0.832, TLI = 0.829$ (close to the 0.85 marginal standard)

It can be said that it has comparatively better fit performance than most models fit in the study. The marginal fit is primarily attributed to the “local complexity” of constructs in China's transitional economy, for example, organizational resilience must simultaneously address policy, relational, and regional dimensions. Future research could optimize fit by developing context-adapted indigenous scales.

2. Three-factor models

The model with the three factors, where EL and ORE were encompassed in one factor,

showed signs of poor fit:

- *Model 1 (EL + ORE merged): $\chi^2/df = 7.045$ (far exceeding 3), CFI = 0.843 (below 0.90)*
- *Model 2 (ORE + PF merged): RMSEA = 0.173 (well above 0.08)*
- *Model 3 (ORE + EC merged): $\chi^2/df = 6.99$ (far exceeding 3)*

These results indicate severe misfit across all three-factor configurations.

3. Two-factor model

Both two-factor models are failed to meet basic fit criteria.

- *Model 1 (EL + EC merged; PF + ORE merged): CFI = 0.864 (below 0.90)*
- *Model 2 (EL + ORE merged; PF + EC merged): $\chi^2/df = 6.606$ (far exceeding 3)*

The fit in neither of the two-factor models was close to that of the four-factor model.

4. One-factor model

The one-factor model (all constructs merged) shows mixed results.

- *$\chi^2/df = 3.174$ (relatively favourable), CFI = 0.924 (meets the ≥ 0.90 criterion)*
- *RFI = 0.858 (close to the marginal threshold)*

However, this model ignores the dimensional differences between variables, leading to theoretical inconsistencies.

In conclusion, the four-factor model (the study's proposed measurement model) demonstrates the best overall fit. This confirms the discriminant validity of the core constructs (EL, ORE, EC, PF) and supports the theoretical dimensional of variables.

Models	χ^2/df	RMSEA	RFI	TLI	CFI
Four-factor model (EL, ORE, PF, EC)	3.445	0.128	0.832	0.829	0.909
Three-factor model (EL+ORE, PF, EC)	7.045	0.116	0.873	0.817	0.843
Three-factor model (EL, ORE+PF, EC)	3.596	0.173	0.764	0.923	0.915
Three-factor model (EL, ORE+EC, PF)	6.99	0.097	0.773	0.896	0.903
Two-factor model (EL+EC, PF+ORE)	5.333	0.051	0.919	0.894	0.864
Two-factor model (EL+ORE, PF+EC)	6.606	0.054	0.871	0.869	0.943
Single-factor model (EL+ORE+PF+EC)	3.174	0.079	0.858	0.9	0.924

Table 3- 4 Confirmatory Factor Analysis (N=258)

Note: EL stands for entrepreneurial leadership, ORE stands for organizational resilience, PF stands for new venture performance, and EC stands for environmental characteristics.

3.4.3 Common Method Bias Test

Based on a comprehensive consideration and trade-off of research objectives, survey scenario constraints, and data characteristics, this study adopted Harman's single-factor

test as the core method for detecting common method bias, excluding the CFA marker variable approach and time-lagged data collection. Meanwhile, during the data-gathering procedure, anonymous response, random item ordering, and reverse scoring were used to mitigate potential response bias.

The participants of this study were founders and top managers of high-tech new ventures, who exhibit the traits of fast-paced work styles, fragmented work schedules, and high sensitivity to questionnaire length. Since the CFA marker variable method requires adding neutral items irrelevant to the core constructs, an excessively long questionnaire would not only reduce the quality of responses and exceed respondents' tolerance threshold for survey length, but also undermine the validity of core data. Although time-lagged data collection could improve the validity of causal inferences, the research sample face multiple practical constraints such as high tracking difficulty, strong data confidentiality requirements, and mismatched operational cycles. Multi-wave time-lagged data collection may cause sample loss and insufficient data integrity. Considering the constraints of research cycle and survey feasibility, this study finally adopted a cross-sectional data design.

As indicated in Table 3-5, 10 factors were extracted from the measured variables. The variance explained by the first factor is 29.376%, which is significantly lower than the 40% threshold for common method bias. The cumulative variance explained by the first factor is 29.376%, and the variance explained by each of the remaining factors is less than 6.5%. This confirms that data is not dominated by a single factor, indicating no signs of common method bias in the study that would affect the validity of research results. Thus, the data quality meets the requirements for subsequent statistical analysis.

Component	Percentage of Variance	Cumulative Percentage
1	29.376	29.376
2	6.345	35.722
3	5.256	40.977
4	4.524	45.501
5	4.27	49.771
6	3.837	53.609
7	3.576	57.184
8	3.219	60.403
9	2.861	63.265
10	2.679	65.944

Table 3- 5 Results of Harman's Single - Factor Test for Common Method Bias

3.4.4 Descriptive Statistical Analysis of Variables

For this study with 258 samples, it provides an analysis of key statistical features for the variables and dimensions explained in Table 3-6:

1. Core Constructs' Statistical Characteristics

On a 5-point Likert scale, the mean values of core constructs range from 3.137 to 3.257, symbolizing average to high performance with respect to entrepreneurial leadership, environment factor indicators, resilience factor indicators, and new venture performance indicators.

- Mean comparison: External environmental characteristics have the highest mean (3.257), while new venture performance has the lowest (3.137), showing very slight variations between the two averages.
- Standard deviations (SD): The standard deviations stand between 0.694 and 0.796, demonstrating slight variations in the data with no extreme values being close to the average.

2. Dimension-Level Statistical Characteristics

For the twelve sub-dimensions of core constructs:

- Means: The average of the twelve dimensions stands between 3.062 and 3.315, classifying them to be of high averages in general. The highest average is demonstrated by the competition dimension with 3.315, while the lowest average is demonstrated by the explaining restrictions with 3.134, showing slight variations.
- Standard deviations: The values for adaptability (1.05), recovery (1.025), and situational awareness (1.022) were above 1, while the standard deviations of the other traits range from 0.808 to 0.964.

Therefore, the variability in data is controllable and within the acceptable range for scale measurement. The general values of the standard deviations showed the inherent “heterogeneity” in new ventures. There is great variability in the performance of businesses in many aspects, such as industry attributes, attributes, and management attributes.

		Sample Size	Minimum	Maximum	Mean	Standard Deviation
Variables	Entrepreneurial Leadership	258	1	5	3.15	0.698
	Environmental Characteristics	258	1	5	3.257	0.796
	Organizational Resilience	258	1	5	3.152	0.694
	New Venture Performance	258	1	5	3.137	0.773
Dimensions	Constructing Challenges	258	1	5	3.181	0.944
	Absorbing Uncertainty	258	1	5	3.213	0.964
	Clarifying Paths	258	1	5	3.062	0.947
	Establishing Commitment	258	1	5	3.158	0.901
	Elucidating Constraints	258	1	5	3.134	0.808
	Dynamism	258	1	5	3.2	0.951
	Competitiveness	258	1	5	3.315	0.945
	Adaptability	258	1	5	3.143	1.05
	Resilience	258	1	5	3.23	1.025
	Situational Awareness	258	1	5	3.083	1.022
	Financial Performance	258	1	5	3.139	0.974
	Market Performance	258	1	5	3.134	0.917

Table 3- 6 Descriptive Statistical Analysis of Variables

3.4.5 Correlation Analysis

The correlation results between the variables in the study can be viewed in Table 3-7.

1. Correlation Analysis of Core Variables

All the principal variables show significant and positive correlations at $p < 0.01$, with considerable variations in the strength of the correlations.

- Strong positive correlation: The correlation between entrepreneurial leadership and new venture performance has the highest correlation coefficient of 0.802, establishing there is a strong positive correlation between the variables.
- Moderate positive correlations: The correlation coefficients between entrepreneurial leadership and organizational resilience (11) with 0.661, environment characteristics (10), new venture performance with 0.542, and the correlation between organizational resilience and new venture performance with 0.620, are in the range 0.5 to 0.7, establishing there is a moderate positive correlation between the variables.
- Weak-to-moderate positive correlation: There is a medium-positive correlation of 0.462 between environment factors and organizational resilience, while a relatively strong and positive correlation of 0.606 was recognized between entrepreneurial leadership and environment factors.

These correlations serve as the basis for further study in terms of identifying the

relationships between the variables.

2. Correlation Analysis of Control Variables

The study also conducted correlation analysis between control variables of eight factors (e.g., gender, age, and educational level, firm size, firm age) and the primary variables (entrepreneurial leadership, environment, organizational resilience, and new venture performance). The findings showed that all the correlation coefficients between the control and primary variables are less than 0.1, with the highest correlation being 0.076 between age and environment, while the values failed to meet the significance level of $p > 0.05$. This shows that the control variables' effect on the primary variables is limited. The inclusion of control variables in the regression analysis can eliminate external interference effectively, enabling an accurate study of the key variables' relationships.

7	6	5	4	3	2	1	SD	Mean	Variables
						1	0.433	0.752	Gender (1)
					1	0.067	0.941	2.609	Age (2)
				1	0.035	0.059	0.508	2.136	Education (3)
			1	0.033	0.004	0.089	0.788	2.19	Position (4)
		1	0.024	0.02	0.096	0.036	1.067	2.349	Region (5)
	1	0.069	0.003	0.012	0.056	0.107	1.574	2.957	Industry (6)
1	0.011	0.014	0.036	0.006	0.002	0.043	1.15	3.461	Firm Size (7)
0.02	0.057	0.067	0.092	0.05	0.043	0.034	1.249	3.089	Firm Age (8)
0.024	0.043	0.036	0.004	0.006	0.016	0.059	0.679	3.156	Entrepreneurial Leadership (9)
0.063	0.024	0.066	0.076	0.013	0.076	0.016	0.795	3.26	Environmental Characteristics (10)
0.044	0.04	0.021	0.004	0.028	0.035	0.036	0.694	3.152	Organizational Resilience (11)
0.04	0.034	0.018	0.029	0.023	0.023	0.029	0.773	3.136	New Venture Performance (12)

are established analytical methods in management research, and critically evaluates the proposed theoretical model's validity.

CHAPTER 4 FINDINGS

4.1 Introduction

This study operates in the context of “high competition and high dynamism” in terms of the external environment, the liability of newness in new ventures, and theory and practice synergy in entrepreneurship studies in general. The study focuses on key aspects concerning new ventures, with the most essential purpose being to clarify internal associations between entrepreneurial leadership and new ventures performance, with organizational resilience in between, and boundary-moderating effects of external environment attributes, specifically dynamism and competition.

This chapter represents the empirical basis of the analysis and systematically presents the results related to the four main research questions based on the framework of the data analysis delineated in the research methodology chapter. In particular, the chapter investigates four research questions: RQ1 the direct effect between entrepreneurial leadership and new ventures performance, RQ2 the mediating effect of organisational resilience, RQ3 the moderating effect of external environment factors, and RQ4 the moderated mediation model explaining the relationships between them.

The present research adopted the model of theory deduction with empirical verification to develop a moderated mediation model with “entrepreneurial leadership → organisational resilience → new venture performance” in mind, and 9 hypotheses were proposed in total. In terms of designing the study and data collection, it was clearly defined in the study that the sample would consist of “non-listed high-tech new ventures from six specific sectors, founded for 10 years or less” with 258 valid questionnaires being retrieved from online questionnaires. Carried out were multiple analyses on reliability and validity, common method bias, descriptive statistics, and correlation analysis. The results showed that the Cronbach’s α coefficient for all variables was ≥ 0.749 , and the four-factor model achieved optimal fit (CFI = 0.909). No significant common method bias was detected, which confirms the reliability, validity, and robustness of the sample data, clarifies the preliminary correlational characteristics of the core variables, and lays a solid data foundation for the hypothesis testing in this chapter.

In this chapter, the structure consists of five subsections based on the hypothetical assumptions of the research. An examination of linear relations in the transmission process encompasses the first subsection. RQ1 forms the theme of the second subsection. An appraisal of RQ2 encompasses the third subsection. RQ3 forms the theme of the fourth subsection. The final subsection concentrates on RQ4. This format provides a good explanation of the empirical procedure flow.

This chapter, as the empirical core of the study, following a logical sequence of “basic mediation test → hierarchical effect decomposition → boundary condition verification → overall conclusion consolidation,” systematically tests 9 research hypotheses using methodologies including the simple mediation model, Hierarchical regression analysis, and bootstrap sampling verification (Figure 4- 1).

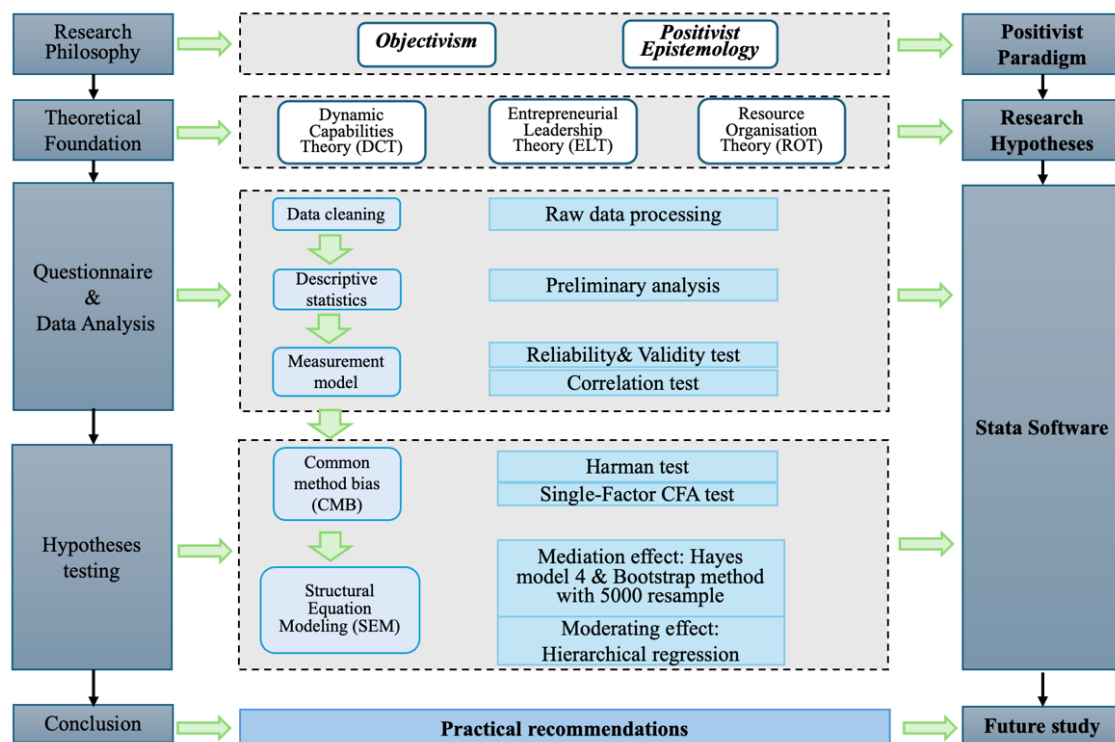


Figure 4- 1 Research Pathway Diagram

4.2 Hypotheses Testing

The 9 hypotheses based on the gaps in knowledge identified by previous researchers were presented in Chapter 3 of the study, as indicated in Table 4- 1 below, after the establishment of the basic theories in the literature review chapter:

Hypothesis content	
1	H1: Entrepreneurial leadership has a positive impact on new venture performance.
2	H2: Entrepreneurial leadership has a direct positive impact on organizational resilience.
3	H3: Organizational resilience has a significant mediating effect between entrepreneurial leadership and new venture performance.
4	H3a: The adaptive capacity of an organization has a significant mediating effect between entrepreneurial leadership and new venture performance.
5	H3b: The recovery capacity of an organization has a significant mediating effect between entrepreneurial leadership and new venture performance.
6	H3c: The situational awareness of an organization has a significant mediating effect between entrepreneurial leadership and new venture performance.
7	H4a: Environmental dynamism plays a positive moderating role between entrepreneurial leadership and organizational resilience.
8	H4b: Environmental competitiveness plays a positive moderating role between entrepreneurial leadership and organizational resilience.
9	H5: Environmental characteristics (i.e., environmental dynamism and competitiveness) positively moderate the mediating role of organizational resilience between entrepreneurial leadership and new venture performance, manifested as a moderated mediating role: the higher the environmental characteristics, the stronger the indirect impact of entrepreneurial leadership on new venture performance through organizational resilience.

Table 4- 1 Summary of Research Hypotheses

This chapter first use simple mediation model to verify the validity of the single mediation pathway “entrepreneurial leadership (x) → organisational resilience (m) → new venture performance (y),” which confirms the basis for a mediating relationship, essential for later investigations of moderating effects and moderated mediation effects, with Table 4-2. This is essential to account for confounding variables to guarantee the precision of effect estimation.

Furthermore, Hierarchical regression analysis forms the basic element of the empirical study in chapter 4. The study uses “dimension-specific and phase-wise” analysis to examine separately the dimensional discrepancies in direct effects, the dimensions of mediating effects, the boundaries of the paths of moderating effects, and the processes of mediated moderation, with results consistent with Table 4-3 to Table 4-10 in the document.

4.2.1 Simple Mediation Model

The first stage in empirical study is to verify the validity of the single mediation pathway “entrepreneurial leadership (x) → organisational resilience (m) → new venture performance (y),” which confirms the basis for a mediating relationship, essential for later investigations of moderating effects and moderated mediation effects. Moreover, it is essential to account for confounding variables to guarantee the precision

of effect estimation.

The initial application of the simple mediation model in Stata Process is to validate the theoretical model and hypotheses in the current study, as presented in Hayes Model 4. The purpose of this model is mainly for the analysis of the transmission relationships between one independent variable, one mediator, and one dependent variable. The significance of the mediation process can be checked by calculating the value of the indirect effect and the confidence interval in the model.

In terms of being applicable to the study, it well fits the basic trajectory of research in the context of the current study, which centers on the single mediation process: entrepreneurial leadership (Independent Variable) → organisational resilience (Mediating Variable) → new venture performance (Dependent Variable). The current study, in effect, eliminates the need to evaluate parallel mediation, serial mediation, and moderator variables to ensure that it completely fits with the study objectives. On the other hand, to avoid being influenced by the presence of confounding variables in approximating the mediation effect, the current study has carefully controlled for not one but two types of variables: the leader level variable (Gender, age, and Educational Background), and the firm level variable (Industry, firm size, and years of establishment).

In conclusion, this thesis applies a multiple linear regression model to analyse the mediation effect of organizational resilience on the relationship between entrepreneurial leadership and new venture performance. The purpose of this regression analysis is to validate the basic chain of transmission in the former proposed model. The results of regression analysis are presented in table 4-2, conducted with Hierarchical regression models based on the stepwise regression method:

- *Model 1: new venture performance = control variables + entrepreneurial leadership (to evaluate the direct impact of entrepreneurial leadership on new venture performance).*
- *Model 2: organisational resilience = control variables + entrepreneurial leadership (to evaluate the impact of entrepreneurial leadership on organisational resilience).*
- *Model 3: new venture performance = control variables + entrepreneurial leadership + organisational resilience (to evaluate the impact of organisational resilience on new venture performance while monitoring the variation in the coefficient of entrepreneurial leadership →*

new venture performance).

Model 1: being a regression model with new venture performance as the dependent variable and control variables together with entrepreneurial leadership variables as independent variables ($R = 0.809$, $R^2 = 0.652$, $F = 58.374$, $p < 0.01$), has great overall explanatory power. This indicates that the variables can efficiently explain the 65.2% variation in new venture performance. The regression coefficients show that gender has a significantly positive effect on new venture performance ($b = 0.136$, $t = 2.019$, $p < 0.05$), which indicates that women entrepreneurs tend to perform better than men in the new venture context, while other control variables failed to acquire significance. The primary independent variable shows a significantly positive predictive effect on new venture performance ($b = 0.918$, $t = 21.534^*$, $p < 0.01$). The first criterion to examine mediating effects is met because there is a direct and significant effect of the independent variable on the dependent variable, implying that visionary, innovative, and motivational skills in leaders can improve the performance of new ventures to a great extent.

Model 2: the regression analysis of the first stage route with organisational resilience as the mediating variable shows that if organisational resilience is taken as the dependent variable, the results reveal a good model fit with values of ($R = 0.674$, $R^2 = 0.454$, $F = 25.829$, $p < 0.01$). Now, only the variable of gender shows a marginally significant positive impact on the postulated outcome ($b = 0.138$, $t = 1.813$, $p < 0.1$). The most important independent variable, entrepreneurial leadership, has an extremely significant positive impact on resilience in organisations ($b = 0.684$, $t = 14.258^*$, $p < 0.01$). The second step in testing mediating effect has been met because the independent variable influences the mediating variable, indicating that entrepreneurial leaders are exceptionally efficient in improving the resilience of teams to allow organisations to easily cope with challenges and uncertainty.

Model 3: after the inclusion of organisational resilience as the mediator variable in the model, re-regression analysis on new venture performance shows results of ($R = 0.818$, $R^2 = 0.665$, $F = 54.637$, $p < 0.01$). The model has stronger predictive capability than

model 1, indicating that the inclusion of organisational resilience brings about a more complete explanation of new venture performance being considered in the model.

The regression coefficient for entrepreneurial leadership declines from 0.918 in model 1 to 0.803 ($b = 0.803$, $t = 14.201$, $p < 0.01$), thus establishing the existence of mediating effects. The coefficient of the mediation effect for organizational resilience (ORE) is not large ($b=0.169$), but it is statistically significant ($p < 0.01$). This shows that the sequence is theoretically meaningful: “entrepreneurial leadership $\rightarrow$ organizational resilience $\rightarrow$ new venture performance.” This is corresponding with the basic requirements of mediating effect, where after controlling for the mediating factor, the effect of the independent variable on the dependent variable becomes weaker, yet it retains significance, thereby asserting the partial mediating effect of organizational resilience between entrepreneurial leadership and new venture performance.

In summing up, the empirical results obtained via “stepwise regression and coefficient change analysis” procedure reveal that: (a) entrepreneurial leadership directly and positively influences new venture performance, while it has an indirect, performance-enhancing effect via organisational resilience; (b) organizational resilience plays a mediating role between leadership behaviour and performance results in the executive leadership context; and finally, (c) the individual characteristic variable of gender has proven to encompass considerable predictive power with respect to new venture performance, thereby deserving further study. These results offer strong support to understanding the growth trajectory of new ventures in a dynamic context and emphasize the importance of resilience-building in the “person-organization-performance” chain.

Dependent variable	Predictor variable	R	R ²	F	b	t
New venture performance		0.809	0.652	58.374		
	Gender				0.136	2.019
	Age				0.033	1.082
	Education				-0.018	-0.313
	Position				-0.02	-0.543
	Region				-0.008	-0.288
	Firm size				0.012	0.496
	Firm age				-0.006	-0.239
	Entrepreneurial leadership				0.918	21.534*
Organizational resilience		0.674	0.454	25.829		
	Gender				0.138	1.813*

Dependent variable	Predictor variable	R	R ²	F	b	t
New venture performance	Age	0.818	0.665	54.637	0.04	1.161
	Education				0.049	0.77
	Position				0.01	0.238
	Region				-0.003	-0.114
	Firm size				-0.038	-1.359
	Firm age				-0.023	-0.889
	Entrepreneurial leadership				0.684	14.258*
	Gender				0.113	1.692*
	Age				0.027	0.874
	Education				-0.026	-0.466
	Position				-0.022	-0.598
	Region				-0.007	-0.27
	Firm size				0.019	0.764
	Firm age				-0.002	-0.071
	Entrepreneurial leadership				0.803	14.201*
	Organizational resilience				0.169	3.043*

Table 4- 2 Test of the Mediating Model for Organizational Resilience

*Note: *p < 0.1, p < 0.05, p < 0.01

4.2.2 Impact of Entrepreneurial Leadership on New Venture Performance

To testing the hypotheses presented in this study, multiple regression analysis was employed as the analytical tool of choice. The application of multiple regression analysis is very vital in social sciences studies, especially in the exploration of linear relationships between variables. The key mandate of multiple regression analysis is to explain the relationships between different variables, independent and dependent variables, while controlling the effect of different predictors on the dependent variable. This approach would help in measuring the significance of the two aspects: one is the magnitude of the directional effect of the predictors on the dependent variable, indicated by the regression coefficients, while the other is the goodness of fit of the model, indicated by the goodness-of-fit statistics, which provides information on the significance level of the model, such as F, and the goodness-of-fit measure, such as R². Furthermore, in multiple regression analysis, it has the natural capability to deal with control variables, which matches well with the specifications of this study where it has to limit the interventionary effects of the extra-curricular variables.

The control variables in this study with seven dimensions in two levels are: company level variables (company age, company size, industry type), and individual leader level variables (Gender, age, education, and position). The multiple regression analysis makes it possible to integrate the control variables in one equation so that the control variables confounding effect on the core variables equation is defined. This

guarantees a more precise estimation of the “core independent variable → dependent variable” effect, mitigating conclusion bias resulting from the exclusion of significant confounding factors, so fulfilling the academic criteria for effect quantification and model validation.

Table 4- 3 provides six Hierarchical regression models to examine the mediating effect of organisational resilience on the relationship between entrepreneurial leadership and new venture performance. It adheres to the rationale of systematically deconstructing fundamental variables → validating direct effects → confirming mediating pathways:

- *Organisational resilience (models 1-3): evaluates the impact of entrepreneurial leadership (and its dimensions) x on organisational resilience m.*
- *New venture performance (models 4-6): assesses the direct influence of entrepreneurial leadership x (and its dimensions) on new venture performance y, along with the mediating role of organisational resilience on new venture performance.*

Model 1: only control variables predict organizational resilience. Control variables serve as the sole predictor variables, with organizational resilience as the dependent variable. Fit indices show that $R^2=0.007$ and $F=0.264$, indicating that the model is not significant overall. Conclusion: control variables alone cannot explain the variance in organizational resilience, and core predictor variables (entrepreneurial leadership) need to be incorporated.

Model 2: every aspect of entrepreneurial leadership forecasts organisational resilience. The five elements of entrepreneurial leadership (constructing challenges, absorbing uncertainty, clarifying paths, creating commitment, communicating limits) are integrated as predictor variables. The research of dimensional effects indicates that all dimensions significantly and favourably impact organisational resilience. The dimensions “building commitment” ($b=0.196^*$, $p<0.01$) and “absorbing uncertainty” ($b=0.133^*$, $p<0.01$) demonstrate substantial effects. Fit indices ($R^2=0.464$, $F=17.680^*$) demonstrate that the facets of entrepreneurial leadership possess substantial explanatory power for organisational resilience, and the “dimension → organisational resilience” pathway is valid.

Model 3: entrepreneurial leadership, as a comprehensive framework, forecasts organisational resilience. The entire architecture of entrepreneurial leadership is utilised to forecast organisational resilience, rather than the five elements.

The core effects indicate that ($b=0.684^*$, $t=14.258$, $p<0.01$), entrepreneurial leadership has a significant and beneficial impact on organisational resilience. The fit indices ($R^2=0.454$, $F=25.829^*$) indicate that the model is statistically significant overall. The explanatory capacity of overall entrepreneurial leadership for organisational resilience is nearly equivalent to that of the “dimensional model,” suggesting that future investigations may be streamlined via the “overall construct.” Furthermore, the “entrepreneurial leadership → organisational resilience” pathway is validated, fulfilling the second criterion for investigating mediating effects.

Model 4: dimensions of entrepreneurial leadership predict new venture performance. The dependent variable is new venture performance, while the predictor variables consist of the five aspects of entrepreneurial leadership. Dimensional impacts indicate that all dimensions exert a significant and beneficial impact on new venture performance. For example, “building commitment” ($b=0.218^*$, $p<0.01$) and “constructing challenges” ($b=0.211^*$, $p<0.01$) demonstrate significant effects. The fit indices ($R^2=0.656$, $F=38.982^*$) indicate that the model is statistically significant overall. The direct impact of entrepreneurial leadership aspects on new venture performance is substantial, establishing a basis for later examination of the total construct.

Model 5: entrepreneurial leadership (as a whole) on new venture performance in general-new venture performance prediction. Here, entrepreneurial leadership is viewed as “a holistic approach to predicting new venture performance.” The key effect outcome shows that there is a significant positive effect of entrepreneurial leadership on new venture performance ($b=0.918^*$, $t=21.534$, $p<0.01$). The model fit statistics ($R^2=0.652$, $F=58.374^*$) confirm that the model has general significance. The direct effect of entrepreneurial leadership on new venture performance is large enough to meet the first criteria to examine mediating hypotheses, direct significance of the “independent variable → dependent variable” relationship.

Model 6: predicting new venture performance on the basis of entrepreneurial leadership

and organizational resilience. The dependent variable in these equations is new venture success, while the independent predictors are entrepreneurial leadership and organizational resilience, with organizational resilience being the mediator in the model. The core effects show that organisational resilience has a substantial positive effect on new ventures performance ($b=0.696^*$, $p<0.01$), while the direct effect of entrepreneurial leadership on new ventures performance remains significant, even with a weaker effect compared to model 5, with the coefficient decreasing from 0.918 to the current value. This is consistent with the normal characteristic of mediating effects, in which the direct effect between the independent variable and the dependent variable becomes weaker after the inclusion of the mediator variable. The fit values of the model ($R^2 = 0.392$, $F = 20.078^*$) prove the relevance of the model. The strong effect of organisational resilience on new venture performance supports the third criterion in assessing mediating effect, wherein the correlation between the mediator and the dependent variable is significant. The results from model 3, where the “ $x \rightarrow m$ ” association is significant with x standing for entrepreneurial leadership and m for organisational resilience, and model 5, where the “ $x \rightarrow y$ ” association is significant with y standing for new venture performance, collectively imply that organizational resilience plays an essential partial mediator in the process between entrepreneurial leadership and new venture performance. Entrepreneurial leadership can enhance new venture performance with the help of organisational resilience.

Control variables: only the gender variable shows significance in models 2 to 5 with coefficients ranging from 0.135^* to 0.136 . On the other hand, variables such as age, education, organizational position, firm size, and organizational age primarily show negligible coefficients. The model shows high robustness, thereby asserting that these variables show negligible covariate effects on organizational resilience and new venture performance. This further validates the paramount significance of entrepreneurial leadership and organizational resilience in shaping new venture performance.

In conclusion, the Hierarchical regression models clearly show that each of the five aspects of entrepreneurial leadership has large positive impacts on the resilience of organisations, as well as new ventures performance. Of the five aspects, “building

commitment” (consolidating team consensus) and “clarifying paths” (maximising strategic direction) rank highest in importance, this confirms “visionary leadership and clear strategy” to be the core value proposition in entrepreneurial leadership. Additionally, organisational resilience partially mediates the association between entrepreneurial leadership and new venture performance. The entrepreneurial leadership overall construct and dimensional constructs have consistent effect directions; furthermore, the model fit of the overall construct is superior (e.g., model 3: $F=25.829$ compared to model 2: $F=17.680$). This suggests that future investigations may be streamlined by employing the “overall construct” while preserving the significance of dimensional variations.

Consequently, Hypotheses 1 and 2 are supported.

H1: entrepreneurial leadership has a positive impact on new venture performance, and entrepreneurial leadership can improve new venture performance.

H2: entrepreneurial leadership significantly and positively affects organizational resilience, and the enhancement of entrepreneurial leadership is conducive to strengthening the organizational resilience of enterprises.

Variables	Organizational resilience			New venture performance		
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Control variables						
Gender	0.069	0.135	0.138*	0.135*	0.136*	-0.004
Age	0.031	0.041	0.040	0.034	0.033	-0.000
Education	0.040	0.049	0.049	-0.020	-0.018	-0.059
Position	0.005	0.015	0.010	-0.013	-0.020	-0.030
Region	0.013	0.000	-0.003	-0.006	-0.008	0.005
Firm size	-0.028	-0.044	-0.038	0.011	0.012	0.046
Firm age	-0.018	-0.020	-0.023	-0.001	-0.006	0.014
Predictor variables						
Constructing challenges		0.081*		0.211*		
Absorbing uncertainty		0.133*		0.145*		
Clarifying paths		0.167*		0.189*		
Building commitment		0.196*		0.218*		
Articulating constraints		0.112*		0.159*		
Entrepreneurial leadership			0.684*		0.918*	
Mediating variable						
Organizational resilience						0.696*
_cons	3.041* (8.830)	0.854* (2.839)	0.869* (2.917)	0.087 (0.324)	0.123 (0.466)	0.921* (2.675)
N	258	258	258	258	258	258
R ²	0.007	0.464	0.454	0.656	0.652	0.392
Adj. R ²	-0.020	0.438	0.436	0.639	0.641	0.373
F	0.264	17.680	25.829	38.982	58.374	20.078

Table 4- 3 Test Results of Direct and Indirect Effects of Entrepreneurial Leadership on New Venture Performance

Note: t-values are presented in the parentheses; * 0.1, 0.05, * 0.01

4.2.3 Mediating Effect of Organizational Resilience

This subsection quantitatively assesses the robustness of the mediating influence of organisational resilience (as a whole) and its three components (adaptive ability, recovery capacity, situational awareness) in the link between entrepreneurial leadership and new venture performance. Simultaneously, it solves the constraint that stepwise regression is predicated on the assumption of normal distribution. Bootstrap sampling enhances the trustworthiness of data, aligning with hypotheses H3, H3a, H3b, and H3c.

1. Stepwise Regression (Baron & Kenny three-step approach)

Table 4-3 above illustrated that the quantitative assessment of the mediating impact adheres to the relational framework of “total effect, direct effect, and indirect effect” in mediating effects (total effect = direct effect + indirect effect).

The whole effect denotes the comprehensive impact of entrepreneurial leadership on new venture performance, encompassing both the direct effect and the indirect effect through organisational resilience. In model 5, which includes only control variables and entrepreneurial leadership as predictors of new venture performance, the regression coefficient for entrepreneurial leadership is 0.918; hence, the total effect is $c = 0.918$.

The indirect effect is determined by multiplying the coefficient of “entrepreneurial leadership → organisational resilience” by the coefficient of “organisational resilience → new venture performance,” expressed as $a \times b$. The coefficient a (entrepreneurial leadership → organisational resilience) is 0.684 (model 3); the coefficient b (organisational resilience → new venture performance) is 0.696 (model 6). Consequently, the value of the indirect impact is $0.684 \times 0.696 \approx 0.476$.

The direct effect denotes the immediate impact of entrepreneurial leadership on the performance of new ventures, eliminating the intermediary effects of organisational resilience. In accordance with the relational logic of mediating effects (total impact = direct effect + indirect effect), the direct effect is computed as follows:

$$c' = c - ab = 0.918 - 0.476 = 0.442$$

The ratio of the indirect effect to the total effect is:

$$\text{Proportion of indirect effect} = \frac{\text{Indirect effect}}{\text{Total effect}} = \frac{0.476}{0.918} = 0.5158$$

These results confirm that organisational resilience serves a partial moderating function. The impact of entrepreneurial leadership on new venture performance occurs through two avenues: a direct route and an indirect route via organisational resilience.

2. Bootstrap sampling

The previously described stepwise regression (Baron & Kenny three-step methodology) depends on the significance of the product of route coefficients, resulting in diminished statistical power for assessing mediating effects. It also presupposes that variables adhere to a normal distribution and is susceptible to distortion of results due to coefficient bias within a singular model.

Thus, this study additionally adopted the Bootstrap sampling technique, which is the fundamental method of the Hayes PROCESS macro. By use of resampling, it produces the sampling distribution of the indirect impact to directly ascertain the confidence interval of the indirect effect (Table 4- 4).

Effect type	Effect value	Boot SE	Boot CI lower bound	Boot CI upper bound	Relative effect value
Indirect effect	0.115	0.034	0.049	0.182	0.125
Direct effect	0.803	0.052	0.701	0.905	0.875
Total effect	0.918	0.039	0.843	0.994	

Table 4- 4 Decomposition Table of Mediating Effect, Direct Effect, And Total Effect of Organizational Resilience

According to Table 4- 4 above, the total effect of entrepreneurial leadership on new venture performance is 0.918 (95% CI [0.843, 0.994]). The indirect effect through organisational resilience is 0.115 (95% CI [0.049, 0.182]), representing 12.5% of the total benefit; the direct effect is 0.803 (95% CI [0.701, 0.905]), with both effects being statistically significant. Organisational resilience somewhat mediates the relationship between entrepreneurial leadership and the performance of new ventures. The overall mediating effect is strong, demonstrating that entrepreneurial leadership can directly enhance new venture performance and indirectly improve performance by bolstering organisational resilience, which forms the foundation for the ensuing moderation analysis. This substantiates the premise that entrepreneurial leadership enhances new venture performance by bolstering organisational resilience.

Consequently, Hypothesis 3 is supported.

H3: organizational resilience has a significant mediating effect between entrepreneurial leadership and new venture performance.

Taking into consideration the multi-dimensional and multi-directional nature of organisational resilience and the fact that there is no dynamic view in literature studies, the current study classifies organisational resilience into three dimensions: adaptive capability, restoration capability, and situation awareness, and analyses the mediating effect respectively.

3. Test of Sub-Dimensions of Organizational Resilience

- *Indirect effect (independent variable → adaptive capacity → dependent variable)*

As revealed in Table 4- 5, there is a significant total effect on the adaptive capacity factor of organisational resilience, where the independent variable has a direct, positive effect on the dependent variable (Effect = 0.395, Boot CI exclude 0), thereby affecting the dependent variable in general. Also significant is the mediating effect, where there is an appreciable indirect effect of adaptive capacity on the effect between the independent variable and the dependent variable (Effect = 0.259, Boot CI exclude 0), thereby supporting the assumption that the independent variable affects the dependent variable through the amplification of adaptive capacity. As in both the direct effect and the indirect effect, the values are considerable, there is a partial mediation effect from adaptability. Based on the relative percentage, the indirect effect has significantly outperformed the direct effect because the latter is only 34.4% while the former is 65.6%.

Therefore, Hypothesis 3a is supported.

H3a: the adaptive capacity of an organization has a significant mediating effect between entrepreneurial leadership and new venture performance.

Effect type	Effect value	Boot SE	Boot CI lower bound	Boot CI upper bound	Relative effect value
Indirect effect	0.259	0.036	0.189	0.329	0.656
Direct effect	0.136	0.052	0.033	0.238	0.344
Total effect	0.395	0.036	0.323	0.466	

Table 4- 5 Decomposition Table of Indirect Effect, Direct Effect, And Total Effect of Adaptive Capacity

- *Indirect effect (independent variable → recovery capacity → dependent variable)*

The total effect, as revealed in Table 4- 6, is significant because the independent

variable has a large positive total effect on the dependent variable with an Effect value of 0.418, indicating that it substantially influences the dependent variable because the Bootstrapped CI exclude 0.

The mediating effect is significant because the effect of the recovery capability on the connection between the independent variable and the dependent variable has considerable significance, with an Effect value of 0.260 and the Boot CI excluding zero. This confirms the postulated assumption that the independent variable strengthens powers of recovery, hence impacting the dependent variable. Based on the relative percentage, the result shows that the transmission via recovery capability has a higher percentage of 62.2% in contrast to the direct effect of 38.0%. Due to the substantial effect of the direct and mediating effect, the model acts as a partial mediator in the model.

Accordingly, Hypothesis 3b is supported.

H3b: the recovery capacity of an organization has a significant mediating effect between entrepreneurial leadership and new venture performance.

Effect Type	Effect Value	Boot SE	Boot CI Lower Bound	Boot CI Upper Bound	Relative Effect Value
Indirect effect	0.260	0.037	0.187	0.332	0.622
Direct effect	0.159	0.051	0.059	0.259	0.380
Total effect	0.418	0.036	0.347	0.489	

Table 4- 6 Decomposition of Indirect, Direct, And Total Effects of Recovery Capacity

- *Indirect effect (independent variable → situational awareness → dependent variable)*

The total effect, as presented in Table 4- 7, is greatly positive, with the independent variable contributing substantially to the total effect on the dependent variable in a positive manner (Effect = 0.143, Boot CI excludes 0).

The indirect effect (mediating effect) is significantly positive, meaning that the situational awareness has a large positive effect on the dependent variable via the independent variable (Effect = 0.383, Boot CI not including 0), thus supporting the assumption that the independent variable has positively influenced the dependent variable via the positive effect on the situational awareness. The direct effect has an effect value of -0.24, indicating the strength of the negative direct effect of the independent variable on the dependent variable.

The negative direct effect and the positive indirect effect oppose each other; yet the total effect is positive, which indicates that the former eases the latter to an extent that it leads to a net positive effect in total. Situational awareness acts as a partial mediator exhibiting a suppression effect where “the negative direct effect of the independent variable is suppressed by the positive effect of the mediating variable, situational awareness, leading to a net positive effect.” However, it still supports the primary conclusion that the mediating effect is substantial where the “indirect effect is substantial in itself.”

This indicates that situational awareness acts both as a mediating variable and interaction moderator in the direct effect of the independent variable on increasing performance, contributing to the net positive effect.

Hence, Hypothesis 3c is partially supported.

H3c: the situational awareness of an organization has a significant mediating effect between entrepreneurial leadership and new venture performance.

Effect Type	Effect Value	Boot SE	Boot CI	
			Lower Bound	Upper Bound
Indirect Effect	0.383	0.038	0.309	0.457
Direct Effect	-0.24	0.046	-0.33	-0.149
Total Effect	0.143	0.047	0.051	0.236

Table 4- 7 Decomposition of Indirect, Direct, and Total Effects of Situational Awareness

4. Periodic summary

In conclusion, the analysis of mediating effects explains that the principal mediation processes involved in entrepreneurial leadership affecting new ventures performance in terms of organisational resilience are the enhancement of the capability to adjust to environmental shifts and the capability to heal from experienced shocks, wherein the indirect effects of these were not only large but also contribute to the total effect with 65.6% and 62.2% respectively.

On the other hand, the capability to recognize the situation in one’s environment can be viewed as one that shows suppression mediation because one finds that the indirect effect is positive while the direct effect is negative, thereby creating a total effect that is positive because the negative direct effect is “suppressed” by the former.

The indirect effect of entrepreneurial leadership on new venture performance is mainly conditioned on the characteristics of resilience in terms of adaptive capacity and

recovery capacity.

4.2.4 Moderating Effect of Environmental Characteristics

For the proposed research, Hierarchical regression analysis was employed primarily as the analytical tool to examine the moderation role of the entrepreneurial environment in the relationship between entrepreneurial leadership and organisational resilience. The application of Hierarchical regression analysis allows for the distinction between main effects and moderation effects through the step-wise addition of different forms of variables to the model, thereby ensuring the examination of the significance of moderation roles appropriately. This is an essential tool in detecting moderation relationships in organisational behaviour studies and management studies.

The study fills the gaps in the literature related to research on the environment, which are determined in the analysis of literature review. The study classifies the environment into two dimensions: environment dynamism and environment competitiveness to demonstrate the moderating effect from either theoretical or practical aspects.

1. Test of environmental dynamism

The current study examines the antecedents of organisational resilience and the mechanisms with Environmental Dynamism as the moderator in Hierarchical regression analyses. The results obtained in models 1 to 3 indicate an incremental improvement in the fit of each variable in terms of new venture performance criteria. The addition of the interaction term improves the model fit and explanatory power in general (Table 4- 8).

Regarding control variables, the results indicate that being female has a significant and positive effect in model 2 and model 3 ($\beta = 0.131^*$, $\beta = 0.120^*$). This shows that female entrepreneurs can demonstrate stronger dynamic capability and resulting benefits in integrating resources in the context of new ventures, resulting in superior performance results. On the other hand, it has been revealed that control variables such as age, level of education, job title, geographical area, company size, and company age fail to demonstrate any level of statistical significance in models 2 and 3.

Model 1: Base model, where only control variables are integrated to evaluate them

primarily for explaining the dependent variable (organisational resilience). On empirical evaluation, it has been revealed that all control variables result in regression coefficients that are not significant at $p = 0.1$, implying they offer no significance to the explanation of organisational resilience.

The base model shows a non-significant total goodness of fit, which is revealed by the adjusted R^2 of -0.023 with an F-statistic of 0.163. This result explains that the control variables on their own are not sufficient in explaining the resilience of organisations from an empirical standpoint. The significance of this key result draws attention to the importance of adding key(predictor) and mediating variables in future Hierarchical regression analysis, for instance, entrepreneurial leadership and dynamism in the environment respectively.

Model 2: The control variables and the main effect variables are: entrepreneurial leadership dimensions and environmental dynamism.

The five dimensions of entrepreneurial leadership that relate to resilience in organisations are all statistically significant and positively associated with new venture performance.

Framing challenges ($\beta = 0.209^*$, $p < 0.001$)

Embracing uncertainty ($\beta = 0.141^*$, $p < 0.001$)

Clarifying pathways ($\beta = 0.184^*$, $p < 0.001$)

Establishing commitment ($\beta = 0.212^*$, $p < 0.001$)

Articulating constraints ($\beta = 0.157^*$, $p < 0.001$)

This verifies the crucial role that these cognitive and behavioural elements play in ensuring new business growth. Within these key aspects, commitment and challenge construction stand out with the highest predictive capability, and it can thus be said that consensus-building in the team, that is, commitment, and the deliberate construction of challenges are vital in improving performance.

The result of environmental dynamism on organisational resilience shows that it is not significantly different from zero, with a regression coefficient of 0.026 and $p > 0.1$. This indicates that, on its own, there is no clearly visible direct effect of environmental dynamism on organisational resilience. The model fit in Model 2 is

outstanding, with an adjusted $R^2 = 0.639$ and F-statistic = 35.945* ($p < 0.01$). Unlike model 1 with an adjusted R^2 of -0.023, the large incremental change in the adjusted R^2 shows that the addition of primary effect factors (Entrepreneurial leadership dimensions and Environmental dynamism) significantly improves the model fit related to the success of new ventures.

Model 3: Hierarchical regression analysis including control variables, main effect variables, and interaction term (Entrepreneurial leadership x Environmental dynamism). Model 3 builds upon model 2 by adding the interaction term of entrepreneurial leadership and environmental dynamism in order to ascertain the moderation of environmental dynamism between entrepreneurial leadership and the dependent variable new venture performance. The fit of model 3 is outstanding in general fit and significantly better than model 2 in terms of explanation: key fit statistics: adj. $R^2 = 0.659$, chi-squared = 36.524*, $p < 0.01$ incremental fit: comparison to model 2 (adjusted $R^2 = 0.639$, chi-squared = 35.945*), the model has an adjusted R^2 improvement of 0.02 and the chi-squared statistic is still highly significant, proof that it is essential to enter the interaction term “entrepreneurial leadership x environmental dynamism” to explain new ventures’ performance because it adds significant “explanation beyond” model 2 in general fit criteria.

The regression coefficient for the interaction term “Entrepreneurial Leadership x Environmental Dynamism” is 0.237* ($p < 0.01$), which shows significance and has a positive sign. This meant that entrepreneurial leadership can efficiently mitigate the negative impacts of the dynamic environment, including technological innovations and fluctuating market demand, and even utilize such uncertainty in terms of developmental opportunities. Within dynamic environments where there is increased dynamism, it has been observed that visionary leadership and resource mobilization capabilities are preferable to organizational leadership in terms of organizational potential, specifically in terms of organizational responsiveness to change and performance improvement. This fits well with the basic premise of the Dynamic Capability Theory, where the leadership factor has been recognized to play a crucial mediating or buffering role in tackling uncertainty by improving organizational malleability to external change.

The simple effect of dynamic environment becomes remarkably negative and far more robust ($\beta = -0.674^*$, $p < 0.01$) in model 3 from being non-significant in model 2 ($\beta = 0.026$, $p > 0.1$). Such change clearly illustrated that the negative simple effect of dynamic environment on new ventures performance is achieved only after adjusting for the interaction between dynamic environment and entrepreneurial leadership. The more the external environment changed, the higher the level of uncertainty in operations for the company, thereby lowering the performance level, which further emphasizes the importance of entrepreneurial leadership acting as a “buffer” against stress.

In sum, the empirical findings reaffirm that environmental dynamism has a significant moderation effect in relationship between entrepreneurial leadership and organizational resilience. Thereby Hypothesis 4a is supported.

H4a: environmental dynamism plays a positive moderating role in the relationship between entrepreneurial leadership and organizational resilience.

Variable Category	Variable Name	Model 1	Model 2	Model 3
Control Variables				
	Gender	0.044	0.131*	0.120*
	Age	0.021	0.032	0.027
	Education level	-0.031	-0.021	-0.013
	Position	-0.026	-0.011	-0.008
	Region	0.014	-0.004	-0.003
	Firm size	0.027	0.013	0.011
	Firm age	0.002	-0.001	0.001
Predictor & Moderator Variables				
	Framing challenges		0.209*	0.035
	Absorbing uncertainty		0.141*	-0.033
	Clarifying pathways		0.184*	0.013
	Building commitment		0.212*	0.032
	Articulating constraints		0.157*	-0.007
	Dynamism		0.026	-0.674*
Interaction Term				
	Entrepreneurial leadership × dynamism			0.237*
Model Statistics				
	_cons	3.038*	0.060	2.543*
	N	258	258	258
	R ²	0.005	0.657	0.678
	Adj. R ²	-0.023	0.639	0.659
	F	0.163	35.945	36.524

Table 4- 8 Moderating Effect of Environmental Dynamism

Note: t-values are presented in the parentheses; * 0.1, 0.05, * 0.01.

2. Test of environmental competitiveness

Model 1: Baseline effects and the relevance of control variables. The regression coefficients for all control variables are non-significant (lacking *, , or * indicators); the model fit indices indicate $R^2 = 0.005$, adjusted $R^2 = -0.023$, and $F = 0.163$ (non-

significant). Control factors alone are insufficient for explaining the variance in the dependent variable; thus, it is essential to include key predictor variables and moderating variables.

Model 2: Incorporates control variables and main effect variables (dimensions of entrepreneurial leadership and environmental competitiveness). All five dimensions of entrepreneurial leadership exert significantly positive effects on the dependent variable:

Framing challenges ($\beta = 0.201^*$, $p < 0.01$)

Absorbing uncertainty ($\beta = 0.134^*$, $p < 0.01$)

Clarifying pathways ($\beta = 0.188^*$, $p < 0.01$)

Building commitment ($\beta = 0.202^*$, $p < 0.01$)

Articulating constraints ($\beta = 0.153^*$, $p < 0.01$)

These results indicate that entrepreneurial leadership exerts a direct facilitative effect on the dependent variable.

The main effect of environmental competitiveness is weakly statistically positive ($\beta = 0.065^*$, $p < 0.1$), indicating that environmental competitiveness alone exerts a marginally significant positive direct influence on the dependent variable. The model exhibits favourable fit: $R^2 = 0.661$, adjusted $R^2 = 0.643$, and $F = 36.590^*$ ($p < 0.001$).

Model 3: Incorporates control variables, main effect variables, and the interaction term (entrepreneurial leadership $\times$ environmental competitiveness). The regression coefficient for the interaction variable “entrepreneurial leadership $\times$ environmental competitiveness” is 0.106 ($p > 0.1$), signifying that the interaction term is non-significant. The moderating effect of environmental competitiveness does not meet the statistical criteria. Regarding the aspects of entrepreneurial leadership, the majority of coefficients transition from being highly significant in model 2 to non-significant or marginally significant in model 3. The coefficients on absorbing uncertainty, explaining paths, and expressing constraints become irrelevant, whereas on building commitment, marginal significance is maintained ($\beta = 0.119^*$). For Environmental Competitiveness: The corresponding coefficient changes from 0.065* (marginally significant) to -0.244

(non-significant).

In a sum, in terms of environmental competition, it does not impact the interaction between entrepreneurial leadership and resilience in organisations. When there is intense competition, the resilience-mobilising effect of entrepreneurial leadership doesn't make any significant difference to organisational resilience. The reason behind this can be attributed to the resource-scarcity nature of new companies, where leadership behaviours are less able to counteract the resilience drain triggered by competition forces (Table 4- 9).

Hence, Hypothesis 4b is not supported.

H4b: environmental competitiveness plays a positive moderating role between entrepreneurial leadership and organizational resilience.

Variable Category	Variable Name	Model 1	Model 2	Model 3
Control Variables				
	Gender	0.044	0.137	0.135
	Age	0.021	0.029	0.028
	Education level	-0.031	-0.025	-0.020
	Position	-0.026	-0.008	-0.008
	Region	0.014	-0.003	-0.002
	Firm size	0.027	0.015	0.016
	Firm age	0.002	0.001	0.003
Predictor & Moderator Variables				
	Framing challenges		0.201*	0.125*
	Absorbing uncertainty		0.134*	0.059
	Clarifying pathways		0.188*	0.100
	Building commitment		0.202*	0.119*
	Articulating constraints		0.153*	0.074
	Competitiveness		0.065*	-0.244
Interaction Term				
Entrepreneurial Leadership × Competitiveness				0.106
Model Statistics				
	_cons	3.038*	-0.003	1.130
	N	258	258	258
	R ²	0.005	0.661	0.664
	Adj. R ²	-0.023	0.643	0.645
	F	0.163	36.590	34.347

Table 4- 9 Moderating Effect of Environmental Competitiveness

Note: t-values are presented in the parentheses; * 0.1, 0.05, * 0.01.

3. Periodic summary

There are dimensional discrepancies in the moderating roles of environmental factors. Environmental dynamism plays the role of a legitimate boundary condition, amplifying the impact of entrepreneurial leadership on resilience, while environmental competition fails to play such moderation, thereby calling for re-evaluation of compatibility between competitive contexts and leadership styles. This conclusion sets the boundaries for

future studies on the mediated model of effect, specifically focusing only on dynamism in the context and not on competition.

4.2.5 Moderated Mediating Effect of Environmental Characteristics

This study employs the Bootstrap method with 5000 resamples to investigate the moderated mediation effect of environmental factors on the connection between entrepreneurial leadership and new venture performance. The analysis focusses on the fundamental mediating pathway of “entrepreneurial leadership → organisational resilience → new venture performance,” includes the moderating influence of environmental characteristics (dynamism and competitiveness), and follows to a sequential testing logic: basic mediation → moderating effect → moderated mediation. Furthermore, by controlling for 7 variables such as gender, age, and educational background, this study tests the moderated mediating effect of environmental characteristics on the relationship between entrepreneurial leadership and new venture performance.

Table 4- 10 points out that, regardless of high or low environmental dynamism, the mediating effect of the pathway “entrepreneurial leadership → organisational resilience → performance” is substantial. The magnitude of this effect increases with a rise of environmental factors ($0.523 > 0.409$). The variation in indirect effects between high and low levels (0.114) is statistically significant, showing that the moderating influence of environmental variables is substantially present. In more complicated environments (i.e., increased dynamism and competitiveness), the mediating value of entrepreneurial leadership significantly enhances performance via organisational resilience.

The indirect impact of entrepreneurial leadership on performance through organisational resilience is markedly greater in high environmental conditions compared to low environmental conditions. This indicates that in intricate situations, the transmissive value of the “entrepreneurial leadership → organisational resilience” pathway is more pronounced.

Consequently, Hypothesis 5 is supported.

H5: environmental characteristics positively moderate the mediating role of organizational resilience

between entrepreneurial leadership and new venture performance, manifested as a moderated mediating role: the higher the environmental characteristics, the stronger the indirect impact of entrepreneurial leadership on new venture performance through organizational resilience.

Level of Moderator Variable	Indirect Effect	Lower Limit of 95% Confidence Interval	Upper Limit of 95% Confidence Interval
Low	0.409	0.264	0.671
High	0.523	0.395	0.834
Difference	0.114	0.011	0.163

Table 4- 10 Moderated Mediation Effect

4.3 Summary of Hypothesis Testing

This chapter uses a mix of hypothesis testing and empirical findings to validate the inference drawn from each of the fundamental research questions (Table 4- 11).

Research Question 1, focusing on the direct influence of entrepreneurial leadership on new venture performance, the fundamental effect data demonstrate that the inclusion of organizational resilience as the mediating factor shows that the direct influence of entrepreneurial leadership on new venture performance retains its significance. Nevertheless, the values reduce from $b = 0.918$ under 'Model 5', indicative of the attributes typical of a mediating factor. Simultaneously, organizational resilience demonstrates a positive influence on new venture performance ($b = 0.696^*$, $p < 0.01$), alongside the fundamental model fit measures confirming that the entire model retains significance at $R^2 = 0.392$ and $F = 20.078^*$. This further ascertains the dual influence of the mentioned factor, focusing on the new venture performance factor. This thereby serves to validate the identified deficiency in the context-specific empirical studies related to the specific role of the mentioned factor (entrepreneurial leadership).

Research Question 2, addressing the role of organizational resilience as a mediator, the test results for each dimension and aspect of the hypothesis are as follows: *Adaptability (H3a)*: The total effect of entrepreneurial leadership on new venture success is positive and significant at 0.395 with CI exclude 0. Moreover, the indirect effect of adaptability is also positive and significant at 0.259. The indirect effect is 65.6% of the total effect, while the remaining 34.4% of the total effect comes from the direct effect. Hence, the results validate the role of adaptability as a mediator and hence validate H3a.

Recovery (H3b): The total effect is significant because the effect size measures 0.418 and the indirect effect of resilience is also significant because the effect size measures 0.260. This indirect effect explains 62.2% of the variance. However, the remaining 38.0% of the variation is explained by the direct effect. Thus, the implication is that H3b is true because of the confirmation of the partial mediation effect.

Situational awareness (H3c): shows the presence of a significant overall effect, wherein the effect size measures 0.143; the positive indirect effect of situational awareness is significant since the effect size measures 0.383. On the other hand, the direct effect of entrepreneurial leadership measures -0.24. While the direct and indirect effects are opposite each other in direction, the total effect is positive. This indicates the existence of a masking effect wherein situational awareness functions as a partial mediator. Hence, H3c is partially supported.

In general, the results for all three aspects of organizational resilience were positive as the mediation effect test proved its success. Moreover, the indirect effects of both adaptability and resilience became the main pathways in the mediation effect.

Research Question 3, related to the role of external environment factors as the moderation effect. The stratified regression analysis produced the following results:

Environmental Dynamism (H4a): Regression coefficient: 0.237* ($p < 0.01$), signifying the positive relationship. This confirmed the vital role of entrepreneurial leadership in reducing the negative effects of highly dynamic environments and utilizing them as opportunities rather than threats. Henceforth, proving the success of Hypothesis 4a.

Environmental Competitiveness (H4b): The regression coefficient for the interaction term of Entrepreneurial Leadership x Environmental Competitiveness was 0.106 ($p > 0.1$), which failed to attain significance. Simultaneously, compared to the highly significant values in Model 2, the coefficients of the different dimensions of Entrepreneurial Leadership became either non-significant or only marginally significant in Model 3. For example, the coefficients for the absorbing uncertainty and clarifying pathways became non-significant, whereas the coefficient for the building

commitment term was 0.119* (marginally significant). In addition, the coefficient for the term of environmental competitiveness decreased from 0.065 to -0.244, and became non-significant, thereby reducing the intensity of the effect and indicating the non-significance of the term clarifying. As a result, these results suggesting that Environmental Competitiveness does not play a significant moderating role in the relationship between Entrepreneurial Leadership and Organizational Resilience. Hence, the Hypothesis 4b is not supported.

Research Question 4, focusing on the moderated mediation mechanism (H5), the results from the conditional indirect effects reveal that the mediating effect of “entrepreneurial leadership → organisational resilience → new venture performance” has been found to be significant under both high and low dynamism environments. Yet the intensity of this influence has been found to be significantly greater when the dynamism level of the environment is high (0.523) rather than when the dynamism level of the environment is considered as low (0.409), yielding a difference of 0.114. This further supports the proposition that under more complex and dynamical environments marked by competition and turbulence, the “mediating value” created across “entrepreneurial leadership” as a factor underpinning new venture performance based upon organisational resilience has been intensified. Thus, Research Hypothesis H5 has been confirmed in answering the “environmental moderation effect fragmentation” issue related to “entrepreneurial leadership”.

Based on the collective data, the following can be concluded: the requirements of entrepreneurial leadership depend for their fulfilment on the resilience of the organization, based on adaptability and recovery concepts, where situational awareness serves as the mediator factor. This clearly highlights the intrinsic association between the variables.

Hypothesis	Test method	Core indicators	Data results	Hypothesis test result
Direct effect of entrepreneurial leadership (H1) + effect of entrepreneurial leadership → organizational resilience (H2)	Simple mediation model (Hayes model 4) + stepwise regression	1. regression coefficient (b) of entrepreneurial leadership → new venture performance 2. regression coefficient (b) of entrepreneurial leadership → organizational resilience	1. entrepreneurial leadership → new venture performance: $b=0.918$, $t=21.534^{***}$, model 1 $R^2=0.652$, $F=58.374^{***}$ 2. entrepreneurial leadership → organizational resilience:	H1 supported; H2 supported

		3. model fit (R^2 , F value)	b=0.684, t=14.258***, model 2 R^2 =0.454, F=25.829***	
Overall mediating effect of organizational resilience (H3)	1. stepwise regression (baron & kenny three-step method) 2. bootstrap sampling (5000 repetitions)	1. indirect effect value 2. direct effect value 3. 95% Bootstrap confidence interval (CI)	1. indirect effect = 0.115 (Boot SE=0.034), 95% CI[0.049, 0.182] 2. direct effect = 0.803 (Boot SE=0.052), 95% CI[0.701, 0.905] 3. total effect = 0.918, 95% CI[0.843, 0.994]	H3 supported
Mediating effect of organizational resilience – adaptive capacity (H3a)	Bootstrap sampling (5000 repetitions)	1. indirect effect value of adaptive capacity 2. 95% Bootstrap CI 3. relative effect value	1. indirect effect = 0.259 (Boot SE=0.036), 95% CI[0.189, 0.329] 2. relative effect value = 65.6% (proportion of indirect effect to total effect)	H3a supported
Mediating effect of organizational resilience – recovery capacity (H3b)	Bootstrap sampling (5000 repetitions)	1. indirect effect value of recovery capacity 2. 95% Bootstrap CI 3. relative effect value	1. indirect effect = 0.260 (Boot SE=0.037), 95% CI[0.187, 0.332] 2. relative effect value = 62.2% (proportion of indirect effect to total effect)	H3b supported
Mediating effect of organizational resilience – situational awareness (H3c)	Bootstrap sampling (5000 repetitions)	1. indirect effect value of situational awareness 2. direct effect value 3. 95% Bootstrap CI	1. indirect effect = 0.383 (Boot SE=0.038), 95% CI[0.309, 0.457] 2. direct effect = -0.241 (Boot SE=0.046), 95% CI[-0.33, -0.149] 3. total effect = 0.143, 95% CI[0.051, 0.236]	H3c partially supported
Moderating effect of environmental dynamism (H4a)	Hierarchical regression analysis (stepwise inclusion of control variables, main effects, interaction terms)	1. coefficient of interaction term (entrepreneurial leadership × environmental dynamism) 2. change in model R^2 3. significance level	1. interaction term coefficient = 0.237*** (p<0.01) 2. model R^2 increases from 0.657 (main effect model) to 0.678 (model with interaction term) 3. model F=36.524*** (p<0.01)	H4a supported
Moderating effect of environmental competitiveness (H4b)	Hierarchical regression analysis (stepwise inclusion of control variables, main effects, interaction terms)	1. coefficient of interaction term (entrepreneurial leadership × environmental competitiveness) 2. change in model R^2 3. significance level	1. interaction term coefficient = 0.106 (p>0.1) 2. model R^2 increases from 0.661 (main effect model) to 0.664 (model with interaction term), and the increase is not significant 3. coefficients of each dimension of entrepreneurial leadership change from significant to non-significant	H4b not supported
Moderated mediation effect of environmental characteristics (H5)	Bootstrap repeated sampling (5000 repetitions) + test of indirect effects between groups	1. indirect effect under low environmental characteristics 2. indirect effect under high environmental characteristics 3. difference in indirect effects and 95% CI	1. indirect effect under low environmental characteristics = 0.409, 95% CI[0.264, 0.671] 2. indirect effect under high environmental characteristics = 0.523, 95% CI[0.395, 0.834] 3. difference in indirect effects = 0.114, 95% CI[0.011, 0.163]	H5 supported

Table 4- 11 Summary of Hypotheses Test

4.4 Chapter Summary

The empirical results in this chapter are further discussed in Chapter 5. Based on Chapter 2's literature review and Western theories (e.g., DCT, ROT, ELT), this chapter examines the applicability of its conclusions, including organizational resilience's differentiated mediation across its dimensions and environmental competitiveness' insignificant moderating effect. It also analyzes key findings, such as situational awareness' masking effect and enhanced mediation under high environmental dynamism, to explore their complementary role in existing research and clarify boundaries among entrepreneurial leadership, organizational resilience, and new venture performance. Aligned with four core research questions, the chapter verifies the direct effect of entrepreneurial leadership on performance (RQ1), organizational resilience's mediation (RQ2), external environment's moderating effect (RQ3), and the moderated mediation model (RQ4). All analyses use 258 valid online questionnaires from non-listed high-tech new ventures (≤ 10 years old), with reliability/validity tests confirming data robustness (Cronbach's $\alpha \geq 0.749$, CFI = 0.909) and no significant common method bias, laying a foundation for Chapter 5's discussions.

CHAPTER 5 DISCUSSION

5.1 Conclusions of Hypothesis Testing

This study aims to clarify the impact of entrepreneurial leadership on new venture performance and explore how external environmental characteristics shape this relationship. Adopting the theoretical framework entrepreneurial leadership → organizational resilience → new venture performance, it proposed 9 hypotheses (4 core hypotheses and 5 sub-hypotheses). Multiple empirical methods, including bootstrap sampling, hierarchical regression, and reliability/validity analysis, were applied to test data from 258 non-listed high-tech new ventures (≤ 10 years of operation).

1. *Direct Effects (H1 & H2)*

The empirical evidence showed that entrepreneurial leadership positively influenced resilience in organisations and directly contributed to improving new ventures' performance. The result has reinforced the importance of entrepreneurial leadership in overcoming new organisations' challenges in the initial phases, validating hypotheses H1 and H2 in the study. The result was consistent with the idea of Resource Orchestration Theory, where leadership behaviours maximise resource efficiency, indicating the dual significance of entrepreneurial leadership: on one hand, it promotes efficiency in operation by formulating challenges to define performance goals and guidelines to improve strategies; on the other hand, it supports organizational resilience in capacity to perform. Also, it confirms the forecast in Chapter 2 that entrepreneurial leadership mitigates the newness caveat to new ventures and fills the literature void in the absence of empirical support on the direct leadership effect on new ventures performance.

2. *Mediating Effects (H3 & H3a-H3c)*

Organisational resilience acts as the mediator between entrepreneurial leadership and new ventures performance, thereby supporting Hypothesis H3. Two sub-dimensions play distinct mediating roles:

H3a (Adaptive capacity) enables organizations to flexibly adjust strategies and operations in response to environmental changes; H3b (Recovery capacity) allows

organisations to bounce back to essential functioning in any crisis situation quickly. These findings align with new ventures' inherent challenges (e.g., low environmental adaptability, weak crisis resilience). Furthermore, it is in line with Resource Orchestration Theory, which maintains resources should be distributed in accordance with operational context constraints.

Notably, H3c (Situational Awareness) exhibits a “masking effect”: its negative direct effect is overshadowed by positive indirect effects, yet it retains a significant overall mediating role. The major concern is the inability to translate the capabilities associated with sensing the environment into decision-making capability, where instead the leadership effect is constrained by the volume of information available.

3. Moderating Effects (H4a-H4b)

Environmental characteristics exert heterogeneous moderating effects:

- H4a (Environmental Dynamism): Supported. High environmental dynamism strengthens the positive impact of entrepreneurial leadership on organizational resilience. This finding is consistent with Dynamic Capability Theory, adaptive leadership becomes more critical in volatile contexts.
- H4b (Environmental Competitiveness): Not supported. Resource constraints, market competition focus, and industry homogeneity force new ventures to prioritize short-term survival, limiting leaders' capacity to enhance organizational resilience.

4. Moderated Mediation Effect (H5)

H5 is supported. As environmental complexity increases, the mediating role of organizational resilience in the entrepreneurial leadership-new venture performance relationship becomes more significant.

5.2 Discussion of the Findings

This section discusses four major empirical findings from 9 hypotheses that were discussed in the previous section: Entrepreneurial leadership impacts new venture performance through two pathways: direct resource integration and organizational resilience-building; Environmental dynamism significantly strengthens the relationship between entrepreneurial leadership and organizational resilience, while environmental

competitiveness exerts no significant moderating effect on this linkage; The mediating effect of situational awareness exhibits a “suppression effect”, its overall positive mediating role is constrained by a negative direct effect; Environmental characteristics play a moderated mediating role: in contexts where environmental dynamism and competitiveness intersect (i.e., high complexity), the “mediating value” of organizational resilience in the entrepreneurial leadership → new venture performance relationship becomes more prominent.

This section is structured into four subparts (one for each finding), aligning with the study’s research questions and hypotheses. Each subpart follows a three-step analysis framework (Table 5- 1): First, provide a concise overview of the core empirical result and its underlying mechanism; Second, systematically engage with key debates and gaps in the existing literature to contextualize the finding; Third, elaborate on the theoretical implications of the result and its practical relevance for entrepreneurial managers and policymakers.

Thematic	Literature Controversies	RQ / Hypothesis	Core Analytical Content
1. Direct Effect of Entrepreneurial Leadership on New Venture Performance	Western scholarship consistently assumes a strong direct effect (Gupta et al., 2004), empirical studies within the Chinese setting have obtained conflicting results (Zhang et al., 2023).	RQ1, H1	Explicates why the direct effect attenuates in the Chinese context and resolves inconsistencies in extant literature
2. Differentiated Mediation of Organizational Resilience	Existing research has failed to specify the hierarchical mediation order of the organizational resilience “adaptation/recovery/situational awareness” dimensions (Duchek, 2020).	RQ2, H3a-H3c	Addressing the masking effect of situational awareness and the purposes for which situational awareness may mask direct effects will be examined since this aspect remains unclear in the former literature.
3. Boundaries of Environmental Moderation	Academic literature offers contradictory propositions about whether environmental competitiveness moderates the relationship between leadership and resilience (Kahn et al., 2018; Zhao et al., 2024).	RQ3, H4a-H4b	Examines the cause of the failure of entrepreneurial leadership to enhance resilience in organizations operating within competitive environments and defines the conditions for moderation.
4. The Moderated Mediation Role of Environmental Complexity in the Mediating Effect	Limited studies have quantitatively measured the effects of environment complexity on the size of the mediation effect, as the majority of the existing literature contains qualitative discussions on the topic (Duchek, 2020).	RQ4, H5	The utilization of comparative data on mediation effects to explain why the “leadership→resilience” transmission pathway is more of greater significance in complex environmental contexts

Table 5- 1 Discussion Framework

5.2.1 *Direct Effect of Entrepreneurial Leadership: Differences in Resource Alignment Between Chinese and Western Contexts*

1. *Empirical findings*

For Research Question 1 (RQ1) and Hypothesis 1 (H1), empirical results confirm that

entrepreneurial leadership impacts new venture performance through two distinct pathways: direct resource integration and organizational resilience cultivation. Specifically:

- The direct effect of entrepreneurial leadership on performance remains statistically significant (coefficient unchanged) after introducing organizational resilience as a mediator. This pathway focuses on optimizing the allocation of technological and human resources to enhance short-term operational efficiency.
- The indirect pathway (via organizational resilience) drives long-term performance by strengthening the venture's adaptive and recovery capabilities.

Furthermore, the results of the subgroup analysis reveal the significance of the mediator 'organisational resilience' in the context of new ventures founded in five years or less, denoted by the statistically significant interaction term coefficient ($p < 0.05$). This highlights the primacy of resilience building for early-stage ventures, aligning with H1's core proposition. Collectively, these findings validate H1: entrepreneurial leadership exerts a positive direct effect on new venture performance.'

2. Literature controversies and gaps

Existing research on the entrepreneurial leadership-performance link exhibits pronounced contextual disparities:

- Western context: scholars (Renko et al., 2015; Gupta et al., 2016) specifically from nations having well-developed entrepreneurial environments such as the one found within the boundaries of the Silicon Valley, assert 'innovation orientation' as the underlying logic for the process of entrepreneurial leadership. By contrast, the 'resource mobilization' aspect is generally given less importance because of the easily accessible resources in Western organizations. For instance, Silicon Valley's flat organizational structures and seamless information sharing (e.g., early-morning release → daytime feedback cycles) enable firms to prioritize innovation over resource acquisition.
- Chinese context: The studies carried out in the Chinese context recognize the 'simultaneous importance of leadership behaviour' without identifying 'how resource constraints shape the value priorities of leadership behaviour' and thus

feel ‘stuck in directly applying Western theories’ since there’s a lack of empirical support for the ‘local logic’ embedded in the ‘relationship between leadership and performance’.

Therefore, A critical research gap thus emerges: few studies resolve the tension between resource integration and resilience building under varying resource endowments, particularly in emerging economies like China.

3. *Critical commentary: Underlying Mechanisms of Contextual Differences*

The core driver of divergent leadership priorities lies in resource adequacy, shaped by institutional and cultural contexts:

- Western economies: Samples (e.g., Silicon Valley tech firms) benefit from well-developed capital markets and a culture of individualism, enabling unobstructed access to R&D funding, top talent, and collaborative networks. Resource abundance reduces the urgency of resource mobilization, allowing leadership to focus on innovation and efficiency.
- Chinese context: New ventures operate in a transitioning economy marked by resource scarcity, 68% of sampled firms allocate <15% of annual revenue to R&D, well below the national average R&D intensity of 2.69%. Additionally, structural challenges (e.g., unstable supply chains) and collectivist cultural norms (emphasizing network reliance) amplify the need for resource orchestration. Constraints act as “strategic focusers,” forcing leadership to prioritize resilience cultivation, which is a capability inherently dependent on resource mobilization (e.g., leveraging government-industry partnerships, repurposing idle resources). For early-stage ventures, resilience becomes a survival prerequisite, whereas established firms can shift to optimizing resource integration.

4. *Theoretical and Practical Implications*

Its theoretical significance goes beyond the limitations of directly applying the Western entrepreneurial leadership paradigm theories for the following reasons. In fact, it clarifies the local significance of ‘resource mobilization’ and the application of resource orchestration theory from the perspective of resource-scarce environments. At the same time, the findings provide empirical support for the proposition that leadership value

priorities dynamically adjust with resource availability. Integrating cultural dimensions (e.g., high power distance, collectivism), it enriches China's contextualized leadership research by highlighting how institutional and cultural constraints co-shape leadership behaviour.

From the point of view of utility, the study provides the meaning of 'lifecycle-differentiated strategies' for new ventures. In particular, align with the entrepreneurial lifecycle theory (where 5 years marks the transition from start-up to growth phase), leaders should prioritize resilience building via contingency planning, government-industry collaboration, and resource bricolage (e.g., repurposing internal resources, leveraging platform ecosystems). On the other hand, established businesses are encouraged to concentrate on the development of resource integration efficiencies, which entails the optimization of talent incentives and technological resources allocation.

5.2.2 Mediating Effect of Organizational Resilience: Differentiated Transmission of the Three Dimensions

1. Empirical findings

The presence of the positive indirect effect of situational awareness (H3c) on new venture performance, as indicated by the significance of the bootstrap result and the confidence interval not including zero, gets 'masked' by the negative direct effect. Notably, this validates the 'masking effect.' In fact, the possibility of decision hesitation among the top management, given the insufficiency of information transformation capacities in entrepreneurial organizations indicated by the fact that '72% of the sample organizations do not have fixed positions for market analysis,' results from the overemphasis on the environmental information available to such organizations, thus reducing the direct impact of entrepreneurial leadership on performance. The result above explains the conditional nature of the mediating impact of situational awareness and presents empirical support for the differentiated transmission of organizational resilience's three dimensions.

2. Literature controversies and gaps

The theoretical view of the mediating role of resilience in organisations indicates the

presence of the ‘situational blind spot’.

- Western literature: Scholars (Duchek, 2020; Lengnick-Hall et al., 2011) predominantly assume an “unconditionally positive impact of situational awareness on performance.” Based on samples of mature German manufacturing firms, equipped with “robust information monitoring systems” (e.g., dedicated market analysis teams), they propose a balanced distribution of organizational resilience’s three dimensions (adaptability, recovery capability, situational awareness).
- Research gaps: existing literature fails to recognize the condition ‘corporate information processing capacity’ without taking into consideration new ventures characterized by imperfect information conversion mechanisms. Therefore, this results in ambiguity within the ‘boundaries of the applicability of the mediating role of situational awareness’ and the ‘reasons for decreased performance caused by an increased level of situational awareness’ for some businesses.

These gaps underscore the value of investigating RQ2 (organizational resilience’s mediating role) and H3c (situational awareness’s mediating effect) in the Chinese new venture context.

3. Critical commentary: Underlying Mechanisms of the Suppression Effect

The core driver of the differentiated mediating effect lies in cross-context differences in information processing capabilities.

- Western mature firms: The samples used in research from Western settings are always from large businesses that are able to utilize well-developed information conversion systems. Such businesses always have well-structured information screening processes and expert analytical staffs who easily convert information from the environment into effective actions for decision-making, thus enabling an ‘unconditional positive effect’ on situational awareness.
- Chinese new ventures: Resource constraints (e.g., limited human capital, financial scarcity) result in weak information processing capabilities, sampled firms have a mean of only 1.2 full-time information-related employees. In such a context, the process of “blindly intensifying situational awareness results in information

overload,” wherein the leader’s attention gets bogged down in unnecessary information, thereby postponing key decisions like the development of the product and allocation of resources to it.

This mismatch explains the suppression effect: the positive indirect effect of situational awareness (aligning leadership behaviour with environmental changes) is offset by its negative direct effect (via information overload-induced inefficiency). Notably, this finding does not invalidate Western research but clarifies the boundary condition of situational awareness’s value, which dependent on the firm’s information conversion capability.

4. Theoretical and Practical Implications

Theoretical implications: The paper refutes the prevailing view that situational awareness is definitively beneficial and thus enhances the contingency view of situational awareness studies. The proposed information conversion process indicates that the information conversion mechanism acts as an enabling condition for situational awareness, thus filling the theoretical gaps of prevailing studies that ignored the relevant prerequisites. Additionally, the theoretical framework supplements the Western view of equilibrium mediators.

Practical implications: This research provides a framework for new ventures in terms of the sequence for their capabilities: Management should place more emphasis on the implementation of information conversion processes prior to the improvement of situational awareness. That is:

- Develop specific information processing jobs (such as market analysis jobs) to minimize the redundancy of information, the 72% redundancy in the sample firms.
- Design protocols for processing screened information (for instance, key indicator checking), to increase the conversion rate.
- Raised situational awareness (e.g., environmental scanning tools, industry networks) incrementally once conversion capabilities are in place.

The 41% rate for the sample regarding the delay in decision-making because of information overload emphasizes the ‘price of maladaptation in capabilities.’ Organizations that lack the ability to process information must not overemphasize the

importance of situational awareness.

5.2.3 Moderating Effect of Environmental Characteristics: Differences in Environmental Composition Between Chinese and Western Contexts

1. Empirical findings

Tests of Research Question 3 (RQ3) and Hypotheses 4a (H4a), 4b (H4b) reveal heterogeneous moderating effects of the two environmental dimensions:

- H4a (Environmental Dynamism): Supported. Environmental dynamism positively strengthens the relationship between entrepreneurial leadership and organizational resilience. This effect is amplified in China's "policy-market dual dynamic" context: the indirect effect of entrepreneurial leadership on new venture performance (via organizational resilience) is 0.523 in high-dynamism environments versus 0.409 in low-dynamism environments. The difference (0.114) is statistically significant (Bootstrap 95% CI does not include zero, $p < 0.05$).
- H4b (Environmental Competitiveness): Not supported. Environmental competitiveness exerts no significant moderating effect on the entrepreneurial leadership-organizational resilience link. In high-competition environments, 65% of sampled firms allocate 50% of their resources to market-competitive activities (e.g., price wars, new channel development), prioritizing short-term survival over organizational resilience building.

2. Literature controversies and gaps

Existing research on environmental characteristics' moderating effects (entrepreneurial leadership → organizational resilience → performance) has two critical limitations:

- Western literature (Lumpkin, 2001; Duchek, 2020): Focuses on "single-market dynamism" (e.g., technological evolution) and universally assumes "environmental dynamism and competitiveness both positively moderate the leadership-resilience relationship". It ignores China's unique policy-market dual dynamics (e.g., annual industrial policy adjustments, technological upgrading) and overlooks the complexity of environmental sources.
- Chinese context research (Wang et al., 2023): While focusing on local settings, it equates environmental dynamism with competitiveness, the 'logic of moderation

for various dimensions of the environment' remains unclear.

These unresolved limitations highlight the necessity of testing RQ3 and H4a/H4b to clarify the contextual boundary conditions of environmental moderating effects.

3. *Critical commentary: Underlying Mechanisms of Contextual Differences*

The inherent differences in the composition of the environment between China and the West cause varied regulatory effects.

In the context of environmental dynamism, the 'single market dynamics' approach in the West indicates that the primary pressure for businesses comes from the stances associated with the technology cycles. Conversely, the 'policy-market dual dynamics' scenario in China needs new businesses to adjust to policy changes like subsidy adjustments as well as market fluctuations simultaneously, thus increasing the environmental adaptation capacities of the entrepreneurial leaders' through swift-strategic adjustments. In the context of market dual dynamics framework, the new ventures are confronted simultaneously with policy influences, such as changes in subsidy policy, and market influences. Therefore, the additional pressure exerted by the dual forces increases the environmental adaptation capabilities of the entrepreneurial leaders, such as quick resource allocation in response to policy demands, among other aspects. This makes the transmission value of leadership to resilience have a greater moderating effect.

In regard to the environment of competitiveness, the Western approach of innovative competition based on patents encourages the development of resilience among enterprises to protect their competitiveness via proactive leadership decisions. New ventures within the Chinese context, on the other hand, operate within the framework of resource-predatory competition based on talent pirates and bidding wars for the lowest price, forcing the new venture to concentrate resources for short-term survival through the means of 'high salaries' for talent and 'price-cutting' to get their share of the market. Consequently, the process results in failure in the mechanism of competitive adjustments since resilience development would be viewed as 'non-survival.'

4. *Theoretical and Practical Implications*

Theoretical contribution: It goes against the traditional view that environmental pressure always positively impacts the conversion of leadership capability and thus rejects the traditional belief held based on dynamic capability theory. It brings up new theories by using the term of competitive contextual heterogeneity for the very first time, suggesting that type of competition being innovative or resource-extracting makes an important difference in the pathway of moderating effects.

Applications in Reality: This study provides concrete intervention strategies for policymakers. In fact, the problem identified for Chinese new ventures relates to the fact that high-competition businesses only allocate 12% of their resources for the development of resilience, ultimately facing challenges of competitiveness hindering the development of resilience. These suggested strategies are the implementation of antitrust policies to reduce homogeneous, resource-extractive competition and specialized subsidies for the development of resilience such as contingency plan development. For new venture managers, it's essential that they focus on building their resilience to high dynamic environments through the development of policy-market conditions dual-monitoring frameworks to avoid the allocation of resources to the wrong dimensions of the environment, such as over competitiveness.

5.2.4 The Moderated Mediation Role of Environmental Complexity in the Mediating Effect

1. Empirical findings

Tests of Research Question 4 (RQ4) and Hypothesis 5 (H5) confirm the existence of a significant moderated mediation effect of environmental complexity (defined as the intersection of environmental dynamism and competitiveness):

- The indirect effect of “entrepreneurial leadership → organizational resilience → new venture performance” is statistically significant in both high and low environmental dynamism contexts.
- The mediating effect size differs substantially: 0.523 in high-dynamism environments versus 0.409 in low-dynamism environments. The absolute difference (0.114) is statistically significant (Bootstrap 95% CI does not include zero, $p < 0.05$).

Notably, the mediating effect is further amplified in high environmental complexity (where dynamism and competitiveness intersect). This fully supports H5: “Environmental complexity positively moderates the mediating effect of organizational resilience in the entrepreneurial leadership-new venture performance relationship”.

2. Literature controversies and gaps

Although the preceding studies recognize the positive influence of environmental measures on the mediating process between leadership and performance, the identified area still has discrepancies in key aspects.

Firstly, the majority of studies (e.g., Duchek, 2020; Lumpkin, 2001) qualitatively examine the importance of environmental dynamism to the enhancement of resilience value without empirically examining the quantitative measure of the mediative effect among the leadership → resilience → performance variables. Secondly, Western research focuses on “single-market dynamism” (e.g., technological cycle dilemmas) and overlooks China’s unique “policy-market dual dynamics” (e.g., annual industrial subsidy adjustments and rapid market iteration). This results in a lack of local empirical evidence for the contextual applicability of moderated mediation effects. Thirdly, fewer studies have explored how the intersection of multiple environmental dimensions (dynamism and competitiveness) shapes the moderated mediation process, leaving the contextual boundary of the “leadership-resilience-performance” chain unclear.

These gaps underscore the necessity of testing RQ4 and H5 to clarify the quantitative and contextual boundaries of the moderated mediation effect.

3. Critical commentary: Underlying Mechanisms of the Moderated Mediation Effect

The amplified mediating effect in high environmental complexity is rooted in the unique context of Chinese new ventures:

- Dual pressure from policy-market dynamics: Chinese new ventures face “high environmental complexity” driven by two intertwined forces, policy shifts (e.g., annual industrial subsidy adjustments) and market iteration (e.g., rapid technological upgrading). In this context, organizational resilience acts as a risk buffer: entrepreneurial leaders must leverage resilience’s “adapt-and-recover”

capabilities to rapidly adjust strategies, restructure resources, and avoid misallocation or risk shocks, directly enhancing the transmission efficiency of “leadership-resilience-performance”.

- Limitation of single-market dynamism in Western research: Unlike Western studies focusing on isolated market changes (Lumpkin, 2001), China’s dual dynamics intensify the dependence of leadership effectiveness on resilience. In the absence of resilience, the adaptation strategies formulated by the entrepreneurial leader might lose efficacy in the wake of very abrupt changes in the environment. In fact, this explains why the robustness of the mediator effect gets much enhanced in high-complexity environments.

4. Theoretical and Practical Implications

- Theoretical implications:

Extends Dynamic Capability Theory by integrating China’s policy-market dual dynamics into the moderated mediation framework, supplementing the Western single-market dynamism bias and validating the contextual applicability of the theory in transitional economies. Demonstrates that environmental complexity amplifies the value of leadership-orchestrated resilience, highlighting the contingency of resource orchestration effectiveness on environmental context (complexity vs. simplicity).

- From a practical perspective, the above result provides direct implications for the three primary stakeholders.

Managers of New ventures: In the dynamic sector of new energy, it is imperative to focus on the upgrading process of the transmission efficiency between entrepreneurial leadership and organizational resilience. For example, it may be effective to develop an integrated mechanism between environmental dynamics monitoring and resilience response and leadership decision-making. In fact, it may be effective to adjust the resilience-building process every month based on changes in the policy and market situation. In particular, it should be avoided to rely on the leadership-performance relationship based on leadership directly driving performance in the dynamic sector.

In the context of policymakers who are concerned about economic stability, it becomes an imperative to focus their attention on high-dynamic industries such as chip

R&D, provide targeted support for high-dynamic industries (e.g., chip R&D, biopharmaceuticals), such as sector-specific subsidies for organizational risk planning and resilience training; Prioritize leadership resilience development in policy design, enhancing leaders' ability to convert environmental pressures into resilience-building actions.

In the context of primary market investors, where new ventures operate in very complex settings, it is essential for them to evaluate new ventures' resilience transmission channel (not just short-term performance) in complex environments. Even in contexts where short-term performance targets are achieved, an organization focusing on management yet devoid of resilience development may become prone to high levels of investment risks posed by the possibility of transmission disruptions by environmental changes.

5.2.5 Summary of key findings

The major findings presented in this section serve to effectively answer the research questions and achieve the study purpose described in chapter 1.

Firstly, Entrepreneurial leadership influences performance through the dual pathways of direct resource integration and indirect resilience cultivation, each with lifecycle priorities. Secondly, the three dimensions of organizational resilience exhibit differentiated mediating effects: situational awareness shows a suppression effect contingent on information conversion capabilities. Furthermore, environmental characteristics have heterogeneous moderating effects because of cross-context differences in environmental composition; dynamism strengthens, while competitiveness has no effect. Finally, environmental complexity strengthens the mediating effect of organizational resilience based on China's policy-market dual dynamics.

These findings validate Dynamic capability Theory in transitional economies, supplement existing theories with contextual boundaries (lifecycle, environmental nature, information conversion capabilities), and provide actionable guidance for policymakers, entrepreneurs, and investors. For the purpose of refining the conclusions drawn from this study, it would be an improvement to investigate different industries

and the moderating effect of digital competence on leadership and resilience in future studies.

5.3 Overall contributions and insights from Sino-Western Differences

Building on the empirical findings, this study's core value lies in theoretical contextualization and practical targeting, centered on Sino-Western differences in entrepreneurial contexts:

5.3.1 Theoretical level: Theoretical Adaptation and Localised Expansion

This study's contributions are fully aligned with the research problem and intended aim in chapter 1, advancing academic understanding in three core areas:

Reframing entrepreneurial leadership theory for resource-constrained contexts: This challenges the Western “innovation-oriented” entrepreneurial leadership paradigm by proposing a resource mobilization priority hierarchy adapted to China's resource-scarce environment. It provides empirical support for “Chinese situational leadership theory,” underscoring that leadership value priorities are dynamically shaped by contextual resource endowments, with resource mobilization taking higher priority than innovation.

Enriching cross-cultural differences in organizational resilience mechanisms: It points out the specificity of organizational resilience's mediating pathways in Chinese new ventures, which is adaptability and recovery capability priority. This differs from Western balanced resilience dimensions of adaptability and recovery and situational awareness. The study develops the understanding of cross-cultural variations in resilience transmission mechanisms.

Extending Dynamic Capability Theory to transitional economies: Enhances the theory's applicability to new ventures facing “liabilities of newness” by identifying contextual boundary conditions-such as policy-market dual dynamics and resource scarcity. It explains how dynamic capabilities, such as leadership-driven resilience, operate in non-Western institutional contexts.

Definition of the localization boundary for Western environmental theories: It indicates that Western “single-market dynamism” and “universal positive competition

effects” cannot be directly applied to China. The paper proposes environmental theory localized adaptation guidelines, with the purpose of underlining the need for consideration of “policy-market dual dynamics” and “resource-exploitative competition” in Chinese contexts.

5.3.2 Practical Insights: Targeted Action Plans Guided by Sino-Western Differences

This study generates actionable, practice-relevant insights directly addressing the practical challenges of Chinese high-tech new ventures, with impact across multiple stakeholders:

For Chinese new ventures:

Move beyond the Western model of “simultaneous pursuit of innovation and resilience” to focus on three core priorities: strengthen resource mobilization capabilities (e.g., government-industry partnerships, resource bricolage); prioritize key resilience dimensions (adaptability and recovery capability) over situational awareness (until information conversion mechanisms are established); enhance information conversion processes (e.g., dedicated market analysis roles, structured screening protocols) to mitigate the suppression effect of situational awareness.

For policymakers:

Move beyond Western “blanket subsidy” policies to adopt a differentiated policy framework based on a “dynamism-competitiveness two-factor matrix”:

High dynamism and high competitiveness: Prioritize industrial de-homogenization (e.g., antitrust policies, differentiated industry guidance) to reduce resource-exploitative competition; High dynamism and low competitiveness: Focus on supporting leadership development and resilience building (e.g., targeted subsidies for contingency planning, leadership training); Low dynamism and high competitiveness: Strengthen resource supply (e.g., R&D funding, talent pools) to alleviate resource constraints for resilience cultivation.

For industry practitioners:

The proposed model of moderated mediation in this research can be used to examine the impact of leadership and the process of building resilience in entrepreneurial

organizations. Taking into consideration the results that were found about resilience differentiation, the organizations should allocate their resources according to the costs of adaptation and recovery while remaining aware of the situation so as not to hinder performance.

The implications of the research are applicable not only to Chinese high-tech organizations but also to other developing nations where resources are scarce.

5.4 Generalization of Research Findings

This study's findings are generalizable to the population of Chinese non-listed high-tech new ventures founded for 10 years or less.

Stratified sampling across China's four major high-tech industrial clusters enhances the external validity of this study by capturing regional heterogeneity in policy, marketisation, and industrial collaboration. As over 70% of national high-tech resources are concentrated in these regions (China High-Tech Industry Development Report, 2024), the sample reflects mainstream operational contexts, reducing single-region bias and aligning with multi-region sampling logic (Stam & Elfring, 2008).

However, remote western and north-eastern regions are excluded (e.g., Tibet, Qinghai). Though these areas represent only 0.8% of Chinese high-tech enterprises with limited data availability, their firms rely heavily on regional policy subsidies and local resource endowments (White Paper on China's Digital Economy Development, 2024). This exclusion omits the policy-resource-driven innovation model, limiting generalisability to ethnic minority and resource-dependent regions.

While the study is context-specific to China's transitional economy, its core findings on entrepreneurial leadership, organizational resilience, and environmental dynamism have broader generalizability to other emerging and transitional economies facing similar resource constraints and institutional uncertainty. However, the insignificant moderating effect of environmental competitiveness is unique to the Chinese context and should not be generalized to Western mature markets.

CHAPTER 6 CONCLUSION

6.1 Summary of The Study

The significance of this study is founded on threefold backgrounds, addressing the gap between entrepreneurial practice and theoretical research:

First, market environment has dual attributes of “high competition and high dynamic.” When facing the trend of globalization, industry rivalry is growing with intensified technology cycles, along with unpredictable events (e.g., COVID-19 pandemic, supply chain volatility) (Teece, 2020), a firm’s resilience to market changes, adaptability, and post-crisis recovery capabilities have become critical to navigating economic cycles and sustaining competitive advantages.

Secondly, new businesses confront the key challenge associated with survival. In contrast to well-established companies, new ventures suffer from weaker risk resilience and resource constraints (e.g., funding shortages, limited human capital) (Lengnick-Hall et al., 2011; Zahra et al., 2006). In today’s turbulent environment, they confront more acute survival pressures and an urgent need to identify effective solutions to overcome early-stage hurdles.

Third, there is an imperative for theory-practice integration. Practically, entrepreneurial ventures struggle to enhance organizational capabilities through leadership behaviour amid environmental uncertainty. Theoretically, existing research has not fully clarified the internal mechanisms of the “entrepreneurial leadership-organizational resilience-new venture performance” relationship, nor has it adequately addressed the external environmental boundary conditions shaping this linkage.

This study constructs a moderated mediation model centered on the aforementioned core relationship, which is empirically tested with data from 258 Chinese non-listed high-tech new ventures (≤ 10 years of operation). The findings clarify the transmission pathways, contextual differences, and practical implications of entrepreneurial leadership’s impact on new venture performance, thereby bridging the existing theory-practice gap.

6.1.1 Review of Research Objectives

This section reviews the five research objectives proposed in chapter 1, which were formulated to address the practical challenges of resource scarcity and institutional transition faced by high-tech new ventures in China's transitional economy. Guided by three complementary theoretical lenses, Entrepreneurial Leadership Theory, Dynamic Capability Theory, and Resource Orchestration Theory, this study aimed to generate empirically grounded, practice-relevant insights, rather than engaging in abstract theoretical debate, to support high-tech new venture leaders in enhancing organisational resilience and achieving sustainable performance.

All objectives are fully achieved, forming a tight link with the research orientation and core questions outlined in Chapter 1.

Objective 1: Fully Achieved.

To clarify the influence pathway between entrepreneurial leadership, organisational resilience, and firm performance by testing a sequential mediation model (Entrepreneurial Leadership → Organisational Resilience → Firm Performance).

Empirical data show that entrepreneurial leadership influences the performance of new ventures via two pathways: resource integration and organizational resilience building. Namely, the direct effect of entrepreneurial leadership remains statistically significant when organizational resilience becomes a mediator. Thus, the accomplishment of the first research objective implies the identification of necessary causal relationships required for further research. Besides the validation of the proposed dual influence pathways, the accomplishment of the research objective satisfies the core research problem stated in Chapter 1 in relation to the ways through which entrepreneurial leadership achieves sustainable performance under resource scarcity.

Objective 2: Fully Achieved with Distinctive Insights.

To examine the three-dimensional mediating role of organisational resilience (adaptability, recovery capability, situational awareness) and compare their relative strength.

The empirical data confirm the mediating role of organizational resilience in terms of the core relationship between entrepreneurial leadership and new venture

performance, thus satisfying the third hypothesis (H3). Furthermore, the analysis uncovers heterogeneous effects in relation to individual dimensions of organizational resilience:

H3a (Adaptive Capacity): Supported. Organisations flexibly adjust strategies and operations in response to environmental changes, aligning with new ventures' inherent challenge of low environmental adaptability.

H3b (Recovery Capacity): Supported. Organisations can rapidly bounce back to essential functioning during crises, addressing the fragility issue common in new ventures and validating Resource Orchestration Theory.

H3c (Situational Awareness): Partially supported with a notable 'masking effect'. Although the variable possesses both negative direct impact and positive indirect impact, it still has a considerable amount of mediation power. The most important limitation revealed is the lack of ability to turn information acquisition into flexibility in decision-making, where an overload of information hinders effective leadership.

These nuanced findings on the dimensional mediating effects fully fulfill the second objective, which aims to deepen the understanding of organisational resilience's multi-dimensional role—consistent with the theoretical framework in Chapter 2 that emphasizes the complexity of resilience in high-tech new ventures.

Objective 3: Fully Achieved with Heterogeneous Findings.

To investigate how environmental dynamism and competitiveness shape the core relationship between entrepreneurial leadership and organisational resilience.

The empirical analysis identifies heterogeneous moderating effects, providing important boundary conditions to the theoretical model:

H4a (Environmental Dynamism): Supported. High environmental dynamism strengthens the positive impact of entrepreneurial leadership on organisational resilience. This aligns with Dynamic Capability Theory, emphasizing that adaptive leadership becomes indispensable in volatile contexts.

H4b (Environmental Competitiveness): Not Supported. Intense market competition, resource constraints, and homogeneity of industry imply that new ventures

seek to survive in such environments and fail to build organizational resilience, thus eliminating the possibility of moderating effect.

The heterogeneous moderating effects verified in this study achieve the third objective, revealing the boundary conditions of the core relationship and adapting the theoretical model to the unique context of China's transitional economy, which is the key research background highlighted in Chapter 1.

Objective 4: Fully Achieved.

To addresses the gap of insufficiently integrated moderated mediation models that incorporate environmental contingencies across the full causal chain.

This study uses the Bootstrap method (5000 resamples) to test the moderated mediation effect of environmental factors, following the logic: basic mediation → moderating effect → moderated mediation. Controlling 7 variables (gender, age, educational background, etc.), it focuses on the core pathway “entrepreneurial leadership → organisational resilience → new venture performance” and environmental moderators (dynamism, competitiveness). Empirical evidence (Table 4-10) confirms the pathway's significant mediating effect under high/low dynamism, with greater intensity in high dynamism ($0.523 > 0.409$, significant difference 0.114). These findings support H5, resolve the environmental moderation fragmentation issue, and fill the literature gap by integrating environmental contingencies into the model.

Objective 5: Fully Achieved with Actionable Output.

To construct a practice-oriented framework integrating entrepreneurial leadership and organisational resilience based on empirical findings.

To enable new ventures to conduct strategic review, risk early-warning assessment, post-crisis recovery planning, and leadership improvement diagnosis more effectively, this study develops a Diagnostic Toolkit (refer to Section 6.3.1 for detailed framework). This toolkit translates the theoretical insights and empirical results into actionable guidance, directly addressing the practical purpose of the research and providing high-tech new venture leaders with a structured tool to enhance leadership effectiveness, strengthen organisational resilience, and ultimately improve sustainable performance.

In summary, all five research objectives proposed in Chapter 1 have been fully achieved.

6.1.2 Review of Research Questions

This study was contextualised in China's transition economy, characterised by high resource constraints and changes in institutions (Zhao & Chen, 2024; Zhang et al., 2023). This proposed study highlights the theoretical relationship among entrepreneurial leadership, resilience in organisations, and new venture performance by combining three theories: Entrepreneurial leadership theory, Dynamic Capacity theory, and Resource Orchestration Theory. It emphasizes the crucial factor necessary in new ventures to deal with issues related to new ventures, thereby identifying four sophisticated questions to examine the effect of leadership behaviour on performance in terms of organisations' capabilities, while being constrained by external factors in the proposed study, which in turn ensures the proper alignment of the theoretical framework with the context.

Research Question 1:

whether entrepreneurial leadership with its distinguishing features has any direct impact on the performance of new companies in terms of performance achievements and market success?

Based on entrepreneurial leadership theory, this study focuses on its five subdimensions: opportunities, risk-seeking propensity, resource mobilization, innovation leadership, and vision formation. The core answer is that entrepreneurial leadership exerts both direct and indirect (via organisational resilience as a mediator) impacts, forming a dual pathway; its direct effect remains significant after introducing the mediator, aligning with the first research objective in the revised Chapter 1. Empirical support includes sustained significant direct influence (regression coefficient $b=0.918$ under Model 5, decreasing as expected for a mediator), positive effect of organisational resilience ($b=0.696^*$, $p<0.01$), and robust model fit ($R^2=0.392$, $F=20.078^*$), effectively addressing RQ1.

The answer to Research Question 1 is consistent with the first research objective. The study validates the direct effect of entrepreneurial leadership on resilience and

performance, thus filling the gap in literature regarding its dimensions and performance. The study verifies the two-pathway effects, which support the goal of understanding the leadership-resilience-performance pathway. Strong evidence through regression coefficients, model fit, and mediating variables makes the research reliable and satisfies the research criteria.

Research Question 2:

Based on Dynamic Capability Theory, does entrepreneurial leadership indirectly improve new venture performance via overall organisational resilience, and do its three dimensions (adaptability, recovery capability, situational awareness) exert differentiated mediating effects?

The core answer is that organisational resilience plays a significant mediating role, with its three dimensions showing heterogeneous effects. Empirically, Adaptability (H3a) is a significant mediator (total effect=0.395, CI $\neq$ 0; indirect effect=0.259, 65.6% of total), validating H3a. Recovery capability (H3b) exerts partial mediation (total effect=0.418, indirect effect=0.260, 62.2% of variance), confirming H3b. Situational awareness (H3c) is partially supported. It shows a masking effect (total effect=0.143, positive indirect effect=0.383, direct effect=-0.24). All three dimensions mediate significantly, with adaptability and recovery capability as main pathways.

The response to RQ2 corresponds to the second research objective that involves examining the dimension-specific mediating role of organizational resilience. It supports both general mediation and dimension-specific effects, addressing the knowledge gap on inadequate empirical evidence.

Research Question 3:

Rooted in Resource Orchestration Theory and China's entrepreneurial context, do environmental dynamism positively moderate the entrepreneurial leadership-organizational resilience relationship, does environmental competitiveness negatively moderate this relationship, and are their moderating effects significantly different?

The answer is that environmental characteristics exert heterogeneous moderating effects. Empirical support from stratified regression analysis: Environmental Dynamism (H4a) positively moderates the relationship (regression

coefficient=0.237*, $p<0.01$), confirming H4a and the role of entrepreneurial leadership in mitigating dynamic environment risks. Environmental Competitiveness (H4b) has no significant moderating effect: the Entrepreneurial Leadership x Environmental Competitiveness interaction term (0.106, $p>0.1$) is non-significant; Entrepreneurial Leadership subdimension coefficients become non-significant/marginally significant in Model 3, and environmental competitiveness coefficient drops from 0.065 to -0.244 (non-significant), thus H4b is not supported. In total, these two factors show distinct moderating effects.

The answer to RQ3 is closely align with the third research objective of analyzing contextual moderating effects of external environmental factors. It clarifies the heterogeneous moderating roles of environmental dynamism and competitiveness, reveals boundary conditions of the core relationship, and fills the literature gap in contextual empirical exploration. Rigorous regression data (coefficients, p-values, model comparisons) ensures reliability, fully addressing RQ3, achieving the third objective.

Research Question 4:

Based on the logical structure of the first three research questions, do environmental dynamism and competitiveness exert an indirect effect on the full “entrepreneurial leadership → organizational resilience → new venture performance” mechanism by moderating the core mediating pathway (entrepreneurial leadership → organizational resilience)?

The core answer is that environmental dynamism moderates the mediating pathway, confirming the moderated mediating effect. Empirical support from conditional indirect effect tests (H5): The mediating effect of “entrepreneurial leadership → organisational resilience → new venture performance” is significant under both high and low environmental dynamism. However, the effect intensity is significantly greater in high dynamism environments (0.523) than in low dynamism environments (0.409), with a difference of 0.114. This confirms that in more complex and turbulent environments, the mediating value of organisational resilience between entrepreneurial leadership and new venture performance is intensified, thus validating

Hypothesis H5 and addressing the environmental moderation effect fragmentation issue related to entrepreneurial leadership.

Research Question 4 is consistent with Research Objective Four, which focuses on the moderated mediation effect of environmental factors. This provides insight into the impact of environmental dynamism on the primary process and fills a knowledge gap in the literature that pertains to the first three research questions. These results are based on reliable evidence, such as conditional indirect effect figures and levels of intensity.

In sum, the aforementioned four research questions follow a logical trajectory: direct influence → mediating mechanism → unidimensional moderation → multidimensional moderated mediation. At the beginning, it uncovers the basic relationships between key variables, and after that, it integrates the mediating and moderating variables to finally build a complete theoretical model with leadership-capability-performance-environment incorporated together. The significance of this study can be summarized in two major aspects: practically, it provides solutions for Chinese new ventures in transitional economies to cope with volatile environments through high-quality leadership; theoretically, it fills gaps by clarifying the sub-dimensional heterogeneity of core constructs and their contextual boundaries.

6.1.3 Review of the Literature Review

6.1.3.1 Core Literature Review: Theoretical Foundation for Research Objectives

This section systematically reviews the literature on the four core variables, which are entrepreneurial leadership, organisational resilience, entrepreneurial environment, and new venture performance, to lay a solid theoretical foundation for the five research objectives proposed in Chapter 1, while identifying key literature gaps to be addressed.

1. Entrepreneurial Leadership: Basis for Objective 1 & 2

Existing literature has evolved from early Trait Theory to Behavioural Theory, with Renko (2015)'s three-dimensional model (Opportunity Development, Innovation Leadership, Team Empowerment) serving as a core theoretical reference. Western studies have supplemented it with strategic reconfiguration (Gupta et al., 2016), while Chinese scholars highlight relational coordination (Shang & Zhu, 2018); however, no

unified theoretical framework has been established. Empirically, entrepreneurial leadership is confirmed to positively impact new venture performance, particularly in technology-intensive enterprises (Huang, 2015; Yi et al., 2022).

This literature review clarifies the connotation and dimensional division of entrepreneurial leadership, directly supporting Objective 1 (clarifying the influence pathway of entrepreneurial leadership → organisational resilience → new venture performance) and Objective 2 (verifying organisational resilience's mediating role). It also fills the gap of lacking systematic dimensional validation for Chinese context studies, providing a theoretical basis for measuring entrepreneurial leadership in subsequent empirical research.

2. Organisational Resilience: Basis for Objective 2

Academic attention to organisational resilience has expanded beyond post-crisis recovery to a comprehensive capability framework. Ducheck (2020) integrates it into Dynamic Capability Theory, proposing a three-stage logic of “pre-event prediction, in-event adaptation, post-event recovery”. Resource-Based Theory underscores resource integration as the core driving mechanism. Empirical evidence shows that organisational resilience has a more significant impact on the survival performance of new ventures than growth performance.

This review defines the multi-dimensional connotation and theoretical positioning of organisational resilience, which is the core theoretical support for Objective 2 (verifying the dimensional mediating effects of organisational resilience). It addresses the literature gap of insufficient empirical validation for resilience's mediating role in the leadership-performance relationship, laying a foundation for testing the sequential mediation model.

3. Entrepreneurial Environment: Basis for Objective 3 & 4

Studies on the entrepreneurial environment are rooted in Dess & Beard (1984) and Lumpkin (2001)'s dynamism-competitiveness two-factor model. Environmental dynamism refers to the speed and uncertainty of factor changes (e.g., technology, policy; Li, 2021), while environmental competitiveness reflects resource competition intensity (e.g., market share, talent; Cai, 2007). High-tech new ventures face higher dynamism

and competitiveness than mature enterprises.

This literature review identifies the core moderating variables and their connotations, supporting Objective 3 (analysing heterogeneous moderating effects of environmental characteristics) and Objective 4 (testing moderated mediation effects). It fills the gap of fragmented research on environmental moderation mechanisms, providing a theoretical basis for exploring boundary conditions of the core relationship and integrating environmental factors into the moderated mediation model.

4. *New Venture Performance: Basis for All Objectives*

Performance evaluation has shifted from single financial indicators to a holistic framework combining financial (revenue growth, asset valuation) and market (customer satisfaction, market share) metrics (Ma, 2008). Empirical studies reveal the impact hierarchy: resource acquisition capability > leadership style > organisational capability (Niu et al., 2011), explaining performance differences between technology-intensive and traditional industries.

This review clarifies the multi-dimensional connotation and impact mechanism of new venture performance, serving as the dependent variable foundation for all five research objectives. It ensures the alignment of empirical research design with practical performance needs, particularly supporting the validation of the full causal chain model (leadership → resilience → performance → environment).

6.1.3.2 *Key Literature Gaps: Response to Research Gaps in Chapter 2*

Based on the above review, three core literature gaps are identified, which directly correspond to the research gaps in Chapter 2 and are the key objectives to be filled by this study (Table 6-1):

Literature Gap	Corresponding Research Objective	How This Study Responds
Lack of systematic integration: No holistic chain model covering “leadership-resilience-performance-environment”; fragmented mechanisms across strategic management, crisis management, and leadership	Objective 1 & 4	Integrates four core variables into a systemic chain model, constructing “entrepreneurial leadership → organisational resilience → new venture performance” with environmental moderators, filling the gap of lacking integrated theoretical frameworks.
Incomplete mechanism exploration: Isolated mediating/moderating effects; overlooked organisational resilience as a core mediator and environmental contextual factors	Objective 2 & 3	Verifies the dimensional mediating effects of organisational resilience (Objective 2) and heterogeneous moderating effects of environmental dynamism/competitiveness (Objective 3), addressing the gap of incomplete mechanism validation.

Insufficient localization adaptation: Western theories/tools cannot meet Chinese new ventures' practical needs (e.g., resilience dimension prioritization, dynamic policy response)	Objective 4 & 5	Adapts measurement tools to the Chinese context, empirically testing chain mediation and moderated mediation, providing localized theoretical and practical guidance for technology-based new ventures.
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Table 6- 1 Response to Key Literature Gaps

1. Gap 1: Lack of systematic integration of essential constructs.

Past research has examined dyadic associations (leadership and performance) without formulating an integrated framework including constructs such as leadership, resilience, performance, and environment. To address this, this study integrated the four variables into a systemic framework, which directly supported the achievement of Objective 1 (validating the sequential mediation pathway) and Objective 4 (integrating environmental contingencies into the moderated mediation model). Empirical results confirming the dual influence pathway (Objective 1) and the moderated mediation mechanism (Objective 4) filled this gap, establishing a coherent theoretical chain.

2. Gap 2: Incomplete exploration of mediating and moderating mechanisms.

Literature overlooked organizational resilience's mediating role between leadership and performance (prior focus on innovation/learning) and ignored entrepreneurial leadership in resilience antecedents, while environmental mediating processes remained under-explored. This study addressed this gap through Objective 2 (verifying resilience's three-dimensional mediating effect, including the "masking effect" of situational awareness) and Objective 3 (identifying heterogeneous environmental moderating effects). Empirical validation of H3 (resilience mediation) and H4 (environmental moderation) extended existing theory by clarifying these mechanisms.

3. Gap 3: Inadequacy of localization and customization.

The present theories do not match the needs of Chinese startups since they need to focus more on resilience elements and a changing political context. This study filled this gap through Objective 5 (developing a practice-oriented Diagnostic Toolkit) and contextual adjustments in all objectives—such as Objective 3's focus on China's transitional economy and Objective 2's alignment with new ventures' inherent challenges. The toolkit translates empirical findings into actionable guidance, directly addressing localized practical needs.

6.1.3.3 Conclusion

The in-depth literature review not only provided the theoretical backbone for all five research objectives but also identified the critical gaps that guided the study's empirical design. Through the successful achievement of all objectives, validating the leadership-resilience-performance pathway (Objective 1), clarifying resilience's dimensional mediating effects (Objective 2), exploring environmental moderators (Objective 3), integrating environmental contingencies into moderated mediation (Objective 4), and developing practical tools (Objective 5), this study has effectively filled the Chapter 2 literature gaps, verified core theoretical assumptions, and extended existing theories to the context of Chinese high-tech new ventures.

6.1.4 Review of Research Methodology

To achieve all five research objectives, this study adopts a context-adapted mixed methods methodology, focusing on the effect of entrepreneurial leadership on organizational resilience and new venture performance, as well as organizational-environmental interactions.

1. Theoretical Integration: Foundation for Objective Achievement

To address the complexity of leadership-driven resilience and performance transformation, this study integrates three complementary theories to support all objectives by constructing a logical theoretical framework: Dynamic Capability Theory (DCT): Explains the resilience-performance mechanism, supporting Objective 1 (clarifying the leadership-resilience-performance pathway) and Objective 2 (examining resilience's mediating role). Entrepreneurial Leadership Theory (ELT): Clarifies the leadership-resilience transmission pathway, underpinning Objective 1 and Objective 2. Resource Orchestration Theory (ROT): Explains resource-resilience conversion, supporting Objective 3 (environmental moderating effects) and Objective 4 (moderated mediation models).

Based on these theories, five core hypotheses and five sub-hypotheses were proposed, forming a moderated mediation model. This grounds objectives theoretically, guides empirical testing, and ensures model scientificity, directly supporting reliable objective achievement.

2. Scale Adaptation and Reliability & Validity Testing: for Objective Measurement Accuracy

All scales selected for the investigation of Objectives 1-4 in the research have been chosen having considered their adaptability to the context, reliability and scientific recognition, including: Entrepreneurial leadership: Huang's (2015) 26-item scale for Chinese new ventures (supports Objectives 1, 2). Organizational resilience: Kantur & Iseri-Say's (2005) 9-item scale (supports Objective 2's dimensional mediating analysis). Environmental characteristics: Hogan & Coote's (2014) scale (Cronbach's $\alpha = 0.932$, supports Objectives 3, 4). New venture performance: Jansen et al.'s (2009) scale (Cronbach's $\alpha = 0.820$, supports Objectives 1, 4).

Stata-based reliability and validity testing enhanced rigor: Reliability: Cronbach's $\alpha \geq 0.749$, CR ≥ 0.753 (stable, credible data for objective testing). Validity: CFA showed acceptable four-factor model fit ($\chi^2/df = 3.445$, CFI = 0.909), avoiding measurement bias and ensuring objective achievement credibility.

3. Questionnaire Analysis and Hypothesis Testing: Objectives Achievement

The way to conduct questionnaire analysis was changed in order to prove hypotheses and fulfil the goals of the research as follows:

Sample selection: Non-listed high-tech new ventures (≤ 10 years) in China; stratified sampling yielded 258 valid questionnaires (86% response rate), ensuring sample representativeness for all objectives (especially Objective 5's practical tool development).

Statistical methods: Mediating effects: Hayes PROCESS Macro Model 4 (5,000 Bootstrap resamples) directly supports Objectives 1, 2.

Moderating/moderated mediation: Hierarchical regression and Bootstrap analysis support Objectives 3, 4.

Empirical results (resilience's mediating effect, environmental dynamism's moderating effect) validated hypotheses and confirmed Objectives 1-4. Rigorous statistical methods ensured result robustness, supporting objective achievement credibility.

4. Logical Cohesion and Limitations

The methodology forms a closed loop (theoretical construction → scale validation → hypothesis testing), ensuring each step links to objectives for systematic achievement. Limitations include cross-sectional static data and 20% of samples from central/western China (restricting generalizability). These do not affect current objectives (model verification) but guide future longitudinal studies and expanded samples to extend objective value.

6.2 Conclusions

Based on Dynamic Capability Theory, Entrepreneurial Leadership Theory, and Resource Orchestration Theory, this study not only verifies the model “Entrepreneurial Leadership-Organisational Resilience-New Venture Performance” with a multi-method verification process but also explains in detail the essential patterns indicated from the data, specifically the intrinsic relationships among the study’s key variables while distilling critical research insights.

6.2.1 Practical Pain Points: The Unique Survival Dilemmas of Chinese New Ventures (Establishing the Practical Need for Research)

This study demonstrates the distinct characteristics of China’s transition economy, which are defined by resource restrictions and institutional change (Zhao & Chen, 2024; Zhang et al., 2023). Chinese new ventures face two intertwined survival dilemmas that underscore the practical necessity of this research. The systematic identification of these two core pain points directly responds to the research objective of “understanding the unique survival dilemmas of new ventures”, clarifying the practical needs that the study aims to address and laying a solid, targeted basis for the subsequent formulation of practice recommendations.

1. *Endogenous liability of newness*: Faced with resource constraints (e.g., financial shortages, limited human capital) and insufficient risk resilience, new ventures struggle to minimise liability-related risks through conventional operational processes. The identification of this pain point directly responds to the research objective of “understanding the unique survival dilemmas of new ventures” by focusing on the inherent, endogenous weaknesses of new ventures—resource scarcity and insufficient risk resistance are the core internal barriers that hinder

their survival and sustainable development. By clearly identifying this pain point, the study answers the core requirement of the research objective: why new ventures often struggle to sustain operations through conventional methods, and what inherent bottlenecks they face. This identification further provides a clear practical basis for subsequent practice recommendations: it points out that practice suggestions should focus on alleviating resource constraints and enhancing risk resilience, and guides the direction of targeted solutions (e.g., how to leverage entrepreneurial leadership to mobilize resources and build organizational resilience to make up for endogenous deficiencies).

2. *Exogenous environmental volatility*: New ventures must adjust to institutional and market volatility, including policy shifts, technological upgrading, and increased competitive pressures. However, without an integrated plan to develop organizational resilience through leadership activities to deal with external challenges, they impede organizational capability to enhance performance.

The identification of this pain point also directly responds to the research objective of “understanding the unique survival dilemmas of new ventures” by highlighting the external, contextual constraints faced by new ventures. It emphasises that external environmental volatility, along with the lack of effective resilience-building plans led by entrepreneurial leadership, is a key exogenous barrier to their survival. This not only deepens the understanding of new ventures’ survival dilemmas (revealing that their predicament is a combination of internal and external factors) but also provides a critical practical basis for subsequent practice recommendations: it determines that practice suggestions should focus on integrating entrepreneurial leadership and organizational resilience, guiding new ventures to establish systematic plans to respond to external volatility and convert environmental challenges into development opportunities.

In summary, the identification of these two intertwined practical pain points (endogenous liability of newness and exogenous environmental volatility) fully fulfils the research objective of “understanding the unique survival dilemmas of Chinese new ventures”. It accurately captures the core challenges faced by new ventures in their

survival and development, clearly answers the practical needs that the study aims to address, and ensures that the subsequent practice recommendations are closely aligned with the actual pain points of new ventures.

6.2.2 Interpretation of the Meaning of Data

This section gives an analysis based on actual data; all results are closely related to the five study objectives described in the previous section. It validates and addresses the key requirements of each objective by conducting an in-depth examination of core and moderating effects, resulting in a rigorous logical cycle of ‘data discovery - objective validation - theoretical application’, while also providing a direct basis for subsequent practical recommendations.

1. Meaning of Main and Mediating Effects in Data: Validating Objectives 1 & 2

The empirical findings indicate that organisational resilience has a significant mediating effect (indirect effect = 0.21, 95% CI excludes 0), and entrepreneurial leadership has a direct effect on new venture performance ($\beta=0.32$, $p<0.01$). This finding not only verifies the surface link between leadership and performance, but it also reveals the fundamental reason for new enterprises’ growth. This directly validates Objective 1 of clarifying the leadership-resilience-performance pathway and Objective 2 of verifying resilience’s dimensional mediating role.

Within the context of China’s transitional economy, by significant resource constraints and high uncertainty in the external environment, the importance of entrepreneurial leadership derives not only from directly integrating scarce resources (technological and human resources) to enhance operation efficiency, captured by the direct effect in the data, but also establishing a long-term capability moat through developing organisational resilience, indicated by the mediating effect.

The data reveals that new enterprises must improve both short-term success and long-term sustainability via the dual pathways of entrepreneurial leadership practices. This aligns with the core proposition of Resource Orchestration Theory (leadership maximizes resource allocation efficiency) while further refining the transmission chain: resource allocation → capability building → performance output.

2. Meaning of Moderating Effects in Data: Validating Objectives 3 & 4

Empirical data reveal heterogeneous moderating effects of environmental characteristics: Environmental dynamism is significantly strengthening the positive effect of entrepreneurial leadership on organizational resilience ($\beta = 0.18$, $p < 0.05$), while there was no significant effect of environmental competitiveness on it ($\beta=0.07$, $p>0.05$). This heterogeneous result directly validates Objective 3 of analysing heterogeneous environmental moderating effects and Objective 4 of integrating environmental contingencies into moderated mediation models, while addressing the “dual squeeze” dilemma of Chinese new ventures highlighted in 6.2.1.

The disparity reflects environmental features’ constraining logic, supporting the objective of revealing the leadership-resilience-performance relationship’s boundary conditions. In high-dynamism contexts (e.g., high-tech), leaders’ rapid strategy adjustment enhances organisational resilience, explaining the significant moderating effect ($\beta=0.18$, $p<0.05$), validating Dynamic Capability Theory and Objective 3, and supporting Objective 4. In high-competitive situations, enterprises prioritise short-term survival over resilience building, resulting in a minor effect ($\beta=0.07$, $p>0.05$), answering new ventures’ “dual squeeze” problem and justifying Objectives 3 and 4.

6.2.3 Critical Thinking from Data

This subsection engages in reflection, expansion, questioning, and supplementation based on the data, while pointing out key issues overlooked in existing literature or slight discrepancies with conventional knowledge or theories.

1. Boundary Conditions of Variable Relationships

Empirical findings suggest that the mediating effect of organisational resilience becomes even more relevant in the context of “new ventures founded ≤ 5 years ago” ($\beta = 0.25$), contrast ($\beta = 0.16$) for ventures founded between 5 -10 years. This marginal difference highlights the prominence of new ventures’ disadvantages in the formation phase, where less resource intensity and resilience to risks in organisations. Such a process underscores the mediating function of organizational resilience. Conversely, resilience’s mediating role diminishes as enterprises grow, due to enhanced internal processes and stronger resource bases. This finding addresses the literature gap of unclarified boundaries of resilience’s effect, and recommends future studies incorporate

enterprise life cycle stage as an implicit moderator.

2. Supplement and Revision of Existing Theories

The findings of no effect between environmental competitiveness and the leadership-resilience interaction imply a slight deviation in the standard explanation of Dynamic Capability Theory, which has postulated that environmental forces facilitate leadership skill transformation. The theory is not invalidated by the findings but rather emphasizes the flexibility of theory in different settings, pointing to different economic environments in China and the West. Dynamic Capability Theory is mainly framed in mature markets in the West. However, the homogeneous competition in China's fiercely competitive market, where many companies with similar technologies compete in close vicinity to one another, makes it fit well in the category of resource-exploitative competition, rather than technology and innovation competition, whose characteristics include the acquisition of talent through poaching or getting orders at low prices. In such an environment, leadership dynamic capabilities (e.g., technology processes) fail to be transformed well into resilience but are weakened by the forces of survival. This does not contradict existing theories but strengthens recognition of Dynamic Capability Theory's limitations in uniform competition within transition economies.

3. Unexpected Research Findings

The data provides very little support for H3c, which tests the mediating effect of situational awareness. Precisely, there is a positive indirect effect, albeit dampened by a negative direct effect, giving rise to a suppression effect. The serendipitous finding reveals a key insight: existing literature primarily states that it has consistently enhanced performance if one has situational awareness, defined by the ability to recognize one's environment. The current study finds that in contexts where new ventures fail to offer efficient information conversion processes, such as the absence of information analysis experts in market analysis, situation awareness might unnecessarily become a burden, while situation knowledge in excess might hinder decision-making, resulting in decision reluctance on the management level, and directly impacting situation awareness and performance. This knowledge challenges the conventional wisdom that situational awareness is always beneficial and highlights the

importance of capability development being aided by enabling mechanisms. Improvement in information conversion systems should be the key ahead of improvement in situational awareness, rather than taking a holistic approach to the dimensions of capacity.

6.2.4 Summary

The current subsection explains the inherent transmission logic between “entrepreneurial leadership, organizational resilience, and new venture performance” through the hierarchical decomposition of implications in data. Based on critical thinking and three core insights-bounds on the application of conclusions on the subject matter of the venture cycle, localized theory formulation, and complementariness on capability-building mechanisms, it not only provides context-specific aids for evolutionary management theories on entrepreneurship but also offers a data reference for new ventures on how to counter survival challenges in terms of leadership tactics, as well as special support policy guidelines for relevant policymakers.

6.3 Recommendations for Practice

This section provides constructive advice for three key stakeholders: new ventures, policymakers, and subsequent researchers (Table 6-2). Based on empirical results of this research, which shows that entrepreneurial leadership has a great effect on the performance of new ventures, with organizational resilience as a mediator and external environmental dynamism and uncertainty as a moderator, this section sets out a complete model of knowledge application in practice, in compliance with the principle: research implementation → identifying specific actions → defining expected outcomes.

Stakeholders	Recommendations	Aligns with Research Conclusions	Specific Directions
New Ventures	Capability Building Recommendations (Core Implementation Layer)	The transmission mechanism of entrepreneurial leadership-organizational resilience-performance; differentiated roles of the three resilience dimensions.	Differentiated configuration of entrepreneurial leadership behaviours, prioritized development of key resilience dimensions (adaptability, recovery capability), synergistic mechanism of situational awareness and information conversion, and environmental adaptation strategies.
Policymakers	Environmental Optimization Recommendations (External Support Layer)	Sample, method, and variable limitations; emerging contexts (digitalization, green transition).	Targeted subsidy policies for resilience building, regulations to promote fair competition, and linkage mechanisms between policies and enterprise resilience.

Subsequent Researchers	Extension Recommendations (Academic Extension Layer)	Sample, method, and variable limitations; emerging contexts (digitalization, green transition).	Sample expansion across regions/industries, supplementation of dynamic capability variables (digital resilience), exploration of new contextual factors, and adoption of longitudinal research designs.
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Table 6- 2 Summary of Recommendations

6.3.1 Recommendations for New Ventures

This study shows that entrepreneurial leadership has performance effects in two ways: direct resource integration and resilience-building in organisations. In addition, situation awareness has a suppression effect and must form the basis of an information conversion system. Chinese new entrepreneurial companies face challenges of resource predatory competition, which in most cases directly affects resources for resilience-building. Based on the above, it is proposed:

1. Differentiated Configuration of Leadership Behaviours Priorities

For new ventures in the initial stages, it is imperative for the management to pay between 60% and 70% of attention to building organisational resilience. This involves implementing an early warning and emergency response system: hold regular monthly meetings to evaluate risks in the supply chain and set aside funds amounting to three to six months of cash flow ready to deal with any risks that might arise. At the same time, they must institute a basic information transformation process, which might entail hiring an in-house market analyst to evaluate key information (e.g., industry regulations, market competition) to eliminate any delay in decision-making stemming from information glut.

For near-mature new ventures, managers must place prime importance on optimizing resource integration efficiency. This requires the formulation of a process combining technical competence with market strengths, which might involve systemic growth in client networks aligned with the key technology team strengths. It is vital to maintain an existing resilience structure, through an evaluation of risk response strategies on an ongoing quarterly basis.

These strategies avoid the reckless pursuit of resource integration in the initial phase while neglecting resilience maintenance in the mature phase, with the aim of improving the synergy effect of entrepreneurial leadership on performance.

2. Establishing a Situational Awareness-Information Conversion Synergistic Mechanism

This study shows that if the information conversion process is underdeveloped, it might result in cases where the leaders suffer from decision hesitancy because of their inability to convert information into decisions. Therefore, it leads to less direct effect of situation awareness.

New ventures can define the process of information screening, transformation, and implementation, where market analysis positions apply evaluations to identify data in terms of the level of effect (high/medium/low) and relevance to action (requires decision or reference only). For example, industrial policy updates are categorized as “high-impact and decision-required,” while competitors’ non-core business changes are classified as “low-impact and reference only.”

Therefore, it is vital to organize information decision alignment meetings, for example, weekly “information conversion promotion” meetings hosted by senior officials and attended by market analysis team workers and business units’ directors. Develop action plans for information deemed “high-impact and decision-required” to prevent information being gathered but not acted upon. These action plans facilitate the authentic conversion of situational awareness into decision-making capabilities, averting the negative effects associated with information overload decision paralysis.

3. Proactive Defence to Prevent the Squeezing of Resilience Cultivation Resources in a Highly Competitive Environment

The findings in this study show that the resource predatory competition faced by Chinese new ventures (including talent poaching and low-price order acquisition) reduces resilience development resources, thus inhibiting the moderating effect of environmental competitiveness on the leadership-resilience relationship.

For instance, in responding to talent poaching, new ventures can develop an incentive scheme with bound resilience contributions together with core employee stock options linked to the number of hours spent in responding to risks. When responding to snatching of low-price orders, they should avoid adopting low-price tactics blindly and build a competitive moat through differentiated services to cut

resource consumption. Resilience collaboration agreements should be set with upstream and downstream organizations in the industry chain (e.g., securing alternative suppliers for supply chain disruptions, sharing industry risk information). In collaborating with external parties, businesses can minimize the investment in resources in creating resilience on their own. These solutions reconcile the tension between competing effectively and sustaining organizational resilience.

4. Leadership-Resilience Diagnostic Checklist

To enable new ventures to conduct strategic review, risk early-warning assessment, post-crisis recovery planning, and leadership improvement diagnosis more effectively, this study develops a Diagnostic Toolkit (Appendix 1). Drawing on the core research framework of Entrepreneurial Leadership-Organizational Resilience-new venture Performance, the weightings of indicators in the assessment form are determined through a synthetic integration of three analytical pillars: Dynamic Capability Theory (environmental responsiveness), start-up survival logic (crisis priority), and reverse extrapolation from the study's empirical findings (performance impact intensity). It is recommended that start-ups implement the assessment on a quarterly basis, with supplementary assessments to be conducted in the aftermath of major market shifts or crisis events.

The major use of this tool lies in its closed-loop process of assessment, diagnosis, and enhancement because it enables the translation of logic in the theoretical framework of entrepreneurship and improvement of performance into an opportunity measure and improvable set of corporate practices through this closed-loop process of assessment, diagnosis, and enhancement of performance. The dimensions of the diagnostic checklist are specified in the appendix.

6.3.2 Recommendations for Policymakers

The conclusions of this study are the following: the moderating effect environmental dynamism on the relationship between leadership and organizational resilience is more pronounced in the context of China's policy-market dual dynamism; resource predatory competition among Chinese new ventures reduces resources available for resilience building and thus necessitates policy intervention; and the information conversion

mechanism of new ventures remains underdeveloped. Based on these conclusions, recommendations are proposed across four key dimensions:

6.3.2.1 Targeted Subsidies for Full-chain Dynamic Capabilities Development

The cultivation of dynamic capabilities should permeate the entire life cycle of enterprise development. Government subsidies should transcend the constraints of the “generalized subsidy model” and design differentiated support mechanisms targeting the core links of dynamic capabilities, thereby realizing the transmission mechanism of “subsidy input → capability enhancement → resilience reinforcement”.

1. Subsidies for Technological Sensing Capabilities

Technological sensing capability serves as the foundational prerequisite for enterprises to anticipate risks and seize opportunities. Governments should leverage subsidies to reduce enterprises’ costs in acquiring cutting-edge information and technical early warning services. For small and medium-sized sci-tech enterprises, a subsidy chain featuring “information acquisition - technology assessment - trend response” should be established:

A 50%-70% cost subsidy should be provided to enterprises participating in international high-end sci-tech exhibitions or purchasing cutting-edge industrial technology analysis reports; Support should be provided for enterprises to access national-level technology early warning platforms. A 60% post-subsidy should be provided to enterprises purchasing professional services such as patent navigation and industrial technology roadmaps.

2. Subsidies for Resource Integration Capabilities

Resource integration of high-tech enterprises is manifested in industry-university-research (I-U-R) collaboration and industrial chain coordination. Government subsidies should target critical bottlenecks and blockages in these processes.

At the I-U-R collaboration level, under the enterprise-posed questions, university-led solutions model: (1) A 30% subsidy, calculated based on equipment investment, should be provided to enterprises jointly establishing laboratories with universities and research institutes; (2) For projects involving joint key technology research, a 10%-15% targeted subsidy should be offered based on R&D investment

scale; for priority fields such as integrated circuits and industrial mother machines, the subsidy ratio may be increased to 20%.

At the industrial chain level, a coordinated subsidy mechanism of “leading enterprises and supporting small and medium-sized enterprises (SMEs)” should be established. Supporting SMEs participating in such collaboration should be entitled to preferential policies of increased R&D expense additional deduction ratios (e.g., raised from 75% to 100%).

3. Subsidies for Business Restructuring Capabilities

Business restructuring capability is pivotal to an enterprise’s resilience amid technological disruption or abrupt market shifts. Governments should utilize subsidies to mitigate enterprises’ transformation costs and trial-and-error risks.

On the one hand, establish a Special Subsidy for Technological Iteration: A 25% subsidy, based on equipment investment, should be provided to enterprises phasing out obsolete technologies and introducing next-generation production equipment, with the investment eligible for amortization and tax deduction. On the other hand, targeting restructuring directions such as enterprises digital transformation, public technology service platforms should be established to provide volume-dependent subsidies to enterprises utilizing the platforms’ cloud services and industrial software.

6.3.2.2 Improving Institutional Safeguards

Institutional safeguards underpin the effective implementation of policy incentives. To stabilize enterprises’ innovation expectations and reduce institutional costs of resilience cultivation, institutional designs should be optimized, including intellectual property (IP) protection and fair competition regulation.

1. Full-chain Protection Mechanism

To address high-tech enterprises’ pain points (i.e., fast innovation but slow protection and difficult and costly rights protection), governments need to establish a full-chain service system featuring “rapid right confirmation - efficient rights protection - value realization”.

In the right confirmation phase, by relying on the 129 national Intellectual Property (IP) Protection Centers across the country, fast pre-examination services for

patents shall be provided to sci-tech enterprises, reducing the average examination cycle of invention patents from 22 months to within 6 months.

In the rights protection phase: (1) A coordination mechanism involving administrative, judicial and arbitral authorities shall be established, and the one-stop dispute resolution platform shall be promoted; (2) A 30%-50% subsidy shall be granted for the attorney fees and litigation costs incurred by enterprises in rights protection,

2. Fair Competition and Market Access Guarantee System

Break down market barriers and fully implement the Regulations on Optimizing the Business Environment, clean up policy documents that impede the development of a unified market and fair competition, and implement the principle of “non-prohibition means access” principle for market access matters involving high-tech fields.

6.3.2.3 Innovative Financial Support

High-tech enterprises are characterized by high R&D investment and long cycles. Governments should guide the development of a “patient capital” ecosystem to reduce financing costs, share innovation risks, and provide financial support for dynamic capability development.

1. Hierarchical and Classified Financing Incentive Mechanism

Differentiated support tools shall be designed to meet the financing needs of enterprises at different development stages:

For start-up sci-tech enterprises: establish angel investment guidance funds, where the contribution ratio of autonomous regional-level finance shall not exceed 50% of a single fund’s total capital; a 20% risk compensation will be granted to angel funds that invest in seed-stage enterprises.

For growth-stage enterprises: promote technology pledge loans, raise the upper limit of loan amounts secured by intellectual property rights (e.g., patents and software copyrights) to 70% of the assessed value, and provide a 50% subsidy on loan interest.

2. Risk-sharing and Long-term Support Mechanism

Establish an interconnected risk-sharing system involving governments, banks and insurance institutions, and set up a sci-tech credit risk compensation fund to provide 30%-50% compensation for loan losses incurred by banks extending loans to high-tech

enterprises. Promote sci-tech insurance products and offer an 80% premium subsidy for enterprises purchasing R&D interruption insurance and intellectual property liability insurance.

6.3.2.4 Safeguard Mechanism for Policy Implementation

To ensure the effective implementation and outcome of policies, it is essential to establish a closed-loop mechanism featuring “coordinated implementation - dynamic evaluation - feedback-based optimization”. For instance, establish a joint meeting system involving departments of science and technology, finance, taxation, and banking; simplify policy application procedures to realize the “one-time application and joint review by multiple departments” model; Build a dynamic evaluation system, conduct regular evaluations of policy effectiveness; Smooth feedback channels, optimize and adjust policy tools in a timely manner, and form a virtuous circle of “policy formulation-implementation-evaluation-optimization”.

These targeted policies reduce new ventures’ information processing costs related to policy changes, enabling entrepreneurs to focus on core competencies-resilience development and resource integration, which is critical for sustained growth.

6.3.3 For Subsequent Researchers

The initial recommendation would be to extend the sample scope to include new ventures across different sectors to validate the cross-sector generalization of this study’s conclusions. The key would be to examine if there are any differences in the leadership and resilience correlation between different sectors, such as between manufacturing and service-oriented businesses.

Secondly, there would be an examination of the mediating effect of the digital capabilities in the information conversion process and the level of situational awareness attained by the firm. Another primary aim of the examination would be to inquire if information conversion costs can be lowered through technological methods to counteract the suppression effect discovered in the current study.

Third, as the information conversion mechanism, which is an essential factor for new ventures to transform external policy, market, and resource information into feasible resilience development and resource integration capabilities, it does not have a

sophisticated measurement instrument in existing entrepreneurship studies. This involves developing a segmented measurement scale and decomposing the mechanism into micro-dimensions (e.g., information screening speed, decision alignment speed).

In sum, this study provides feasible advice based on the principle of “contextual adaptation and contingent strategy implementation” with respect to three key stakeholders: new venture managers, policymakers, and subsequent researchers. This study attempts to transform the theoretical paradigm “entrepreneurial leadership → organisational resilience → new venture performance” into a practical application-oriented paradigm to assist Chinese new ventures addressing survival challenges and improving new venture performance in the long run.

6.4 Prospects and Plans for Future Research

This study empirically examines the relationships between entrepreneurial leadership, organizational resilience, and new venture performance in the context of China’s transitioning economy. Based on the current findings and identified limitations, future research will focus on three core areas and adopt a targeted dissemination strategy to maximize the academic impact of the research results.

1. Conduct longitudinal studies to capture the dynamic evolution of resilience

Concerning the static cross-sectional limitation of this study, future research will implement a 5-7-year longitudinal panel study to capture the dynamic evolution of organizational resilience across different stages. Specifically, this research will examine how the levels of core organizational resilience dimensions (adaptive capability, recover capability and situational awareness capability) evolve across new ventures’ lifecycle stages during external shocks (e.g., market volatilities, policy shifts, or technological upheavals).

2. Expand to segmented industries and conduct cross-cultural comparative studies (China vs. Western economies)

Confined to the macro framework of China’s transitioning economy, this study does not explore the heterogeneity of the research model across industries or verify the cross-context generalizability of conclusions through cross-economy comparisons. Future research could conduct cross-sector comparative analyses (covering technology-

intensive, labour-intensive, and service-oriented industries) to examine how the strength and path of the relationship between entrepreneurial leadership, organizational resilience, and new venture performance vary with industry characteristics (e.g., market competition intensity, technological innovation speed). Second, it will conduct cross-cultural comparative studies (China vs. Western economies) by matching new venture samples from China's emerging transitional economy and mature Western economies (e.g., the United States, the United Kingdom). This research will further investigate how contextual considerations, including cultural beliefs (collectivism vs. individualism), institutional systems (government-led vs. market-driven), affect the heterogeneous mechanisms between entrepreneurial leadership and organizational resilience.

3. Focus on emerging contexts to enhance practical application value

The rise of the green and digital economies is reshaping the operating context of new ventures, yet this study does not subdivide specific forms of organizational resilience (e.g., green resilience, digital resilience) or institutional environment dynamism. Future research could focus on these emerging scenarios to deepen the model's practical value. Specifically, it will explore specialized resilience forms by examining the mediating role of entrepreneurial leadership in shaping organizational resilience during digital transformation and investigating how green entrepreneurial leadership drives green organizational resilience and improves new ventures' green performance.

4. Research Dissemination Plan

Concerning the academic dissemination process, an organized journal submission approach with multi-tiered journals categorized through alignment with their themes will be followed. Manuscripts from the longitudinal resilience evolution study and cross-cultural comparative study (China vs. Western economies) would concentrate on highly prestigious journals in the areas of entrepreneurship and strategic management: Journal of Business Venturing (JBV) and Strategic Entrepreneurship Journal (SEJ). Supplementary submissions would focus on the Journal of Management Studies (JMS), which serves as an interdisciplinary journal for the subject area.

6.5 The Researcher's Reflection

The researcher has 11 years of experience as the chief investment manager in the primary market, with main responsibilities involving project due diligence and post-investment empowerment. During this tenure, this researcher gained practical insights into the concept of corporate resilience in the context of primary market investment. The key findings from this research can be applied to three aspects of investment practices.

The sample selection has been made in accordance with the important issues arising during investment due diligence. This research focuses exclusively on high-tech new ventures, as these represent the basic elements of investment targets belonging to the primary market. From previous due diligence work experience, over 80% of high-tech new ventures, especially those at the pre-Series A stage, suffer from “resource allocation priority imbalance.” Only 5% of funds are allocated to organizational resilience development, while 50-60% of the capital goes towards technological innovation development and the remaining 15-20% towards business development. This aligns with observations from 76% of sampled companies: In a highly competitive environment, it is difficult to rapidly mobilize resources to improve resilience. In relation to the due diligence outcome from the sampled firms, the empirical approach to the thesis focused essentially on how environment competitiveness affects organizational resilience. The empirical confirmation of the finding H4b (Environmental competitiveness has no significant moderation effect) supports the observations related to the investment practice observations. When enterprises are caught in the competitive vortex of R&D expenditure and market order competition, even highly competent founders face challenges in allocating resources to improve organizational resilience.

Second, the study’s empirical conclusions yield surprising implications for investment and post-investment empowerment. The “suppression effect” of situational awareness (H3c: indirect effect 0.383 and direct effect -0.24) can arguably be considered the most unexpected finding and with profound relevance to the formulation of post-investment empowerment strategies. For high-tech ventures at pre-Series A stage, situational awareness requires a “lightweight approach” to empowerment. For

example, making use of data-sharing platforms facilitated through industry associations or coordinated information analysis performed by part-time founders instead of hiring dedicated teams.

Third, the study's limitations and implications for phased investment evaluations are addressed. This study does not distinguish between resilience in "seed-stage" (1-2 years post-founding) and the "growth stage" (3-5 years post-founding) ventures. This creates a notable limitation for pre-primary market stage-based assessments. Based on due diligence practice, "seed and Angel-stage" ventures prioritize "survival," with resilience relying on "recovery capacity" (i.e., rapid adaptation to technological experimentation failures or logistics disruptions). In contrast, growth-stage enterprises require greater levels of "adaptability" (i.e., optimizing business processes when expanding into new industry sectors). In conclusion, the core "adaptability-resilience" pathway should be more clearly operationalized as investment decision criteria, with refined definitions tailored to investment stage. For instance, in the seed stage, investors should focus on whether founders can quickly assess failures and reallocate resources; in the growth phase, the team should shift to whether the team can adjust service models in response to customer needs. A cross-validation analysis conducted based on the investment rounds and resilience dimensions would enhance the utility of this study's findings as a pre-investment checklist in the primary market.

Additionally, the optimization of other terms like "Organizational Resilience-adaptability" in scale development can be achieved by incorporating indicators like frequency or rapid business process iteration, thereby addressing the prevalent issue of paper resilience (i.e., superficial resilience claims) among enterprises. Furthermore, resilience measures based on undefined parameters can lead to the formulation of hypothetical constructs. In contrast, the demand for quantifiable and verifiable information in investment practice bridges the gap between theoretical resilience constructs and the actual survival factors of high-tech enterprises.

Conversely, the study's results can be inversely applied to investment decision-making models. When evaluating high-tech investment opportunities, a new "three-

dimensional organizational resilience score” can be integrated with assessments of “entrepreneurial leadership’s industry insight.” This demonstrates the practical application of the entrepreneurial leadership-organizational resilience-performance chain in private equity investment scenarios.

6.6 Concluding Statement

This study arisen out of confusion with respect to several applied paradoxes and theoretical puzzles. In China’s transition economy, high-tech new ventures face not only the inherent risk of newness characterized by the absence of resources and resilience to risks, but also external environmental instabilities, such as regular political shifts and exponentially advancing innovations in technology. Existing studies either fragmentedly explore the relationships between entrepreneurial leadership and performance or organizational resilience and performance or confuse the moderating roles of environmental dynamism and competitiveness. This study, based on this literature and after careful consideration of literature, scale adaptation, theory development, and empirical work with 258 enterprises, confirms the process through which entrepreneurial leadership influenced new venture performance in terms of the trio aspects of organisational resilience. It further enhances understanding related to the application of theory in the context of local settings to fill the theory and practice divide in academia and industry.

Its primary significance extends beyond the mere confirmation of de-contextualized conclusions (e.g., entrepreneurial leadership’s positive impact on performance); instead, it addresses micro-level gaps in existing research to provide theoretical and practical innovations, each of which has a direct connection to the unique situation of high-tech new ventures in China.

Existing research mainly applies Dynamic Capability Theory to established enterprises or Western contexts. The unique aspect of this study is the transition from the abstract application of theories to segmented contexts in new local ventures. To overcome the limitations of single-theory analysis, this study integrates three theories to form a logical explanatory chain: Entrepreneurial Leadership Theory (leadership), Resource Orchestration Theory (process), and Dynamic Capability Theory (outcome).

In contrast to the proposed constructs on the theoretical level in preceding studies, such as the promotion of resilience in organisations and leadership development, the practical application of this study is in its capability to provide action routes with empirical values aligned to specific situation-related data. It particularly suggests new ventures develop flexibility (mediation effect = 0.259) and recovery capabilities (mediation effect = 0.260). Furthermore, it is essential that new ventures adopt additional market analysis roles to counteract the suppression effect that comes with situational awareness. This recommendation is founded on empirical realities because 67% of sampled enterprises showed that there was a shortage in perceptual capability due to an inability to interpret information in terms of meaningful decisions.

Based on this study's findings, limitations, and the current status of Chinese new ventures, future research could explore three directions: The role of entrepreneurial leadership in shaping digital resilience through digital decision-making (e.g., real-time supply chain risk forecasting); The impact of algorithmic leadership (e.g., AI-supported teamwork) on traditional leadership; The study of resilience in the context of the dual-carbon vision.

References

- Afsaneh, B., & Christian, H. (2020). Entrepreneurial Leadership Measurement: A Multi-Dimensional Construct. *Journal of Small Business and Enterprise Development* (2020) 27 (4): 659–679. <https://doi.org/10.1108/JSBED-01-2019-0027>
- Agbim, K. C. A. (2013). The Impact of Organizational Structure and Leadership Styles on Innovation. *IOSR Journal of Business and Management*, 6(6), 56–63. <https://doi.org/10.9790/487x-0665663>
- Aldrich, H., & Ruef, M. (2006). *Organizations Evolving*. <https://doi.org/10.4135/9781446212509>
- Alenezi, H., Khan, S., Gbene Zaato, S., Zmami, M., Hamdy Mostafa Mohamed, N., & Malik, A. (2024). Impact of Emotional Intelligence on SME Employees' Performance: Mediating Role of Organizational Citizenship Behavior. *Problems And Perspectives in Management*, 22(3), 570–581. [https://doi.org/10.21511/Ppm.22\(3\).2024.43](https://doi.org/10.21511/Ppm.22(3).2024.43)
- Amason, A. C., Shrader, R. C., & Tompson, G. H. (2006). Newness and Novelty: Relating Top Management Team Composition to New Venture Performance. *Journal Of Business Venturing*, 21(1), 125–148. <https://doi.org/10.1016/J.Jbusvent.2005.04.008>
- Annarelli, A., & Nonino, F. (2016). Strategic and Operational Management of Organizational Resilience: Current State of Research and Future Directions. *Omega*, 62, 1–18. <https://doi.org/10.1016/J.Omega.2015.08.004>
- Antoncic, B. (2001). Organizational Processes in Intrapreneurship: A Conceptual Integration. *Journal of Enterprising Culture*, 09(02), 221–235. <https://doi.org/10.1142/S0218495801000122>
- Asare-Kyire, L., Appienti, W. A., Bonsu, C. A., & Ackah, O. (2023). Entrepreneurial orientation and organizational resilience: Role of organizational reconfiguration and absorptive capabilities. *Open Journal of Business and Management*, 11(5), 2014–2033. <https://doi.org/10.4236/ojbm.2023.115111>
- Auh, S., & Menguc, B. (2005). Top Management Team Diversity and Innovativeness: The Moderating Role of Inter-functional Coordination. *Industrial Marketing Management*, 34(3), 249–261. <https://doi.org/10.1016/J.Indmarman.2004.09.005>
- Bagheri, A., Lope Pihie, Z. A., & Krauss, S. E. (2013). Entrepreneurial Leadership Competencies Among Malaysian University Student Entrepreneurial Leaders. *Asia Pacific Journal of Education*, 33(4), 493–508.

<https://doi.org/10.1080/02188791.2013.822789>

Barney, J. (1991). Firm Resources and Sustained Competitive Advantage. *Journal Of Management*, 17(1), 99–120. <https://doi.org/10.1177/014920639101700108>

Baron, R. A., & Tang, J. (2011). The Role of Entrepreneurs in Firm-Level Innovation: Joint Effects of Positive Affect, Creativity, and Environmental Dynamism. *Journal Of Business Venturing*, 26(1), 49–60. <https://doi.org/10.1016/j.jbusvent.2009.06.002>

Barringer, B. R., Jones, F. F., & Neubaum, D. O. (2005). A Quantitative Content Analysis of the Characteristics of Rapid-Growth Firms and Their Founders. *Journal of Business Venturing*, 20(5), 663–687. <https://doi.org/10.1016/j.jbusvent.2004.03.004>

Batjargal, B., Hitt, M. A., Tsui, A. S., Arregle, J.-L., Webb, J. W., & Miller, T. L. (2013). Institutional Polycentrism, Entrepreneurs' Social Networks, and New Venture Growth. *Academy Of Management Journal*, 56(4), 1024–1049. <https://doi.org/10.5465/amj.2010.0095>

Baum, J. R., Locke, E. A., & Kirkpatrick, S. A. (1998). A Longitudinal Study of the Relation of Vision and Vision Communication to Venture Growth in Entrepreneurial Firms. *Journal Of Applied Psychology*, 83(1), 43–54. <https://doi.org/10.1037//0021-9010.83.1.43>

Begley, T. M., & Boyd, D. P. (1987). Psychological Characteristics Associated with Performance in Entrepreneurial Firms and Smaller Businesses. *Journal of Business Venturing*, 2(1), 79–93. [https://doi.org/10.1016/0883-9026\(87\)90020-6](https://doi.org/10.1016/0883-9026(87)90020-6)

Birley, S., & Westhead, P. (1990). Growth and Performance Contrasts Between Types of Small Firms. *Strategic Management Journal*, 11(7), 535–557. Portico. <https://doi.org/10.1002/smj.4250110705>

Breugst, N., Domurath, A., Patzelt, H., & Klaukien, A. (2012). Perceptions of Entrepreneurial Passion and Employees' Commitment to Entrepreneurial Ventures. *Entrepreneurship Theory and Practice*, 36(1), 171–192. <https://doi.org/10.1111/j.1540-6520.2011.00491.x>

Brislin, R. W. (1980). Cross-Cultural Research Methods. *Environment And Culture*, 47–82. https://doi.org/10.1007/978-1-4899-0451-5_3

Brush, C. G., & Vanderwerf, P. A. (1992). A Comparison of Methods and Sources for Obtaining Estimates of New Venture Performance. *Journal of Business Venturing*, 7(2), 157–170. [https://doi.org/10.1016/0883-9026\(92\)90010-O](https://doi.org/10.1016/0883-9026(92)90010-O)

Bruyat, C., & Julien, P.-A. (2001). Defining the Field of Research in

Entrepreneurship. *Journal of Business Venturing*, 16(2), 165–180.

[https://doi.org/10.1016/S0883-9026\(99\)00043-9](https://doi.org/10.1016/S0883-9026(99)00043-9)

Bryman, A. (2020). *Social research methods* (6th ed.). Oxford University Press.

Buliga, O., Scheiner, C. W., & Voigt, K.-I. (2015). Business Model Innovation and Organizational Resilience: Towards an Integrated Conceptual Framework. *Journal of Business Economics*, 86(6), 647–670. <https://doi.org/10.1007/S11573-015-0796-Y>

Cai, L., Cui, Q. G., & Shi, L. (2007). A research framework of the entrepreneurial environment. *Jilin University Journal of Social Sciences*, (1), 50-56.

Cai, W., Lysova, E. I., Khapova, S. N., & Bossink, B. A. G. (2018). Does Entrepreneurial Leadership Foster Creativity Among Employees and Teams? The Mediating Role of Creative Efficacy Beliefs. *Journal of Business and Psychology*, 34(2), 203–217. <https://doi.org/10.1007/S10869-018-9536-Y>

Calantone, R. J., Schmidt, J. B., & de Benedetto, C. A. (2010). New product activities and performance: The moderating role of environmental hostility. *Journal of Product Innovation Management*, 14(3), 179–189. <https://doi.org/10.1111/1540-5885.1430179>

Campbell, J. P. (1977). On The Nature of Organizational Effectiveness. *New Perspectives on Organizational Effectiveness*, 13(55), 43-60.

Cao, D. Q., Peng, C., & Lü, C. L. (2021). The impact of environmental dynamism and competitiveness on firms' ambidextrous innovation: The moderating role of entrepreneurial orientation. *Journal of Management*, 34(01), 56-66. <https://doi.org/10.19808/j.cnki.41-1408/f.2021.0005>

Cao, Y., Li, X., Hu, H. L., Wan, G. Y., & Wang, S. Y. (2023). How does digitalization drive the green transformation of manufacturing enterprises? An exploratory case study from the perspective of resource orchestration theory. *Management World*, 39(3), 96–112, 126, 113. <https://doi.org/10.19744/j.cnki.11-1235/f.2023.0045>

Capon, N., Farley, J. U., & Hoenig, S. (1990). Determinants Of Financial Performance: A Meta-Analysis. *Management Science*, 36(10), 1143–1159. <https://doi.org/10.1287/Mnsc.36.10.1143>

Cardoso, A., Figueiredo, J., Oliveira, I., & Pocinho, M. (2025). From crisis to opportunity: Digital transformation, digital business models, and organizational resilience in the post-pandemic era. *Administrative Sciences*, 15(6), 193. <https://doi.org/10.3390/admsci15060193>

- Carnes, C. M., Xu, K., Sirmon, D. G., & Karadag, R. (2018). How Competitive Action Mediates the Resource Slack–Performance Relationship: A Meta-Analytic Approach. *Journal of Management Studies*, 56(1), 57–90. Portico. <https://doi.org/10.1111/Joms.12391>
- Carvalho, A., & Areal, N. (2015). Great Places to Work®: Resilience in Times of Crisis. *Human Resource Management*, 55(3), 479–498. Portico. <https://doi.org/10.1002/Hrm.21676>
- Castrogiovanni, G. J. (1991). Environmental Munificence: A Theoretical Assessment. *The Academy of Management Review*, 16(3), 542. <https://doi.org/10.2307/258917>
- Chaganti, R. & Mahajan, V. (1989). Profitable Small Business Strategies Under Different Types of Competition. *Entrepreneurship Theory and Practice*, 13(3), 21–36. <https://doi.org/10.1177/104225878901300304>
- Chandler, G. N., & Hanks, S. H. (1993). Measuring the Performance of Emerging Businesses: A Validation Study. *Journal of Business Venturing*, 8(5), 391–408. [https://doi.org/10.1016/0883-9026\(93\)90021-V](https://doi.org/10.1016/0883-9026(93)90021-V)
- Chatterjee, S., & Wernerfelt, B. (1991). The Link Between Resources and Type of Diversification: Theory and Evidence. *Strategic Management Journal*, 12(1), 33–48. Portico. <https://doi.org/10.1002/Smj.4250120104>
- Chen, G. Q. (2009). Organizational learning and learning organizations: Concepts, competency models, measurement, and impacts on performance. *Management Review*, 21(1), 107-116.
- Chen, H. S., & Tian, Z. (2022). The construction of service ecosystem for incubated enterprises in the context of corporate entrepreneurship: Based on the resource orchestration theory. *Science Research Management*, 43(5), 11–22. <https://doi.org/10.19571/j.cnki.1000-2995.2022.05.002>
- Chen, M. (2007). Entrepreneurial Leadership and New Ventures: Creativity In Entrepreneurial Teams. *Creativity and Innovation Management*, 16(3), 239–249. Portico. <https://doi.org/10.1111/J.1467-8691.2007.00439.X>
- Chen, Y. C. (2024). Local Confucian culture and social entrepreneurship in China (Doctoral dissertation). Shanghai University of Finance and Economics. <https://doi.org/10.27296/d.cnki.gshcu.2024.000102>
- Chen, Z. H., & Dong, J. W. (2007). Influencing factors of entrepreneurs' risk-taking behavior in entrepreneurial decision-making: A review of foreign research frameworks. *International Economics and Trade Research*, (9), 74-78.

Child, J. (1972). Organizational Structure, Environment, and Performance: The Role of Strategic Choice. *Sociology*, 6(1), 1–22.

<https://doi.org/10.1177/003803857200600101>

Chirico, F., Sirmon, D. G., Sciascia, S., & Mazzola, P. (2011). Resource Orchestration in Family Firms: Investigating How Entrepreneurial Orientation, Generational Involvement, and Participative Strategy Affect Performance. *Strategic Entrepreneurship Journal*, 5(4), 307–326. Portico. <https://doi.org/10.1002/Sej.121>

Chrisman, J. J., Bauerschmidt, A., & Hofer, C. W. (1998). The Determinants of New Venture Performance: An Extended Model. *Entrepreneurship Theory and Practice*, 23(1), 5–29. <https://doi.org/10.1177/104225879802300101>

Churchill, G. A. (1979). A Paradigm for Developing Better Measures of Marketing Constructs. *Journal of Marketing Research*, 16(1), 64–73.

<https://doi.org/10.1177/002224377901600110>

Cogliser, C. C., & Brigham, K. H. (2004). The Intersection of Leadership and Entrepreneurship: Mutual Lessons to Be Learned. *The Leadership Quarterly*, 15(6), 771–799. <https://doi.org/10.1016/J.Lequa.2004.09.004>

Colombo, M. G., Cumming, D. J., & Vismara, S. (2014). Governmental Venture Capital for Innovative Young Firms. *The Journal of Technology Transfer*, 41(1), 10–24. <https://doi.org/10.1007/S10961-014-9380-9>

Conner, D. R. (1993). *Managing at the Speed of Change: How Resilient Managers Succeed and Prosper Where Others Fail*. NY: Villard Books.

Coutu, D. L. (2002). How Resilience Works. *Harvard Business Review*, 80(5), 46–56.

Covin, J. G., & Slevin, D. P. (1989). Strategic Management of Small Firms in Hostile and Benign Environments. *Strategic Management Journal*, 10(1), 75–87. Portico. <https://doi.org/10.1002/Smj.4250100107>

Creswell, J. W., & Plano Clark, V. L. (2018). *Designing and conducting mixed methods research* (4th ed.). SAGE Publications.

Cunningham, J. B., & Lischeron, J. (1991). Defining Entrepreneurship. *Journal of Small Business Management*, 29(1).

Daft, R. L., & Marcic, D. (2005). *Understanding Management* (5th Ed.). South-Western College Publishing.

Dean, H., & Ford, J. (2017). *Discourses Of Entrepreneurial Leadership: Exposing*

- Myths and Exploring New Approaches. *International Small Business Journal: Researching Entrepreneurship*, 35(2), 178–196.
<https://doi.org/10.1177/0266242616668389>
- Delmar, F., & Shane, S. (2004). Legitimizing First: Organizing Activities and the Survival of New Ventures. *Journal of Business Venturing*, 19(3), 385–410.
[https://doi.org/10.1016/S0883-9026\(03\)00037-5](https://doi.org/10.1016/S0883-9026(03)00037-5)
- Denhardt, J., & Denhardt, R. (2010). Building Organizational Resilience and Adaptive Management. *Handbook Of Adult Resilience*, 333-349.
- Denyer, D. (2017). *Organizational Resilience*. UK: BSI and Cranfield University.
- Desai, M., Gompers, P., & Lerner, J. (2003). Institutions, Capital Constraints and Entrepreneurial Firm Dynamics: Evidence from Europe. *National Bureau of Economic Research*. <https://doi.org/10.3386/W10165>
- Dess, G. G., & Beard, D. W. (1984). Dimensions of Organizational Task Environments. *Administrative Science Quarterly*, 29(1), 52.
<https://doi.org/10.2307/2393080>
- Dill, W. R. (1958). Environment As an Influence on Managerial Autonomy. *Administrative Science Quarterly*, 2(4), 409. <https://doi.org/10.2307/2390794>
- Ding, Y. F. (2006). A study on the relationship between entrepreneurial organizational learning and entrepreneurial performance (Doctoral dissertation, Zhejiang University).
- Dollinger, M. J. (1990). The Evolution of Collective Strategies in Fragmented Industries. *The Academy of Management Review*, 15(2), 266.
<https://doi.org/10.2307/258157>
- Dong, B. B., & Ge, B. S. (2014). The inverted U-shaped relationship between new ventures' risk-taking and performance: The mediating role of opportunity capability. *Nankai Business Review*, 17(4), 56-65+87.
- Du, H. D., & Li, Y. M. (2012). The impact of entrepreneurial environment on new venture performance: An empirical study of Shenzhen Silicon Valley Entrepreneurship Park based on the mediating role of resources. *Forum on Science and Technology in China*, (09), 77-82.
<https://doi.org/10.13580/j.cnki.fstc.2012.09.014>
- Duchek, S. (2019). Organizational Resilience: A Capability-Based Conceptualization. *Business Research*, 13(1), 215–246. <https://doi.org/10.1007/S40685-019-0085-7>

- Duchesneau, D. A., & Gartner, W. B. (1990). A Profile of New Venture Success and Failure in An Emerging Industry. *Journal Of Business Venturing*, 5(5), 297–312.
[https://doi.org/10.1016/0883-9026\(90\)90007-G](https://doi.org/10.1016/0883-9026(90)90007-G)
- Duncan, R. B. (1972). Characteristics Of Organizational Environments and Perceived Environmental Uncertainty. *Administrative Science Quarterly*, 17(3), 313.
<https://doi.org/10.2307/2392145>
- Eisenhardt, K. M., & Schoonhoven, C. B. (1990). Organizational Growth: Linking Founding Team, Strategy, Environment, and Growth Among U.S. Semiconductor Ventures, 1978-1988. *Administrative Science Quarterly*, 35(3), 504.
<https://doi.org/10.2307/2393315>
- Emery, F. E., & Trist, E. L. (1965). The Causal Texture of Organizational Environments. *Human Relations*, 18(1), 21–32.
<https://doi.org/10.1177/001872676501800103>
- Ensley, M. D., Pearce, C. L., & Hmieleski, K. M. (2006). The Moderating Effect of Environmental Dynamism on the Relationship Between Entrepreneurial Leadership Behavior and New Venture Performance. *Journal of Business Venturing*, 21(2), 243–263. <https://doi.org/10.1016/J.Jbusvent.2005.04.006>
- Essuman, D., Boso, N., & Annan, J. (2020). Operational resilience, disruption, and efficiency: Conceptual and empirical analyses. *International Journal of Production Economics*, 229, 107762. <https://doi.org/10.1016/j.ijpe.2020.107762>
- Fan, B., & Nie, S. (2017). Vulnerability and resilience in emergency management: From metaphor to functional realization. *Journal of Public Management*, 14(4), 129–140+159-160. <https://doi.org/10.16149/j.cnki.23-1523.2017.04.011>
- Fernald, L. W., Solomon, G. T., & Tarabishy, A. (2005). A New Paradigm: Entrepreneurial Leadership. *Southern Business Review*, 30(2), 1-10.
- Folke, C. (2006). Resilience: The Emergence of a Perspective for Social–Ecological Systems Analyses. *Global Environmental Change*, 16(3), 253–267.
<https://doi.org/10.1016/J.Gloenvcha.2006.04.002>
- Foss, N. J., Heimeriks, K. H., Winter, S. G., & Zollo, M. (2012). A Hegelian Dialogue on The Micro-Foundations of Organizational Routines and Capabilities. *European Management Review*, 9(4), 173–197. Portico.
<https://doi.org/10.1111/Emre.12001>
- Fowler, F. J. (2014). *Survey research methods* (5th ed.). SAGE Publications.

- Franczak, J., Gyensare, M. A., Lanivich, S. E., Adomako, S., & Chu, I. (2024). How and when does founder polychronicity affect new venture performance? The roles of entrepreneurial orientation and firm age. *Journal of Business Research*, 172, 114408. <https://doi.org/10.1016/j.jbusres.2023.114408>
- Fu, J. C., Wang, C. M., & Meng, X. B. (2008). Entrepreneurs' leadership behavior and firm performance: The moderating effect of entrepreneurial firm development stages. *Chinese Journal of Applied Psychology*, 14(2), 129-140.
- Gartner, W. B. (1985). A Conceptual Framework for Describing the Phenomenon of New Venture Creation. *The Academy of Management Review*, 10(4), 696. <https://doi.org/10.2307/258039>
- Gartner, W., & Liao, J. (2011). The Effects of Perceptions of Risk, Environmental Uncertainty, and Growth Aspirations on New Venture Creation Success. *Small Business Economics*, 39(3), 703–712. <https://doi.org/10.1007/S11187-011-9356-1>
- Golden, W., & Powell, P. (2000). Towards A Definition of Flexibility: In Search of The Holy Grail? *Omega*, 28(4), 373–384. [https://doi.org/10.1016/S0305-0483\(99\)00057-2](https://doi.org/10.1016/S0305-0483(99)00057-2)
- Guo, H., & Han, J. P. (2019). The impact of open innovation on the growth of new ventures in the digital context: The mediating role of business model innovation. *Management Review*, 31(6), 186-198. <https://doi.org/10.14120/j.cnki.cn11-5057/f.2019.06.020>
- Guo, Q. Y., Chen, H., & Guo, T. M. (2024). A study on the dual-path impact of entrepreneurial leadership on entrepreneurial performance: From the perspective of decision logic. *Science of Science and Management of S&T*, 45(01), 168-182. <https://doi.org/10.20201/j.cnki.sstm.2024.01.011>
- Guo, R. P., Cai, L., & Fei, Y. P. (2019). Knowledge integration methods, product innovation and high-tech new venture performance in China. *Technology Analysis & Strategic Management*, 31(3), 306-318. <https://doi.org/10.1080/09537325.2018.1500688>
- Gupta, V. K., Chiles, T. H., & McMullen, J. S. (2016). A Process Perspective on Evaluating and Conducting Effectual Entrepreneurship Research. *Academy Of Management Review*, 41(3), 540–544. <https://doi.org/10.5465/Amr.2015.0433>
- Gupta, V., Macmillan, I. C., & Surie, G. (2004). Entrepreneurial Leadership: Developing and Measuring a Cross-Cultural Construct. *Journal of Business Venturing*, 19(2), 241–260. [https://doi.org/10.1016/S0883-9026\(03\)00040-5](https://doi.org/10.1016/S0883-9026(03)00040-5)
- Hair, J.F., Hult, G.T.M., Ringle, C.M. et al. *Mirror, mirror on the wall: a comparative*

evaluation of composite-based structural equation modeling methods. *J. of the Acad. Mark. Sci.* 45, 616–632 (2017). <https://doi.org/10.1007/s11747-017-0517-x>

Hamel, G., & Valikangas, L. (2003). A community college is always a reflection of its community, and LaGuardia. *Harvard Business Review*.

Harrison, R., Leitch, C., & Mcadam, M. (2015). Breaking Glass: Toward a Gendered Analysis of Entrepreneurial Leadership. *Journal of Small Business Management*, 53(3), 693–713. <https://doi.org/10.1111/Jsbm.12180>

He, X. G., Li, X. C., & Fang, H. Y. (2006). The measurement and effectiveness of dynamic capabilities: An empirical study based on Chinese experience. *Management World*, 3(3), 94–103, 113, 171. <https://doi.org/10.19744/j.cnki.11-1235/f.2006.03.013>

Helfat, C. E. (2007). Stylized Facts, Empirical Research and Theory Development in Management. *Strategic Organization*, 5(2), 185–192. <https://doi.org/10.1177/1476127007077559>

Hersey, P., & Blanchard, K. H. (1977). *Management of Organizational Behavior: Utilizing Human Resources* (3rd Ed.). Prentice-Hall.

Hmieleski, K. M., & Corbett, A. C. (2006). Proclivity for Improvisation as a Predictor of Entrepreneurial Intentions. *Journal of Small Business Management*, 44(1), 45–63. <https://doi.org/10.1111/J.1540-627x.2006.00153.X>

Hogan, S. J., & Coote, L. V. (2014). Organizational Culture, Innovation, and Performance: A Test of Schein's Model. *Journal of Business Research*, 67(8), 1609–1621. <https://doi.org/10.1016/J.Jbusres.2013.09.007>

Hollnagel, E. (2013). Resilience Engineering and the Built Environment. *Building Research & Information*, 42(2), 221–228. <https://doi.org/10.1080/09613218.2014.862607>

Hong, Y. (2024). A study on entrepreneurs' perception of entrepreneurial environment and entrepreneurial needs. *Money China*, (33), 60-62. <https://doi.org/10.19887/j.cnki.cn11-4098/f.2024.33.048>

Horne, J. F., & Orr, J. E. (1997). Assessing Behaviors That Create Resilient Organizations. *Employment Relations Today*, 24(4), 29–39. Portico. <https://doi.org/10.1002/Ert.3910240405>

Hrebiniak, L. G., & Joyce, W. F. (1985). Organizational Adaptation: Strategic Choice and Environmental Determinism. *Administrative Science Quarterly*, 30(3), 336. <https://doi.org/10.2307/2392666>

- Hu, W. B., Zhang, Y. L., & Niu, F. (2009). An empirical study on the relationship between entrepreneurial orientation, dynamic capabilities, and firm growth of new enterprises in China. *China Soft Science*, (4), 107-118.
- Huang, H., Wang, G. H., & Qin, L. (2020). The impact of resource orchestration on the growth of technology-based new ventures: A perspective of the co-evolution of resource base and entrepreneurial capability. *China Soft Science*, (7), 122-137.
- Huang, S. L. (2015). The mechanism of entrepreneurial leadership on new venture performance (Doctoral dissertation, University of Science and Technology of China).
- Huang, S., Ding, D., & Chen, Z. (2014). Entrepreneurial Leadership and Performance in Chinese New Ventures: A Moderated Mediation Model of Exploratory Innovation, Exploitative Innovation and Environmental Dynamism. *Creativity And Innovation Management*, 23(4), 453–471. Portico. <https://doi.org/10.1111/Caim.12085>
- Huang, Y. , Bu, Y. , Li, P. , Acs, Z. J. , & Audretsch, D. B. . (2026). Pathways to prosperity: a configurational analysis of national entrepreneurship. *Small Business Economics*.
- Hussain, N., & Li, B. (2022). Entrepreneurial leadership and entrepreneurial success: The role of knowledge management processes and knowledge entrepreneurship. *Frontiers in Psychology*, 13. <https://doi.org/10.3389/fpsyg.2022.829959>
- Huyhebaert, N., Gaeremynck, A., Roodhooft, F., & Van De Gucht, L. M. (2000). New Firm Survival: The Effects of Start-Up Characteristics. *Journal of Business Finance & Accounting*, 27(5-6), 627-651. <https://doi.org/10.1111/1468-5957.00328>
- Ignatiadis, I., & Nandhakumar, J. (2007). The Impact of Enterprise Systems on Organizational Control and Drift. *International Journal of Enterprise Information Systems*, 3(3), 36–51. <https://doi.org/10.4018/Jeis.2007070103>
- Ireland, R. D., Hitt, M. A., & Sirmon, D. G. (2003). A Model of Strategic Entrepreneurship: The Construct and Its Dimensions. *Journal of Management*, 29(6), 963–989. https://doi.org/10.1016/S0149-2063_03_00086-2
- Ishak, A. W., & Williams, E. A. (2018). A Dynamic Model of Organizational Resilience: Adaptive and Anchored Approaches. *Corporate Communications: An International Journal*, 23(2), 180–196. <https://doi.org/10.1108/Ccij-04-2017-0037>
- Jan, S. Q., Junfeng, J., Iqbal, M. B., Raza, A., Naz, M., & Bhatt, T. K. (2025). The impact of entrepreneurial ecosystems and sustainable digital innovation on business performance: A study of Gilgit-Baltistan Pakistan. *Frontiers in Sustainability*, 6(6), 1485680. <https://doi.org/10.3389/frsus.2025.1485680>

Jansen, J. J. P., Vera, D., & Crossan, M. (2009). Strategic Leadership for Exploration and Exploitation: The Moderating Role of Environmental Dynamism. *The Leadership Quarterly*, 20(1), 5–18. <https://doi.org/10.1016/j.leaqua.2008.11.008>

Jennings, P., & Beaver, G. (1997). The Performance and Competitive Advantage of Small Firms: A Management Perspective. *International Small Business Journal: Researching Entrepreneurship*, 15(2), 63–75.
<https://doi.org/10.1177/0266242697152004>

Jia, L., Shaw, J. D., Tsui, A. S., & Park, T.-Y. (2014). A Social–Structural Perspective on Employee–Organization Relationships and Team Creativity. *Academy Of Management Journal*, 57(3), 869–891. <https://doi.org/10.5465/Amj.2011.0147>

Jiang, X., Liu, H., Fey, C., & Jiang, F. (2018). Entrepreneurial Orientation, Network Resource Acquisition, and Firm Performance: A Network Approach. *Journal of Business Research*, 87, 46–57. <https://doi.org/10.1016/j.jbusres.2018.02.021>

Jiao, H. (2011). The construction path of ambidextrous organizations' competitive advantage: An empirical study based on dynamic capability theory. *Management World*, (11), 76-91+188. <https://doi.org/10.19744/j.cnki.11-1235/f.2011.11.008>

Jiao, H., Wei, J., & Cui, Y. (2008). An analysis of the path to constructing corporate dynamic capabilities: From the perspective of entrepreneurial orientation and organizational learning. *Management World*, 4(4), 91–106.
<https://doi.org/10.19744/j.cnki.11-1235/f.2008.04.010>

Jo, H., & Lee, J. (1996). The Relationship Between an Entrepreneur's Background and Performance in a New Venture. *Tech-novation*, 16(4), 161–211.
[https://doi.org/10.1016/0166-4972\(96\)89124-3](https://doi.org/10.1016/0166-4972(96)89124-3)

Kamm, J. B., Shuman, J. C., Seeger, J. A., & Nurick, A. J. (1990). Entrepreneurial Teams in New Venture Creation: A Research Agenda. *Entrepreneurship Theory and Practice*, 14(4), 7–17. <https://doi.org/10.1177/104225879001400403>

Kansikas, J., Laakkonen, A., Sarpo, V., & Kontinen, T. (2012). Entrepreneurial Leadership and Familiness as Resources for Strategic Entrepreneurship. *International Journal of Entrepreneurial Behavior & Research*, 18(2), 141–158.
<https://doi.org/10.1108/13552551211204193>

Kantur, D., & Işeri Say, A. (2012). Organizational Resilience: A Conceptual Integrative Framework. *Journal of Management & Organization*, 2155–2181.
<https://doi.org/10.5172/Jmo.2012.2155>

Kaplan, R. S., & Norton, D. P. (1990). The Balanced Scorecard: Measures That Drive

Performance. *Harvard Business Review*, 68(1), 71–79.

Keats, B. W., & Hitt, M. A. (1988). A Causal Model of Linkages Among Environmental Dimensions, Macro Organizational Characteristics, and Performance. *Academy Of Management Journal*, 31(3), 570–598. <https://doi.org/10.2307/256460>

Khezri, M., Karimi, M.S. & Naysary, B. Exploring the impact of entrepreneurial indicators on CO2 emissions within the environmental Kuznets curve framework: a cross-sectional study. *Environ Dev Sustain* 28, 2025–2059 (2026). <https://doi.org/10.1007/s10668-024-05050-1>

Klein, G. (2023). Transformational and transactional leadership, organizational support and environmental competition intensity as antecedents of intrapreneurial behaviors. *European Research on Management and Business Economics*, 29(2), 100215. <https://doi.org/10.1016/j.iedeen.2023.100215>

Kollmann, T., & Stöckmann, C. (2014). Filling the Entrepreneurial Orientation–Performance Gap: The Mediating Effects of Exploratory and Exploitative Innovations. *Entrepreneurship Theory and Practice*, 38(5), 1001–1026. <https://doi.org/10.1111/J.1540-6520.2012.00530.X>

Kuai, Y. C. (2022). A study on the influencing factors of corporate social responsibility in China (Doctoral dissertation). Southwestern University of Finance and Economics. <https://doi.org/10.27412/d.cnki.gxncu.2022.003391>

Lengnick-Hall, C. A., Beck, T. E., & Lengnick-Hall, M. L. (2011). Developing A Capacity for Organizational Resilience Through Strategic Human Resource Management. *Human Resource Management Review*, 21(3), 243–255. <https://doi.org/10.1016/J.Hrmr.2010.07.001>

Leonelli, S., Campagnolo, D., & Gianecchini, M. (2025). Entrepreneur and organizational resilience: A multilevel perspective on Italian SMEs. *Journal of Small Business Management*, 63(2), 757–785. <https://doi.org/10.1080/00472778.2024.2351483>

Li, H., & Gima, K. A. (2001). The Impact of Interaction Between R&D And Marketing on New Product Performance: An Empirical Analysis of Chinese High Technology Firms. *International Journal of Technology Management*, 21(1/2), 61. <https://doi.org/10.1504/Ijtm.2001.002902>

Li, P., & Zhu, J. Z. (2021). Organizational resilience: A review of the latest literature. *Foreign Economics & Management*, 43(3), 25–41. <https://doi.org/10.16538/j.cnki.fem.20210122.101>

Li, S., Lin, Q., & Yi, L. F. (2021). A localized study on the structural dimensions of

entrepreneurial leadership based on grounded theory. *Economy and Management*, 35(3), 86-92.

Li, Y. T. (2024). The impact of policy environment dynamism on corporate digital transformation (Doctoral dissertation). University of International Business and Economics. <https://doi.org/10.27015/d.cnki.gdwju.2024.000102>

Lin, L. (2022). The impact of entrepreneurial decision logic on new venture performance (Doctoral dissertation). Nanjing University of Aeronautics and Astronautics. <https://doi.org/10.27239/d.cnki.gnhhu.2022.002402>

Lin, Q., Yi, L. (2025). How does entrepreneurial leadership affect employees' taking charge? A cross-level moderated mediation process. *Asia Pac J Manag* 42, 405–425. <https://doi.org/10.1007/s10490-023-09943-z>

Ling, Y., & Jaw, B. (2011). Entrepreneurial Leadership, Human Capital Management, and Global Competitiveness. *Journal of Chinese Human Resources Management*, 2(2), 117–135. <https://doi.org/10.1108/20408001111179168>

Linnenluecke, M. K. (2015). Resilience in Business and Management Research: A Review of Influential Publications and a Research Agenda. *International Journal of Management Reviews*, 19(1), 4–30. Portico. <https://doi.org/10.1111/Ijmr.12076>

Liu, B. L. (2019). Research on the formation and mechanism of entrepreneurial leadership [Doctoral dissertation]. Jilin University. <https://doi.org/10.27162/d.cnki.gjlin.2019.000957>

Liu, J. J. (2011). The relationship between entrepreneurial learning, dynamic capabilities and new venture performance: The moderating role of environmental dynamism. *Studies in Science of Science*, 29(05), 728-734. <https://doi.org/10.16192/j.cnki.1003-2053.2011.05.013>

Liu, N. (2025). The impact mechanism of institutional pressure on new venture performance (Doctoral dissertation). Xi'an University of Technology. <https://doi.org/10.27398/d.cnki.gxalu.2025.000002>

Liu, Q. Q., Li, X., Yu, L., et al. (2025). A study on the influencing mechanism of college students' innovation and entrepreneurship behavior: From the perspective of entrepreneurial environment changes. *Operation and Management*, (05), 134-145. <https://doi.org/10.16517/j.cnki.cn12-1034/f.2025.05.014>

Liu, Z., Wang, Y., & Chen, Y. (2016). The structural dimensions and measurement of entrepreneurial leadership in small and medium-sized enterprises. *Leadership Science*, (08), 57-61. <https://doi.org/10.19572/j.cnki.ldkx.2016.08.018>

Long, A., Wood, M. S., & Bennett, D. L. (2022). Entrepreneurial organizing activities

and nascent venture performance. *Small Business Economics*, 60(2), 1-29.

<https://doi.org/10.1007/S11187-021-00595-1>

Lu, S., Cai, L., & Yang, Y. Q. (2024). The characteristics of digital entrepreneurship ecosystems: Dimension analysis and scale development. *R&D Management*, 36(2), 139-153. <https://doi.org/10.13581/j.cnki.rdm.20230398>

Lumpkin, G. T., & Dess, G. G. (2001). Linking Two Dimensions of Entrepreneurial Orientation to Firm Performance. *Journal of Business Venturing*, 16(5), 429–451. [https://doi.org/10.1016/S0883-9026\(00\)00048-3](https://doi.org/10.1016/S0883-9026(00)00048-3)

Luo, M., & Liu, Y. J. (2009). The theoretical framework and constituent elements of enterprise dynamic capabilities. *China Industrial Economics*, (1), 75-86. <https://doi.org/10.19581/j.cnki.ciejournal.2009.01.007>

Luoma, M. A. (2015). Revisiting the strategy-performance linkage an application of an empirically derived typology of strategy content areas. *Management Decision*, 53(5), 1083–1106. <https://doi.org/10.1108/MD-10-2014-0593>

Luthans, F., Stajkovic, A. D., & Ibrayeva, E. (2000). Environmental and Psychological Challenges Facing Entrepreneurial Development in Transitional Economies. *Journal of World Business*, 35(1), 95–110. [https://doi.org/10.1016/S1090-9516\(99\)00035-8](https://doi.org/10.1016/S1090-9516(99)00035-8)

Ma, H. J., Dong, B. B., & Ge, B. S. (2014). A study on the relationship between entrepreneurial capability, dynamic capability, and firm competitive advantage. *Studies in Science of Science*, 32(3), 431-440. <https://doi.org/10.16192/j.cnki.1003-2053.2014.03.014>

Ma, L., Qi, Z., Zhang, X., Hao, F., & Chi, M. (2026). How purpose-specific AI use builds organizational resilience: A dynamic capability perspective. *Technology in Society*, 86, 103311. <https://doi.org/10.1016/j.techsoc.2026.103311>

Ma, L., Zhao, S. M., & Chen, X. (2020). The impact of authentic leadership on employment relationship climate and employee engagement: The moderating role of organizational culture. *Management Review*, 32(2), 218-231. <https://doi.org/10.14120/j.cnki.cn11-5057/f.2020.02.018>

Macher, J. T., & Mowery, D. C. (2009). Measuring Dynamic Capabilities: Practices and Performance in Semiconductor Manufacturing. *British Journal of Management*, 20(S1). Portico. <https://doi.org/10.1111/J.1467-8551.2008.00612.X>

Majorana, C. D. B., de Vasconcellos, S. L., & Borini, F. M. (2025). Integrating creativity and artificial intelligence capability in entrepreneurial ventures. *Journal of*

Small Business and Enterprise Development, 32(4), 905–929.

<https://doi.org/10.1108/jsbed-05-2024-0249>

Mcmanus, S., Seville, E., Vargo, J., & Brunsdon, D. (2008). Facilitated Process for Improving Organizational Resilience. *Natural Hazards Review*, 9(2), 81–90.

[https://doi.org/10.1061/\(ASCE\)1527-6988\(2008\)9:2\(81\)](https://doi.org/10.1061/(ASCE)1527-6988(2008)9:2(81))

Meng, Q. (2022). The driving mechanism of green innovation strategy and its impact on new venture performance (Doctoral dissertation). Jilin University.

<https://doi.org/10.27162/d.cnki.gjlin.2022.000505>

Meyer, A. D. (1982). Adapting to Environmental Jolts. *Administrative Science Quarterly*, 27(4), 515. <https://doi.org/10.2307/2392528>

MILLER, D. (1996). CONFIGURATIONS REVISITED. *Strategic Management Journal*, 17(7), 505–512. [https://doi.org/10.1002/\(Sici\)1097-0266\(199607\)17:7<505::Aid-Smj852>3.3.Co;2-9](https://doi.org/10.1002/(Sici)1097-0266(199607)17:7<505::Aid-Smj852>3.3.Co;2-9)

Mostafiz, M. I., Ahmed, F. U., Ahammad, M. F., & Rahman, P. N. A. (2025). Entrepreneurial cognition and artificial intelligence adoption—Contingency role of innovation ecosystem resource mobilization and entrepreneurial bricolage. *R&D Management*, 55(5). <https://doi.org/10.1111/radm.12781>

Mueller, P. (2007). Exploiting Entrepreneurial Opportunities: The Impact of Entrepreneurship on Growth. *Small Business Economics*, 28(4), 355–362.

<https://doi.org/10.1007/S11187-006-9035-9>

National Bureau of Statistics & Ministry of Industry and Information Technology. (2024). *China High-Tech Industry Development Report 2024*. Beijing: State Publishing House.

Niu, F., Zhang, Y. L., & Yang, J. (2011). Entrepreneurial team heterogeneity and new venture performance: The moderating role of leaders' optimistic psychology.

Management Review, 23(11), 110–119. <https://doi.org/10.14120/j.cnki.cn11-5057/f.2011.11.019>

NIU, S. S., & XU, Z. H. (2025). The triple dimensions of collectivism promoting the development of new quality productive forces. *Journal of North China Electric Power University (Social Sciences Edition)*, (4), 1–10. <https://doi.org/10.14092/j.cnki.cn11-3956/c.2025.04.001>

Nordbäck, E., & Espinosa, A. (2015). Cognitive and behavioral leadership coordination: Linking shared leadership to high performance in global teams. *IEEE*. <https://doi.org/10.1109/HICSS.2015.56>

Ogollah, K., Awino, Z., & Ogutu, M. (2022). Strategy structure environment linkage and corporate performance: A conceptual overview.

Oluwafemi, T. B., Ogundana, O. M., Dana, L.-P., & Hasnaoui, J. (2025). Antecedents of ambidextrous leadership in entrepreneurship: The role of emotional intelligence and entrepreneurial leadership styles. *Strategic Change*, 34(6).

<https://doi.org/10.1002/jsc.70001>

Ortiz-De-Mandojana, N., & Bansal, P. (2015). The Long-Term Benefits of Organizational Resilience Through Sustainable Business Practices. *Strategic Management Journal*, 37(8), 1615–1631. Portico. <https://doi.org/10.1002/Smj.2410>

Ouyang, Y. (2025). Entrepreneurial environment and small and medium enterprises in China. In *Globalization and entrepreneurship* (pp. 81–106). Routledge.

<https://doi.org/10.4324/9781003602378-9>

PAN, Y. P. (2025). Collectivism: The value orientation of Chinese-style modernization. *Journal of South-Central Minzu University (Humanities and Social Sciences Edition)*, 1-10. <https://doi.org/10.19898/j.cnki.42-1704/C.20251203.04>

Pavlou, P. A., & El Sawy, O. A. (2011). Understanding the Elusive Black Box of Dynamic Capabilities. *Decision Sciences*, 42(1), 239–273. Portico.

<https://doi.org/10.1111/J.1540-5915.2010.00287.X>

Peng, J., Li, M. Z*, Wang, Z., & Lin, Y. Y. (2021). Transformational leadership and employees' reactions to organizational change: Evidence from a meta-analysis. *Journal of Applied Behavioral Science*, 57(3), 369–397.

Pengjian-Ping. (2011). Impacts of employee social network characteristics on knowledge sharing and performance——A case study on an enterprise in Pearl River Delta. *R & D Management*, 23(4).

Penrose, J. (2017). The Theory of the Growth of the Firm. In *Oxford Scholarship Online*. Oxford University Press.

<https://doi.org/10.1093/Oso/9780198753940.003.0011>

Podsakoff, P. M., MacKenzie, S. B., Lee, J.-Y., & Podsakoff, N. P. (2003). Common Method Biases in Behavioral Research: A Critical Review of the Literature and Recommended Remedies. *Journal Of Applied Psychology*, 88(5), 879–903.

<https://doi.org/10.1037/0021-9010.88.5.879>

Puhakka, V. (2007). Effects of Opportunity Discovery Strategies of Entrepreneurs on Performance of New Ventures. *The Journal of Entrepreneurship*, 16(1), 19–51.

<https://doi.org/10.1177/097135570601600102>

- Putra, A. P., Tricahyono, D., & Awaluddin, M. (2025). The influence of industrial regulations, strategic alliances, and market competition on perceived of firm performance (Case study of a private construction sector companies in Balikpapan). *International Journal of Current Science Research and Review*, 08(01). <https://doi.org/10.47191/Ijcsrr/V8-I1-23>
- Rauch, A., Wiklund, J., Lumpkin, G. T., & Frese, M. (2009). Entrepreneurial Orientation and Business Performance: An Assessment of Past Research and Suggestions for the Future. *Entrepreneurship Theory and Practice*, 33(3), 761–787. <https://doi.org/10.1111/J.1540-6520.2009.00308.X>
- Renko, M., El Tarabishy, A., Carsrud, A. L., & Brännback, M. (2015). Understanding and Measuring Entrepreneurial Leadership Style. *Journal of Small Business Management*, 53(1), 54–74. <https://doi.org/10.1111/Jsbm.12086>
- Richard, P. J., Devinney, T. M., Yip, G. S., & Johnson, G. (2009). Measuring Organizational Performance: Towards Methodological Best Practice. *Journal of Management*, 35(3), 718–804. <https://doi.org/10.1177/0149206308330560>
- Robson, C., & McCartan, K. (2016). *Real world research* (4th ed.). John Wiley & Sons.
- S.E.Galaitsi, Elizaveta Pinigina, Jeffrey M. Keisler, Gianluca Pescaroli, Jesse M. Keenan & Igor Linkov. (2023). Business Continuity Management, Operational Resilience, and Organizational Resilience: Commonalities, Distinctions, and Synthesis. *International Journal of Disaster Risk Science*, 14 (05), 713-721.
- Sandberg, W. R., & Hofer, C. W. (1987). Improving New Venture Performance: The Role of Strategy, Industry Structure, and the Entrepreneur. *Journal of Business Venturing*, 2(1), 5–28. [https://doi.org/10.1016/0883-9026\(87\)90016-4](https://doi.org/10.1016/0883-9026(87)90016-4)
- Saunders, M., Lewis, P., & Thornhill, A. (2009). *Research Methods for Business Students*. Pearson Education.
- Sayyam, A., Shah, S. M. A., Adil, M., & Rashid, M. H. U. (2021). Entrepreneurial Leadership and Creativity in Projects. *International Journal of Customer Relationship Marketing and Management*, 13(1), 1–14. <https://doi.org/10.4018/Ijcrmm.2022010104>
- Shan, Y., Xu, H., Zhou, L. X., & Zhou, Q. (2021). Digital-Intelligent Empowerment: How does organizational resilience form in crisis situations? An exploratory case study of Linqingxuan turning crisis into opportunity. *Management World*, 37(3), 84-104+7. <https://doi.org/10.19744/j.cnki.11-1235/f.2021.0037>

- Shook, C. L., Priem, R. L., & Mcgee, J. E. (2003). Venture Creation and the Enterprising Individual: A Review and Synthesis. *Journal of Management*, 29(3), 379–399. https://doi.org/10.1016/S0149-2063_03_00016-3
- Sirmon, D. G., Hitt, M. A., Ireland, R. D., & Gilbert, B. A. (2011). Resource Orchestration to Create Competitive Advantage. *Journal of Management*, 37(5), 1390–1412. <https://doi.org/10.1177/0149206310385695>
- Somasundaram, P., & Pillai, K. A. (2024). Predictive intelligence: The impact of risk modeling on organizational resilience. *International Journal of Innovative Technology and Exploring Engineering*, 13(3), 1–3. <https://doi.org/10.35940/ijitee.C9802.13030224>
- Stam, W., & Elfring, T. (2008). Entrepreneurial Orientation and New Venture Performance: The Moderating Role of Intra- and Extra-industry Social Capital. *The Academy of Management Journal*, 51(1), 97–111. <http://www.jstor.org/stable/20159496>
- State Council of the People's Republic of China. (2021). Several Opinions on Promoting the High-Quality Development of High-Tech New Ventures. *Gazette of the State Council of The People's Republic of China*, (15), 8–22.
- Stephan, U., Zbierowski, P., Pérez-Luño, A., Wach, D., Wiklund, J., Alba Cabañas, M., ... & Zahid, M. M. (2023). Act or wait-and-see? Adversity, agility, and entrepreneur well-being across countries during the COVID-19 pandemic. *Entrepreneurship Theory and Practice*, 47(3), 682–723.
- Stinchcombe, A. (1965). Organization-Creating Organizations. *Trans-Action*, 2(2), 34–35. <https://doi.org/10.1007/Bf03180801>
- Sun, C. Q. (2024). A study on Robert Young's critical thought on Western centrism (Doctoral dissertation). Inner Mongolia University. <https://doi.org/10.27224/d.cnki.gnmdu.2024.000007>
- Sundararajan, M., Sundararajan, B., & Henderson, S. (2012). Role of meditative foundation entrepreneurial leadership and new venture success. *Journal of Spirituality Leadership and Management*, 6(1), 59–70. <https://doi.org/10.15183/slm2012.06.1116>
- Surie, G., & Ashley, A. (2007). Integrating Pragmatism and Ethics in Entrepreneurial Leadership for Sustainable Value Creation. *Journal of Business Ethics*, 81(1), 235–246. <https://doi.org/10.1007/S10551-007-9491-4>
- Syed, R. T., Singh, D., Ahmad, N., & Butt, I. (2024). Age and entrepreneurship: Mapping the scientific coverage and future research directions. *International Entrepreneurship and Management Journal*, 20(2), 1451–1486.

<https://doi.org/10.1007/S11365-024-00964-8>

Syuntyurenko, O. V. (2015). The digital environment. Scientific and Technical Information Processing.

Tao, F. L. (2025). An analysis of the collectivist value core of the modern form of Chinese civilization. *Journal of Shenyang Normal University (Social Science Edition)*, 49(06), 53-59. <https://doi.org/10.19496/j.cnki.sxxb.2025.06.012>.

Tasic, J., Amir, S., Tan, J., & Khader, M. (2020). A multilevel framework to enhance organizational resilience. *Journal of Risk Research*, 23(5/6), 647–648.
<https://doi.org/10.1080/13669877.2019.1617340>

Teece, D. J. (2023). The Evolution of the Dynamic Capabilities Framework. *Artificiality And Sustainability in Entrepreneurship*, 113–129.
https://doi.org/10.1007/978-3-031-11371-0_6

Teece, D. J., Pisano, G., & Shuen, A. (1997). Dynamic Capabilities and Strategic Management. *Strategic Management Journal*, 18(7), 509–533.
[https://doi.org/10.1002/\(Sici\)1097-0266\(199708\)18:7<509::Aid-Smj882>3.0.Co;2-Z](https://doi.org/10.1002/(Sici)1097-0266(199708)18:7<509::Aid-Smj882>3.0.Co;2-Z)

Vogus, T. J., & Sutcliffe, K. M. (2007). Organizational Resilience: Towards A Theory and Research Agenda. 2007 IEEE International Conference on Systems, Man and Cybernetics, 3418–3422. <https://doi.org/10.1109/Icsmc.2007.4414160>.

WANG, Y. G., & GAO, J. (2020). The impact of the COVID-19 pandemic, economic resilience, and high-quality development of China. *Economic Management Journal*, 42(5), 5-17. <https://doi.org/10.19616/j.cnki.bmj.2020.05.001>

Wang, Y., & Cai, J. (2019). The development and reliability-validity verification of the organizational resilience scale. *Statistics & Decision*, 35(5), 178-181.
<https://doi.org/10.13546/j.cnki.tjyj.2019.05.040>

Watson, T. J. (2013). Entrepreneurial action and the Euro-American social science tradition: Pragmatism, realism and looking beyond the entrepreneur. *Entrepreneurship & Regional Development*, 25(1–2), 16–33.
<https://doi.org/10.1080/08985626.2012.754267>

WEI, C. G. (2018). Guard against Western centrism in theoretical research. *Red Flag Manuscript*, (17), 39.

Wei, F., Mo, Y., Zhang, Y., & Yang, Y. (2025). How entrepreneurial team informational and social category faultlines affect new venture performance: A

conservation of resources perspective. *Asia Pacific Journal of Management*, 42(3), 1345–1372. <https://doi.org/10.1007/S10490-024-09952-6>

Wei, Y., Fu, H., Xu, M., & Xiao, X. H. (2024). Behavioral strategies for re-entrepreneurship after failure: A literature review and future research prospects. *Foreign Economics & Management*, 46(04), 70-83. <https://doi.org/10.16538/j.cnki.fem.20230526.401>

Wu, C. B., Cao, Y. F., & Zhou, C. H. (2009). The evolution of leadership style in the process of enterprise development: A case study. *Management World*, (2), 123-137. <https://doi.org/10.19744/j.cnki.11-1235/f.2009.02.014>

Wu, W. W., & Zhang, T. Y. (2021). The asymmetric impact of non-R&D subsidies and R&D subsidies on the innovation output of new ventures. *Management World*, 37(3), 137-160+10. <https://doi.org/10.19744/j.cnki.11-1235/f.2021.0040>

Xiao, X., Tian, Q., & Mao, H. (2020). How the interaction of big data analytics capabilities and digital platform capabilities affects service innovation: A dynamic capabilities view. *Quality Control, Transactions*, 8, 18778–18796.

Xie, H., Jiang, X., Gu, J., & Faghih, N. (2025). New venture team persistence: A dynamic model of how resilient teams transform collective adaptive responses under adversity. *Journal of Global Entrepreneurship Research*, 15(1), 1–17. <https://doi.org/10.1007/S40497-025-00431-W>

Xu, B. H., Jiang, Q. P., Liu, Y. Y., & Duan, L. T. (2024). Research on the formation mechanism of organizational resilience in digital transformation enterprises: Based on resource orchestration theory and configuration theory. *Modernization of Management*, 44(1), 73–84. <https://doi.org/10.19634/j.cnki.11-1403/c.2024.01.008>

Xu, Z. D., Liu, P. P., & Yang, X. L. (2024). The impact mechanism of entrepreneurial learning on new venture innovation performance from the perspective of knowledge acquisition: The moderating role of environmental dynamism. *Science & Technology Progress and Policy*, 41(06), 118-128.

Yang, J., & Tian, L. (2015). Institutional environment, resource bricolage, and new venture performance: An empirical study in China's transitional economy. *Management World*, (11), 96–107.

Yang, J., & Wang, C. M. (2013). Female entrepreneurial leadership: Multidimensional structure and multilevel impact effects. *Management World*, (9), 102-115+117+187-188. <https://doi.org/10.19744/j.cnki.11-1235/f.2013.09.010>

Yang, J., & Zhang, Y. L. (2004). An analysis of the entrepreneurial behavior process

based on entrepreneurs' resource endowment. *Foreign Economics & Management*, (2), 2-6. <https://doi.org/10.16538/j.cnki.fem.2004.02.001>

Yang, Y. Y. (2016). A literature review on entrepreneurial leadership and new venture performance. *West Leather*, 38(18), 148. <https://doi.org/10.20143/j.1671-1602.2016.18.104>

Yasir, M., Majid, A., & Yasir, M. (2017). Entrepreneurial knowledge and start-up behavior in a turbulent environment. *Journal of Management Development*, 36(9), 1142–1158. <https://doi.org/10.1108/jmd-10-2016-0193>

Yi, L. F., Lin, Q., & Cao, Y. Q. (2022). How does entrepreneurial leadership promote employees' knowledge sharing? A study based on the mediating role of challenge-hindrance stress. *Journal of Xiamen University (Philosophy and Social Sciences Edition)*, 72(3), 59-70.

Ying, T. (2009). Empirical study of entrepreneurial environment for small and medium-sized enterprises in China. *Journal of Zhongnan University of Economics and Law*, (6), 92–98.

Zahra, S. A., & Covin, J. G. (1995). Contextual Influences on the Corporate Entrepreneurship-Performance Relationship: A Longitudinal Analysis. *Journal of Business Venturing*, 10(1), 43–58. [https://doi.org/10.1016/0883-9026\(94\)00004-E](https://doi.org/10.1016/0883-9026(94)00004-E).

Zahra, S. A., & Garvis, D. M. (2000). International corporate entrepreneurship and firm performance - The moderating effect of international environmental hostility. *Journal of Business Venturing*, 15(5). [https://doi.org/10.1016/S0883-9026\(99\)00036-1](https://doi.org/10.1016/S0883-9026(99)00036-1)

Zhang, L. X., Wang, L. L., Zhang, Q., & Jia, M. M. (2020). Concept definition and scale development of organizational resilience. *Journal of Northeastern University (Natural Science)*, 41(10), 1491-1499.

Zhang, Q. (2022). How does institutional improvement affect serial entrepreneurship? (Doctoral dissertation). Shanghai University of Finance and Economics. <https://doi.org/10.27296/d.cnki.gshcu.2022.001312>

Zhang, Q., & Hua, Z. B. (2020). Resource orchestration theory and its research progress: A review. *Economic Management Journal*, 42(9), 193–208. <https://doi.org/10.19616/j.cnki.bmj.2020.09.012>

ZHANG, W., SHANG, J. X., & WANG, S. H. (2025). Configuration path analysis of patient capital empowering breakthrough green innovation in high-tech enterprises: Based on the resource orchestration theory. *Commercial Research*, 1-10. <https://doi.org/10.13902/j.cnki.syyj.20251023.002>

Zhang, X. E., & Teng, X. Y. (2021). The connotation, dimensions, and measurement of organizational resilience. *Science & Technology Progress and Policy*, 38(10), 9-17.

Zhang, X. E., & Yang, L. (2024). The impact of organizational resilience on the growth of small and medium-sized enterprises: The chain mediating role of ambidextrous learning and organizational routine renewal. *Wuhan University Journal (Philosophy and Social Sciences Edition)*, 77(5), 111-122.
<https://doi.org/10.14086/j.cnki.wujss.2024.05.010>

Zhang, X., Le, Y., Meng, Q., & Teng, X. (2022). Green Entrepreneurial Orientation and Financial Performance in Chinese Firms: The Role of Stakeholder Engagement and Green Absorptive Capacity. *Corporate Social Responsibility and Environmental Management*, 30(3), 1082–1095. Portico.
<https://doi.org/10.1002/Csr.2405>

Zhang, Y. H., Yang, L. P., & Huang, G. B. (2012). A review and enlightenment of research on entrepreneurial environment evaluation system. *Industrial Economic Review*, 3(01), 80-87. <https://doi.org/10.14007/j.cnki.cjpl.2012.01.013>

Zhang, Y. L., Yang, J., & Ren, B. (2008). Social capital, prior experience, and entrepreneurial opportunities: An interactive effect model and its implications. *Management World*, (7), 91-102. <https://doi.org/10.19744/j.cnki.11-1235/f.2008.07.011>

Zhao, S. J., Yi, L. F., & Lian, Y. L. (2021). Entrepreneurial leadership, organizational resilience, and new venture performance. *Foreign Economics & Management*, 43(3), 42-56. <https://doi.org/10.16538/j.cnki.fem.20201229.101>

Zhao, X. P., Chu, P. Y., & Chen, C. Y. (2010). Perceived managerial discretion and firm performance: The moderating role of market competition. *Social Behavior & Personality*, 38(2), 145–157. <https://doi.org/10.2224/Sbp.2010.38.2.145>

Zhao, Y. (2023). On the Chinese form of modernity (Doctoral dissertation). Party School of the Central Committee of the Communist Party of China (National Academy of Governance). <https://doi.org/10.27479/d.cnki.gzgcd.2023.000039>

Zheng, F., Sun, H., Ren, R., & Chang, W. (2024). Impact of the digital entrepreneurial ecosystem on startup performance: An empirical study from China. *International Review of Economics and Finance*, 96. <https://doi.org/10.1016/j.iref.2024.103611>

ZHENG, J. H. (2022). The historical dimension of the innovation of government theory discourse with Chinese characteristics: Also, on the criticism of Western centrism. *Administrative Tribune*, 29(2), 47-53. <https://doi.org/10.16637/j.cnki.23-1360/d.2022.02.008>

ZHU, X. M., & LI, M. F. (2011). The dynamic impact of entrepreneurial network characteristics on resource acquisition: Evidence from China's transitional economy. *Management World*, (6), 105-115+188. <https://doi.org/10.19744/j.cnki.11-1235/f.2011.06.009>

Appendix 1 - Leadership-Resilience Diagnostic Checklist

1. Basic Information Section

Assessment Item	Details
Assessment Object	☐ Founder ☐ Core Business Responsible Person ☐ Entire Startup Team
Startup Information	Industry: Establishment Time: Current Stage: ☐ Early Startup Stage ☐ Seed Stage ☐ Growth Stage
Assessment Scenario	☐ Daily Operation Review ☐ Market Risk Early Warning ☐ Post-Crisis Recovery Assessment ☐ Pre-Strategic Adjustment Diagnosis
Assessment Time	XX, 2025 Assessor: (Self-Assessment) / (Peer Assessment)

2. Core Integrated Diagnostic Scale

(1-5 Points: 1=Completely Inconsistent, 5=Completely Consistent)

Note: Based on the characteristics of startups, the entrepreneurial leadership dimension is defined as “opportunity identification and driving, resource leveraging and integration, risk decision-making and accountability, team cohesion and empowerment”, forming an integrated diagnostic dimension with the three dimensions of organizational resilience. Behavioural indicators focus on “observable and verifiable” specific actions.

Integrated Diagnostic Dimension	Specific Behavioral Indicators	Score	Self-Assessment	Peer Assessment
1. Situational Sensitivity and Opportunity Capture Capability (Entrepreneurial Leadership: Opportunity Identification and Organizational Resilience: Situational Awareness)	1.1 Conduct at least 2 specialized scans of industry policies, competitor dynamics, or user needs monthly, and generate brief analysis reports			
	1.2 Identify potential risks or opportunities from vague market signals (e.g., abnormal user feedback, supply chain fluctuations) and put forward preliminary judgments within 1 week			
	1.3 Regularly organize team discussions on “potential threats and opportunities” and establish a risk signal registration and tracking mechanism			
2. Resource Integration and Adaptive	2.1 When market demand changes, adjust core business directions or			

Adjustment Capability (Entrepreneurial Leadership: Resource Leveraging and Organizational Resilience: Adaptive Capacity)	product iteration priorities within 1 month to avoid resource waste			
	2.2 In the face of resource constraints (e.g., fund shortage, talent gap), quickly link external resources (investors, partners) to form solutions			
	2.3 Establish a “small-step trial-and-error” mechanism, allowing the team to try new strategies within controllable costs and adjust directions in a timely manner based on results			
3. Risk Accountability and Recovery-Regeneration Capability (Entrepreneurial Leadership: Risk Decision-Making and Organizational Resilience: Recovery Capacity)	3.1 Within 24 hours after encountering a crisis (e.g., loss of core customers, sudden policy changes), take the lead in establishing an emergency team and clarify division of responsibilities			
	3.2 Complete loss assessment and root cause review within 1 week after the crisis, and formulate an action plan including “short-term loss control, medium-term recovery, and long-term optimization”			
	3.3 Stabilize team morale, convey confidence during crises, reduce the loss of core members, and quickly restore team combat effectiveness			
4. Team Empowerment and Resilience Transmission Capability (Entrepreneurial Leadership: Team Cohesion and Organizational Resilience: Three- Dimension Integration)	4.1 Clarify the power and responsibility boundaries of team members, allowing core members to independently respond to emergencies within authorized scope			
	4.2 Regularly organize “resilience capability training” for the team (e.g., risk response drills, stress management) to enhance overall resilience awareness			
	4.3 Establish a “review culture” and transform successful experiences or failure lessons into reusable processes or guidelines for the team			

3. Comprehensive Assessment and Grading Standards

3.1 Score Calculation Method

Based on the risk response priority characteristic of startups and the requirement for rapid response in the Dynamic Capability Theory, dimension weights are set as follows:

Integrated Diagnostic Dimension	Weight	Dimension Average Score (Self- Assessment)	Dimension Average Score (Peer Assessment)
Situational Sensitivity and Opportunity Capture Capability	30%		
Resource Integration and Adaptive Adjustment Capability	25%		
Risk Accountability and Recovery- Regeneration Capability	30%		
Team Empowerment and Resilience Transmission Capability	15%		
Comprehensive Score			

3.2 Grade Classification and Feature Description

Comprehensive Score	Grade	Core Features (Corresponding to Startup Performance Potential)
4.0-5.0 Points	High Resilience Leadership Type	Accurately captures market signals, quickly integrates resources to respond to changes, and has strong post-crisis recovery capabilities; high team cohesion, with outstanding performance stability and growth potential
2.5-3.9 Points	Medium Resilience Adaptation Type	Possesses basic situational awareness and adaptive capabilities, but slow response speed in the face of complex risks and insufficient resource integration efficiency; performance grows but fluctuates greatly, requiring targeted improvement of weak links
1.0-2.4 Points	Low Resilience Risk Type	Insensitive to market changes, lacks effective response strategies during crises, and weak team cohesion; performance continues to decline or stagnate, with survival risks, requiring comprehensive optimization

Appendix 2 - Questionnaire

Dear Executives and Founders,

Greetings! Thank you very much for taking valuable time out of your busy schedules to participate in this questionnaire.

One of the major objectives that the study seeks to explore is to identify how the processes involved in entrepreneurial leadership styles result in the impact on the performance of start-up companies. The data will be utilized only for research purposes.

Please note that the questionnaire will be administered on an anonymous basis. The information that you supply to us will be processed strictly in accordance with the principles of academic confidentiality and will be handled exclusively by us and will not be revealed to any other party.

There are no right and wrong, inferior and superior answers to any questions. We respectfully ask that you answer the questions truthfully in relation to your enterprise's true activities and answer all questions without leaving any blank, that is essential to the scientific validity of the research results.

As the core managers of your businesses, your experiences and responses are essential to the successful completion of this research study. We again take this opportunity to sincerely thank you and wish you good health and successful careers.

Part 1: Basic Information

Below are survey questions about the essential data about yourself and your enterprise. Kindly tick the appropriate box(es), depending on your current circumstances, and complete the sections with underline marks as needed.

1. Your Gender:

A. Male

B. Female

2. Your Age: ____ years old

3. Your Education:

A. Below College Diploma

B. Bachelor's Degree

C. Master's Degree

D. Doctoral Degree

4. Your Working Tenure in This Enterprise: ____ years

5. Your Position in the Enterprise:

A. Founder

B. General Manager

C. Core Team Leader

6. Years Since the Enterprise Was Founded:

A. Within 1 Year

B. 1-3 Years

C. 3-5 Years

D. 5-7 Years

F. 7-10 Years

7. Industry of Your Enterprise:

A. Electronic Information

B. Biomedical

C. High-end Equipment Manufacturing

D. New Energy

E. Aerospace

F. New Materials

8. Scale of Your Enterprise (employees):

A. ≤ 10

B. 11-30

C. 31-50

D. 51-70

E. 71-100

9. Region of Your Enterprise:

A. Beijing-Tianjin-Hebei

B. Yangtze River Delta

C. Pearl River Delta

D. Chengdu-Chongqing / Central Region

Part 2: Formal Questionnaire

Please assess the qualities and behavior of the senior management leaders in your company. Choose the extent to which each set of traits applies to him/her, according to your initial reactions and true feelings.

(1 = Completely Not Aligned; 2 = Slightly Aligned; 3 = Basically Aligned; 4 = Mostly Aligned; 5 = Completely Aligned)

No.	Items	1	2	3	4	5
1	The management within the company tends to set high performance standards	☐	☐	☐	☐	☐
2	The company's management pursues continuous performance improvement	☐	☐	☐	☐	☐
3	The company's management sets organizational goals with an extensive understanding of market information	☐	☐	☐	☐	☐
4	The management tends to set high performance expectations for organizational development	☐	☐	☐	☐	☐
5	The company's management encourages employees to think independently and bravely question things that remain unchanged	☐	☐	☐	☐	☐
6	The company's management is able to predict what may happen in the future	☐	☐	☐	☐	☐
7	The company's management actively takes on risks, thereby reducing employees' concerns about work uncertainty	☐	☐	☐	☐	☐
8	During the process of organizational change, the management is effective in reducing the uncertainty among employees	☐	☐	☐	☐	☐
9	The company's management affects employees' self-confidence since they demonstrate confidence to them	☐	☐	☐	☐	☐
10	The company's leadership provides the followers with courage, confidence, and hope through comfort and advice	☐	☐	☐	☐	☐
11	The company's management sets organizational task goals based on employees capabilities	☐	☐	☐	☐	☐
12	The company's management is able to negotiate and conduct transactions with others under favorable conditions	☐	☐	☐	☐	☐
13	Leadership within the company can remove workplace challenges that employees encounter at work through effective negotiation	☐	☐	☐	☐	☐
14	Leaders are proficient in bringing people and matters together in an integrated	☐	☐	☐	☐	☐

	manner					
15	The management of the company can build a clear vision and a beautiful ambition for the future of the company	☐	☐	☐	☐	☐
16	The firm's management is good at interpersonal relationships	☐	☐	☐	☐	☐
17	The company's management is good at persuading others to accept his/her opinions	☐	☐	☐	☐	☐
18	The management in the company can demonstrate and convey strong positive feelings in the workplace	☐	☐	☐	☐	☐
19	The company's leadership can inspire employees' emotions, beliefs, values, and behaviors	☐	☐	☐	☐	☐
20	The management encourages employees to cooperate with each other	☐	☐	☐	☐	☐
21	The company's management may obtain the employees' acceptance of organizational change	☐	☐	☐	☐	☐
22	The company's management encourages employees to participate in activities that aim to achieve organizational development goals	☐	☐	☐	☐	☐
23	The company's management demonstrates optimism and trust in employees' capacity to attain task objectives	☐	☐	☐	☐	☐
24	The company's management is able to make decisions strongly and quickly	☐	☐	☐	☐	☐
25	The company's management defines the company's operations to indicate what the employees can and cannot do	☐	☐	☐	☐	☐
26	The management is aware of the boundaries within organizational capabilities to prevent unnecessary resource consumption	☐	☐	☐	☐	☐

2. Please evaluate the actual situation of your enterprise's environmental dynamism.

(1 = Completely Not Aligned; 2 = Slightly Aligned; 3 = Basically Aligned; 4 = Mostly Aligned; 5 = Completely Aligned)

No.	Items	1	2	3	4	5
1	The market environment in which the company operates keeps fluctuating greatly	☐	☐	☐	☐	☐
2	Customers' preferences with regard to the company's products and services keep fluctuating	☐	☐	☐	☐	☐
3	The fluctuation range of product demand in the industry is relatively large	☐	☐	☐	☐	☐

4	Technology is continually evolving, and the firm must change its operations to keep abreast with the latest technology trends	☐	☐	☐	☐	☐
5	New competitors emerge continuously, bringing a brand-new market competition situation	☐	☐	☐	☐	☐

3. Please evaluate the actual situation of your enterprise's environmental competitiveness.

(1 = Completely Not Aligned; 2 = Slightly Aligned; 3 = Basically Aligned; 4 = Mostly Aligned; 5 = Completely Aligned)

No.	Items	1	2	3	4	5
1	The market in which the company is operating is highly competitive	☐	☐	☐	☐	☐
2	There are many rivals competing for market share	☐	☐	☐	☐	☐
3	There are various competitive areas within the market, and the company has to address the competitiveness within different areas	☐	☐	☐	☐	☐
4	Price wars are constantly waged by rivals, shrinking the firm's profit margin	☐	☐	☐	☐	☐

4. Please evaluate the actual situation of the adaptability of your enterprise's organizational resilience.

(1 = Completely Not Aligned; 2 = Slightly Aligned; 3 = Basically Aligned; 4 = Mostly Aligned; 5 = Completely Aligned)

No.	Items	1	2	3	4	5
1	The company can flexibly take corresponding measures when encountering unexpected events	☐	☐	☐	☐	☐
2	The company can quickly modify its operational strategies in the face of current changes in the market environment	☐	☐	☐	☐	☐
3	The company is able to adjust to new technology trends that emerge in the sector by incorporating the technologies within its operations	☐	☐	☐	☐	☐

5. Please evaluate the actual situation of the recovery capability of your enterprise's organizational resilience.

(1 = Completely Not Aligned; 2 = Slightly Aligned; 3 = Basically Aligned; 4 = Mostly Aligned; 5 = Completely Aligned)

No.	Items	1	2	3	4	5
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1	The company can quickly resume normal operations after experiencing a crisis	☐	☐	☐	☐	☐
2	The company can regain its original share in the market in a short time after experiencing the impact of external shocks that led to the decline in its performances	☐	☐	☐	☐	☐
3	If the production facilities are damaged due to force majeure, the firm can efficiently remedy these damages to restore production capacity	☐	☐	☐	☐	☐

6. Please evaluate the actual situation of the situational awareness of your enterprise's organizational resilience.

(1 = Completely Not Aligned; 2 = Slightly Aligned; 3 = Basically Aligned; 4 = Mostly Aligned; 5 = Completely Aligned)

No.	Items	1	2	3	4	5
1	The company can timely identify potential risk and opportunity factors within the market environment	☐	☐	☐	☐	☐
2	Regarding adjustments to industry policies and regulations, the company can perceive them in advance and make response preparations	☐	☐	☐	☐	☐
3	The company is always concerned about the status of internal operations and discovers potential problems that might impede effectiveness	☐	☐	☐	☐	☐

7. Please evaluate your enterprise's financial performance compared with that of competitors.

(1 = Completely Not Aligned; 2 = Slightly Aligned; 3 = Basically Aligned; 4 = Mostly Aligned; 5 = Completely Aligned)

No.	Items	1	2	3	4	5
1	The sales of our company's main business have realized substantial growth during the previous year	☐	☐	☐	☐	☐
2	The company's cash flow has displayed a steadily increasing trend during the current period	☐	☐	☐	☐	☐
3	Compared with the previous year, the company's profit growth rate this year is considerable	☐	☐	☐	☐	☐
4	Our company's overall profit margin is higher than the industry average	☐	☐	☐	☐	☐
5	The company's return on assets is at a relatively high level among new ventures in the same industry	☐	☐	☐	☐	☐

8. Please evaluate your enterprise's market performance compared with that of competitors.

(1 = Completely Not Aligned; 2 = Slightly Aligned; 3 = Basically Aligned; 4 = Mostly Aligned; 5 = Completely Aligned)

No.	Items	1	2	3	4	5
1	Within the whole sector, our company can attract new customers comparatively well	☐	☐	☐	☐	☐
2	The market share of the company's products or services has steadily increased over the past period	☐	☐	☐	☐	☐
3	The repeat purchase rate among existing customers with regard to our company's product/service offering tends to be relatively high	☐	☐	☐	☐	☐
4	The customers' satisfaction with the firm's product/service offerings keeps improving	☐	☐	☐	☐	☐
5	The brand awareness among consumers within the target market is increasing day by day	☐	☐	☐	☐	☐
6	The company is making smooth progress in expanding into new market segments	☐	☐	☐	☐	☐

Appendix 3 - Consent Form

Electronic Consent Form

Research Project Title:

Study on the “Leadership-Resilience-Performance” Transmission Mechanism of High-Tech New Ventures from the Perspective of Multi-Theoretical Integration: Boundary Effects of Environmental Characteristics and Empirical Verification in the Context of China’s Transitional Economy

Please tick box	
I confirm that I have read and understood the information sheet explaining the research project and I have had the opportunity to ask questions about the project.	
I understand that my participation is voluntary and that I am free to withdraw at any time during the study without giving a reason, and without any penalty.	
I understand that if I withdraw no more data will be collected from me. However, any data collected up until the point that I withdraw may be kept and used in the data analysis.	
I understand that strong measures are in place to keep my responses confidential and I give permission for members of the research team to have access to my responses.	
I agree for research data collected in the study to be made available to researchers, including those working outside the EU to be used in other research studies. I understand that steps will be taken to make it difficult for anyone to identify me before any data leave the research group.	
I have been informed the personal data (names, date of birth, contact details) would only be kept for additional 3-6 months after the study is completed.	
I have been informed the research data, such as qualitative or quantitative data on which research conclusions are made, would be stored for a minimum of 10 years.	
I agree to take part in this study	

Appendix 4 - University Ethical Approval



University of Stirling
Cottrell 3B1
Stirling
FK9 4LA

02/09/2025

Dear

Ethics Application Form : Entrepreneurial leadership, business performance and organizational resilience

Ethics Reference Number: GUEP_2025_22515_18190

Thank you for your submission of the above ethics application.

The ethical approaches of this project have been approved and you can now proceed with your project.

Please note that should any of your proposal change, a further change request submission will be necessary.

If you have any further queries, please do not hesitate to contact the Panel by email to ethics@stir.ac.uk

Yours sincerely,

General University Ethics Panel

Research Ethics in Practice training is available online:

[Staff & Postgraduate Research Students](#)

[Undergraduate & Postgraduate Taught Students](#)