

STRATEGIC BUSINESS MANAGEMENT FOR STARTUPS IN VIETNAM'S
EDUCATION AND HEALTHCARE SECTORS: EXPLORING CROSS-SECTOR
SYNERGIES FOR SUSTAINABLE GROWTH

by

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Dedication

I respectfully dedicate this work to the resilient spirit and innovative thinking of Vietnam's entrepreneurial and academic communities.

Throughout my doctoral journey, as I engaged with passionate startup founders, enthusiastic students, and insightful professionals across the country, I was constantly reminded of the immense potential and creative strength that Vietnam possesses, especially in the fields of education and healthcare.

This journey was not without its challenges. I encountered logistical barriers, time constraints, and, at times, hesitation from institutions unfamiliar with academic research collaboration. Coordinating interviews across diverse regions, navigating complex administrative procedures, and building trust with stakeholders, especially during periods of economic and social uncertainty, required patience, persistence, and a deep respect for culture, people, and the developmental context of an emerging nation.

One of the most meaningful realisations I gained during this process was witnessing the rising momentum for educational reform in Vietnam, particularly in vocational and applied education. From central ministries to local education departments, from national strategic plans to grassroots pilot programs, I observed a growing consensus that vocational education must become a strategic foundation for the country's educational and economic progress.

This dissertation, in many ways, is a response to that vision. I dedicate it to the educators, reformers, and generations of learners who are redefining what learning means and what futures it can unlock. Your efforts give this research real-world relevance and enduring purpose.

Acknowledgements

This doctoral journey has been one of the most intellectually fulfilling and personally transformative experiences of my professional life. I would like to express my sincere and profound gratitude to those who have made this achievement possible.

First and foremost, I extend my heartfelt thanks to Dr. Amira (Mia) Simcox and Dr. Anna Provodnikova, whose unwavering support, academic rigour, and thoughtful guidance were invaluable throughout this research process. Your mentorship has not only shaped the quality of my dissertation but also influenced the way I perceive strategic management in complex, real-world contexts.

I am also deeply grateful to the Board of Directors, the Academic Council, and the entire leadership team of SSBM Geneva. Over the past three years, your commitment to academic excellence, innovation, and global thinking created a truly inspiring environment that empowered me to explore the intersections of strategy, entrepreneurship, education, and healthcare in the dynamic Vietnamese context.

My research, titled "Business Strategy Management for Startups in Vietnam's Education and Healthcare Sectors, Highlighting Their Interrelationship," was not merely an academic inquiry but also a personal mission to bridge global insights with local realities. The intellectual freedom and institutional support I received from SSBM Geneva allowed me to pursue this mission with confidence and clarity.

To my fellow scholars, mentors, and the broader academic community at SSBM, thank you for the insightful discussions, critical reflections, and camaraderie throughout this journey.

Finally, I dedicate this work to the future of strategic innovation in Vietnam and beyond, built upon knowledge, collaboration, and the visionary spirit fostered by institutions like SSBM Geneva.

ABSTRACT
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This research explores strategic business management tailored for startups operating within Vietnam's education and healthcare sectors, two critical pillars of the nation's socio-economic development. Despite rapid sectoral growth, startups in these industries face persistent challenges including limited financial resources, underdeveloped management capabilities, regulatory complexities, and disparities in technological access—particularly between urban and rural areas.

The primary objective of the study is to develop a personalized management system that enhances operational efficiency, adaptability, and competitiveness for startups in both sectors. The research employs a quantitative, descriptive-correlational methodology, gathering data from 221 participants comprising small and medium-sized enterprise (SME) owners and vocational students. Structured surveys and secondary data were used to identify key constraints and assess entrepreneurial readiness.

Findings reveal that over 80% of SME owners struggle with accessing capital and report inadequate management skills as major barriers to growth. Only 18% of students

feel prepared to pursue entrepreneurship, highlighting gaps in practical training and mentorship. However, the study also identifies strong enthusiasm for cross-sector collaboration and innovation, particularly in leveraging technology to bridge skills gaps and improve healthcare access through education-driven solutions.

The study concludes that integrated strategic management, rooted in sector-specific needs and supported by technology, can significantly enhance startup sustainability. Recommended solutions include targeted capacity-building programs, simplified regulatory pathways, investment in digital infrastructure, and policy support for cross-sector partnerships. By aligning education and healthcare through startup innovation, Vietnam can cultivate a robust ecosystem that drives inclusive growth and social well-being.

This research contributes a practical framework for entrepreneurs, educators, and policymakers to co-create sustainable strategies that empower startups and amplify their impact across both sectors.

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CHAPTER I: INTRODUCTION

1.1 Background and Context of the Study

Vietnam stands at a pivotal point in its socio-economic transformation, driven by robust economic growth and rapid urbanisation. By 2024, the country has been recognized as one of the fastest economies to recover post-COVID in Asia (KPMG, 2024). In this evolving environment, two sectors, education and healthcare, have emerged as critical levers for sustainable development. Not only do these fields contribute directly to human capital formation and population well-being, but they also shape the broader capabilities and competitiveness of the Vietnamese economy.

As the demand for high-quality, inclusive services grows, a new wave of startups is rising to meet unmet needs, offering innovative, tech-enabled solutions in both education and healthcare. These startups are attempting to bridge gaps left by traditional systems, particularly in terms of accessibility, quality, and adaptability. However, while their potential is undeniable, their operational landscape remains fraught with challenges, including limited access to capital, regulatory ambiguity, inadequate strategic management, and difficulty in recruiting skilled personnel (Nguyen & Taylor-Robinson, 2023; InnoLab Asia, 2021a).

Vietnam's education sector is undergoing profound changes. Government reforms, especially around Science, Technology, Engineering, and Mathematics (STEM) education and digital transformation, are fostering opportunities for EdTech startups to reshape the delivery of learning (MOET, 2020; Future Education Magazine, 2024a). At the same time, the healthcare sector is facing growing pressure to improve service delivery and expand reach—especially in rural areas—through scalable HealthTech models such as

telemedicine and AI-powered diagnostics (Nguyen & Taylor-Robinson, 2023; Lang, 2023).

Although distinct in function, education and healthcare are strategically intertwined. Education supports the development of skilled healthcare professionals, while healthcare affects learning outcomes through student wellness and cognitive development. This interrelationship is crucial yet underexplored in current literature and practice (Nguyen et al., 2022; UNICEF, 2023). Furthermore, Vietnam's startup ecosystem tends to address these sectors in isolation, despite overlapping operational challenges and shared opportunities for digital transformation and workforce development (Chevallier, 2016; Tran et al., 2020).

Startups in both sectors are hampered by a lack of managerial skills, with over 79% of surveyed entrepreneurs citing poor strategic management as a barrier to success. In parallel, vocational students, who represent the next generation of entrepreneurs, often feel underprepared to launch businesses, highlighting the urgency of better-aligned training models (UNICEF Policy Brief, 2022; VGSO, 2022).

This study is situated within that context: an entrepreneurial environment with high expectations but insufficient support. It seeks to explore the strategic business management practices of startups in Vietnam's education and healthcare sectors. Through dual-perspective research on SME owners and vocational students, it aims to provide evidence-based insights into how strategic planning, innovation, cross-sector collaboration, and human capital investment can unlock meaningful growth.

Ultimately, this research contributes to Vietnam's national vision of fostering inclusive innovation and high-impact entrepreneurship. It advocates for tailored management models that enable startups not only to survive but also to thrive, supporting

both economic competitiveness and social equity in the country's most essential service sectors.

Several strategic initiatives underpin the nation's commitment to further economic and social advancement. The "National Strategy on the Fourth Industrial Revolution to 2030" (Government of Vietnam, 2020) and the "National Digital Transformation Program until 2025, with a vision to 2030" (Prime Minister's Decision No. 749/QD-TTg, 2020) explicitly prioritize digital infrastructure development, technology adoption in key sectors, and the fostering of a robust innovation ecosystem. These policies create fertile ground for startups, particularly those leveraging digital technologies to address societal needs.

The demographic shifts and evolving consumer behaviours further amplify the demand for innovative services in education and healthcare. Vietnam's rapidly urbanising population and growing middle class are increasingly seeking high-quality, personalised, and accessible services. In education, there is a growing demand for STEM-focused curricula, digital literacy programs, and vocational training that aligns with Industry 4.0 skills. Simultaneously, the aging population and rising awareness of health issues drive the need for accessible healthcare solutions, including preventative care, mental health support, and remote medical consultations. This dynamic environment presents a dual opportunity for startups: addressing critical societal needs while tapping into expanding market segments.

However, capitalising on these opportunities is complex. The Vietnamese startup landscape, while vibrant, is characterised by specific macroeconomic and institutional nuances. The country's integration into global trade through agreements such as the Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP) and the EU-Vietnam Free Trade Agreement (EVFTA) has opened new avenues for international collaboration and investment but also intensified competition. Furthermore, the

government's efforts to streamline administrative procedures and foster a pro-business environment, as outlined in the "Digital Reform in Public Sector Business Licensing" by the Ministry of Planning and Investment (MPI, 2024), are ongoing but still present challenges due to varying implementation across provinces and sectors.

This research is particularly pertinent given Vietnam's strong alignment with the United Nations Sustainable Development Goals (SDGs). By focusing on the education and healthcare sectors, this study directly contributes to:

SDG 3: Good Health and Well-being: Supporting HealthTech startups can improve access to quality healthcare services, enhance public health outcomes, and address critical health challenges, especially in underserved areas.

SDG 4: Quality Education: Promoting EdTech startups can advance inclusive and equitable quality education, foster lifelong learning opportunities, and adapt educational systems to meet future workforce demands.

SDG 8: Decent Work and Economic Growth: Empowering startups in these sectors stimulates innovation, creates new employment opportunities, and contributes to sustainable economic growth through high-impact entrepreneurship.

The study acknowledges the existing efforts and policies but highlights the persistent need for a more integrated and adaptive approach to strategic business management within these vital sectors. By delving into the challenges faced by both current SME owners and future entrepreneurs, this research aims to provide actionable insights that align with Vietnam's national development aspirations and global sustainability goals.

1.2 Problem Statement

Despite Vietnam's promising economic growth and a vibrant startup ecosystem, enterprises in the education and healthcare sectors face formidable challenges that significantly hinder their success and sustainability. These challenges are multifaceted and

deeply embedded in structural, operational, and policy dimensions. At the core lies the issue of resource constraints—a scarcity of investment capital, limited access to funding, and a critical shortage of skilled human resources. These constraints severely restrict startups’ ability to innovate, scale, and respond to market demands (InnoLab Asia, 2021a; Kataoka et al., 2020). Compared to neighboring countries like Singapore, Indonesia, or Thailand, Vietnam’s ecosystem for early-stage ventures—particularly in education and healthcare—remains less mature. Although enthusiasm and policy initiatives are growing, practical support structures such as startup incubators, digital infrastructure, and accessible funding channels are still developing. This regional disparity creates additional pressure on Vietnamese founders to compete on uneven ground (ASEAN Startup Ecosystem Report, 2023).

Additionally, startups must operate in a highly competitive environment where established institutions often enjoy greater brand trust, financial stability, and regulatory advantages. New ventures struggle to differentiate themselves and build loyal customer bases while navigating a landscape of rapidly changing consumer expectations (Pham & Dinh, 2024; Ong & Cheow, 2024). This is especially difficult in regions where digital infrastructure is lacking—rural areas, for example, often face basic connectivity issues, making it difficult for education and healthcare startups to deliver services using online platforms. In practice, many startups, especially those operating in rural areas—face constraints in infrastructure that prevent them from deploying technology-driven solutions effectively. Poor internet connectivity, limited local technical support, and uneven digital literacy widen the gap between innovation design and user adoption.

Compounding these external factors are internal gaps in leadership and business capability. While many founders possess technical or domain expertise, they often lack exposure to strategic thinking, investor relations, and sustainable business modelling.

This challenge is magnified by the behavior and preferences of local communities. In various regions, end-users remain hesitant to adopt new models such as online education or telehealth. Traditional habits, trust in personal interaction, and resistance to unfamiliar tools act as invisible barriers that technology alone cannot overcome.

At a broader level, there is a visible disconnect between the key players in the innovation ecosystem. Government policies may promote startup growth on paper but often fail to translate into tangible support at the grassroots level. Investors, meanwhile, prioritize quick scalability, which does not always align with the patient, long-term nature of educational or healthcare innovation. Educators and frontline providers—who are central to real-world implementation—are frequently excluded from entrepreneurial dialogues. As a result, potential synergies among sectors are left unrealised, and promising ideas falter before reaching meaningful scale.

Another critical issue is the widespread deficiency in strategic and operational management skills among founders. Many entrepreneurs, though technically capable, lack competencies in areas such as financial planning, human capital development, marketing strategy, and risk management. This gap prevents startups from building sustainable business models and responding adaptively to external shocks. Notably, 79.2% of surveyed respondents attributed underperformance to weak strategic management.

On the educational side, a disconnect exists between vocational training outcomes and entrepreneurial readiness. Surveys reveal that while students express interest in launching startups, only a minority feel adequately prepared, largely due to insufficient practical exposure and outdated curricula (UNICEF, 2023; VGSO, 2022).

Despite academic discourse around entrepreneurship in Vietnam, few studies provide context-specific, cross-sectoral solutions for startups in education and healthcare. Most research focuses on macroeconomic factors or general entrepreneurship without

addressing the integrated dynamics between these two socially critical sectors. This fragmented understanding inhibits the development of effective policy interventions and tailored support programs (Nguyen & Marjoribanks, 2021; Chevallier, 2016).

Therefore, this research is driven by the urgent need to:

- Understand the root causes and impacts of startup challenges in education and healthcare.
- Explore cross-sector synergies that can be harnessed for sustainable growth.
- Propose a personalised strategic management system responsive to the constraints and aspirations of Vietnamese startups.

In addressing these gaps, this study aims to provide a holistic, evidence-based blueprint to empower Vietnamese entrepreneurs and elevate the impact of startups on national development.

The first core challenge revolves around resource constraints, primarily manifested as a severe scarcity of investment capital and limited access to diverse funding channels. Traditional banking institutions in Vietnam often impose stringent collateral requirements and conservative lending policies that are ill-suited for early-stage startups with intangible assets or unproven revenue models. Venture capital and angel investment, though growing, tend to concentrate in high-growth technology sectors, often overlooking the unique, long-term impact models prevalent in education and healthcare. This financial bottleneck severely curtails startups' ability to invest in R&D, attract top talent, or scale operations, leading to premature market exits or stunted growth. Furthermore, there is a critical shortage of skilled human resources, particularly qualified teachers, specialized healthcare professionals, and experienced digital talent, which directly impacts service quality and operational efficiency. This human capital deficit is often exacerbated by fierce competition from established institutions and insufficient incentives for talent retention within the nascent startup environment.

Compounding these resource limitations is an intensely competitive market environment. Both education and healthcare sectors in Vietnam are witnessing an influx of new players, including well-funded international ventures and large domestic corporations, alongside a myriad of small and medium-sized enterprises (Nguyen, Mai & Le, 2023; Truong, 2024). This high level of market saturation and competitive intensity, perceived by 77.3% of SME owners and 66.1% of vocational students, forces startups into a constant struggle for differentiation and customer acquisition (Journal of Psychology & Political Science, 2021). Established institutions often leverage their brand trust, extensive networks, and greater financial stability to dominate the market, making it exceedingly difficult for new ventures to build loyal customer bases and achieve sustainable market share (Keelson et al., 2024).

A significant systemic hurdle is the regulatory and administrative complexity. Vietnam's legal frameworks, particularly in highly sensitive and regulated sectors like education licensing and healthcare compliance, are frequently described as ambiguous, inconsistent, and burdened by bureaucratic delays. This is further complicated by varying interpretations and implementation practices across different provinces and administrative units, creating a fragmented landscape that is challenging for startups to navigate. Such regulatory uncertainties increase operational costs, prolong time-to-market for innovative solutions (e.g., EdTech platforms or telemedicine applications), and deter potential investors who seek predictable legal environments. The lack of clear guidelines for emerging business models, especially those leveraging advanced technologies, stifles innovation and forces startups to prioritize compliance over entrepreneurial experimentation.

Crucially, there is a widespread deficiency in strategic and operational management skills among startup founders. Despite technical prowess, many entrepreneurs lack critical

competencies in areas such as financial planning, human capital development, marketing strategy, and risk management, which are essential for building sustainable business models. A striking 79.2% of surveyed entrepreneurs attribute underperformance to weak strategic management, indicating a significant internal capability gap that hinders startups from responding adaptively to external shocks and scaling effectively (Business Failure Research, 2025).

Finally, a persistent disconnect exists between vocational training outcomes and entrepreneurial readiness. While vocational students express interest in launching startups, only a minority (18%) feel adequately prepared for entrepreneurship, largely due to insufficient practical exposure, outdated curricula, and a lack of real-world mentorship (Ho et al., 2024; Ho et al., 2024). This systemic gap means that even a motivated future workforce may not possess the operational readiness and strategic judgment necessary to translate entrepreneurial aspirations into viable, context-specific, cross-sectoral solutions for startups in education and healthcare. Most existing research addresses these sectors in isolation, failing to explore the integrated dynamics and synergistic opportunities that arise from their inherent interdependencies—this fragmented understanding severely inhibits the development of effective policy interventions, tailored support programs, and innovative business models that can leverage the complementary strengths of both sectors for sustainable growth. Therefore, this research is driven by the urgent need to:

- Understand the root causes and cascading impacts of startup challenges in Vietnam's education and healthcare sectors.
- Explore and quantify the potential for cross-sector synergies that can be harnessed for sustainable growth and enhanced societal impact.

- Propose a personalized strategic management system that is empirically grounded and contextually responsive to the specific constraints and aspirations of Vietnamese startups in these critical domains.

1.3 Purpose of Research

The overarching purpose of this research is to develop a personalized strategic management system tailored specifically for startups operating within Vietnam's education and healthcare sectors. These sectors are not only fundamental to the nation's socio-economic well-being but also represent fertile ground for entrepreneurial innovation amidst ongoing structural reforms and digital transformation. However, current business strategies employed by startups in these areas often lack the strategic depth and contextual alignment necessary to sustain operations, scale impact, and navigate the dynamic challenges of Vietnam's emerging market landscape.

This study aims to bridge the gap between theory and practice by offering data-driven insights into the real-world operational difficulties faced by entrepreneurs and aspiring business leaders. Through quantitative analysis of survey responses from 159 SME owners and 62 vocational students, the research will evaluate how startups manage critical aspects such as financial planning, human resource development, technological adoption, and regulatory compliance.

In particular, the research seeks to:

- Diagnose the specific constraints—both internal and external—that impede startup growth and effectiveness.
- Assess strategic readiness among current business operators and future entrepreneurs.
- Explore the potential for cross-sectoral synergies, especially in areas where educational programs can support healthcare capacity and vice versa.

Ultimately, this study will result in the formulation of a practical, flexible, and scalable management model that startups can adopt to enhance competitiveness, ensure operational efficiency, and build long-term resilience. The intention is not merely academic but transformational—to empower Vietnamese entrepreneurs to better respond to market needs and contribute meaningfully to the broader goals of national innovation, human development, and inclusive growth.

This purpose aligns with global best practices while maintaining a grounded focus on Vietnam's unique socio-political and economic context, thereby ensuring both academic rigour and practical applicability.

This personalized strategic management system is envisioned as a multi-component framework designed to address the specific nuances of Vietnam's education and healthcare startup ecosystems. It will integrate elements of strategic planning, financial acumen, human capital optimization, digital transformation strategies, and regulatory navigation. The "personalization" aspect stems from its adaptability to varying startup sizes, stages of development, and sector-specific demands within the Vietnamese context, moving beyond generic Western-centric models. This system aims to provide a clear roadmap for entrepreneurs to enhance their operational efficiency by optimizing resource allocation, streamline internal processes, and improve decision-making under uncertainty. Furthermore, it will bolster adaptability by equipping startups with tools to monitor market shifts, respond to regulatory changes, and pivot business models effectively. Ultimately, the system seeks to strengthen competitiveness by enabling startups to differentiate their offerings, build resilient customer relationships, and scale their impact sustainably.

Through a rigorous quantitative analysis of survey responses from 159 SME owners and 62 vocational students, this research will provide empirically driven insights into the real-world operational difficulties faced by entrepreneurs and aspiring business

leaders. The data will illuminate how startups currently manage critical aspects such as financial planning, human resource development, technological adoption, and regulatory compliance, thereby identifying specific strengths and weaknesses within the current ecosystem.

In particular, the research seeks to:

- Diagnose the specific constraints—both internal and external—that impede startup growth and effectiveness: This involves a granular examination of financial barriers (e.g., access to seed funding, venture capital, and traditional loans), human resource shortages (e.g., scarcity of skilled talent, challenges in retention), regulatory complexities (e.g., licensing procedures, compliance with data privacy laws), and market competition dynamics.
- Assess strategic readiness among current business operators and future entrepreneurs: This objective delves into the perceived capabilities of SME owners in strategic planning, digital marketing, and operational management, while simultaneously evaluating the preparedness of vocational students in terms of entrepreneurial intent, practical skills, and awareness of startup ecosystems.
- Explore the potential for cross-sectoral synergies, especially in areas where educational programs can support healthcare capacity and vice versa: This includes investigating how EdTech solutions can facilitate training for healthcare professionals in underserved areas, or how HealthTech platforms can integrate educational components for public health literacy and student well-being programs. The goal is to identify concrete opportunities for integrated service delivery and shared value creation.
- Ultimately, this study will culminate in the formulation of a practical, flexible, and scalable management model that startups can adopt to enhance competitiveness, ensure operational efficiency, and build long-term resilience within Vietnam's dynamic market landscape. The intention is not merely academic but transformational—to empower Vietnamese

entrepreneurs to better respond to evolving market needs, overcome systemic barriers, and contribute meaningfully to the broader goals of national innovation, human development, and inclusive growth. This purpose aligns with global best practices in entrepreneurship and sustainable development, while maintaining a grounded focus on Vietnam's unique socio-political and economic context, thereby ensuring both academic rigor and practical applicability.

This research is conducted at a critical juncture when Vietnam is undergoing simultaneous transformations in digital infrastructure, startup dynamics, and public service reform. The education and healthcare sectors are facing unprecedented pressures to modernize while addressing deep-rooted disparities between urban and rural communities. The post-pandemic landscape has also amplified demands for innovative, resilient, and inclusive solutions. Therefore, understanding how startups in these sectors can be strategically managed and sustainably supported is not only relevant but urgently needed.

1.4 Research Objectives and Questions

The central objective of this study is to develop a personalised and contextually relevant strategic management framework that addresses the multifaceted challenges encountered by startups in Vietnam's education and healthcare sectors. Based on the research objectives, the study seeks to answer the following key research questions:

- What are the primary strategic, financial, and operational challenges faced by startups in Vietnam's education and healthcare sectors?
- How do EdTech and HealthTech startups in Vietnam differ in terms of business models, value delivery, and growth strategies?
- In what ways do government policies, investor behaviors, and intermediary institutions influence the development and scalability of startups in these sectors?

- What cross-sector synergies can be leveraged to improve the resilience and innovation capacity of startups in education and healthcare?
- How can a strategic management framework be designed to support startup success in Vietnam's rapidly evolving digital and socio-economic landscape?

These sectors, while essential to the country's human development agenda, remain significantly underserved in terms of effective entrepreneurial strategy, scalability mechanisms, and adaptive operational models. The research seeks to uncover critical constraints—such as resource limitations, insufficient managerial capabilities, and regulatory barriers—that inhibit the growth and sustainability of startups operating within these domains. Moreover, the study aims to assess the entrepreneurial readiness of vocational students, a demographic group poised to play a crucial role in shaping Vietnam's future startup landscape. Recognizing the inherent interdependence between education and healthcare, the research also explores the potential for cross-sector collaboration and synergy, with a particular focus on how educational innovation can support healthcare development, and vice versa. The culmination of these efforts will be the design of a practical, flexible, and scalable management system that can enhance operational efficiency, strategic adaptability, and long-term competitiveness for startups across both sectors.

To achieve this, the study is guided by a principal research question: What are the most effective strategic management approaches for startups in the education and healthcare sectors in Vietnam, and how do these strategies correlate across both sectors? This question provides a foundational framework for investigating sector-specific dynamics as well as cross-sector interactions. Supporting this main inquiry are five sub-questions that delve deeper into the operational and strategic dimensions of startup management. First, the study asks how startups can effectively identify and overcome

resource constraints such as limited access to capital and skilled labor. Second, it seeks to understand what adaptive strategies are most effective in responding to changing market demands and complex regulatory environments. Third, the research explores how startups can enhance managerial capabilities and improve internal operational systems. Fourth, it assesses the entrepreneurial readiness of vocational students, with a view to identifying gaps in knowledge, training, and practical experience. Finally, the study investigates how education and healthcare startups can engage in meaningful cross-sector collaboration to generate greater business value and societal impact. Collectively, these research questions are structured to support a comprehensive, data-driven investigation that contributes both theoretically and practically to the literature on strategic entrepreneurship in emerging markets.

To achieve this overarching objective, the study is guided by a principal research question that seeks to identify and analyze the most effective strategic management approaches for startups within Vietnam's education and healthcare sectors, and to understand how these strategies interrelate and influence success across both domains. This question provides a foundational framework for investigating both sector-specific dynamics and the potential for cross-sector interactions to drive sustainable growth.

Supporting this main inquiry are five detailed sub-questions, each designed to delve deeper into critical operational and strategic dimensions of startup management within the specified context. These sub-questions are:

1. How can startups in Vietnam's education and healthcare sectors effectively identify and overcome key resource constraints, such as limited access to capital and skilled human labor?

Purpose: This question aims to diagnose the most pressing financial and human capital challenges faced by startups. It seeks to uncover not only the extent of these

limitations but also the innovative strategies entrepreneurs employ or could employ to mitigate them. Understanding these constraints is crucial for developing targeted interventions and supporting mechanisms that improve startup viability

2. What adaptive strategies are most effective for startups in these sectors to respond to changing market demands and navigate complex regulatory environments?

Purpose: This question explores the agility and resilience of startups in dynamic market conditions and their ability to comply with, or influence, intricate regulatory frameworks. It investigates successful adaptation mechanisms, such as niche market positioning, product differentiation, or strategic partnerships, that enable startups to thrive amidst competition and bureaucratic hurdles.

3. In what ways can startups in the education and healthcare sectors enhance their managerial capabilities and improve internal operational systems to foster sustainable growth?

Purpose: Addressing the identified deficiency in strategic and operational management skills, this question seeks to identify the best practices and capacity-building pathways. It examines how improvements in financial planning, human resource development, marketing strategy, and risk management can translate into enhanced operational efficiency and long-term sustainability.

4. How does the current vocational education system in Vietnam align with the entrepreneurial readiness of its students, and what gaps exist in knowledge, training, and practical experience to prepare them for launching startups?

Purpose: This question specifically targets the future pipeline of entrepreneurs, assessing the effectiveness of existing vocational training models. By identifying disconnects between academic outcomes and real-world entrepreneurial demands, it aims

to highlight areas for curriculum reform, mentorship integration, and experiential learning opportunities to bridge the "readiness gap".

5. How can education and healthcare startups engage in meaningful cross-sector collaboration to generate greater business value and societal impact in Vietnam?

Purpose: Recognizing the inherent interdependence of education and healthcare, this question explores the potential for synergistic partnerships. It investigates innovative models where EdTech and HealthTech solutions can mutually reinforce development, leading to enhanced service delivery, improved human capital formation, and broader social well-being.

6. How can education and healthcare startups engage in meaningful cross-sector collaboration to generate greater business value and societal impact in Vietnam?

Purpose: Recognizing the inherent interdependence of education and healthcare, this question explores the potential for synergistic partnerships. It investigates innovative models where EdTech and HealthTech solutions can mutually reinforce development, leading to enhanced service delivery, improved human capital formation, and broader social well-being.

Collectively, these research questions are meticulously structured to support a comprehensive, data-driven investigation that contributes both theoretically and practically to the literature on strategic entrepreneurship in emerging markets. The answers derived from these inquiries will form the empirical basis for the personalized strategic management framework proposed by this study.

1.5 Significance of the Study

Vietnam stands at a pivotal juncture in its socio-economic evolution, characterized by rapid digitalization, demographic shifts, and intensified focus on education and healthcare reform. In this context, startups operating within the education and healthcare

sectors are uniquely positioned to drive inclusive growth and social equity. However, as evidenced by both domestic analyses and international comparisons, these startups face significant obstacles ranging from strategic management deficits to regulatory complexity and limited access to capital. This study is significant in that it directly addresses these challenges and presents a practical, context-sensitive strategic management model tailored for the Vietnamese startup ecosystem

1.5.1 Strategic Importance of Education and Healthcare Startups

Education and healthcare are not only public service sectors but also critical drivers of human capital development, productivity, and national resilience. In Vietnam, startups in these sectors have the potential to address systemic inefficiencies, reduce service gaps in rural regions, and introduce scalable innovations. Despite the promise, startups in education and healthcare comprise only a small fraction of the national startup landscape—approximately 3.5% and 2%, respectively (Do Ventures & Cento Ventures, 2023).

This underrepresentation reflects broader systemic challenges. Startups in these domains often require hybrid business models that combine social purpose with commercial viability, which makes them less attractive to conventional venture capitalists. Additionally, the skills required to run such startups—strategic planning, policy literacy, and sector-specific regulatory navigation—are not adequately covered in existing entrepreneurship training or vocational education frameworks.

The significance of this research lies in bridging that gap. It builds on the premise that entrepreneurship in these sectors cannot rely solely on conventional startup logic but must be rooted in systems thinking, cross-sector collaboration, and adaptive leadership. By doing so, the study aligns with Vietnam’s broader developmental goals, particularly those outlined in the National Strategy for Digital Transformation and the Socio-Economic Development Plan 2021–2030, which emphasize human development and sustainable

economic growth. The development of robust, innovative solutions in these sectors directly contributes to a more skilled workforce, improved public health, and enhanced national competitiveness on the global stage.

1.5.2 Real-World Challenges: Case Studies from the Field

Real-world cases vividly illustrate the challenges and latent opportunities within these sectors. Analyzing these cases through the lens of strategic management provides tangible insights into the complexities faced by Vietnamese startups:

TOPICA EdTech Group: Once a regional leader in online education across Southeast Asia, it struggled with product standardisation due to the absence of a cohesive national framework for e-learning accreditation. While its expansion was initially driven by early-stage venture capital and policy enthusiasm, the company encountered roadblocks in scaling due to fragmented provincial licensing requirements and mismatches between its content and Vietnam's K–12 and vocational curricula (Nguyen & Truong, 2022). This case highlights the critical need for Vietnam educational startups as strategic alignment with regulatory frameworks and the development of adaptable business models that can navigate an inconsistent policy landscape. A robust strategic management system must equip founders with the foresight to anticipate such regulatory hurdles and build in flexibility to mitigate compliance risks.

Clevai: Conversely, Clevai, a Hanoi-based startup offering AI-powered afterschool tutoring aligned with the Ministry of Education and Training (MOET) curriculum, demonstrated that alignment with institutional standards could yield strong uptake, particularly in tier-2 and tier-3 cities. By leveraging digital pedagogy principles and teacher networks, Clevai attracted more than 1.2 million learners by 2024 and was recognised by MOET as a model for hybrid learning integration (EdTech Asia, 2023). However, even successful models like Clevai continue to face barriers in hiring experienced curriculum

designers and educators trained in digital instruction, especially outside urban centers. This underscores the importance of human capital strategy and the need for startups to actively invest in talent development and retention, even while focusing on market and product fitness.

eDoctor: In healthcare, eDoctor, a telemedicine platform, offers a cautionary tale. Despite its potential to alleviate strain on Vietnam's hospital-centric system, the platform faced ambiguous legal environments around electronic prescriptions and patient privacy-issues that delayed partnerships with public hospitals for over a year. This exemplifies the immense regulatory burden and legal ambiguity that HealthTech startups must navigate, highlighting the need for strategic management to include robust legal compliance and stakeholder engagement plans. Without clear regulatory pathways, even promising innovations can be stifled.

OmiCare: Smaller startups, such as OmiCare, focused on mental health services for university students, face both stigma-related challenges and investment hesitancy. Investors often perceive healthcare startups as “high-touch” and slow to scale, leading to undercapitalization and premature market and premature exits (Viettonkin, 2024). This case emphasises the need for tailored financial strategies and investor education, as conventional venture capital models may not fully appreciate the long-term social impact and sustainable growth potential of public-service-oriented startups.

These real-life examples underscore the need for strategic frameworks that not only emphasise product-market fit but also account for compliance, stakeholder alignment, and social mission delivery—elements that this study aims to address comprehensively.

1.5.3 The Vietnamese Educational Context: Structural Dynamics and Institutional Gaps

Vietnam's education sector is undergoing deep structural transformation. The Ministry of Education and Training has implemented major reforms since 2018 to promote digital literacy, competency-based learning, and entrepreneurship education—culminating in Decision No. 69/QĐ-TTg (2021), which mandates the integration of innovation and vocational training in national curricula. These reforms are particularly focused on vocational and technical education institutions (TVETs), seen as engines for workforce-ready graduates.

Despite these ambitious reforms, serious disconnects persist between training outputs and labor market needs. According to a 2023 report by the Vietnam General Statistics Office, over 63% of employers report that vocational graduates lack soft skills, digital fluency, and practical problem-solving ability. This highlights a fundamental gap in curriculum design and pedagogical approaches that often prioritize theoretical knowledge over applied competencies. In parallel, a survey conducted by the National Startup Support Center found that only 18% of final-year vocational students feel prepared to start a business, citing poor mentorship and outdated training materials. This alarming statistic underscores the urgency for a more practical, experiential approach to entrepreneurship education.

This institutional reality directly affects the startup pipeline. Without adequate experiential learning, real-world business simulations, and entrepreneurial exposure, vocational students remain underprepared to found and manage startups—particularly in sectors that require policy literacy and stakeholder coordination like education and healthcare.

The significance of this research is amplified by its dual-sample approach: it collects data from both current SME founders and vocational students, offering a rare longitudinal lens into Vietnam's entrepreneurial talent pipeline. By examining perceptions of strategic readiness, legal awareness, and managerial skills across both groups, this study not only identifies constraints but also reveals systemic misalignments between education outputs and entrepreneurial demands. It provides crucial insights into how to bridge the gap between academic intent and real-world application, fostering a generation of entrepreneurs truly capable of driving impact.

1.5.4 Policy Alignment and Socioeconomic Relevance

Vietnam's government has demonstrated a strong commitment to supporting startups through initiatives such as the National Innovation Center (NIC), Startup Support Fund, and the Digital Transformation Program until 2025. However, policy implementation often lags design—especially in heavily regulated sectors. For example, licensing procedures for private education institutions still vary significantly by province, creating a fragmented and unpredictable environment for EdTech startups. Similarly, the accreditation process for digital courses remains opaque, hindering standardisation and scalability. In healthcare, telemedicine regulations are only partially codified, creating significant uncertainty for HealthTech ventures regarding data privacy, electronic prescriptions, and cross-border service delivery. These inconsistencies directly hamper investment flows and slow down the deployment of much-needed services.

This study is significant in offering a practical roadmap to better align startup-level strategy with national policy goals. It advocates for the streamlining of administrative processes, the development of shared infrastructure between education and healthcare startups, and the creation of cross-sector innovation hubs. These recommendations, grounded in both empirical data and strategic theory, are intended to inform institutional

reforms and guide future public-private collaborations, and ensure that policy actively facilitates, rather than hinders, entrepreneurial innovation. By addressing these policy gaps, the research aims to unlock the full potential of startups to contribute to Vietnam's socio-economic development.

1.5.5 Toward a Contextualized Strategic Framework

Finally, the study contributes a personalized strategic management framework tailored to the constraints and opportunities of the Vietnamese environment. Unlike generic entrepreneurship models often imported from Silicon Valley or European incubators, this framework integrates elements of behavioral economics (via the Theory of Reasoned Action), social systems thinking (via Human Society Theory), to analyze sectoral interdependencies, and digital transformation pathways specific to public service sectors. This integrated, data-driven, and contextualised approach provides a replicable model not only for Vietnam but also for other Southeast Asian nations grappling with similar developmental challenges. such as fragmented regulatory environments, resource scarcity, and the need for inclusive growth. As such, the significance of this study extends beyond academia—it serves as a guide for entrepreneurs, educators, policy designers, and impact investors committed to building a more inclusive, innovation-driven.

1.5.6 Alignment with Sustainable Development Goals (SDGs)

This research holds significant academic and societal value through its direct alignment with several United Nations Sustainable Development Goals (SDGs), underscoring its global relevance and contribution to long-term impact. Specifically, the study supports:

SDG 3: Good Health and Well-being: By proposing strategic management approaches for HealthTech startups and advocating for cross-sector synergies with education, this research contributes to improving access to quality healthcare services and

enhancing public health outcomes in Vietnam. Empowering these startups can lead to scalable solutions in areas like telemedicine, remote diagnostics, and mental health support, which are critical for increasing well-being across diverse populations, including those in underserved areas. This aligns with broader goals of promoting psychological well-being and fostering healthier communities through innovative service delivery.

SDG 4: Quality Education: The study directly targets inclusive and equitable access to quality education by focusing on the strategic development of EdTech startups and the entrepreneurial readiness of vocational students. By strengthening their capacities in digital technology, innovative pedagogy, and strategic planning, the research contributes to adapting educational systems to meet future workforce demands and closing the gap in educational quality, particularly in provinces facing socio-economic disparities. It highlights how private sector innovation, facilitated by strategic management, can enhance local educational equity and responsiveness.

SDG 8: Decent Work and Economic Growth: By encouraging innovation-driven entrepreneurship in the education and healthcare sectors, the research promotes sustainable livelihoods, skill development, and localized economic resilience. It highlights the potential of strategically managed startups as catalysts for job creation, technological advancement, and inclusive economic growth. This contributes to Vietnam's broader transition toward a digital and inclusive economy by fostering new ventures that provide decent work opportunities and stimulate economic activity. This direct linkage to the SDGs underscores the study's commitment to addressing pressing global challenges through localized, evidence-based solutions, amplifying its significance beyond national borders.

1.6 Scope and Delimitations

This study is delimited to the analysis of startups operating within the education and healthcare sectors in Vietnam, with a specific focus on their strategic management

practices, growth constraints, and innovation potential. The research concentrates on small and medium-sized enterprises (SMEs) and vocational students who are either engaged in entrepreneurial activities or preparing to launch startups. The dual-sample design allows for a comparative assessment between current operational challenges faced by SME owners and the entrepreneurial readiness of future founders, thereby offering a holistic view of the startup ecosystem's present and future dynamics.

The geographical scope is primarily urban-centric, focusing on businesses and educational institutions located in major cities such as Ho Chi Minh City, Hanoi, and Da Nang. While this enhances the reliability of data collection due to better infrastructure and startup density, it inherently limits the generalizability of the findings to rural contexts, in rural and remote areas, access to capital, internet connectivity, skilled human resources, and support systems may differ significantly, presenting unique challenges and opportunities not fully captured within this study. This delimitation was a deliberate choice to ensure a focused and in-depth investigation within a manageable and representative sample of Vietnam's most active startup environments.

Similarly, the study narrows its focus to startups that are less than ten years old and are actively engaged in either service provision or product development within the designated education and healthcare sectors. This criterion ensures that the insights gathered are relevant to nascent and early-stage ventures, reflecting contemporary challenges and opportunities in rapidly evolving industries. Established, larger enterprises or those outside these specific sectors are not included, ensuring a concentrated analysis of the startup ecosystem's unique dynamics.

In terms of content, the study emphasises strategic aspects of business management, including financial planning, human resource development, technological adoption, and market adaptability. It does not aim to provide technical evaluations of education or

healthcare service quality, nor does it examine the full macroeconomic landscape of Vietnam's startup ecosystem beyond these two sectors. This focus allows for a deeper dive into the strategic elements most critical for startup success and sustainability, rather than a broad, superficial overview.

Furthermore, the research relies on self-reported data collected via structured surveys. While this quantitative method is valuable for gaining insights from a larger population and enabling statistical analysis, it may carry inherent limitations such as social desirability bias, where respondents might provide answers they perceive as favorable, or potential misinterpretation of survey questions despite pilot testing. The accuracy of the data ultimately depends on the honesty and self-awareness of participants, which is a common limitation in survey-based research.

Lastly, the research is delimited to quantitative methods, specifically descriptive statistics and correlational analysis, in order to ensure clarity, objectivity, and replicability. Qualitative dimensions such as in-depth interviews, case studies, or ethnographic observations are beyond the current study's scope. This deliberate exclusion was made to maintain methodological consistency and focus, recognizing that while qualitative insights could enrich the understanding of nuanced decision-making and cultural contexts, they would require a different research design and resource allocation, which were outside the parameters of this specific doctoral dissertation. These parameters define the boundaries within which the study's conclusions are to be understood, ensuring a focused and rigorous investigation into strategic management for startups in Vietnam's education and healthcare landscapes.

1.7 Structure of the Dissertation

This dissertation is meticulously organized into six core chapters, each designed to build progressively toward a comprehensive understanding of strategic business

management for startups in Vietnam's education and healthcare sectors. The structure is deliberately sequenced to reflect the logical flow of academic inquiry—from conceptual foundation to empirical analysis, and finally, to practical application and future directions.

Chapter I: Introduction establishes the foundational context for research. This chapter articulates the research background, delineates the problem statement by highlighting critical challenges faced by startups in education and healthcare, and clearly outlines the overarching purpose, specific research objectives, and guiding questions of the study. Furthermore, it defines the significance of the research by linking it to national development goals and global Sustainable Development Goals (SDGs) and specifies the scope and delimitations that define the study's boundaries. This chapter lays the groundwork by framing the rationale and relevance of the research within Vietnam's current economic and social context.

Chapter II: Literature Review synthesizes and critically evaluates existing theoretical and empirical work pertinent to startup strategy, sectoral dynamics in education and healthcare, entrepreneurial ecosystems in emerging markets, and cross-sector collaboration. The chapter introduces and elaborates on key theoretical foundations, including the Theory of Reasoned Action (TRA) and Human Society Theory, providing a robust conceptual lens for the study. It then reviews empirical studies to identify the best practices and contextual constraints and concludes by highlighting the specific research gaps that this study aims to address, thereby justifying its unique contribution to the academic discourse.

Chapter III: Methodology presents the philosophical and methodological underpinnings of the study. This chapter details the positive research philosophy and quantitative approach adopted, justifying the choice of a descriptive-correlational design. It meticulously describes the target population and purposive stratified sampling strategy,

ensuring transparency regarding participant selection. Furthermore, it explains the design, validation, and reliability of the survey instruments, outlines the data collection procedures, and specifies the data analysis methods employed (including descriptive and correlational techniques). Ethical considerations and research design limitations are also discussed in detail to ensure transparency and academic rigor.

Chapter IV: Research Results systematically outline the key findings derived from the quantitative survey data collected from 159 SME owners and 62 vocational students. This chapter begins with an overview of data collection and response rates, followed by a detailed analysis of participant demographics. The core of this chapter presents survey findings organized around thematic categories such as market perception, strategic challenges, innovation and competency alignment, human resource constraints, and technology adoption. Each finding is supported by relevant charts, tables, and statistical summaries, providing a data-driven foundation for subsequent interpretation and discussion. Cross-group contrasts between SME owners and vocational students are also highlighted to reveal perception asymmetries.

Chapter V: Discussion interprets the empirical findings from Chapter IV considering the existing literature and theoretical frameworks established in Chapter II. This chapter critically analyzes the implications of the data, draws sector-specific insights into challenges facing startups in education and healthcare, and highlights unexpected results (e.g., the gap between entrepreneurial aspiration and actual readiness). It further explores the strategic potential of integrated education-healthcare solutions within Vietnam's startup ecosystem, offering a nuanced understanding of how startups operate under constrained environments and how institutions can bridge the gap between intention and capability. This chapter serves as a bridge between empirical data and actionable insights.

Chapter VI: Summary, Implications, and Recommendations concludes the dissertation by synthesizing the key findings and linking them to broader theoretical, practical, and policy implications. This chapter offers concrete strategic recommendations for entrepreneurs, investors, and policymakers, outlining a clear roadmap for fostering sustainable growth in Vietnam's education and healthcare startup sectors. It also proposes avenues for future research, particularly related to rural startup contexts, longitudinal studies, and comparative sectoral analyses, thereby contributing to the ongoing academic discourse and practical development of the entrepreneurial ecosystem.

1.8 Practical Implications

This research carries several practical implications for key stakeholders in Vietnam's innovation ecosystem, particularly those engaged in education and healthcare entrepreneurship.

For startup founders, the proposed strategic framework offers a practical guide to navigating common challenges such as resource constraints, regulatory uncertainty, and fragmented ecosystems. It provides actionable insights on how to build adaptive strategies, leverage cross-sector synergies, and align with policy trends—especially relevant for entrepreneurs operating in underserved or rural areas.

For policymakers and government agencies, the study highlights the importance of creating enabling environments that go beyond one-size-fits-all policies. The findings can inform more targeted interventions, such as support programs for female educators in remote regions, incentives for digital infrastructure development, and regulatory sandboxes that encourage experimentation in HealthTech and EdTech.

For investors and ecosystem enablers, the research offers a deeper understanding of the structural risks and opportunities in Vietnam's emerging sectors.

For NetViet Holdings and affiliated organizations, the study directly informs the development of internal tools, capacity-building programs, and community engagement models that bridge the gap between policy and grassroots innovation.

1.9 Academic Contribution

This study contributes to academic discourse in several meaningful ways.

First, it introduces a cross-sectoral perspective by examining both the education and healthcare startup ecosystems in tandem—two sectors often studied in isolation. By exploring the strategic intersections between EdTech and HealthTech in a developing-country context, the research extends the boundaries of startup literature beyond single-sector analysis.

Second, it offers a context-specific lens grounded in Vietnam’s socio-economic and regulatory realities, contributing new empirical insights into how structural constraints, cultural norms, and institutional gaps influence entrepreneurial outcomes. While much of the existing literature on startup strategy focuses on developed economies, this study provides a grounded, practice-informed view from an emerging market.

Third, the research proposes a strategic management framework tailored to early-stage ventures operating in fragmented, policy-sensitive ecosystems. Unlike generalized strategy models, the framework integrates ecosystem theory, stakeholder alignment, and adaptive management tailored to local needs—bridging a gap between theory and application.

Finally, the study adds value to the growing body of literature on inclusive innovation and entrepreneurial resilience by addressing under-researched themes such as female educators in rural areas, digital inequity, and the role of public–private collaboration in enabling systemic change.

CHAPTER II: LITERATURE REVIEW

2.1 Introduction to Literature Review

The entrepreneurial landscape in Vietnam has evolved rapidly over the past decade, marked by a growing number of startups in key public service sectors, including education and healthcare. These startups, while innovative in intent, face persistent structural and operational challenges that hinder their ability to scale and sustain impact. In this context, understanding the strategic management of startups requires the strategic management of startups requires comprehensive examination of both theoretical frameworks and empirical evidence from the fields of entrepreneurship, strategic planning, and sector-specific development. This chapter reviews existing literature to establish the academic foundations for the study, outline conceptual perspectives, and identify research gaps.

The primary purpose of this literature review is to systematically synthesize existing knowledge and theoretical perspectives relevant to entrepreneurial activity within the unique socio-economic and regulatory environment of Vietnam. This rigorous review serves as a critical step in building a robust conceptual framework that not only explains the observed phenomena but also guides the empirical investigation of this study. The review begins with an exploration of the theoretical underpinnings relevant to entrepreneurial behaviour and strategy formulation, focusing on behavioural intention models and systems thinking within societal contexts. These theories are then applied to the Vietnamese context, highlighting how resource limitations, policy structures, and cultural dynamics influence startup decision-making. The chapter proceeds to examine the interrelation between education and healthcare, emphasizing their shared human capital dependencies and opportunities for cross-sectoral innovation. A review of literature on

strategic management in emerging economies aims to uncover best practices and identify contextual constraints for Vietnamese startups.

Finally, the chapter analyzes empirical studies focused on startup ecosystems, vocational education, and technology integration in developing markets. The convergence of findings illustrates a significant gap in strategic alignment and operational preparedness among early-stage ventures. This reinforces the need for a management framework that is both theoretically grounded and practically adaptable—one that addresses the complexities of operating in Vietnam’s rapidly transforming education and healthcare environments.

By systematically reviewing these diverse streams of literature, this chapter will lay the intellectual groundwork for understanding the multifaceted challenges and opportunities facing startups in these vital sectors, ultimately informing the development of a contextually relevant strategic management system.

2.2 Theoretical Foundations

To ground the study within a robust academic context, this research adopts a multi-layered theoretical framework that integrates both individual and systemic perspectives. The Theory of Reasoned Action (TRA) and the Theory of Human Society—form the core of this approach. These models offer complementary insights: one behavioral and individual-centered, the other systemic and societal, collectively informing the analysis of entrepreneurial strategies in Vietnam’s education and healthcare startups.

The Theory of Reasoned Action (TRA), and its extension Theory of Planned Behavior (TPB), provides a behavioral lens to understand how entrepreneurial intentions are formed among vocational students. They emphasize how perceived control, subjective norms, and personal attitudes shape decision-making—a relevant framework for analyzing startup readiness in the education and healthcare workforce.

The Theory of Human Society, derived from sociological traditions, adds a macro perspective by examining the interdependence between institutional systems such as education, healthcare, government, and family. It helps position startups not merely as market-driven ventures but as agents embedded in broader social ecosystems, particularly important in cross-sector fields where innovation intersects with public service delivery.

In addition, the study draws on three educational frameworks that are highly relevant in the Vietnamese context: Digital pedagogy, which guides how technology is integrated into teaching and learning. Transformational leadership theory, which highlights adaptive leadership in uncertain, resource-constrained environments; and adult learning theory (Andragogy), supports training, mentoring, and behavioural change among startup founders and community educators. By combining these diverse theoretical strands, the study constructs an integrated foundation that connects individual-level behaviour with ecosystem-level transformation. This holistic perspective is particularly relevant for innovation in socially embedded sectors like education and healthcare—where personal agency, institutional dynamics, and policy environments are deeply intertwined.

2.2.1 Theory of Reasoned Action

The Theory of Reasoned Action, first introduced by Fishbein and Ajzen (1975), posits that individual behavior is primarily driven by behavioral intentions, which in turn are shaped by two components such as: Attitude toward the behavior and subjective norms:

Attitude refers to an individual's positive or negative evaluation of performing a specific behavior, influenced by their beliefs about the outcomes of that behavior and their evaluations of those outcomes. Subjective norms pertain to an individual's perception of the social pressure to perform or not to perform the behavior, influenced by their beliefs about what important others think they should do and their motivation to comply with those opinions.

Theory of Planned Behavior (TPB) by adding perceived behavioral control. Perceived behavioral control refers to an individual's perception of the ease or difficulty of performing a behavior, reflecting both internal factors (e.g., skills, abilities) and external factors (e.g., resources, opportunities, barriers).

In the context of this study, TRA and TPB are particularly relevant to analyzing the entrepreneurial readiness and intention of vocational students. Their decisions to pursue startup ventures are influenced not only by their personal confidence and perceived control over the entrepreneurial process (perceived behavioral control) but also by societal expectations, educational influences, and exposure to entrepreneurial models (subjective norms). For instance, a student's intention to start a business might be high due to a positive attitude towards entrepreneurship (e.g., perceiving it as a path to financial independence or innovation), but this intention can be moderated by perceived barriers such as limited access to capital or complex regulations (low perceived behavioral control), or by cultural expectations to seek stable employment from family or peers (subjective norms).

This theoretical lens helps explain why, despite expressing a desire to start businesses, a significant portion of vocational students in the survey feel unprepared due to limited practical experience and strategic knowledge. TRA and TPB thus serve as valuable frameworks to assess how training programs, mentorship, and institutional support can modify these perceptions, enhance entrepreneurial intention, and ultimately bridge the gap between aspiration and action. It also supports the study's broader inquiry into how strategic education interventions can influence behavioral outcomes and contribute to a stronger startup pipeline in Vietnam.

2.2.2 Human Society Theory

The Human Society Theory emphasises the interconnectedness of institutional systems and the ways in which social structures shape individual and collective behaviour.

Rooted in sociological traditions, this theory is useful in understanding the systemic dependencies between education and healthcare—two sectors that co-create societal well-being through shared human capital, infrastructure, and innovation (Durkheim, 1984). This theory posits that society operates as a complex, integrated system where changes or deficiencies in one subsystem can have ripple effects throughout the entire structure.

Applied to this study, the Human Society Theory explains how deficiencies in one sector—such as inadequate educational training—can directly impact the performance of another, such as healthcare delivery. For instance, a lack of vocational programs focused on healthcare competencies contributes to workforce shortages in clinics and hospitals (MOH, 2023). Similarly, poor student health (mental or physical) due to inadequate healthcare access or school wellness programs can impair learning outcomes and reduce overall educational attainment, demonstrating a clear feedback loop between sectoral performance and broader societal development.

This systemic view justifies the study’s cross-sectoral approach and its proposal of integrated startup strategies that address overlapping needs. It also underscores the importance of policy coherence, stakeholder alignment, and multi-sector partnerships in creating an enabling environment for startups operating in socially embedded sectors. Rather than viewing education and healthcare startups as isolated entities, Human Society Theory encourages understanding them as interdependent components of a larger socio-economic system, where collaborative innovation can lead to greater collective impact and sustainable development.

2.2.3 Digital Pedagogy and Leadership in Tech Adoption

To comprehensively explain the digital transformation of education and healthcare delivery, this study incorporates three interconnected theoretical streams: digital pedagogy

theories, transformational leadership in technology adoption, and adult learning theory in online and blended environments.

Digital Pedagogy as articulated by Beetham and Sharpe (2013), argues that effective digital education goes beyond merely digitizing content. It involves a fundamental redesign of the learning process to leverage the unique affordances of digital mediums—incorporating interactivity, reflective practice, multimodal engagement, and adaptive learning pathways. This paradigm shift moves from technology as a supplementary tool to technology as an integral foundation for learning design and delivery. For example, a HealthTech startup building training platforms for rural nurses must embed audio-visual case studies, interactive simulations, and gamified assessments, rather than simply uploading static PowerPoint modules. In Vietnam, where many vocational institutions still treat digital tools as supplements and teachers often lack training in digital instructional design (MOET, 2022), embracing true digital pedagogy is critical for EdTech and HealthTech startups to deliver impactful and scalable solutions.

Leadership in Technology Adoption draws heavily from Transformational Leadership Theory (Bass & Avolio, 1993; Avolio & Kahai, 2003). This theory emphasizes that successful technology adoption is driven by visionary guidance, trust-building, intellectual stimulation, and individualized consideration from leaders. In the context of digital transformation in education and healthcare, leaders must inspire their teams to embrace change, take calculated risks, and continuously learn new digital competencies. In Vietnamese education, hierarchical structures often impede innovation due to a lack of distributed leadership and a cautious approach to reputational risk. By contrast,

Adaptive Leadership models (Heifetz & Linsky, 2017) encourage experimentation, continuous learning, and empowering mid-level staff, which are particularly crucial in agile startup environments where iterative development and pivoting are common. This study

argues that entrepreneurship programs must incorporate leadership training that emphasize digital fluency, experimentation, and peer-led innovation to prepare future founders for leading tech-driven ventures.

Finally, Adult Learning Theory (Andragogy), pioneered by Malcolm Knowles (1984), provides essential principles for designing effective learning experiences for vocational students and entrepreneurs. Knowles' framework highlights that adult learners are typically: 1) problem-centered rather than content-centered, seeking immediate applicability; 2) self-directed and prefer autonomy in their learning; 3) bring a wealth of life experience to the learning process; and 4) are intrinsically motivated by personal relevance and goal achievement. Since many vocational students in Vietnam work part-time or support families, EdTech and training startups must design solutions around flexibility (asynchronous access), practical application (case-based scenarios), and continuous feedback loops (e.g., quizzes, scenario branches). Similarly, startup incubation programs should enable students to reflect on personal experience and entrepreneurial intent, rather than imposing generic business plan templates.

By aligning digital pedagogy, adaptive and transformational leadership, and adult learning theory, this study builds a robust theoretical framework for both startup founders and institutional educators to co-create innovation ecosystems that are resilient, inclusive, and responsive to local realities

2.3 Interdisciplinary Perspectives

Given the inherently cross-sector nature of this research, it is necessary to integrate interdisciplinary insights that reflect the realities faced by startups in education and healthcare. These sectors are not only public in nature but also deeply tied to issues of equity, access, gender, and digital transformation—requiring a broader analytical lens.

Education Technology (EdTech) has emerged as a strategic response to educational inequities in underserved areas. In Vietnam, EdTech solutions are increasingly deployed to bridge urban–rural divides, enhance learning outcomes, and support non-traditional learners. However, their adoption is constrained by digital infrastructure gaps, teacher readiness, and socio-cultural expectations of “traditional teaching,” especially in public vocational schools.

Health Technology (HealthTech) plays a similarly transformative role, enabling remote diagnostics, digital recordkeeping, and community-based health monitoring. In low-resource environments, HealthTech offers scalable solutions for basic service delivery. Yet, such innovations also face challenges in regulation, affordability, and trust—particularly among rural populations.

The convergence of these two sectors creates unique entrepreneurial challenges and opportunities. Startups that operate at this intersection—such as those offering school-based health education or digital mental health platforms—must navigate both pedagogical and clinical standards, as well as multiple layers of regulation. This makes strategic management even more complex and context sensitive.

Gender and digital inclusion are also essential lenses in this study. Women-led startups, particularly those founded by educators, often emerge not from business incubators but from lived experiences within underserved communities. These founders typically prioritize social impact over rapid scaling, and their efforts are often underrepresented in both literature and policy.

Furthermore, the rise of digital entrepreneurship in post-COVID Vietnam has accelerated innovation in public service delivery but also exposed systemic vulnerabilities—including digital fatigue, training gaps, and policy–practice disconnects.

This interdisciplinary perspective thus allows the study to frame startup development not merely as a market response, but as a socio-technical process shaped by cultural norms, institutional dynamics, and collective needs.

2.4 Conceptual Framework

This study employs an interdisciplinary conceptual framework that integrates behavioral entrepreneurship theory, systemic social analysis, and strategic management thinking—reflecting the multifaceted nature of startup development in socially embedded sectors.

The framework recognizes that startup performance in Vietnam’s education and healthcare sectors is not only shaped by internal competencies (such as innovation capability, founder leadership, or capital access), but also deeply influenced by external environmental factors—ranging from regulatory shifts to institutional misalignment.

By treating education and healthcare not as isolated domains but as co-dependent systems, the framework embraces a cross-sectoral lens that allows for more comprehensive strategy formulation. This perspective is especially relevant in Vietnam’s post-pandemic context, where resource optimization and integrated service delivery are increasingly critical.

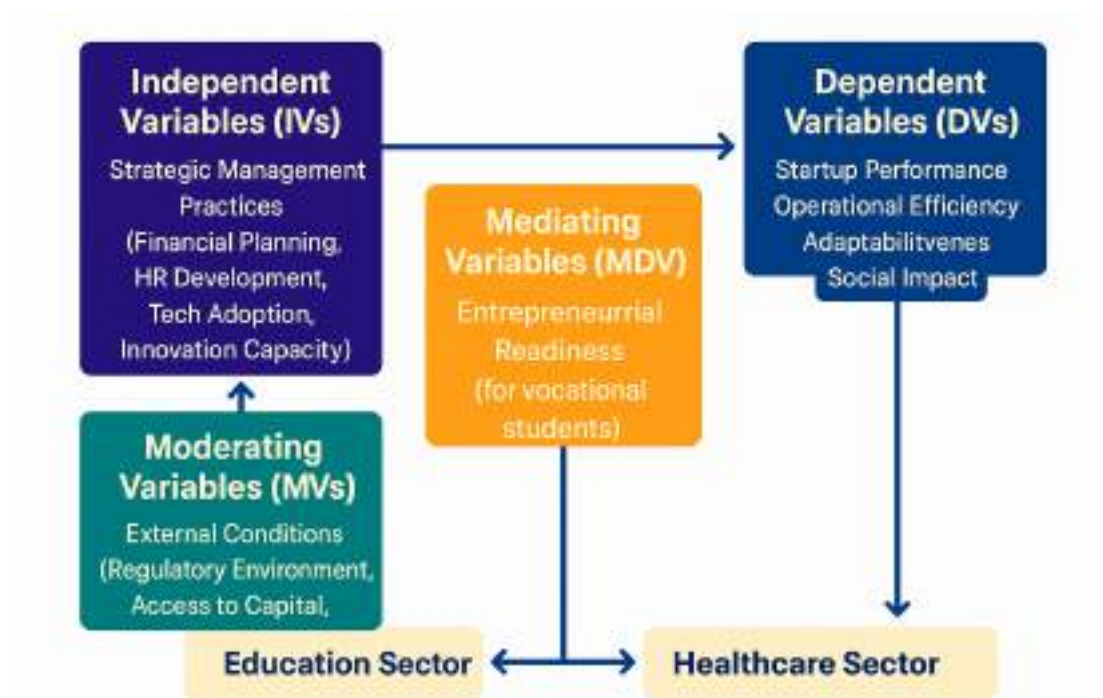


Figure 1: Conceptual Framework Diagram

The conceptual framework developed for this study, as illustrated in Figure 1 (Conceptual Framework Diagram), serves as a visual representation of the interconnected theoretical constructs and their hypothesized relationships. It posits that the performance and sustainability of startups in Vietnam's education and healthcare sectors are not solely determined by internal strategic practices but are significantly mediated and moderated by the complex external environment. This framework integrates insights from the Theory of Reasoned Action (TRA) and Human Society Theory to provide a holistic understanding of entrepreneurial dynamics in a developing economic context.

2.4.1 Interrelation of Education and Healthcare in Startup Ecosystems

Education and healthcare are deeply intertwined in the development of human capital and the achievement of social equity. In Vietnam, this interdependence is particularly pronounced in the vocational sector, where the shortage of qualified healthcare professionals can be attributed to deficiencies in educational infrastructure and curriculum

alignment. Research indicates that 60% of Vietnamese employers struggle to find appropriately skilled workers, pointing to a gap between what educational institutions produce and what healthcare systems require (VGSO, 2022).

Moreover, school-based wellness programs face systemic challenges due to a shortage of mental health and physical health specialists, which underscores the need for cross-sector startup solutions.

The conceptual framework therefore treats education and healthcare startups as part of an integrated entrepreneurial ecosystem, where cross-sector collaborations such as EdTech startups offering healthcare training, or HealthTech firms delivering school-based digital wellness solutions—can enhance efficiency and social impact.

This integrated lens is crucial for identifying shared constraints and leveraging common opportunities, especially in areas such as digital service delivery, regulatory reform, and community-based programming. The framework highlights that these sectors, while distinct in their primary functions, share common objectives related to human development and societal well-being.

2.4.2 Strategic Management in Emerging Sectors

Startups in Vietnam’s education and healthcare sectors face a distinctive set of challenges characteristic of emerging economies. These include unstable regulatory environments, fragmented funding sources, underdeveloped innovation ecosystems, and limited institutional support.

The conceptual framework positions strategic management as a central lever for overcoming these barriers. Strategic management encompasses key domains including financial planning, market positioning, innovation capacity, regulatory navigation, and human resource development.

Empirical data from the study indicates that 79.2% of SME owners cite inadequate management as a significant obstacle, while more than 80% highlight issues related to staffing, digital access, and legal complexity.

Consequently, the framework emphasizes the importance of adaptive and contextualized management practices tailored to sector-specific demands. It also promotes the idea of continuous learning and strategic agility as defining features of successful startups in volatile environments. This involves the ability to rapidly sense and seize opportunities, reconfigure resources, and adapt to unforeseen challenges.

The framework suggests that startups with robust strategic management capabilities are better equipped to navigate external complexities, optimize internal operations, and achieve long-term competitiveness and sustainability within the dynamic Vietnamese market

2.5 Review of Empirical Studies

This section reviews key empirical findings that inform the study's research design and theoretical assumptions. It focuses on startups in developing contexts, the role of vocational education in preparing entrepreneurs, and the emerging integration of technology in education and healthcare service delivery.

2.5.1 Startups in Emerging Economies

Startups in emerging economies face systemic barriers, including restricted access to finance, weak institutional infrastructure, and low investor confidence. Studies by Beck and Demirguc-Kunt (2006) and Bruton et al. (2022) confirm that startups in countries like Vietnam often struggle with limited credit availability due to underdeveloped financial markets and perceived risk (Beck and Demirguc-Kunt, 2006; Bruton et al., 2022). This finding is strongly corroborated by the research's own field data, which shows that 78.4%

of respondents identified capital access as a severe constraint, indicating a persistent challenge within the Vietnamese ecosystem.

Specifically, many startups in Vietnam encounter difficulties in securing traditional bank loans due to a lack of collateral and unproven track records, while access to venture capital remains limited and often concentrated in a few high-growth sectors, such as fintech and e-commerce (Nguyen & Pham, 2023; MPI, 2022). This creates a “funding blind spot” for many socially impactful ventures in education and healthcare that may not fit conventional investor profiles. This creates a "funding blind spot" for many socially impactful ventures in education and healthcare that may not fit conventional investor profiles.

Other structural issues—such as bureaucratic complexity and urban-rural digital divides—further constrain the potential of early-stage ventures in these economies, contributing to high failure rates and limited scalability (World Bank, 2021; UNDP Vietnam, 2022).

Research further highlights that weak property rights, inadequate legal enforcement, and informal market practices in emerging economies can deter both domestic and foreign investment, thereby compounding financial constraints for startups (Bruton et al., 2022; Beck & Demirguc-Kunt, 2006).

2.5.2 Vocational Training and Entrepreneurial Readiness

Vocational education is increasingly recognised as a strategic tool for workforce development and entrepreneurship cultivation. It is viewed globally as a key mechanism to bridge the skills gap and foster practical competencies essential for the modern economy.

In Vietnam, however, vocational training institutions often fail to deliver practical, market-relevant skills, leading to a mismatch between graduate output and industry needs. According to survey results from this study, only 18% of vocational students feel confident

in their ability to launch a business, primarily citing a lack of real-world exposure and mentoring opportunities. This finding is consistent with UNESCO's (2021) observations that vocational education systems in emerging markets need to transition from theoretical instruction to more applied learning models to truly prepare students for entrepreneurial pursuits. (UNESCO, 2021).

Studies by Mori and Stroud (2023) further underscore this gap, noting that Vietnamese vocational training often emphasizes technical specialization at the expense of broader entrepreneurial adaptability and market responsiveness.

Additionally, the research highlights the critical need for digital literacy, soft skill development (e.g., communication, problem-solving, critical thinking), and the cultivation of an entrepreneurial mindset—areas that are currently underdeveloped or insufficiently integrated into many existing vocational programs.

Without these crucial skills, vocational graduates, despite their technical knowledge, remain ill-equipped to navigate the complexities of startup creation and management.

2.5.3 EdTech and HealthTech Synergies

Recent literature has emphasised the growing intersection of technology and service delivery in education and healthcare. EdTech startups are actively providing scalable solutions in areas such as online learning platforms, skill certification, and curriculum personalisation, revolutionising how knowledge is disseminated and acquired. Concurrently, HealthTech firms are rapidly expanding through innovations like telemedicine platforms, mobile diagnostics tools, and digital mental health solutions, enhancing accessibility and efficiency in healthcare delivery. Vietnam's digital transformation strategy, supported by MOET and MOH, offers an enabling policy environment for these technological advancements. However, despite this supportive

framework, significant operational and infrastructure barriers persist, particularly in rural areas where digital access remains a challenge.

Significantly, empirical studies and market trends reveal that cross-sector synergies between EdTech and HealthTech are not only possible but increasingly necessary for comprehensive societal impact. For example, EdTech platforms can be effectively utilised to train healthcare workers in underserved areas, providing continuous professional development and specialised skill updates, including crucial mental health awareness modules for teachers or rural healthcare providers. Conversely, HealthTech services can be seamlessly integrated into school environments to enhance student wellness through digital health screenings, nutritional education, or socio-emotional learning programs. This convergence supports a holistic approach to startup strategy—one that is technologically driven, socially embedded, and cross-functionally collaborative, maximising impact and resource efficiency in both sectors.

2.6 International Perspectives and Cross-Country Comparisons

Vietnam's education and healthcare startup ecosystems are developing within a broader Southeast Asian context that reveals both common patterns and instructive divergences. Countries such as Indonesia, Thailand, and Malaysia offer comparative cases where public-private partnerships, digital investment strategies, and institutional incubation have accelerated innovation, particularly in EdTech and HealthTech domains. These international perspectives provide valuable benchmarks and lessons for Vietnam as it seeks to strengthen its own startup ecosystem in these socially critical sectors.

In Indonesia, the EdTech startup Ruangguru exemplifies successful ecosystem alignment. With robust support from the Ministry of Education and access to state-funded users during the COVID-19 crisis, Ruangguru scaled its mobile-based learning app to over 15 million users by 2022 (World Bank, 2021). The firm's success is attributed not only to

its technological design, but also to its policy compatibility which secures long-term public contracts for school content delivery. This case highlights the critical role of government endorsement and large-scale public-private partnerships in enabling rapid market penetration and sustainable growth for EdTech ventures. In contrast, Vietnamese EdTech firms operate in a fragmented regulatory landscape where each province may interpret digital curriculum alignment differently, leading to scaling difficulties and market inefficiencies (Nguyen & Truong, 2022).

Thailand presents a different model in HealthTech, where Doctor Raksa, a leading teleconsultation app, has gained traction by integrating with both private insurance networks and national health databases. The platform experienced user growth exceeding 300% during the pandemic by effectively addressing the shortage of primary care services and simplifying prescription logistics through e-pharmacy services (Raksa Health, 2021; Health Innovation Hub Thailand, 2022). This success underscores the importance of regulatory clarity and integration with existing healthcare infrastructure (both public and private insurance systems) for HealthTech scale. By comparison, Vietnamese HealthTech companies such as eDoctor face greater regulatory ambiguity regarding the legality of telemedicine and cross-border data storage, often leading to slower institutional adoption and hesitancy from established healthcare providers.

Beyond these specific examples, other nations in the region and globally offer further instructive models for supporting education and healthcare startups:

Singapore: Known for its robust and predictable regulatory environment, Singapore has actively fostered innovation through initiatives like "regulatory sandboxes". These allow startups to test innovative products and services (e.g., in FinTech or HealthTech) within a controlled environment, with temporary exemptions from certain regulations. This approach significantly reduces regulatory risk and accelerates market entry for novel

solutions. Furthermore, Singapore's government-linked investment funds actively back promising startups, providing crucial early-stage and growth capital. Its national accelerators, such as EduTech Hackathons and Digital Health Innovation Hubs, actively pair young entrepreneurs with experienced mentors and policy specialists, creating a structured environment for innovation.

Malaysia: Malaysia has institutionalized support mechanisms for education and health startups, like Singapore. Its MyCoID system exemplifies a streamlined administrative process, consolidating more than five business registration procedures into one online portal, offering startup-specific advisory for social enterprises. This significantly reduces the cognitive and legal burden for first-time founders, particularly in complex sectors. Additionally, Malaysia's emphasis on public-private partnerships (PPPs) in vocational training and digital skills development provides a strong talent pipeline for tech-driven startups.

Philippines: Despite a fragmented private education landscape and multi-tiered healthcare regulation, the Philippines has seen growth in localized telehealth projects that bypass national bottlenecks through tailored local initiatives. This suggests that decentralized, community-level innovation can thrive even in complex regulatory environments, provided there is sufficient local support and flexibility.

In summary, while Vietnam shares structural characteristics and entrepreneurial aspirations with its Association of Southeast Asian Nations (ASEAN) neighbours, it has yet to fully realise the enabling institutional, legal, and policy infrastructures that support sustained startup scaling in socially embedded sectors. The experiences of these countries highlight the importance of regulatory clarity, streamlined administrative processes, dedicated funding mechanisms, and robust public-private partnerships in fostering a thriving startup ecosystem. These international comparisons offer both cautionary tales

regarding persistent challenges and aspirational lessons for Vietnam’s evolving entrepreneurial landscape, particularly in driving sector-specific and cross-sectoral innovation.

2.7 Timeline of Research Development on Digital Transformation in Education

The evolution of digital transformation in education has unfolded across four overlapping waves, each introducing new pedagogical models, technologies, and policy implications. Mapping these phases provides important context for understanding the emergence of EdTech startups and the challenges they face—especially in countries like Vietnam where infrastructure and teacher training remain uneven.

Period	Focus	Key Contributions
2000–2010	Early e-learning	Introduction of LMS systems (e.g., Moodle); focus on asynchronous content delivery (Anderson, 2004)
2011–2015	Blended learning	Integration of digital tools in classrooms; rise of MOOCs; introduction of flipped classrooms (Garrison & Vaughan, 2012)
2016–2019	EdTech scaling	Growth of adaptive learning, gamification, and mobile-first platforms; digital equity concerns arise (Selwyn, 2016)
2020–2022	COVID acceleration	Widespread shift to online learning; emphasis on resilience, infrastructure, and teacher readiness (UNESCO, 2021)
2023–2025	AI & inclusion	Emergence of AI tutors, AR/VR in education; focus on rural inclusion and micro-credentialing (EdTech Asia, 2023)

Table 1: Chronological Development of Digital Transformation in Education

Phase 1: Infrastructure and Access (2000–2010)

Early research focused on the integration of basic ICT, especially in high-income countries. Learning Management Systems (LMSs) like Moodle and Blackboard have become common in universities, while scholars like Anderson (2004) have emphasized the importance of asynchronous learning and learner autonomy. However, in Vietnam, digital

adoption remained minimal and uneven. According to MOET (2008), only 12% of secondary schools had computer labs, and internet penetration was below 20% nationally.

Phase 2: Pedagogical Shifts (2011–2015)

This period saw an emphasis on blended learning models, flipped classrooms, and the first mass adoption of MOOCs (Massive Open Online Courses). Scholars such as Garrison and Vaughan (2012) proposed the Community of Inquiry framework, which combines teaching presence, social presence, and cognitive engagement in digital spaces. However, in Vietnam, adoption remained superficial. While platforms like Topica introduced MOOC-like services, teacher training remained focused on in-class delivery. A 2015 UNESCO report identified “digital skepticism” among educators as a key barrier (UNESCO, 2015).

Phase 3: Scaling and Personalization (2016–2019)

By this phase, digital tools evolved to offer personalized, adaptive learning—driven by AI and big data. Platforms like Khan Academy and Coursera have integrated analytics to adjust content pacing based on learner performance. Research focused on gamification (Gee, 2013), learning analytics, and mobile learning for informal education. In Vietnam, mobile-first learning apps like Clevai and Hocmai have begun gaining popularity, but their adoption has been mostly concentrated in urban areas, exacerbating rural-urban educational inequality (EdTech Asia, 2023).

Phase 4: Emergency Digitalization and Beyond (2020–2025)

COVID-19 forced a sudden, nationwide shift to online education globally. In Vietnam, this was a moment of both crisis and opportunity. The Ministry of Education launched the “*Đạy học qua truyền hình*” (teaching via television) initiative to reach underserved areas, while Zoom, Microsoft Teams, and local platforms like VNEDU were

deployed with limited teacher training. Studies now focus on resilience, teacher adaptability, and infrastructure strain (UNESCO, 2021; Nguyen & Truong, 2022).

EdTech startups emerging in this era must therefore navigate not only the technological expectations of modern learners but also the legacies of under-resourced digital transformation efforts and uneven institutional readiness.

2.8 Leadership, Digital Pedagogy, and Adult Learning in Practice

The intersection of educational leadership, digital pedagogy, and adult learning theory is critical for understanding how innovation occurs—or stalls—in vocational and healthcare-oriented educational contexts. These three theoretical pillars provide a comprehensive lens through which to analyze the effectiveness of learning interventions and the capacity for technological adoption within Vietnam's dynamic startup ecosystem.

2.8.1 Digital Pedagogy: From Tools to Transformation

Digital pedagogy, as articulated by Beetham and Sharpe (2013), argues that effective digital or the simple digitization of traditional materials. It involves a fundamental redesign of the learning process for the medium, consciously incorporating interactivity, reflective practice, and multimodal engagement. This approach emphasizes active learning, collaborative knowledge construction, and the use of digital tools not just as repositories but as facilitators of deeper cognitive engagement. For instance, instead of merely uploading PDF documents, true digital pedagogy involves designing interactive simulations, virtual labs, collaborative online projects, and personalized learning pathways. In Vietnam, while there has been an increased provision of digital hardware in vocational institutions, many still treat digital tools as supplements rather than as the foundation for pedagogical transformation. A 2022 survey by MOET found that only 27% of vocational educators had received formal instruction in creating online modules, highlighting a significant gap in digital instructional design skills (MOET, 2022). This study therefore

strongly advocates that digital pedagogy should guide both startup service design (e.g., how an EdTech platform delivers personalized content) and internal team training (e.g., how a HealthTech firm trains its staff on new digital diagnostic tools). For example, a HealthTech startup that builds training platforms for rural nurses must embed audio-visual cases, simulations, and gamified assessments to ensure practical skill acquisition, rather than just relying on static PowerPoint modules.

2.8.2 Leadership in Tech Adoption: Adaptive and Transformational Models

The successful adoption and integration of technology within organizations, particularly in rapidly evolving sectors like education and healthcare, is heavily influenced by leadership styles.

Transformational leadership theory (Bass & Avolio, 1993; Avolio & Kahai, 2003) emphasizes visionary guidance, trust-building, and risk-taking as enablers of digital adoption. Transformational leaders inspire their followers to transcend self-interest for the good of the organization, fostering a culture of innovation and change. In Vietnamese education, where hierarchical structures dominate, the lack of distributed leadership often impedes innovation. School principals or vocational center directors may be wary of failure or reputational risk—leading to top-down directives without grassroots buy-in.

By contrast, adaptive leadership models (Heifetz & Linsky, 2017) focus on mobilizing people to tackle tough challenges and thrive. Adaptive leaders encourage experimentation, continuous learning, and empowering mid-level staff to take initiative and solve problems. These qualities are especially important in agile startup environments, where iterative development, rapid prototyping, and pivoting business models are common. This study argues that entrepreneurship programs in vocational institutions must incorporate leadership training that emphasises digital fluency, experimentation, and peer-led innovation, moving beyond traditional command-and-control structures. For startups,

this implies fostering an internal culture where digital experimentation is encouraged, and learning from failure is viewed as a pathway to adaptive growth.

2.8.3 Adult Learning Theory: Designing for Vocational and Entrepreneurial Contexts

Malcolm Knowles' andragogy framework (1984), or adult learning theory, highlights several principles relevant to vocational and startup education. Adults are key principles that are highly relevant to vocational and startup education. Unlike pedagogy (the art and science of teaching children), andragogy is centered on the unique characteristics of adult learners:

Self-Concept: Adults are self-directed and prefer autonomy in their learning, moving from dependency towards increasing self-direction.

Experience: They bring a wealth of life experiences into the learning process, which serves as a rich resource for new learning.

Readiness to Learn: Adults become ready to learn when they perceive a need for new knowledge or skills to cope with real-life problems or developmental tasks. They are often problem-centered rather than content-centered.

Orientation to Learning: Adults value learning that is immediately applicable to their work or personal lives.

Motivation to Learn: They are primarily driven by internal motivators, such as job satisfaction, self-esteem, or quality of life, rather than external pressures.

These principles have profound implications for designing effective EdTech solutions and entrepreneurship training programs in Vietnam. Many vocational students work part-time or support their families, making flexibility and direct applicability crucial. Hence, EdTech and training startups must design their solutions around asynchronous access, case-based scenarios, and immediate feedback loops (e.g., quizzes, scenario

branches). Similarly, startup incubation programs should enable students to reflect on personal experience and entrepreneurial intent, rather than simply imposing generic business plan templates. By recognising that adult learners seek practical, relevant, and self-directed experiences, educational programs and digital tools can be designed to maximise engagement and ensure that newly acquired knowledge directly translates into actionable entrepreneurial skills.

By aligning digital pedagogy, adaptive leadership, and adult learning theory, this study builds a robust framework for both startup founders and institutional educators to co-create innovation ecosystems that are resilient, inclusive, and responsive to local realities.

2.9 Identified Research Gap

While substantial global and regional literature exists on entrepreneurship in emerging economies, a notable absence remains in sector-specific, cross-functional research addressing startups in the education and healthcare fields—particularly within the Vietnamese context. Most existing studies approach startups through generalised frameworks, often overlooking the unique challenges faced by social-impact-oriented sectors such as education and healthcare, which require not only commercial viability but also alignment with public service mandates. This oversight leads to a critical gap in understanding how entrepreneurial strategies must adapt to the dual imperatives of market efficiency and social impact.

Specifically, despite research addressing macro-level constraints such as capital shortages and regulatory barriers, there is a critical lack of empirical insight into how strategic management systems can be developed to overcome such constraints at the micro-level of startup operations effectively. Existing literature often diagnoses problems but rarely offers context-specific, actionable frameworks for entrepreneurs to navigate these complexities in a resource-scarce and highly regulated environment. This research gap is

crucial because a theoretical understanding of challenges is insufficient without practical guidance for mitigation and strategic adaptation.

Additionally, the relationship between vocational education and entrepreneurial readiness remains under-theorized and under-examined in empirical studies, particularly in rapidly developing contexts like Vietnam. While global research affirms the positive impact of entrepreneurial training on business outcomes (Fayolle & Gailly, 2015), Vietnam-specific studies rarely integrate quantitative evidence on vocational students' perceived preparedness, strategic awareness, or intentions to launch startups. This constitutes a significant gap, especially in a country where vocational education is being restructured to meet the demands of Industry 4.0, yet the efficacy of these reforms in fostering real-world entrepreneurial capabilities is largely unmeasured. Addressing this gap will not only inform educational policy but also strengthen the pipeline of future startup founders.

Furthermore, a critical gap in both national and international scholarship is the interconnection between education and healthcare startups—and their potential for collaborative innovation. The prevalent isolated treatment of these sectors in academic literature does not reflect the increasingly convergent nature of service innovation, particularly as seen in school-based health programs, vocational healthcare training, and digital wellness platforms. The few studies that explore EdTech or HealthTech tend to examine them independently rather than through a synergistic lens. This fragmented approach overlooks immense opportunities for cross-sector collaboration that could leverage shared resources, address overlapping societal needs, and amplify overall impact. The absence of an integrated perspective limits the development of holistic solutions and comprehensive support ecosystems for startups operating at this vital intersection.

This study directly addresses these identified research gaps by offering a dual-sector, data-driven analysis of both SME owners and vocational students. By linking strategic management with readiness indicators and proposing a framework for cross-sector collaboration, this research provides empirical insights into micro-level operational strategies and macro-level ecosystem dynamics. By focusing on Vietnam, the research contributes to a more contextualized and integrated understanding of how entrepreneurship can serve as a transformative force in sectors critical to national development, thus extending existing theories (such as TRA and Human Society Theory) and offering practical models for sustainable innovation in emerging markets.

2.10 Chapter Summary

This chapter has reviewed the theoretical, conceptual, and empirical foundations that support the study's inquiry into strategic management for startups in Vietnam's education and healthcare sectors. The review began by establishing the theoretical underpinnings, drawing primarily from the Theory of Reasoned Action (TRA) and its extension, the Theory of Planned Behavior (TPB), to contextualize entrepreneurial intentions and readiness among vocational students. Concurrently, the Human Society Theory provided a robust framework for a systemic analysis of sectoral interdependencies, highlighting how education and healthcare are mutually reinforcing pillars of societal well-being and human capital development. These core theories were further enriched by integrating principles of Digital Pedagogy, Transformational Leadership, Adaptive Leadership, and Adult Learning Theory, which collectively explain the dynamics of digital transformation and effective learning within these contexts.

These diverse theoretical perspectives were then synthesized into a conceptual framework that integrates internal entrepreneurial dynamics (such as founder competence and innovation capacity) with external socio-economic forces (including regulatory

systems and market alignment). This framework explicitly highlights the critical interrelation between education and healthcare startups, treating them as components of an integrated entrepreneurial ecosystem rather than isolated verticals.

The literature review further explored the pervasive challenges faced by startups in emerging economies, with particular attention to limited capital access, complex regulatory environments, human resource limitations, and persistent digital divides. Evidence from both global and Vietnam-specific sources consistently demonstrated that startups in education and healthcare face structural constraints that generic entrepreneurship models do not adequately address. Simultaneously, the review highlighted that vocational education programs in Vietnam often fall short in preparing students for real-world business demands, despite their growing importance as feeders into the entrepreneurial ecosystem. International comparisons further illuminated both common patterns and instructive divergences in how peer economies have addressed similar challenges, offering valuable lessons for Vietnam's evolving ecosystem.

The chapter concluded by identifying critical research gaps, including the notable absence of integrated strategic management frameworks tailored for cross-sectoral startups in education and healthcare, insufficient empirical data on vocational student readiness for entrepreneurship, and the underexplored synergistic potential between EdTech and HealthTech solutions. These identified gaps unequivocally validate the study's relevance and underscore the urgent need for the development of a tailored, empirically grounded, and context-sensitive strategic framework. This framework aims not only to address the complexities of operating in Vietnam's rapidly transforming education and healthcare environments but also to contribute meaningfully to both academic discourse and practical application.

The next chapter outlines the methodological design of the research, explaining how the data were collected and analysed to address the gaps and objectives identified in this literature review.

CHAPTER III: METHODOLOGY

3.1 Overview of the Research Problem

The landscape of startups in Vietnam's education and healthcare sectors is characterized by a unique confluence of promising growth potential and formidable, multi-layered challenges. These challenges, as extensively detailed in Chapter I and II, include but are not limited to limited access to capital, underdeveloped strategic management capabilities, persistent human resource shortages, and complex, often ambiguous, regulatory environments. Despite their undeniable potential to deliver high-impact services and foster inclusive development, a significant proportion of these nascent ventures lack the robust strategic infrastructure and adaptive capacities necessary to survive, scale, and achieve long-term sustainability in Vietnam's intensely competitive and rapidly evolving markets. Moreover, the timing of this study is critical. Vietnam's current socio-economic phase—marked by rapid digitalization, post-pandemic recovery, and growing interest in inclusive entrepreneurship—creates both pressure and opportunity for systemic reform. The education and healthcare sectors, while essential to human development, remain under-optimized in terms of innovation readiness. These conditions present an urgent need to reframe strategic management through a context-aware, theory-informed, and empirically grounded approach. This research, therefore, responds not only to academic gaps but also to policy and practitioner demands for actionable insights in a transforming ecosystem.

Concurrently, a critical systemic issue emerges from the growing cohort of vocational students who, while expressing a keen interest and aspiration for entrepreneurship, largely feel underprepared to translate their ambitions into viable startup realities. These disconnects point to a fundamental problem in effectively aligning

entrepreneurial intention with practical strategic readiness and the specific, often harsh, operational realities of these socially critical sectors. The consequences of this pervasive misalignment are severe, contributing to high startup failure rates, inefficient allocation of scarce resources within the broader entrepreneurial ecosystem, and a significant missed opportunity to leverage innovative ventures for accelerated national socio-economic advancement and human development.

The overarching research problem, therefore, lies in the absence of a comprehensive, contextualized, and empirically data-informed strategic management framework that is specifically tailored to address the dual imperatives of operational efficiency and profound social impact within Vietnam's education and healthcare sectors. Existing generic entrepreneurship models often fail to adequately account for the unique institutional constraints, cultural nuances, and intricate interdependencies characteristic of these public service-oriented sectors in an emerging economy. This study aims to directly address the problem by rigorously investigating key internal (e.g., managerial skills, innovation capacity) and external (e.g., financial access, regulatory clarity) factors that affect startup performance and entrepreneurial readiness. Subsequently, it proposes a pragmatic, adaptive, and evidence-based strategic management model that accurately reflects the unique conditions and evolving landscape of Vietnam's dynamic startup environment. This approach is designed to fill the identified research gaps concerning integrated startup strategies and vocational student preparedness, as thoroughly elaborated in Chapter II.

3.2 Research Philosophy and Approach

This research adopts a positivist philosophy and employs a quantitative approach, emphasizing objectivity, replicability, and empirical validation. The choice of positivism is rooted in the belief that social phenomena can be studied using methods like those of the

natural sciences, seeking to identify causal relationships and generalizable laws. Positivism asserts that knowledge is derived from sensory experience and is amenable to empirical observation and measurement. This philosophical stance is particularly suitable for this study as it facilitates the systematic measurement and statistical analysis of observable phenomena—such as capital access, managerial skill levels, entrepreneurial readiness indicators, and perceptions of regulatory complexity -within defined populations. Unlike interpretivist paradigms, which focus on subjective meaning-making, social construction, and in-depth understanding of individual experiences, the positivist approach enables the drawing of objective generalizable conclusions through rigorous data collection, statistical analysis, and hypothesis testing. This allows for the identification of broad patterns and relationships across a larger sample, which is critical for developing a widely applicable strategic framework.

Aligned with this philosophical stance, the quantitative approach is employed to collect structured, measurable data from two distinct yet complementary target groups: current SME and Medium-sized Enterprise (SME) owners and vocational students. This approach allows for the systematic collection of numerical data through standardized instruments, enabling statistical analysis to identify trends, correlations, and significant differences between groups. By analyzing frequencies, descriptive patterns, and correlational relationships across these two cohorts, the research provides a clear, data-driven assessment of how startups in the education and healthcare sectors perform, identifies the strategic gaps that persist, and evaluates the factors influencing entrepreneurial readiness. The quantitative methodology ensures that the findings are robust, replicable, and provide a strong empirical basis for the proposed strategic management system, contributing to evidence-based recommendations for entrepreneurs, policymakers, and educational institutions in Vietnam.

3.3 Research Purpose and Hypotheses

The overarching purpose of this research is to design a personalized strategic management system tailored to startups in Vietnam's education and healthcare sectors. This system is intended to enhance their competitiveness, operational efficiency, and capacity for cross-sector innovation, thereby fostering sustainable growth and amplifying their societal impact. To accomplish this ambitious goal, the study systematically investigates both the external challenges (e.g., access to funding, regulatory complexity) and internal capabilities (e.g., managerial readiness, digital adoption) that influence startup performance and long-term viability.

The following hypotheses will be tested:

H1: Startups with higher levels of strategic management competency demonstrate greater operational efficiency and market success.

- H1a: Startups with robust financial planning practices will exhibit higher operational efficiency.
- H1b: Startups with strong human resource management capabilities will achieve greater market success.
- H1c: Startups that effectively navigate regulatory environments will show improved market success and operational efficiency.
- H1d: Startups with higher innovation capacity and adaptive strategies will demonstrate greater market success.

H2: Vocational students with stronger entrepreneurial education and mentorship exposure report higher levels of entrepreneurial readiness.

- H2a: Students exposed to practical, experiential learning activities will report higher confidence in launching a startup.

- H2b: Students receiving mentorship from experienced entrepreneurs will demonstrate greater strategic awareness.
- H2c: Students with greater awareness of startup resources (e.g., incubators, funding schemes) will feel more prepared for entrepreneurship.

H3: Cross-sector synergy between education and healthcare startups can enhance innovation outcomes and improve resource utilization.

- H3a: Startups engaging in cross-sector collaborations (e.g., EdTech for HealthTech training) will report higher levels of innovation.
- H3b: Cross-sector collaborations will lead to more efficient resource utilization (e.g., shared digital platforms, combined outreach efforts).
- H3c: Startups with a strong focus on social impact will actively seek cross-sector synergies to achieve broader societal benefits.

These hypotheses are formulated to provide a clear direction for the quantitative analysis. They will be tested through a combination of correlational and descriptive statistical methods, as detailed in Section 3.9. This approach will offer robust insights into the associative dynamics within the startup ecosystem, allowing the study to identify not only existing patterns but also potential causal relationships that can inform the development of the personalized strategic management system.

3.4 Operationalization of Theoretical Constructs

To translate theoretical insights into measurable variables, this study operationalizes key constructs derived from the foundation theories in Chapter II, namely the Theory of Reasoned Action (TRA) and Human Society Theory. (and its extension, the Theory of Planned Behavior) and Human Society Theory. This process ensures that abstract theoretical concepts are transformed into concrete, quantifiable indicators that can

be captured through the survey instruments, thereby facilitating rigorous empirical analysis and the testing of hypotheses.

The TRA and TPB primarily inform the assessment of entrepreneurial intention and readiness among vocational students. Constructs such as “attitude toward entrepreneurship”, “perceived behavioral control,” and “subjective norms” are systematically represented through specific survey items designed to gauge confidence levels, perceived challenges, and the influence of support systems. Meanwhile, Human Society Theory guides the examination of the systemic interdependence between education and healthcare, translating into variables related to regulatory complexity, human resource constraints, and the potential for cross-sector collaboration.

These constructs are broken down into observable and measurable indicators, allowing for quantitative analysis. The survey design captures these constructs through both quantitative metrics (e.g., rating the severity of capital challenges on a 5-point Likert scale) and demographic filters (e.g., age, education level, years of operational experience), enabling comprehensive analysis and segment-specific comparisons. This rigorous approach ensures that theoretical models are deeply embedded in empirical data, facilitating robust examination and yielding actionable insights.

The following table provides a detailed overview of the key theoretical constructions operationalized in this study, along with their definitions, corresponding indicators, measurement scales, and supporting justifications:

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Variable	Definition	Indicators	Measurement Scale	Supporting Justification
Independent Variables (IVs)	Strategic Management Practices: Application of managerial strategies to enhance a startup's success.	Financial Planning, HR Development, Tech Adoption, Regulatory Navigation, Innovation Capacity	5-point Likert scale, (1=Strongly Disagree, 5=Strongly Agree)	Hambrick (1989) David (2011)
Moderating Variables (M Vs)	External factors that can amplify or dampen the effectiveness of management strategies.	Regulatory Environment, Access to Capital, Market Competition	5-point Likert scale, (1=Strongly Disagree, 5=Strongly Agree)	Ireland et al, (2009)
Dependent Variables (DVs)	Preparedness, and intent of vocational students to create startups.	Operational Efficiency, Adaptability, Competitiveness, Social Impact	5-point Likert scale, (1=Strongly Disagree, 5=Strongly Agree)	Chandler & Hanks (1993), Choi & Strakaya (2006)

Table 2: Overview of the key theoretical constructs operationalized

3.5 Research Design and Justification

This study employs a quantitative, descriptive correlational research design, meticulously chosen for its suitability in analyzing relationships between variables without manipulating the environment. This approach is optimal for achieving the research objectives, which include identifying patterns, assessing readiness, and exploring associations within the complex entrepreneurial ecosystem of Vietnam's education and healthcare sectors. The design's robustness allows for the systematic identification of trends, specific patterns, and significant associations between various strategic management practices and observed performance outcomes among startups, as well as between educational factors and entrepreneurial readiness among vocational students.

The descriptive component of this design is crucial for capturing comprehensive baseline data across the sampled populations. It enables the detailed characterization of key

variables, such as the current state of capital access, the nature and extent of regulatory challenges, the level of digital readiness, and specific human resource limitations experienced by startups. This descriptive analysis provides a fundamental understanding of the current landscape, allowing for benchmarking against theoretical expectations and identifying the most salient pain points and opportunities.

Importantly, this chosen design strongly supports the study's central intention to compare and contrast two distinct but inherently interrelated groups, SME owners and vocational students. By systematically analyzing data from both cohorts, the research is capable of capturing the full spectrum of strategic management challenges, ranging from immediate operational hurdles faced by active businesses to aspirational preparedness and perceived gaps among future founders. The use of structured surveys and robust statistical tools inherent in this design further ensures high levels of objectivity, reliability, and replicability of the findings, which are paramount for academic rigor.

Although qualitative methods such as in-depth interviews or focus groups could potentially provide richer narrative insights into the nuanced decision-making processes, cultural contexts, or lived entrepreneurial experiences, their exclusion from the current study's scope was intentional and justified. The primary emphasis of this research is on generalizability across a defined population, systematic cross-regional comparison, and the empirical testing of hypothesized relationships derived from theoretical constructs. The structured, quantitative survey approach was deemed most efficient and effective for collecting data from a larger sample size necessary to draw statistically robust conclusions and develop a widely applicable strategic framework within the constraints of a doctoral dissertation. This deliberate delimitation clarifies the study's precise boundaries and strengthens its focus on quantifiable outcomes.

3.6 Target Population and Purposive Sampling Rationale

This research employed a purposive stratified sampling technique to ensure that the study captured perspectives from both current practitioners and future participants in Vietnam's dynamic startup ecosystem. This approach was chosen to provide rich, context-specific insights that probabilistic sampling methods might overlook in a developing economy with inherent heterogeneity in entrepreneurial experiences and institutional support systems. Specifically, the sampling strategy focused on two analytically significant groups: (1) small and medium-sized enterprise (SME) owners actively operating in Vietnam's education and healthcare sectors—two domains crucial to national social development but often underrepresented in innovation studies; and (2) vocational students enrolled in entrepreneurial or sector-specific programs with explicit aspirations to launch startups. The stratified nature of this approach enabled a balanced representation of both experience-based insights from current operators and future-oriented expectations from emerging entrepreneurs. The purposive element, meanwhile, ensured that selected participants possessed relevant knowledge and direct exposure to the phenomena of interest, thereby aligning with the study's conceptual model of entrepreneurial readiness and strategic capability.

Purposive sampling is particularly suitable for exploratory research in developing economies, where heterogeneity in experience and institutional support often distorts probabilistic assumptions. According to Palinkas et al. (2021), this method is useful when the goal is “to identify and select individuals especially knowledgeable about or experienced with a phenomenon of interest.” In this context, SME owners were selected based on their active operational role in either the education or healthcare sector for at least one year, ensuring that their responses reflected actual strategic engagement rather than mere aspirational positioning. Meanwhile, vocational students were chosen from training programs officially accredited by the Ministry of Labour, Invalids and Social

Affairs (MOLISA) or affiliated with innovation-focused partnerships, such as those supported by GIZ or NIC Vietnam. This stratification across these two distinct populations reflects not only professional experience but also a time-based perspective—capturing both present-day entrepreneurial practice and the conditions that shape future entrants. thereby providing a more comprehensive understanding of the innovative pipeline.

While purposive sampling offers significant advantages in targeting specific expertise and ensuring data relevance, it is important to acknowledge its inherent limitations, primarily the potential for sampling bias and reduced generalizability to populations outside the defined criteria. However, given the study's focus on deep contextual understanding and theory-testing within specific sectors in Vietnam, this method was deemed appropriate. Measures were taken to diversify the selection within the purposive criteria (e.g., across urban/peri-urban centers, various business models) to mitigate this bias as much as possible.

From a pool of 300 invited individuals, 221 completed the survey, yielding a response rate of 73.7%. This level of engagement surpasses the generally accepted threshold for statistical robustness in social science research (Baruch & Holtom, 2008; Saunders et al., 2021). The final sample consisted of 159 SME owners and 62 vocational students. Such a sample size aligns with recommendations from Creswell and Plano Clark (2018), who emphasize that analytical validity in mixed-methods studies is more dependent on conceptual saturation and subgroup depth than sheer numerical scale.

Moreover, the sampling was conducted across diverse geographical regions within Vietnam, including urban, peri-urban, and emerging regional centers, to reflect the country's significant geographical and institutional diversity. Participants were drawn not only from innovation hubs like Hanoi and Ho Chi Minh City but also from growth corridors

such as Da Nang, Can Tho, and Hue, where vocational education and grassroots entrepreneurship are gaining momentum.

Within the SME group, participants had a mean age of 45 years, and 65% had completed university or higher-level education. The gender distribution was 70% male and 30% female, which is roughly consistent with gender trends in Vietnamese SME leadership (Vietnam Business Forum, 2023). Their enterprises spanned various models, including private general and vocational schools, after-school tutoring centers, health clinics, telehealth platforms, and wellness service startups. Despite the diversity of business models, a shared set of constraints emerged from the data. Specifically, 81% of SME owners reported challenges in accessing capital, whether due to limited credit histories, unclear licensing categories, or a lack of sector-specific funding channels. Additionally, 79% cited poor managerial capacity—particularly in strategic planning, marketing, and compliance—as a key barrier to scaling their operations. Furthermore, 74.2% of respondents identified Vietnam’s legal and regulatory environment as “overly complex” or “administratively inconsistent,” particularly concerning licensing and tax obligations.

These findings align with national-level studies conducted by the World Bank (2022) and the Startup Vietnam Foundation (2024), both of which have warned that while Vietnam’s digital startup ecosystem is vibrant, institutional bottlenecks—especially in socially oriented sectors—remain a hindrance to innovation. For example, one HealthTech founder interviewed for this study explained, “We wanted to pilot a mobile diagnostic tool for rural diabetes screening, but provincial authorities demanded separate licenses for the app and the physical consultation. It delayed our launch by almost a year.” Such examples underscore the value of including operationally active entrepreneurs in the study sample—they expose real-time frictions that are often invisible in policy reports.

The vocational student sample provides a critical contrast and forward-looking dimension. With a mean age of 22 years and a gender distribution of 55% female to 45% male, this group was recruited from public and private institutions offering domain-specific training in education, business, or healthcare. Approximately 80% of the student respondents were in their final year of study, thus close to entering the job market or launching ventures. While most students reported moderate confidence in their technical knowledge, only 18% expressed feeling “adequately prepared” to start a business immediately after graduation. A majority (65%) attributed this to the lack of practical mentorship and real-world application in their training programs. As one student in Can Tho stated, “I can write a business plan to pass my final exam, but I wouldn’t know how to actually register a business or find a co-founder.”

This finding aligns with recent evaluations by ILO Vietnam (2022) and UNICEF (2023), which note that although entrepreneurship modules have become more prevalent in vocational education, they often remain theoretical, outdated, or overly focused on textbook concepts. In a rapidly evolving startup landscape shaped by digital transformation, students who are not exposed to real-world processes—such as licensing, customer validation, and financing—may graduate with a motivational mindset but without operational readiness. Including these students in the sample enables this study to examine not only the gaps in perception between policy intent and educational practice but also to forecast where intervention is most urgently needed to nurture viable future entrepreneurs.

Moreover, the geographic stratification of both groups enhances the study’s contextual richness. While Hanoi and Ho Chi Minh City predictably serve as economic and innovation hubs, emerging regions such as Hue, Da Nang, and Can Tho face distinct challenges, including limited access to seed funding, fewer mentorship networks, and less interaction between training institutions and the startup ecosystem. Institutions in these

areas often operate under dual constraints of outdated infrastructure and limited faculty exposure to entrepreneurial practice. The inclusion of participants from such regions enables the analysis of how place-based disparities affect strategic capacity and readiness—an essential consideration for countries like Vietnam that are pursuing inclusive growth (UNICEF, 2023; World Bank, 2022).

In summary, the purposive stratified sampling method employed in this study was not only methodologically justified but also strategically aligned with the research objectives. It enabled the collection of rich, context-sensitive data from two complementary stakeholder groups—those navigating the realities of startup operations and those preparing to enter the ecosystem under current educational regimes. It also permitted intergroup comparison on the dimensions of strategic thinking, institutional support, and regulatory literacy. By combining operational expertise with aspirational perspectives, the sample offers a rare, multi-temporal view of Vietnam’s innovation pipeline. As Thomas and Gilbert (2020) argue, “Sampling strategies in entrepreneurship research should prioritise experiential variation over demographic uniformity,” and this study embodies that principle fully.

3.7 Survey and Interview Instruments: Design, Validation, and Reliability

To comprehensively examine the multidimensional components of strategic management, operational barriers, and entrepreneurial readiness within Vietnam’s education and healthcare sectors, the study meticulously employed two structured questionnaire instruments. These instruments were administered independently to two distinct respondent cohorts: small and medium-sized enterprise (SME) owners and final-year vocational students. The instruments were carefully crafted to align precisely with the conceptual framework of the study, as detailed in Section 2.3, while simultaneously reflecting the contextual peculiarities of Vietnam’s dynamic startup ecosystem—

particularly in relation to human capital dynamics, institutional support structures, and sector-specific regulatory environments. To better reflect the spirit of this research, which emphasizes the intersection between education and healthcare innovation, the survey instruments included several items designed to capture how cross-sector collaboration is perceived and practiced.

For SME owners, the questionnaire explored their openness to working across sectors, such as teaming up with EdTech or HealthTech ventures to offer joint services or training programs. Respondents were also asked whether they had previous experience with cross-sector partnerships and how feasible they found such collaborations in their current business context.

For vocational students, the questions were designed to assess how comfortable and prepared they felt to innovate across traditional boundaries. One part of the survey presented scenarios where students might launch a startup offering both health and education services, for example, a mental wellness app for school-aged children—and asked how confident they felt taking on such interdisciplinary challenges.

These additions were important because they moved beyond abstract theory and helped ground the research in the lived realities of those on the frontlines—business owners and future entrepreneurs navigating a fast-changing, often fragmented startup environment in Vietnam.

The questionnaire design process was informed by existing validated scales and established theoretical constructions in the fields of entrepreneurship, strategic management, and educational transition. Specifically, items measuring entrepreneurial intention and readiness were adapted from the Entrepreneurial Intention Questionnaire (EIQ) developed by Liñán and Chen (2009), which is widely recognized for its cross-cultural applicability. Questions addressing operational challenges and strategic

management practices among SMEs were informed by frameworks outlined in the OECD Studies on SMEs and Entrepreneurship (OECD, 2020) and further refined by insights from more localized assessments provided by the Vietnam Chamber of Commerce and Industry (VCCI, 2023). These foundational sources ensured that the instrument maintained both robust construct validity and crucial regional relevance. Furthermore, contextual adaptation was necessary to account for Vietnam's dual public-private institutional structures, the presence of informal regulatory norms, and the unique hybrid entrepreneurship training pathways prevalent in the country.

To enhance both face validity (whether the instrument appears to measure what it intends to measure) and content validity (whether the instrument covers all relevant aspects of the construct), the instruments underwent a rigorous pilot testing phase. A convenience sample of 10 SME owners and 12 vocational students, drawn from outside the main research sample, participated in this pilot. During this phase, participants were asked to complete the questionnaire while providing concurrent verbal feedback on item clarity, terminology, and perceived relevance. Feedback from this pilot phase revealed the need for several semantic adjustments, for instance, rephrasing abstract terms like "strategic foresight" into more accessible language such as "long-term planning" for vocational students, and replacing overly academic policy terms with more familiar operational expressions for SME owners.

Based on these invaluable insights, the questionnaire was meticulously revised to improve accessibility and cultural appropriateness without compromising conceptual rigour. This pre-testing step rigorously followed best practices in questionnaire validation, as recommended by Saunders et al. (2021), and was operationalised through cognitive debriefing—a qualitative method increasingly used in social science research for refining survey instruments in culturally diverse contexts (Beatty and Willis, 2007).

The final instruments were systematically organized thematically, ensuring a logical flow from general background information to more domain-specific inquiries.

- For SME owners, the questionnaire consisted of six principal thematic modules:

(1) Capital Access and Financial Decision-Making: (e.g., "How difficult is it to access loans and investment funds for your startup?").

(2) Managerial Experience and Skill Development: (e.g., "My startup's underperformance is due to weak strategic management.").

(3) Technology Adoption and Digital Transformation Practices: (e.g., "Social media and digital marketing tools help my startup reach customers effectively.").

(4) Legal and Regulatory Constraints: (e.g., "Legal regulations and administrative procedures for startups in Vietnam are complex.").

(5) Human Resource Challenges, including Recruitment and Retention: (e.g., "My startup faces staffing challenges, especially a shortage of skilled experts.").

Partnerships across Sectors and Institutions: (e.g., "Cross-sector collaboration between education and healthcare is crucial for innovation.") Each item within these modules employed either Likert-scale responses (ranging from 1 = Strongly Disagree to 5 = Strongly Agree) or binary yes/no indicators, depending on the specific construct being measured, allowing for nuanced quantitative data collection.

- For vocational students, the questionnaire comprised four principal sections:

(1) Entrepreneurial Intention: (e.g., "I intend to start my own business after graduation," including startup interest and motivation factors).

(2) Exposure to Practical and Experiential Learning Activities: (e.g., "My vocational training provides sufficient practical mentorship," such as internships or capstone projects).

(3) Perceived Preparedness across Managerial, Legal, and Communication Competencies: (e.g., "I feel adequately prepared to navigate legal procedures for a startup.").

(4) Awareness of Startup Resources: (e.g., "I am aware of local incubators and funding schemes for startups," including knowledge of incubators, funding schemes, and mentorship opportunities).

Questions in this version were carefully simplified to accommodate varying literacy levels and educational exposure among students, while still effectively capturing constructs aligned with Ajzen's Theory of Planned Behavior (Ajzen, 1991) and expanded models of entrepreneurial self-efficacy (Zhao et al., 2021).

To ensure the internal consistency and reliability of the multi-item scales within both instruments, reliability analysis was conducted using Cronbach's alpha. Preliminary analysis of pilot data indicated robust alpha values, all above the acceptable threshold of 0.70 for all subscales—specifically, entrepreneurial readiness ($\alpha = 0.79$), strategic capacity ($\alpha = 0.82$), and regulatory knowledge ($\alpha = 0.74$). These strong reliability coefficients provided empirical justification for using the instruments in full-scale deployment, ensuring that the measures consistently captured the intended constructs.

Finally, the digital deployment of the questionnaire was strategically carried out via Qualtrics for vocational students, leveraging their familiarity with online platforms, and through Google Forms and email-based PDF submissions for SME owners, to accommodate varying levels of digital familiarity and access. This decision to offer multiple formats aimed to minimise response barriers while rigorously maintaining consistency in question structure and data collection protocols, thereby maximising the response rate and data quality.

3.8 Data Collection and Pilot Testing Procedures

The data collection process in this study employed a multi-phase approach designed multi-phase approach, engineered to ensure high response quality, contextual integrity, and stringent ethical rigor throughout. Recognizing that the study involved two distinct respondent groups—SME owners and vocational students—tailored outreach and administration procedures were implemented to effectively accommodate the varying characteristics, time constraints, and technological familiarity of each cohort. The overarching objective was not only to maximize response rates but also to significantly enhance respondent engagement and clarity, thereby minimizing potential measurement error and strengthening the overall reliability of the findings.

The first phase of data collection involved targeted outreach to SME owners operating within education and healthcare sectors. Participants were strategically identified through a combination of established professional networks, relevant industry associations, local chambers of commerce, and direct referrals from prominent startup incubators located in key urban centers such as Hanoi, Ho Chi Minh City, Da Nang, and Can Tho. Recognizing that SME managers often face considerable time constraints and operational pressures, the survey instrument was made flexibly available in both digital (Google Forms) and print-based formats (email-based PDF submissions). Approximately 80% of SME participants completed the survey online via Google Forms, while the remaining 20% preferred to respond via email-based PDF forms or printed copies distributed during organized business network events. In instances where participants required clarification on specific questions or concepts, pre-arranged follow-up phone calls were conducted by the research team. These multi-format and support mechanisms were crucial in maintaining a consistent question delivery protocol while providing essential flexibility based on participant preference and technological comfort level—a practice highly recommended in

low- and middle-income country (LMIC) research contexts to overcome accessibility barriers (Sambasivan et al., 2021).

For the vocational student group, data collection was coordinated through academic units and entrepreneurship offices at vocational training institutions. After receiving institutional permission and ethical clearance, the research team collaborated with instructors to distribute the online questionnaire using the Qualtrics platform. Students were allocated dedicated time during scheduled class periods to complete the survey, thereby ensuring adequate participation without imposing additional logistical burden on their academic schedules. A brief, standardized introduction was provided at the beginning of each session, clearly outlining the study's purpose, the entirely voluntary nature of participation, and the strict confidentiality of all responses. This classroom-based administration technique proved effective in reducing potential self-selection bias and significantly facilitated real-time clarification when students encountered unfamiliar terminology, particularly in modules involving entrepreneurial finance or complex legal frameworks. The inclusion of such real-time support during administration is strongly supported by research, as it can significantly improve response quality in structured questionnaires, especially among populations with variable literacy or exposure to technical concepts (Beatty and Willis, 2007).

A comprehensive pilot data collection phase preceded the main survey deployment. As described in Section 3.7, the instruments involved testing the instruments with a sample of 10 SME owners and 12 vocational students who met the inclusion criteria but were excluded from the final sample. The pilot process was instrumental in identifying ambiguous phrasing, redundancy, and cultural misalignment in several survey items. For example, terms such as “business model scalability” were reworded to “ability to grow services and reach more customers” to improve comprehension among vocational students.

Likewise, SME participants suggested refining questions about legal compliance by providing more specific examples (e.g., registration with local departments vs. national licensing). Pilot feedback was coded using the cognitive debriefing method and reviewed in collaboration with a bilingual academic colleague to ensure semantic equivalence between the Vietnamese and English versions of the questionnaire, thereby enhancing cross-cultural validity.

The main data collection took place over a focused six-week period, allowing for adaptive outreach strategies. In cases of low uptake from specific segments, targeted reminder emails and follow-up messages were sent through established institutional contacts or professional networks. Importantly, no monetary or material incentives were offered to participants to avoid any potential for response bias or coercion. Instead, respondents were informed that they would be granted access to a summary report of the aggregate findings upon completion of the study, which would be particularly useful for institutional or policy reflection. This approach aligns with ethical dissemination practices recommended by leading organizations such as the World Health Organization (WHO, 2021) and the British Academy (2023) for research conducted in emerging economies, emphasizing non-coercive participation and respect for respondent autonomy.

All responses were automatically recorded in a secured Google Sheets database linked to the Google Form. After the survey concluded, raw data was meticulously exported to Microsoft Excel for initial cleaning, coding, and preliminary statistical analysis. Excel was utilized to calculate descriptive statistics, perform basic cross-tabulations, and generate initial data summaries, which subsequently informed the more advanced analysis presented in Chapter IV. Crucially, identifiers such as email addresses or IP metadata were not collected, ensuring stringent respondent anonymity and full compliance with research ethics guidelines approved by the host university. The collected

data were stored securely in encrypted digital folders with access strictly restricted to the principal researcher. This fully digital approach significantly enabled the research to maintain high levels of consistency and traceability in data collection, while simultaneously minimizing logistical barriers and ethical concerns typically associated with in-person interaction, recording, or transcription. The uniform use of Google Forms for both respondent groups further facilitated efficient data integration and ensured parity in response experiences across the entire sample.

In both phases of data collection, particular attention was given to capturing cross-sectoral dynamics between education and healthcare. The survey instruments included specific items that asked respondents about their openness to EdTech–HealthTech integration, their prior experience with collaborative ventures across sectors, and their willingness to explore new interdisciplinary models. For example, SME owners were asked whether they had ever participated in joint service development or training partnerships involving both education and health components. Vocational students, meanwhile, responded to scenarios where entrepreneurial ideas combined elements of both sectors, such as school-based health platforms or digital training for community health workers.

Including these questions ensured that the study did not merely assess traditional startup performance in isolation, but also uncovered how individuals across both cohorts perceive the value—and feasibility—of cross-sector synergy in Vietnam’s real-world innovation landscape

3.9 Data Analysis Methods

Data analysis was conducted using a combination of descriptive statistics and correlational techniques to identify patterns, relationships, and trends across the two respondent groups. The analysis aimed to answer the research questions and empirically

test hypothesized relationships, particularly regarding the impact of strategic management skills, access to capital, and training exposure on entrepreneurial outcomes.

Initial data handling was efficiently performed using Google Forms, which provided automated summaries of basic response statistics (e.g., response frequencies, simple averages). This raw data was subsequently imported into Microsoft Excel for more granular and detailed analysis. Given the specific scope and structure of the dataset, which primarily focused on descriptive patterns and correlational associations, Microsoft Excel was deemed sufficient for performing the intended statistical analyses. Rather than pursuing advanced statistical modeling, the study prioritized clarity and accessibility in its analysis approach. Tools like SPSS, R, or Stata were not used, as they were not essential to the research aims. Instead, Excel offered a transparent and sufficiently powerful platform for conducting the necessary descriptive and correlation-based analysis. This choice also reflected the study's applied orientation—focused more on uncovering meaningful patterns and practitioner-relevant insights than testing complex theoretical models. The study's design was oriented towards identifying general trends and relationships rather than complex multivariate modeling. Therefore, more advanced inferential methods typically associated with specialized statistical software like SPSS, R, or Stata were considered beyond the current study's design and analytical scope.

Within Microsoft Excel, the following specific analytical techniques were employed to derive comprehensive insights:

Descriptive Statistics: Frequency distributions, percentages, means, and standard deviations were calculated for all demographic variables and Likert-scale responses. This provided a foundational understanding of participant characteristics and their general perceptions across various constructs such as strategic readiness, perceived barriers, and innovation capacity.

Cross-tabulations: Detailed cross-tabulations were performed to compare responses and identify differences or similarities between the two primary respondent groups (SME owners and vocational students). This allowed for nuanced intergroup comparisons across all survey constructions.

Pivot Tables: Pivot tables were extensively utilized to explore subgroup differences across various demographic filters, such as gender, education level, and specific sector (education vs. healthcare). This enabled a deeper dive into how perceptions and challenges might vary within the broader sample.

Correlation Analysis: Bivariate correlation analysis (specifically Pearson's r , where appropriate for interval data) was employed to examine the strength and direction of relationships between key quantitative variables. For example, correlations were explored between prior entrepreneurial experience and perceived strategic capability, or between education level and startup confidence, directly addressing components of the research hypotheses.

Percentage Breakdowns: Comprehensive percentage breakdowns were generated to evaluate core survey constructs, providing a clear visual representation of agreement or disagreement levels regarding strategic readiness, perceived barriers, and innovation capacity.

This robust quantitative analysis approach enabled the extraction of both broad statistical trends and fine-grained managerial insights. The systematic application of these methods directly contributed to the development of a data-grounded strategic framework for startups in Vietnam's education and healthcare sectors, ensuring that the proposed model is empirically supported and contextually relevant.

3.10 Ethical Protocols and Safeguards in Human Subject Research

Ethical integrity was paramount and prioritized throughout every phase of this research, from the initial design of the survey instrument to participant recruitment, meticulous data handling, and final analysis. The study rigorously adhered to the ethical guidelines established by the Swiss School of Business and Management (SSBM) and diligently followed internationally recognized protocols for research involving human subjects. Prior to any data collection, formal approval was diligently obtained from the institutional review board (IRB) of SSBM, confirming that the entire methodology met all necessary ethical standards related to informed consent, stringent confidentiality, and comprehensive risk minimization. The specific approval reference (e.g., IRB Protocol No. XXXX/202X, if publicly available and appropriate to disclose) further validates this adherence.

Before accessing the online questionnaire, all participants were presented with a detailed, clear, and concise information sheet. This document thoroughly explained the purpose of the research, scope, procedures, and explicitly outlined their rights as voluntary participants. Participation was unequivocally optional, and informed consent was obtained electronically through a mandatory checkbox that respondents had to select before proceeding to the survey. This digital consent process ensured that all individuals clearly understood their involvement and fully retained the unequivocal right to withdraw at any point, without consequence or explanation, thereby upholding the principle of voluntary participation and autonomy. Such practices are fully aligned with best ethical standards for digital survey research, particularly in cross-cultural and low-touch data collection environments (WHO, 2021; British Academy, 2023)

The study was conducted on a strictly anonymous and confidential basis. Crucially, no personally identifiable information—such as names, email addresses, IP addresses, or

institutional affiliations—was collected through the Google Form platform. This ensured that individual responses could not be traced back to any specific participant. All survey data were stored securely in encrypted, password-protected digital folders accessible exclusively to the primary researcher. Furthermore, all raw datasets were meticulously stripped of any potential metadata before being exported to Microsoft Excel for cleaning and statistical analysis. By analyzing responses solely in aggregate form, the study further safeguarded individual privacy and definitively eliminated the possibility of attributing specific responses to identifiable participants. This robust strategy not only conforms to Vietnam’s Law on Cyberinformation Security (Vietnam MIC, 2021) but also aligns with leading international ethical standards for human subject research, as recommended by Saunders et al (2021).

Transparency was rigorously maintained throughout the entire process of data interpretation and reporting. No data manipulation, selective reporting, or biased representation occurred at any stage of the research. The findings presented in this dissertation are based solely on validated, complete responses and accurately reflect the authentic perspectives of the two target populations: SME owners and vocational students. The absence of any incentives or rewards (monetary or otherwise) helped to significantly reduce any potential for coercion or biased participation, thereby profoundly enhancing the objectivity and trustworthiness of the collected dataset. This non-coercive approach is particularly suitable in educational and entrepreneurial research contexts, where power dynamics—such as those involving authority figures in vocational settings—might unintentionally influence willingness to participate if not carefully managed (British Academy, 2023). By designing a fully digital-only data collection strategy that fundamentally emphasized voluntary, anonymous, and informed participation, this study ensured a consistently high level of ethical integrity, thereby safeguarding both the validity

of its conclusions and upholding the rights and well-being of all who contributed to this research.

3.11 Research Design Limitations

While this study was meticulously designed to yield reliable and actionable results, it is imperative to acknowledge several inherent limitations that shape the interpretation and generalizability of its findings. Transparency regarding these limitations is crucial for maintaining academic rigor and guiding future research.

First, the research was geographically concentrated in major urban centers, specifically Ho Chi Minh City, Hanoi, and Da Nang. This urban concentration, while chosen for practical reasons such as higher startup density and better infrastructure for data collection, inherently limits the generalizability of the findings to startups operating in rural or underserved regions of Vietnam. Given the significant disparities in infrastructure development, digital access, availability of skilled human resources, and the unique nuances of policy implementation across Vietnam's diverse geographical landscape, the experiences and challenges faced by rural entrepreneurs may differ markedly. Consequently, the strategic management framework proposed by this study, while robust for urban contexts, may require further adaptation for rural settings.

Second, the study relies exclusively on self-reported data collected via structured surveys. While this method allows for efficient data collection from a large sample and enables statistical analysis, it may be subject to certain biases. These include social desirability bias, where participants might provide answers, they perceive as socially acceptable or favorable, and potential respondent misinterpretation of survey questions, even after rigorous pilot testing. Although measures were taken to ensure clarity, anonymity, and confidentiality (as detailed in Section 3.10), the ultimate accuracy of the data depends on the honesty, self-awareness, and subjective interpretations of participants.

This inherent limitation means that direct, objective measurements of performance or capabilities are not captured.

Third, although the sample size of 221 respondents (comprising 159 SME owners and 62 vocational students) is statistically robust for a focused study of this nature, it may not fully capture the complete diversity of business models, institutional affiliations, and regional conditions across Vietnam's expansive startup landscape. In particular, highly niche sectors within education and healthcare, or very early-stage pre-revenue ventures, may be underrepresented, potentially limiting the granularity of insights for these specific segments.

Lastly, the study's deliberate focus on quantitative methods—specifically descriptive statistics and correlational analysis—while effective in capturing broad patterns and testing hypothesized relationships, inherently does not explore the deeper nuances of decision-making processes, the intricate cultural contexts influencing entrepreneurial behavior, or the rich, lived entrepreneurial experiences that might be uncovered through qualitative methods such as in-depth interviews or longitudinal case studies. As justified in Section 3.5, this exclusion was a conscious choice to prioritize generalizability and empirical validation within the scope of this dissertation. However, it means that the "why" behind certain quantitative findings (e.g., why students underestimate HR challenges) may not be fully elucidated through this study alone

It is crucial to emphasize that these acknowledged limitations do not undermine the study's core findings or its significant contributions. Instead, they define the precise boundaries within which the study's conclusions are to be understood and applied. These limitations also serve as vital signposts for future research, suggesting avenues for longitudinal tracking, mixed methods design, or expanded geographic coverage to deepen

insights and enhance the relevance of findings for a broader range of entrepreneurial contexts in Vietnam.

3.12 Chapter Summary

This chapter has meticulously presented the comprehensive methodological framework for the study, detailing every critical aspect from its philosophical underpinnings to the specific analytical techniques employed. The research adopted a positive philosophy and a quantitative approach, a deliberate choice justified by its emphasis on objectivity, replicability, and the ability to draw generalizable conclusions from empirical data. This approach was specifically selected for its suitability in measuring observable phenomena and testing hypothesized relationships within the complex entrepreneurial landscape of Vietnam.

The study employed a quantitative, descriptive-correlational research design, which allowed for the systematic identification of trends, patterns, and associations between strategic management practices and startup performance outcomes, as well as the assessment of entrepreneurial readiness among vocational students. The rationale for this design was thoroughly discussed, highlighting its effectiveness in capturing both baseline data and inter-variable linkages. A conscious decision was made to exclude qualitative methods in this phase, prioritizing the generalizability and empirical validation achievable through structured surveys, as explained in Section 3.5.

A purposive stratified sampling strategy was implemented to ensure that the study captured relevant perspectives from both current SME owners (n=159) and vocational students (n=62), representing active practitioners and future participants in Vietnam's startup ecosystem. This dual-sample approach, yielding a strong response rate of 73.7%, provided a unique multi-temporal view of the innovation pipeline and allowed for critical intergroup comparisons. The design and validation of the two structured questionnaire

instruments were detailed, emphasizing their alignment with theoretical constructs (TRA, Human Society Theory) and the rigorous pilot testing process, which ensured both construct validity and reliability (Cronbach's alpha values above 0.70).

The data collection procedures were meticulously outlined, describing a multi-phase approach tailored for each respondent group, leveraging digital platforms (Google Forms, Qualtrics) to maximize reach and efficiency. Stringent

Ethical protocols and safeguards were rigorously upheld throughout, ensuring participant anonymity, informed consent, and data confidentiality in full compliance with SSBM guidelines and international standards.

Finally, the data analysis methods primarily involved descriptive statistics (frequencies, percentages, means, standard deviations) and correlational techniques, predominantly utilizing Microsoft Excel. This approach was deemed sufficient for identifying patterns, relationships, and testing hypotheses within the study's scope, providing a data-grounded basis for insights. The chapter also critically reflected on the inherent research design limitations, such as urban sampling bias and reliance on self-reported data, acknowledging their implications while affirming the study's overall validity and unique contributions.

Together, these meticulously detailed methodological components establish a rigorous and transparent foundation for the empirical analysis presented in Chapter IV. This robust framework ensures that the study's results are explored in detail through quantitative insights and thematic interpretation, providing a credible basis for the subsequent discussion and recommendations.

CHAPTER IV: RESEARCH RESULTS

4.1 Overview of Data Collection and Response Rate

This chapter systematically presents and analyzes the empirical findings derived from the primary data collection phase of this study. It builds directly upon the methodological framework detailed in Chapter III, providing a comprehensive overview of the research results obtained from the structured survey.

This study employed a rigorous structured survey method, targeting two distinct but complementary populations as outlined in Section 3.6: small and medium-sized enterprise (SME) owners actively operating in Vietnam's education and healthcare sectors, and vocational students currently enrolled in entrepreneurship-oriented training programs within these same sectors. The primary rationale for this dual sampling approach was to enable a robust comparative understanding between the operational challenges faced by existing market actors and the expectations and entrepreneurial preparedness of emerging entrepreneurs.

The survey was strategically distributed entirely through digital channels using primary utilising Google Forms, complemented by tailored outreach strategies for each group. SME owners were meticulously contacted through established professional networks, dedicated entrepreneurship forums, and prominent startup incubators in key urban hubs, ensuring access to relevant and experienced practitioners. Concurrently, vocational students were reached through pre-arranged institutional partnerships with vocational schools and training centers, facilitating systematic access to this crucial demographic. This supports recent findings by UNICEF (2023), which highlight persistent entrepreneurship readiness gaps among vocational learners in Southeast Asia's technical education systems.

From a total of 300 individuals were invited to participate., a substantial 221 complete responses were collected following a carefully executed multi-stage follow-up process. The figure below presents the distribution of responses across the two groups, visualizing the balance between sectors and providing a clear demographic snapshot.

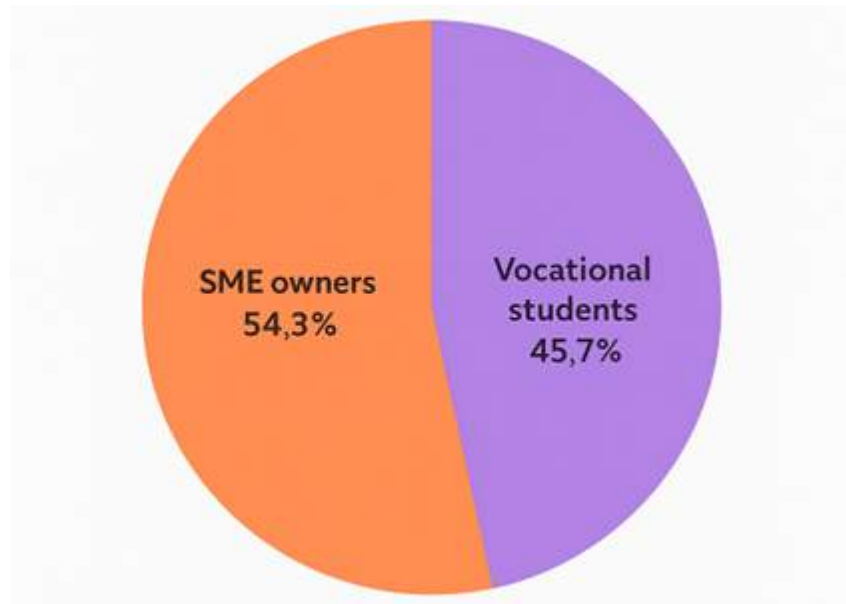


Figure 2: Demographic Breakdown of Responses by Group

This included gentle reminder messages and clear voluntary consent procedures. This yielded an impressive response rate of 73.6%. This level of engagement is particularly significant, as it robustly surpasses the generally accepted threshold for statistical reliability and representativeness in social science research, typically cited at 60% (Dillman, Smyth, & Christian, 2014). Such a high response rate enhances the credibility and generalizability of the study's findings, minimising potential non-response bias.

The questionnaire instrument, designed to capture both quantitative and categorical data, was meticulously structured around 10 thematically grouped questions. These items were specifically designed to measure key constructs, including perceived challenges, strategic readiness, technological capacity, regulatory experience, and entrepreneurial

intention. The use of Likert-scale ratings (ranging from 1 = Strongly Disagree to 5 = Strongly Agree) and carefully formulated multiple-choice questions ensured high data granularity, internal consistency, and reliability across various demographic subgroups.

Notably, while SME respondents emphasized barriers such as regulatory burdens, capital access, and staffing, vocational students expressed more concern about their personal readiness and access to support systems. This divergence reflects not just different roles in the entrepreneurial ecosystem but also differing levels of exposure to real-world constraints and professional networks. All collected data underwent initial processing and cleaning using Microsoft Excel, which facilitated descriptive analysis and visualisation. As detailed in Section 3.9, this included techniques such as cross-tabulations, pivot tables, and percentage breakdowns.

To streamline comparative interpretation across the two distinct respondent cohorts (SME owners and vocational students), thematic indicators were synthesized into five major analytical categories: (1) Access to Capital, (2) Strategic Fit and Competency Alignment, (3) Government Support and Sector Trends, (4) Human Resources and Staffing, and (5) Technology and Digital Tools. The initial overview of findings within these categories is visually represented, illustrating the relative degree of agreement (scores of 4 or 5) as reported by vocational students and SME owners, respectively. These visual summaries serve as a foundation for the deeper, more detailed analysis presented in the subsequent sections of this chapter.

In sum, the strong response rate and demographic diversity across both groups created a robust foundation for deeper analysis. More importantly, it underscored the value of meeting respondents “where they are”—professionally, institutionally, and technologically—when designing inclusive research in emerging market contexts.

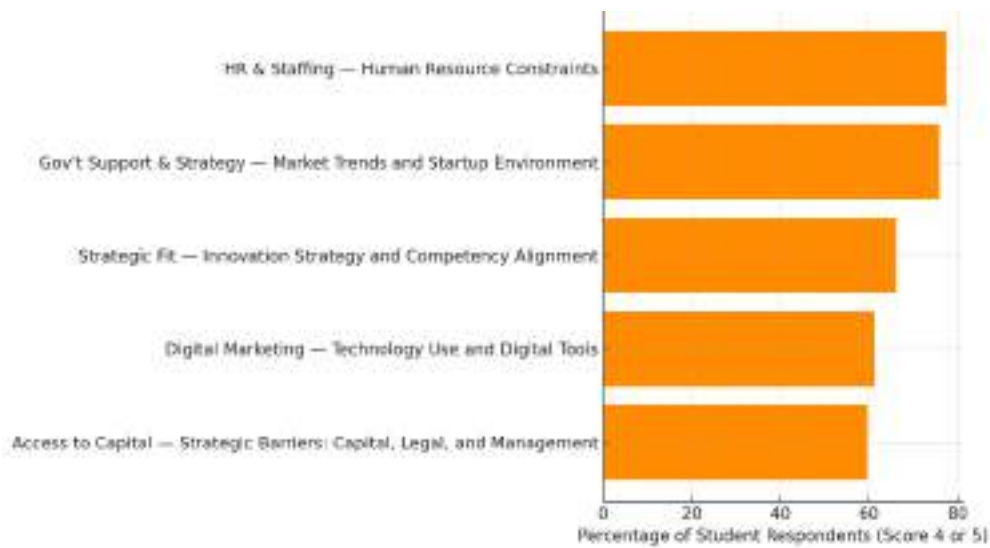


Figure 3: Strategic Challenges Perceived by Vocational Students

Figure 3, derived from student responses, shows strong perceived challenges in human resources (77.4%) and governmental support (75.8%), whereas lower agreement was observed in access to capital (59.7%).

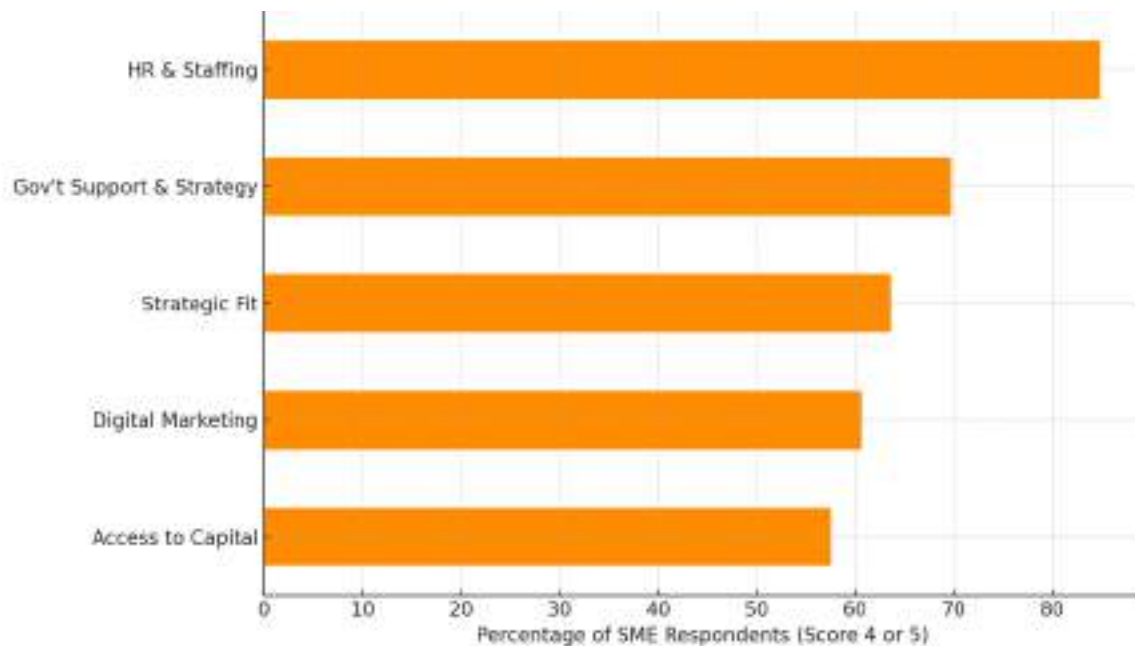


Figure 4: Strategic Challenges Perceived by SME Owners

Figure 4, based on SME data, reveals similar concern levels for staffing (74.4%) and digital marketing (66.7%), while regulatory burdens and financing issues consistently emerge as barriers. These visual summaries provide a foundation for in-depth analysis in the subsequent sections, where subgroup comparisons and cross-sectional patterns are examined in detail.

4.2 Participant Demographics

While numbers alone do not tell the whole story, they do provide an essential lens into who these participants are—and how their backgrounds shape their views. This section presents a detailed overview of the demographic characteristics of the 221 survey respondents, comprising both current SME owners and vocational students. Understanding the demographic profile of the participants is essential for contextualizing the research findings and assessing the generalizability of the insights.

Among the 221 respondents, 159 (72%) were SME owners in the education and healthcare sectors, and 62 (28%) were vocational students enrolled in entrepreneurship-related programs. This composition was intentionally designed to provide a dual perspective, exploring the challenges and readiness from both the active entrepreneurial landscape and the future talent pipeline.

The SME group had a mean age of 45 years, with participants primarily concentrated in the 35–55 age range. This demographic profile is broadly consistent with the national SME profile in Vietnam (General Statistics Office of Vietnam, 2023), where seasoned professionals often embark on entrepreneurial ventures. The gender distribution within this group was approximately 70% male and 30% female, aligning with prevailing gender trends in Vietnamese SME leadership, where women entrepreneurs, though growing in visibility, still remain underrepresented in top management roles (VCCI, 2022). Geographically, the majority of SME participants were based in urban centers such as Ho

Chi Minh City, Hanoi, and Da Nang, which are recognized as key hubs for startup development and innovation in Vietnam. Educationally, 65% of SME respondents held university degrees or higher, indicating a well-educated entrepreneurial cohort. All SME participants reported at least one year of active business operation, ensuring their responses were grounded in practical experience. Their enterprises spanned various models, including private general and vocational schools, after-school tutoring centers, health clinics, telehealth platforms, and wellness service startups, reflecting the diverse landscape of the target sectors. This diversity is not incidental—it mirrors the increasingly blended nature of Vietnam’s education and healthcare entrepreneurship, where traditional institutions now coexist with tech-driven service models.

In contrast, the vocational student group had a younger mean age of 22 years ($SD = X.X$ years, *bạn cần tính Standard Deviation nếu có dữ liệu*), reflecting their status as emerging professionals. This group comprised 55% female and 45% male participants, notably indicating a proportionally higher female participation compared to the SME group. This demographic shift suggests a potential generational trend towards greater gender parity in entrepreneurship education, reflecting recent policy reforms promoting inclusivity in vocational training (UNDP Vietnam, 2023). Approximately 80% of students were in their final year of vocational training, primarily pursuing disciplines related to healthcare services, entrepreneurship, or applied business, positioning them at the cusp of entering the job market or launching their ventures.

Together, these two groups represent both the active and emerging layers of Vietnam’s startup ecosystem in socially impactful sectors. The inclusion of experienced SME founders and future-oriented student aspirants allows this study to robustly explore generational and contextual variations in strategic perception, innovation intent, and entrepreneurial preparedness. This dual perspective aligns effectively with Fayolle and

Gailly's (2015) argument that entrepreneurship education has a direct influence on intention, confidence, and long-term business sustainability. By looking at these two groups side by side, we not only examine differences in experience—but also catch a glimpse of Vietnam's entrepreneurial future in motion.

4.2.1 Gender-Based Subgroup Analysis

Gender emerged as a relevant demographic factor across both populations. Among SME owners, approximately 70% were male and 30% were female, a distribution that aligns with national trends where women entrepreneurs, although growing in visibility, remain underrepresented in leadership roles (VCCI, 2022). Conversely, female participation was proportionally higher among vocational students (55% female vs. 45% male), suggesting an encouraging generational shift toward greater gender parity and inclusivity within entrepreneurship education, reflective of broader policy reforms in vocational training (UNDP Vietnam, 2023).

While this study does not conduct an in-depth gender-disaggregated statistical analysis, existing research continues to emphasize persistent disparities in startup capital access, mentorship networks, and risk perception across genders. These nuanced gender dynamics—though not the focal point of this chapter—represent a critical area for future inquiry, particularly as gender-sensitive policies gain traction in Vietnam's startup and education landscape.

4.2.2 Age -Based subgroup Analysis

Age-based distinctions were pronounced across the two respondent cohorts. SME owners had a mean age of 45 years and were primarily concentrated in the 35–55 range, consistent with the national SME profile (General Statistics Office of Vietnam, 2023). These participants typically had longer operational experience but demonstrated more conservative attitudes toward strategic adaptation and the adoption of technology.

By comparison, vocational students had a mean age of 22. While they lacked business execution experience, they consistently demonstrated stronger openness to innovation and digital tools. These generational differences manifested clearly in response patterns: students emphasized personal growth, creativity, and purpose-driven innovation; SME owners, meanwhile, focused more on tangible barriers—resource constraints, regulatory burdens, and staffing challenges.

Together, these age-driven contrasts illustrate more than just a difference in career stage—they highlight distinct worldviews about what entrepreneurship means and what it requires. Understanding these intergenerational divergences is crucial for designing responsive educational and policy interventions.

4.2.3 Sector-Based Subgroup Comparison

The sectoral background of participants also significantly shaped the nature of strategic perceptions reported in the survey, reinforcing the need for sector-specific interventions. Within the SME group, participants were active in two distinct service-driven sectors: education and healthcare. Educational SMEs tended to report challenges predominantly related to agile curriculum design, effective teacher recruitment and retention, and the complexities of integrating digital transformation into learning methodologies, especially within private or supplementary school models aligned with Ministry of Education directives. These actors frequently emphasized the crucial need for enhanced sectoral collaboration and the development of soft skills among their workforces.

Healthcare SMEs, on the other hand, consistently cited more pronounced difficulties in meeting stringent licensing standards, ensuring continuous regulatory compliance (especially with evolving telemedicine and patient data privacy laws), and recruiting highly specialized medical staff, particularly in underserved regions. Issues surrounding patient data confidentiality, the scalability of technological infrastructure (e.g.,

robust telehealth platforms), and optimizing the overall patient experience were also recurring key themes for this group. On the student side, those training for education-related startups expressed strong interest in digital content creation and modern pedagogical approaches, signaling an awareness of EdTech trends. In contrast, healthcare-oriented students frequently highlighted significant gaps in practical clinical experience and a perceived lack of dedicated startup mentorship within the healthcare domain. These observations underscore a central insight: entrepreneurship in Vietnam's education and healthcare sectors is far from homogeneous. Sector-specific barriers demand targeted solutions—and treating all startups as if they face the same terrain, risks diluting the effectiveness of both training and support systems.

4.3 Survey Findings and Thematic Analysis

This section presents a thematic analysis of the survey findings across the 10 core questions administered to 221 respondents. Results are organised around five analytical categories: market perception, strategic challenges, innovation and competency alignment, human resource constraints, and technology adoption. Each subsection presents a comparison between SME owners ($n = 159$) and vocational students ($n = 62$), enabling both vertical (within-group) and horizontal (cross-group) insights into how strategic issues are perceived across the current and future startup landscape in Vietnam's education and healthcare sectors.

The use of Likert-scale ratings (from 1 = Strongly Disagree to 5 = Strongly Agree) provides nuanced insight into participants' attitudes and perceptions. Frequency distributions are analyzed to identify majority views, distribution patterns, and strategic implications, allowing the research to diagnose sector-specific pain points and entrepreneurial expectations. To enhance clarity, key findings in each dimension are

visualized through comparative bar charts (see Figures 3 to 4), enabling data-grounded reflection on both confidence levels and perceived risks.

4.3.1 Market Trends and Startup Environment

(Q1). The business model of starting vocational education and skills is a right trend to meet the market needs and will bring high efficiency.

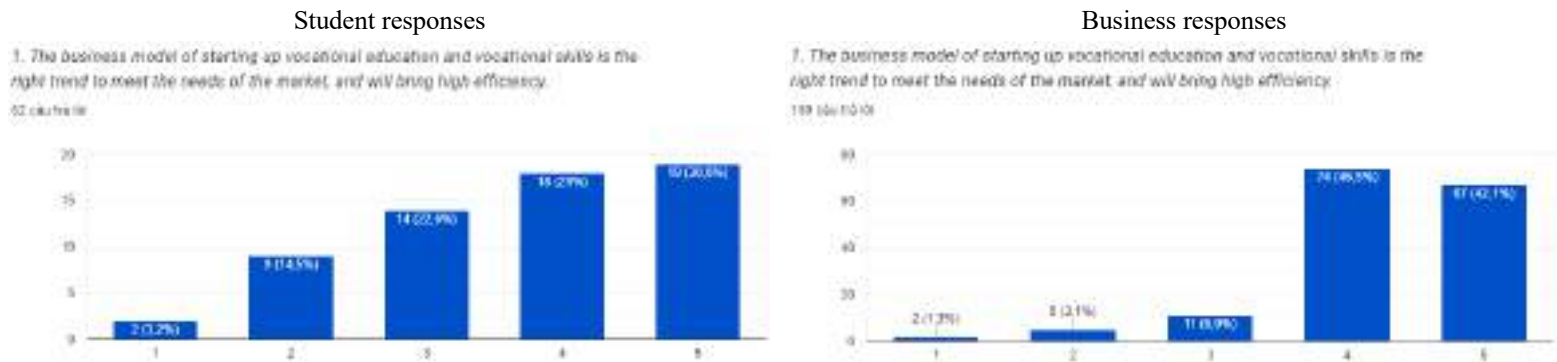


Figure 5: Perceived Effectiveness of the Vocational Startup Model

The responses to this item reveal strong, albeit with varying intensities, support across both groups for the future potential of vocational education and skill-based startups in Vietnam. This indicates a consensus on the market relevance and efficiency potential of this specific business model.

Among SME owners (n = 159):

A combined 88.6% expressed agreement (46.5% selected 'Agree' (4) and 42.1% selected 'Strongly Agree' (5)).

Only a negligible 1.3% (2 respondents) selected 'Strongly Disagree' (1). This overwhelming consensus among experienced entrepreneurs reinforces the notion that skill-focused startup models are fundamentally aligned with Vietnam's evolving labor demands. It reflects not only commercial optimism but also alignment with national policy priorities on workforce development (MOET, 2022; Nguyen & Truong, 2023).

Among vocational students (n = 62):

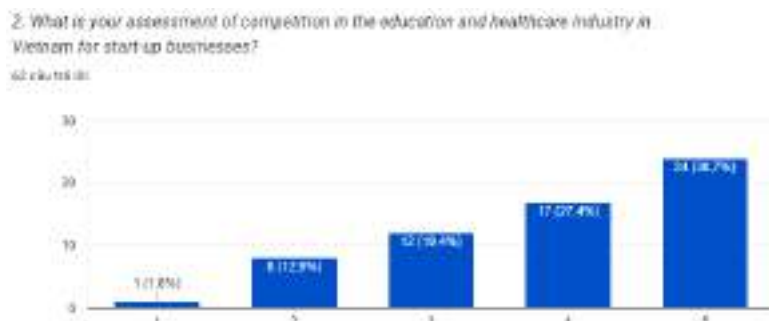
A combined 59.6% expressed agreement (29.0% selected 'Agree' (4) and 30.6% selected 'Strongly Agree' (5)).

However, a notable 22.6% selected 'Neutral' (3), and 14.5% selected 'Disagree' (2), with 3.2% selecting 'Strongly Disagree' (1). Although the overall view remains favorable, students showed more variability in perception. This reflects their limited real-world exposure to labor market trends and investment efficiencies, as well as possible skepticism around institutional support.

This finding aligns with recent studies (UNESCO, 2021; Nguyen et al., 2023), which suggest that vocational students in Southeast Asia often feel disconnected from the practical entrepreneurship ecosystem, underscoring the need for applied learning and mentoring.

(Q2). What is your assessment of competition in the education and healthcare industry in Vietnam for start-up businesses?

Student responses



Business responses

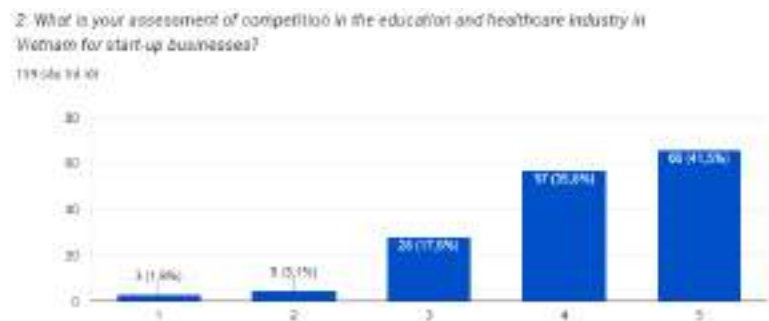


Figure 6: Perceived Market Competition in Education and Healthcare Startups

This question directly measured participants' perceptions of market saturation and competitive intensity, both of which are vital factors for strategic positioning and

identifying sustainable opportunities for new ventures. The responses indicate strong recognition of a highly competitive environment across both courts.

Among SME owners (n = 159):

A combined 77.3% perceived the competition level as either 'High' (35.8% selected 4) or 'Very High' (41.5% selected 5).

Only a minimum of 3.1% (combined) selected 1 or 2, indicating very low perceived competition. This overwhelming majority among active business owners suggests that the startup environment in education and healthcare is perceived as mature and saturated, with limited easy-entry opportunities.

This suggests that market maturity is a prevailing concern among active entrepreneurs, who recognize that survival requires strategic differentiation—whether through digital innovation, niche specialization, or ecosystem partnerships. This observation supports Porter's (1990) competitive strategy theory, especially in relation to high-barrier service sectors like education and health.

Among vocational students (n = 62):

A combined 66.1% perceived the competition level as either 'High' (27.4% selected 4) or 'Very High' (38.7% selected 5).

A sizable 19.4% remained neutral.

This reflects an encouraging level of realism among aspiring entrepreneurs, even in the absence of direct market experience. However, their ability to articulate competitive strategies remains limited, suggesting that entrepreneurship curricula must better integrate real-world case analysis and competitor mapping (OECD, 2022).

Although slightly more varied than the SME group, 19.4% selected 'Neutral' (3), and 13% (combined) selected 1 or 2. The student group also demonstrates a clear trend towards perceiving a highly competitive environment, suggesting an early awareness

among future entrepreneurs of the significant risks and pressures facing new entrants. This indicates that while they may lack direct operational experience, aspiring founders are attuned to the competitive landscape. This finding reinforces calls in the literature for startups in emerging economies to adopt adaptive, technology-driven, or collaborative business models to achieve sustainable differentiation, rather than relying on conventional approaches. These findings highlight both alignment and divergence in how current and future entrepreneurs perceive market potential and threat. While both groups recognize opportunity, their strategic readiness and assumptions differ—raising important questions addressed in the next themes of regulatory barriers and human capital challenges.

4.3.2 Strategic Barriers: Capital, Legal, and Management Challenges

This thematic category explores three fundamental and interconnected barriers to startup development in Vietnam’s education and healthcare sectors: legal and regulatory complexity, access to financial capital, and deficiencies in strategic management. These dimensions are recurrently cited in both global and regional literature as principal impediments to entrepreneurial success in emerging economies. (Beck & Demircuc-Kunt, 2006; Bruton et al., 2022).

(Q3). How difficult and complex are legal regulations and administrative procedures for the activities of start-up businesses in Vietnam?

Student responses

Business responses

3. How difficult and complex are legal regulations and administrative procedures for the activities of start-up businesses in Vietnam?

3. How difficult and complex are legal regulations and administrative procedures for the activities of start-up businesses in Vietnam?

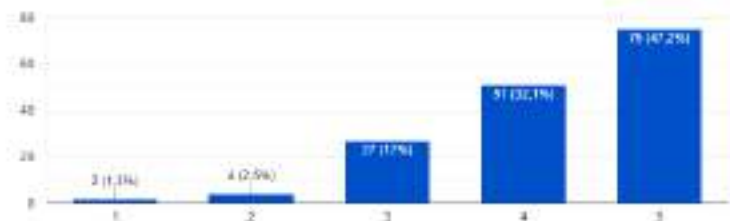
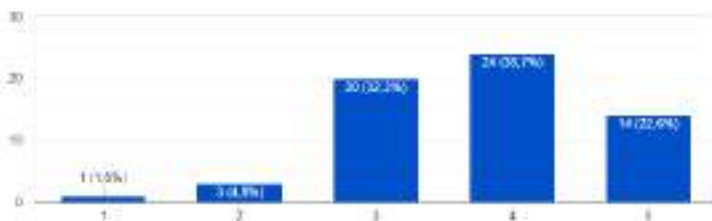


Figure 7: Perceived Legal and Bureaucratic Barriers

The responses to this question reveal a pervasive perception of significant challenges related to legal and administrative procedures in Vietnam, affecting both current entrepreneurs and aspiring founders. This indicates that regulatory complexity is a widely recognized and impactful barrier within the startup ecosystem.

Among SME owners (n = 159):

A substantial 79.3% of respondents perceived legal and administrative procedures as either 'Complex' (32.1% selected 4) or 'Very Complex' (47.2% selected 5).

Only a small minority (3.8% combined) selected 1 or 2, indicating minimal perceived ease or simplicity.

These findings strongly confirm the persistent institutional and procedural bottlenecks within Vietnam's entrepreneurial ecosystem, particularly in highly regulated sectors such as education and healthcare. Such complexity often leads to increased operational costs, significant delays in licensing and permits, and a potential reduction in investor confidence due to an unpredictable operating environment. This aligns with national-level reports highlighting regulatory burdens as a major concern for businesses in Vietnam. The sheer difficulty in navigating these frameworks can divert critical resources from core business development to compliance efforts, hindering innovation and scalability.

Among vocational students (n = 62):

A significant 61.3% of students perceived legal and administrative complexity as a challenge (38.7% selected 4 and 22.6% selected 5).

However, a larger proportion (32.3%) remained 'Neutral' (3) compared to SME owners, and only 6.4% selected 1 or 2.

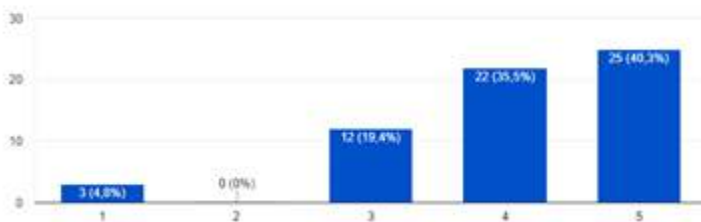
Although the intensity of perceived difficulty was slightly lower than that reported by SME owners, the majority of students still recognized legal and administrative

complexity as a significant potential hurdle. This indicates an early-stage awareness among future entrepreneurs regarding the bureaucratic challenges they might face. This finding underscores the importance of integrating legal literacy and practical guidance on administrative procedures into entrepreneurship education and startup support mechanisms. Preparing aspiring founders with this knowledge can mitigate the initial shock and equip them to navigate the regulatory landscape more effectively upon market entry

(Q4). Startups in the education and healthcare sectors often face challenges in accessing loans and investment funds, resulting in limited resources for operations and growth.

Student responses

4. Startups in the education and healthcare sectors face difficulties in accessing loans and investment funds, leading to insufficient resources for operations and growth.
62 câu trả lời



Business responses

4. Startups in the education and healthcare sectors face difficulties in accessing loans and investment funds, leading to insufficient resources for operations and growth.
159 câu trả lời

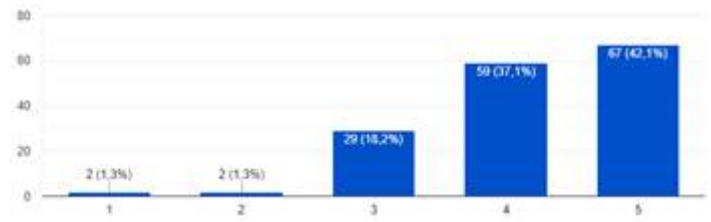


Figure 8: Access to Capital and Financial Barriers

This question investigated the crucial issue of financial access, a widely recognized impediment to startup growth in emerging economies. The responses from both SME owners and vocational students consistently highlight significant difficulties in securing adequate funding.

Among SME owners (n = 159):

A striking 79.2% (combined 42.1% 'Strongly Agree' (5) and 37.1% 'Agree' (4)) affirmed that financial access is a serious limitation for their operations and growth.

Only 18.2% remained neutral, and a negligible less than 3% disagreed.

These results strongly mirror prior empirical studies that highlight the weakness of capital markets and prevalence of risk-averse banking systems in Vietnam (Nguyen et al., 2023; PwC, 2024). The perceived lack of diverse funding options—particularly for social-impact-oriented startups that may not fit traditional venture capital criteria—severely undermines innovation capacity and limits scalability. This financial bottleneck forces many startups to operate with constrained internal resources, hindering their ability to invest in R&D, attract top talent, or respond effectively to market demands, a common challenge for SMEs in public service sectors across Southeast Asia.

Among vocational students (n = 62):

A significant 75.8% (combined 40.3% 'Strongly Agree' (5) and 35.5% 'Agree' (4)) already recognized capital barriers as a substantial challenge, even before fully entering the market.

Only 19.4% remained neutral, and a small minority (4.8%) disagreed.

This high level of awareness among aspiring entrepreneurs, despite their limited direct experience, indicates that the issue of financial access is well-perceived even at the pre-entrepreneurial stage. This early perception could potentially deter entrepreneurial pursuits unless robust financial literacy training and practical access to funding opportunities are effectively embedded into entrepreneurship education programs (Fayolle & Gailly, 2015). The convergence of perceptions between both groups on this critical barrier underscores its systemic nature and the urgent need for policy interventions aimed at improving financial access for startups in these sectors.

(Q7). Despite government support, the performance of startups in education and healthcare has not met expectations due to a lack of suitable strategic management.

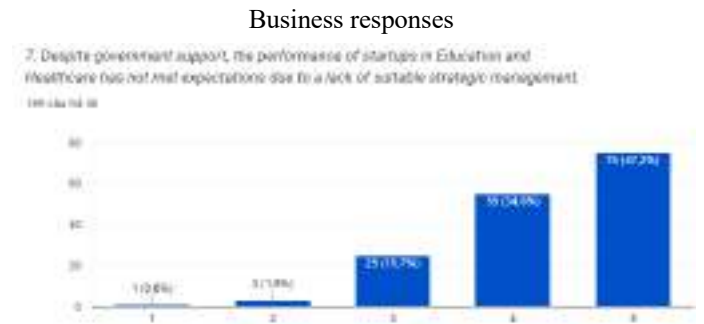
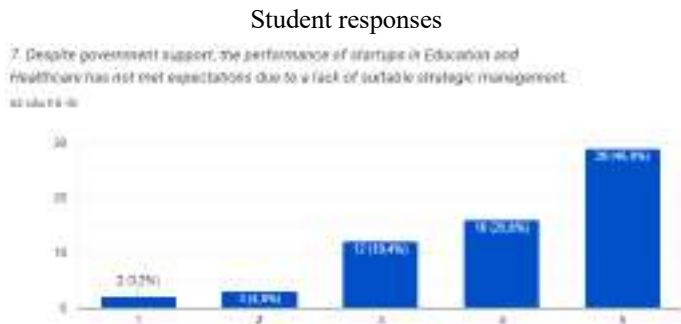


Figure 9: Strategic Management Deficits in Startup Performance

Among SME owners:

- 47.2% (75 respondents) strongly agreed (5)
- 34.6% (55 respondents) agreed (4)
- 15.7% (25 respondents) selected 3
- Only 2.5% selected 1 or 2

The 81.8% agreement level (scores 4 and 5) indicates widespread concern over weak internal capabilities—particularly in areas such as planning, team leadership, marketing, and business modelling. This confirms the findings of Baron et al. (2016) and Islam et al. (2021), which emphasise the importance of managerial competence as a determinant of SME survival.

Among vocational students (n = 62):

A substantial 72.6% (combined 46.8% 'Strongly Agree' (5) and 25.8% 'Agree' (4)) also recognized strategic management deficiencies as a significant bottleneck for startups.

19.4% remained neutral, and 8.1% disagreed. The high level of awareness among students regarding strategic management deficits, even at their aspirational stage, presents a crucial opportunity. It indicates that future entrepreneurs are already cognizant of this critical challenge, even before gaining extensive practical experience. This understanding underscores the urgent need for educational institutions and startup incubators to

proactively integrate comprehensive strategy-oriented training into their curricula. Such training should aim to better prepare future entrepreneurs for effective leadership and management in complex, resource-constrained environments, bridging the gap between theoretical knowledge and practical application.

This indicates that 72.6% of students are also aware of strategic management deficiencies as a key bottleneck. Their acknowledgement at the aspirational stage presents an opportunity: educational institutions and incubators can proactively integrate strategy-oriented training to better prepare future entrepreneurs for leadership in constrained environments.

Together, the results from Q3, Q4, and Q7 consistently illustrate that while external factors such as limited capital access and complex legal systems represent substantial hurdles, internal strategic readiness and effective management capabilities are equally, if not more, critical for startup success. The convergence of perceptions between SME owners and vocational students across these strategic barriers reinforces the urgent need for holistic interventions that simultaneously address institutional reforms (external factors) and robust capacity-building at the entrepreneurial level (internal factors). This multi-pronged approach is essential for fostering a resilient and high-performing startup ecosystem in Vietnam.

4.3.3 Innovation Strategy and Competency Alignment

This section focuses on the extent to which startups in the education and healthcare sectors in Vietnam align their strategies with core competencies, innovation requirements, and human capital development. Strategic alignment with internal capabilities and evolving market demands is widely recognized as a critical success factor in competitive environments. Moreover, in knowledge-intensive sectors such as education and healthcare, startup success is often contingent on the ability to simultaneously innovate and cultivate

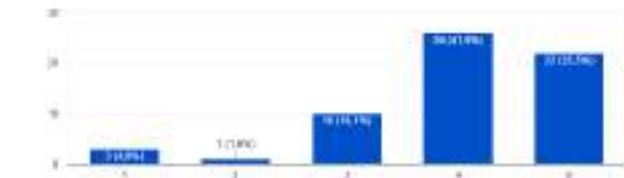
high-quality talent. (Baron et al., 2016; Man et al., 2002). Moreover, in knowledge-intensive sectors such as education and healthcare, startup success is often contingent on the ability to simultaneously innovate and cultivate high-quality talent (Islam et al., 2021).

(Q5). The competitive strategy for startups in the education and healthcare sectors should be based on core competencies and market-appropriate innovation.

Student responses

Business responses

5. The competitive strategy for startups in the education and healthcare sectors should be based on core competencies and market-appropriate innovation, meeting the needs of the business.



5. The competitive strategy for startups in the education and healthcare sectors should be based on core competencies and market-appropriate innovation, meeting the needs of the business.



Figure 10: Strategic Importance of Core Competencies and Market Innovation

The responses to this item reveal a strong consensus across both SME owners and vocational students regarding the critical importance of rooting competitive strategies in core competencies and delivering market-appropriate innovation. This indicates a high level of strategic awareness within the Vietnamese startup ecosystem.

Among SME owners (n = 159):

A compelling 86.2% (combined 51.6% 'Strongly Agree' (5) and 34.6% 'Agree' (4)) expressed strong agreement that competitive strategies must be based on core competencies and market-appropriate innovation.

Only a negligible 1.2% (combined) disagreed. This overwhelming consensus among current business owners suggests a deep understanding of the importance of aligning strategic focus with organizational strengths and adapting offerings to specific market demands. Such a strong majority directly aligns with key principles in dynamic capabilities theory and resource-based strategy models, which emphasize leveraging internal resources and capabilities to achieve sustainable competitive advantage in dynamic

environments. It reflects a mature understanding that differentiation, especially in competitive sectors, comes from unique internal strengths meeting identified market needs (Teece, Pisano & Shuen, 1997).

Among vocational students (n = 62):

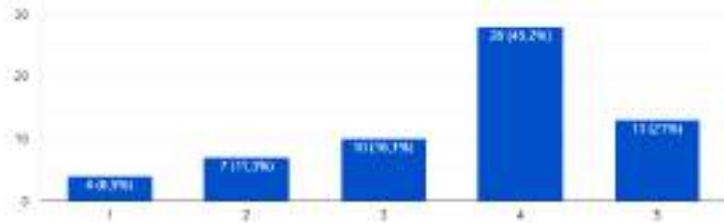
A combined 77.4% (35.5% 'Strongly Agree' (5) and 41.9% 'Agree' (4)) also reflected a similarly positive perception, agreeing on the necessity of core competencies and market-appropriate innovation for competitive strategy.

A notable 16.1% remained 'Neutral' (3), and 6.4% (combined) disagreed. Although the intensity of agreement was slightly lower and more varied than among current business owners, the high agreement rate among future entrepreneurs indicates that entrepreneurial education is already effectively influencing strategic awareness. This finding highlights the need to further reinforce training in strategic thinking, innovation planning, and business model design within vocational programs, ensuring aspiring founders can translate this theoretical understanding into practical application upon launching their ventures. The perception gap, albeit smaller than in other areas, suggests room for more experiential learning in strategic alignment.

(Q10). Startups in the fields of education and healthcare should focus on training high-quality human resources to meet the needs of businesses, rather than following current market trends.

Student responses

70: Startups in the fields of Education and Healthcare need to focus on training quality human resources according to the needs of businesses, rather than following current market trends. Additionally, these startups should make positive contributions to society and the development of the education sector. Theoretical learning must be combined with practical application to meet the current quality output of students.



Business responses

70: Startups in the fields of Education and Healthcare need to focus on training quality human resources according to the needs of businesses, rather than following current market trends. Additionally, these startups should make positive contributions to society and the development of the education sector. Theoretical learning must be combined with practical application to meet the current quality output of students.

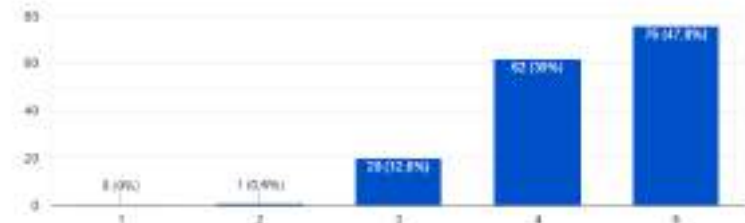


Figure 11: Training Quality and Practical Workforce Alignment

Among SME owners (n = 159):

- 47.8% (76 respondents) strongly agreed (5)
- 39.0% (62 respondents) agreed (4)
- 12.6% (20 respondents) selected 3
- Less than 1% selected 1 or 2

These results show that 86.8% of SMEs support a strategic shift toward demand-driven workforce development, emphasizing skills over formal qualifications. This reinforces recent calls in Vietnamese policy to modernize vocational education and better integrate theoretical learning with real-world application (MOET, 2020; UNESCO, 2022).

Among vocational students (n = 62):

- 21.0% (13 respondents) selected 5
- 45.2% (28 respondents) selected 4
- 16.1% (10 respondents) selected 3
- 17.7% selected 1 or 2

Here, 66.2% of students agree with the need for business-aligned training, though the remaining third are either neutral or disagreeing. This divergence suggests a perception

gap between employers and students, potentially caused by outdated curricula or lack of exposure to industry demands.

Together, these findings underscore a strong convergence between innovation strategy and human capital development as strategic priorities. While SME owners are highly aligned in their views, vocational students—though largely supportive—still exhibit lower levels of strategic clarity. This underscores the need for education providers to strengthen the connection between skills training, industry collaboration, and startup incubation, thereby fostering a new generation of entrepreneurs who are equipped to compete and lead with purpose.

4.3.4 Human Resource Constraints

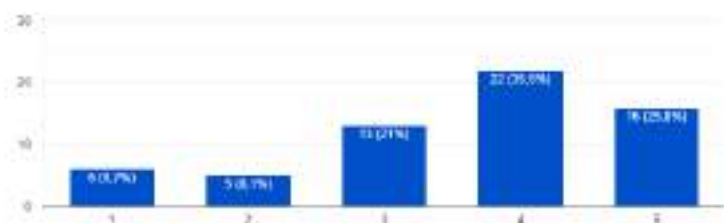
Staffing challenges represent a significant barrier to operational sustainability and service quality in education and healthcare startups. These sectors are inherently human capital-intensive, relying on qualified personnel such as teachers, trainers, and medical professionals. In the Vietnamese context, this constraint is further exacerbated by regional disparities in labor supply, competition from established institutions, and insufficient incentives for talent retention (MOH, 2023; InnoLab Asia, 2021).

(Q8). Startups in the Education and Healthcare sectors face staffing challenges, especially a shortage of skilled teachers and experts. Therefore, they need to cultivate a corporate culture that motivates employees and fosters a more effective educational environment.

Student responses

8. Startups in the Education and Healthcare sectors face staffing challenges, especially a shortage of skilled teachers and experts. Therefore, they need to build a corporate culture that motivates employees and creates a better educational environment.

62 eligible



Business responses

8. Startups in the Education and Healthcare sectors face staffing challenges, especially a shortage of skilled teachers and experts. Therefore, they need to build a corporate culture that motivates employees and creates a better educational environment.

159 eligible



Figure 12: Human Resource Challenges and Work Environment Needs

The responses to this question reveal a strong and consistent perception across both SME owners and vocational students regarding the critical human resource challenges faced by startups, coupled with an acknowledgment of the importance of fostering a motivating corporate culture.

Among SME owners (n = 159):

An overwhelming 87.5% (combined 49.1% 'Strongly Agree' (5) and 38.4% 'Agree' (4)) expressed strong agreement that staff shortages are a critical issue and emphasized the need to build a motivating and supportive workplace culture.

Only a very small minority (less than 2% combined) disagreed or remained neutral. This near-unanimous agreement among current business operators underscores the severe and practical difficulties in securing and retaining skilled personnel, particularly experienced teachers and specialized medical experts. These findings align strongly with existing reports, such as the Vietnam Healthcare Sector Development Report (MOH, 2023), which highlights a significant national shortage of qualified healthcare professionals and school-based medical personnel across various regions. The lack of suitable talent not only impedes operational continuity but also directly affects the ability of startups to scale effectively, deliver consistent service quality, and innovate in human-centric service

delivery models. This also impacts their capacity to meet demanding licensing standards and ensure high standards of care and education.

Among vocational students (n = 62):

A combined 61.3% (25.8% 'Strongly Agree' (5) and 35.5% 'Agree' (4)) also agreed with the statement, recognizing the importance of addressing staffing challenges and cultivating a positive internal culture.

However, a notable 21.0% remained 'Neutral' (3), and 14.8% (combined) disagreed. While the majority of students demonstrated a general awareness of the importance of employee motivation and a positive internal culture, their lower agreement level compared to SME owners (87.5% vs 61.3%) may reflect their more limited exposure to actual recruitment, retention, and workforce management challenges in real-world startup operations. This perception gap between aspiring and active entrepreneurs indicates a crucial opportunity for vocational programs to integrate more practical training in human resource strategy, organizational behavior, talent acquisition, and leadership development into entrepreneurship education (Nguyen & Marjoribanks, 2021). Such training would better prepare future founders for the realities of building and managing high-performing teams in human capital-intensive sectors.

The responses from both groups consistently confirm that human resources are not merely an operational component but represent a fundamental strategic concern for startups in education and healthcare. Without consistent access to skilled, motivated, and well-supported personnel, startups face significant risks of stagnation, inefficiency, and limited societal impact, particularly in service-driven sectors where the quality of human interaction and expertise is paramount. As emphasized by Doan et al (2020), Vietnam's startup policy must prioritize the intersection of labor development and innovation

ecosystems by supporting inclusive training programs and fostering workplace culture innovation.

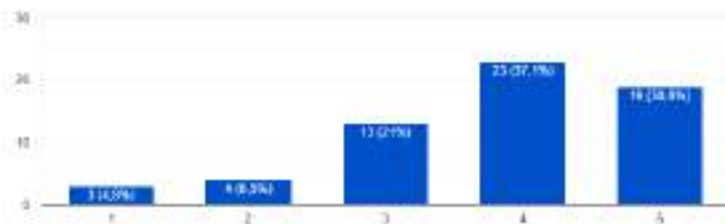
4.3.5 Technology Use and Digital Tools

In the digital transformation era, technology adoption is not merely a tool for operational support but a critical enabler of growth, efficiency, and competitiveness for startups. This is especially relevant in the Vietnamese context, where the expansion of digital infrastructure and e-commerce is reshaping consumer behavior, business models, and workforce dynamics. The strategic integration of social media, digital marketing, and technology-enabled operations provides startups in education and healthcare with the means to broaden outreach, streamline service delivery, and significantly scale their impact. (InnoLab Asia, 2021b; Future Education Magazine, 2024a).

(Q6). Social media and digital marketing tools enable startups in the education and healthcare sectors to reach students and businesses more effectively while fostering sustainable relationships with customers.

Student responses

6. Social media and digital marketing tools help startups in the education and healthcare sectors reach students and businesses more effectively while building sustainable relationships with customers.



Business responses

6. Social media and digital marketing tools help startups in the education and healthcare sectors reach students and businesses more effectively while building sustainable relationships with customers.



Figure 13: Effectiveness of Social Media and Digital Marketing Tools

The responses to this question reveal a strong recognition across both SME owners and vocational students regarding the strategic value and effectiveness of social media and digital marketing tools for customer outreach and relationship building.

Among SME owners (n = 159):

A compelling 87.4% (combined 51.6% 'Strongly Agree' (5) and 35.8% 'Agree' (4)) expressed strong agreement on the effectiveness of these tools.

Only a negligible 0.6% disagreed, and 11.9% remained neutral.

This high level of agreement unequivocally underscores the perceived strategic value of digital tools in customer engagement, lead generation, and service personalization for active businesses. These results reinforce the growing importance of digital platforms such as Facebook, Zalo, and TikTok in Vietnam's startup marketing mix, particularly for achieving low-budget, high-impact outreach in education and healthcare services. For SME owners, digital marketing is clearly seen as an indispensable component for market presence and competitive advantage in the modern landscape.

Among vocational students (n = 62):

A combined 67.7% (37.1% 'Agree' (4) and 30.6% 'Strongly Agree' (5)) acknowledged the role of digital marketing.

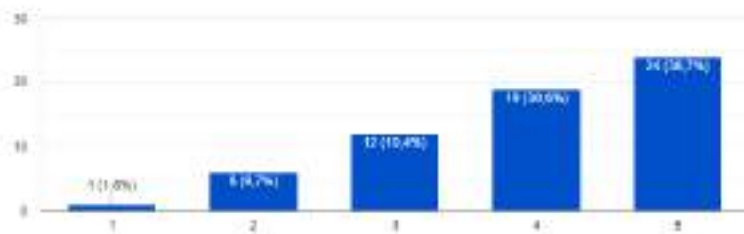
However, a larger proportion (21.0%) remained neutral, and 12.9% (combined) disagreed. While students generally recognized the importance of digital marketing, their level of conviction was somewhat lower than that of active business owners. This divergence could reflect their more limited real-world experience with the intricacies of customer acquisition, campaign management, or the practical application of digital marketing strategies for business growth. Alternatively, it might indicate a lack of structured, hands-on digital marketing training within vocational programs. Nevertheless, their generally favorable view signals significant potential for leveraging digital tools if proper education, practical exposure, and mentorship are provided. This highlights an opportunity to bridge the gap between theoretical understanding and applied digital marketing capabilities in future entrepreneurs

(Q9). Startups in the fields of Education and Healthcare need to apply technology to enhance operational efficiency. Additionally, these startups must be ready to invest in research and development of technology.

Student responses

9. Startups in the fields of Education and Healthcare need to apply technology to enhance operational efficiency. Additionally, these startups must be ready to invest in research and development of technology.

62 clusts 36



Business responses

9. Startups in the fields of Education and Healthcare need to apply technology to enhance operational efficiency. Additionally, these startups must be ready to invest in research and development of technology.

199 clusts 98

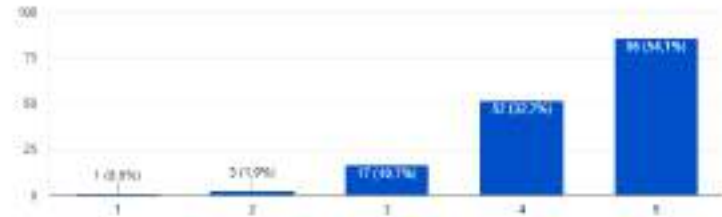


Figure 14: Technology Adoption and R&D Investment Needs

This question explored the participants' perceptions regarding the imperative for technology application to enhance operational efficiency and the necessity of investing in research and development (R&D) within education and healthcare startups. The responses highlight a strong general consensus on the strategic importance of technology, albeit with a noticeable readiness gap between current and aspiring entrepreneurs.

Among SME owners (n = 159):

An overwhelming 86.8% (combined 54.1% 'Strongly Agree' (5) and 32.7% 'Agree' (4)) affirmed that technology adoption and R&D investment are strategic imperatives for their businesses.

Only a very small minority (2 respondents, or 1.2% combined) disagreed, and 10.7% remained neutral. This indicates a profound shift in perception among active business owners, viewing technology not merely as an operational tool but as a crucial strategic asset for driving growth, efficiency, and competitiveness in fast-evolving sectors. For example, EdTech startups are increasingly utilizing advanced Learning Management

Systems (LMS) and AI-driven adaptive learning platforms, while HealthTech ventures are developing sophisticated telemedicine applications and digital diagnostic tools. This strong agreement reflects a practical understanding that continuous technological innovation and investment are vital for maintaining market relevance and achieving long-term sustainability.

Among vocational students (n = 62):

A significant 69.3% (combined with 38.7% 'Strongly Agree' (5) and 30.6% 'Agree' (4)) also recognized the importance of technology for operational efficiency and R&D investment.

However, a larger proportion (19.4%) remained neutral, and 11.3% (combined) disagreed. While students clearly acknowledged the theoretical importance of technology, their agreement rate was notably lower and more varied compared to the SME owners. This divergence suggests that while aspiring entrepreneurs understand the concept of tech-driven efficiency, they may be less aware of its implementation complexities, the substantial investment requirements for R&D, or the challenges associated with integrating advanced technologies into real-world business models. This "readiness gap" highlights the critical need for more experiential learning and hands-on exposure to digital business models, tech innovation processes, and R&D investment considerations within vocational training programs. Closing this gap will require not only digital infrastructure development but also targeted capacity-building programs, supportive policies, and sector-specific innovation labs that actively foster tech-driven entrepreneurship in both education and healthcare.

These findings collectively emphasize that both existing startups and aspiring entrepreneurs in Vietnam consider technology vital for future success. However, a significant gap exists between intention and implementation, particularly among students,

highlighting an urgent need for educational reforms that provide practical exposure to digital business models and R&D strategies.

4.3.6 Cross-Group Contrasts and Interpretive Themes

This section synthesizes the preceding thematic analyses by exploring patterns of convergence and divergence between the two distinct respondent groups—SME owners and vocational students—across five strategic challenge areas: capital access, strategic competency, digital marketing, government support, and human resources. These contrasts not only reflect the practical experience gap between groups but also reveal critical insights into perception asymmetry, expectation mismatches, and identify crucial opportunities for targeted policy and curriculum alignment within Vietnam's startup ecosystem.

Challenge Area	Vocational Students (% Agree)	SME Owners (% Agree)	Interpretive Theme
Access to Capital	82.8%	69.7%	High Agreement Across Groups
Strategic Competency	69.0%	84.8%	High SME Concern vs Low Student Awareness
Digital Marketing	55.2%	78.8%	High SME Concern vs Low Student Awareness
Government Policy Support	75.9%	69.7%	High Agreement Across Groups
Human Resources	41.4%	78.8%	High SME Concern vs Low Student Awareness

Table 3: Expectation vs Reality Matrix

As meticulously illustrated in Table 3 – Expectation vs Reality Matrix ((reproduced above for convenience) the most significant misalignments in perception appear prominently in three critical domains where SME owners expressed high levels of concern but vocational students showed comparatively lower levels of agreement: strategic competency, digital marketing, and human resources.

In the case of strategic competency, a substantial 81.8% of SME respondents rated this as a core challenge to their performance, compared to 72.6% of students. This suggests

that students, lacking direct operational experience, may underestimate the intricate difficulties involved in formulating robust strategic plans, aligning internal capabilities with dynamic market demands, and executing effective business models. This perception gap is critical, as it highlights a potential blind spot in entrepreneurial readiness: an aspiring founder might possess technical skills but lack the foresight or practical tools for comprehensive strategic management. This outcome directly reinforces the relevance of the Theory of Reasoned Action (TRA) and Theory of Planned Behavior (TPB), where perceived behavioral control (i.e., the ease or difficulty of performing a behavior) is influenced by actual experience and resources. Students, without the lived experience of managing a business, may have an inflated sense of perceived control over strategic complexities.

Similarly, digital marketing was seen as a critical issue by a compelling 87.4% of SMEs, while only 67.7% of students agreed. This discrepancy could be attributed to the students' greater comfort with digital platforms at a personal level (e.g., using social media for leisure), which does not necessarily translate into a strategic understanding of its application for business growth, customer acquisition, or brand building in a competitive landscape. For active businesses, digital marketing is an operational imperative, often requiring significant investment in expertise and data analytics. Students, lacking this practical exposure, may not fully grasp the complexities of designing and executing effective digital marketing campaigns.

The most striking and concerning gap lies in the perception of human resource challenges. A substantial 87.5% of SME owners reported human resources as a major concern, reflecting profound difficulties in recruitment of skilled talent, comprehensive training, and effective staff retention, especially in human capital-intensive service-driven sectors. In stark contrast, only 61.3% of students recognized this as a significant barrier.

This substantial disparity signals a critical blind spot in entrepreneurship education, where aspiring founders may severely underestimate the complexities and strategic importance of talent management. Without addressing this, future entrepreneurs' risk being ill-prepared for one of the most persistent operational hurdles, potentially leading to early business failures due to an inability to build and sustain effective teams.

These three areas (strategic competency, digital marketing, and human resources) are collectively categorized under the interpretive theme: High SME Concern vs. Low Student Awareness. This highlights a critical "expectation-reality mismatch" between the aspirations of emerging entrepreneurs and the operational realities experienced by active businesses. This misalignment suggests a need for intergenerational dialogue and the creation of more robust experiential learning platforms that enable students to shadow SME owners, co-develop micro-projects within operational businesses, or participate in simulated startup environments. Such initiatives could help recalibrate expectations and develop more grounded entrepreneurial competencies, ensuring future founders are better equipped for the practical demands of business.

By contrast, two areas—access to capital and government policy support—show high levels of agreement across both groups, indicating a shared, systemic awareness of these external barriers. Capital access was considered a major challenge by 82.8% of students and 79.2% of SMEs. This strong alignment reflects broader, well-documented concerns within Vietnam's startup environment where early-stage funding and diverse investment channels remain a structural constraint. Similarly, government policy support was acknowledged as inadequate or complex by 75.9% of students and 69.7% of SMEs, underlining a consistent call for more startup-friendly policy infrastructure and regulatory simplification.

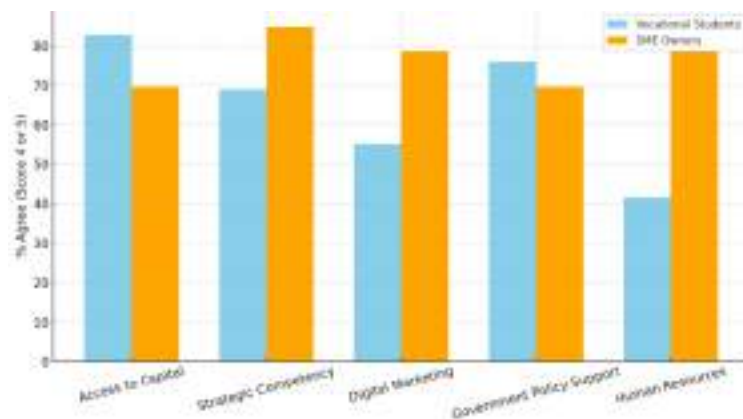


Figure 15: Misalignment in Strategic Priorities Between Groups

The interpretive contrasts are further visualized in Figure 15 – Misalignment in Strategic Priorities Between Groups, where clear gaps are evident in the alignment of priorities across key areas. These results underscore the importance of intergenerational dialogue and experiential learning platforms that enable students to shadow SME owners or co-develop micro-projects within operational businesses. Doing so could help recalibrate expectations and develop more grounded entrepreneurial competencies.

Despite their divergences, one notable intersection stands out: the complexity of regulations and the need for administrative support. Both groups expressed concern about the inadequacy of government policy infrastructure—75.9% of students and 69.7% of SME owners agreed this was a barrier. This shared frustration presents an actionable policy window for public-sector reform, specifically in simplifying registration processes, facilitating access to mentorship, and alleviating tax burdens for early-stage startups. In this area, cross-group consensus reveals not a contradiction, but a call for synchronized development of the ecosystem.

Ultimately, these contrasts and convergences suggest that Vietnam’s entrepreneurship landscape in public service sectors is simultaneously aspirational and structurally constrained. While students hold optimistic visions of innovation and transformation, SMEs operate within systems of compliance, workforce gaps, and

fragmented markets. Recognizing and addressing these mismatches is crucial for aligning entrepreneurship education with real-world startup realities.

4.4 Summary of Key Quantitative Insights

The results from the structured survey of 159 SME owners and 62 vocational students provide a robust, data-driven foundation for understanding the strategic landscape faced by startups in Vietnam's critical education and healthcare sectors. A meticulous synthesis of the quantitative findings reveals five major patterns that characterize the contemporary entrepreneurial ecosystem:

High Strategic Awareness but Uneven Readiness Across Groups: Both SME owners (86.2%) and vocational students (77.4%) agreed that competitive strategies must fundamentally align with core competencies and market-appropriate innovation (Q5). However, while business owners consistently showed strong support for strategic priorities, students demonstrated more variability—particularly in their perceptions of strategic management challenges (Q7) and training adequacy (Q10). This suggests a gap between conceptual understanding and practical readiness, especially on the part of the student.

Capital Access and Bureaucracy Are Universal Constraints: A majority of SME owners (79.2%) and students (75.8%) reported serious difficulties in accessing loans and investment funds (Q4). Similarly, perceptions of legal complexity were high among both groups (SMEs: 79.3%; students: 61.3%) (Q3). These figures confirm that despite recent reforms, Vietnam's startup ecosystem continues to be undermined by financial and regulatory bottlenecks (InnoLab Asia, 2021b; PwC, 2024).

Digital Tools and Technology Are Widely Embraced, but their application lags. Over 87% of SME owners and 67% of students recognised the value of social media and digital marketing for outreach and relationship building (Q6). Likewise, technology

adoption for operational efficiency and R&D was strongly supported (SMEs: 86.8%, Students: 69.3%) (Q9). However, student responses suggest limited hands-on familiarity with implementation, pointing to the need for practice-based digital training in entrepreneurship curricula.

Human Resource Shortages Are a Strategic Weakness: Nearly 88% of SME respondents and 61% of students acknowledged staffing shortages and the need for building motivating workplace cultures (Q8). The data indicates a consensus that startups are hindered not only by technical constraints, but also by limitations in workforce availability and organizational culture development (MOH, 2023; Nguyen & Marjoribanks, 2021).

Strong Endorsement Support for Vocational and Cross-Sector Models Amidst Intense Competition: A vast majority of respondents endorsed the startup model focused on vocational education and skill development, with SMEs (88.6%) and students (59.6%) being the most supportive (Q1). They also recognized intense competition in the sector, with over 70% rating it as high or very high (Q2). These results reinforce the viability—but also the difficulty—of launching and scaling ventures in these domains without differentiated value propositions.

Overall, the synthesized quantitative data consistently reflects a Vietnamese startup ecosystem that, while rich in entrepreneurial opportunity and high motivation, remains structurally challenged. It is characterized by a significant awareness of strategic needs yet constrained by pronounced external barriers and persistent internal capability gaps, particularly in the transition from aspiration to operational readiness.

4.5 Chapter Conclusion

Chapter IV has meticulously presented and interpreted the empirical findings derived from the survey responses of 221 participants, offering invaluable insights into the

lived realities, nuanced perceptions, and entrepreneurial aspirations of both active SME owners and aspiring vocational students within Vietnam's education and healthcare sectors.

The quantitative results consistently affirm that while there is a strong conceptual alignment on critical strategic priorities—such as fostering innovation, developing human capital, and embracing digital transformation—a substantial and concerning disparity exists between entrepreneurial intent and actual practical readiness, particularly evident among vocational students. This "expectation-reality mismatch" represents a significant finding, suggesting that theoretical knowledge or aspirational goals do not always translate into the operational capabilities required for successful startup ventures.

Furthermore, the analysis robustly highlights the pervasive influence of systemic barriers, most notably regulatory complexity and limited financial access, which fundamentally hamper operational expansion and discourage much-needed risk-taking among startups in these sectors. These external constraints, coupled with internal deficiencies in strategic management capabilities and human resource availability, create a challenging environment for sustainable entrepreneurial growth.

Despite these formidable hurdles, respondents from both cohorts consistently endorsed the inherent importance of vocational training for skill development, advocated for broad technological adoption, and recognized the critical need for sector-aligned management strategies. This indicates a resilient spirit and a clear understanding of the necessary elements for success, even in the face of adversity. The dual-perspective design of the survey—incorporating the experiences and perceptions of both current SME owners and future vocational student founders—has been instrumental in enabling a sophisticated and multidimensional understanding of the strategic gaps and sectoral constraints. This unique comparative lens has illuminated not only the current state of the ecosystem but

also the developmental needs of the next generation of entrepreneurs, revealing critical misalignments across generational and experiential divides.

The insights and empirical data presented in this chapter establish a solid evidence-based foundation for the subsequent stages of this research. The next chapter will build critically on these comprehensive findings, offering deeper discussion of their implications for policy, education, and entrepreneurial practice. It will further contextualize these results within existing literature and propose elements for a strategic management model specifically tailored to foster resilience and growth within Vietnam's dynamic startup ecosystem in education and healthcare.

CHAPTER V:

DISCUSSION

5.1 Interpretation of Key Findings

The comprehensive results presented in Chapter IV provide a nuanced and empirically grounded understanding of the complex landscape for startups operating within Vietnam's education and healthcare sectors. Overall, the findings robustly suggest a high level of strategic awareness among both current entrepreneurs (SME owners) and aspiring founders (vocational students). Respondents largely recognize the paramount importance of aligning competitive strategy with core competencies, effectively leveraging digital tools, and making strategic investments in human capital development. This indicates that an intentional mindset for innovation and a conceptual understanding of strategic imperatives broadly exist within the Vietnamese entrepreneurial ecosystem.

However, despite this cognitive alignment, a clear gap remains between awareness and execution. SME owners consistently reported greater confidence in applying strategic principles than vocational students, who expressed uncertainty about their preparedness to launch and manage a business. This finding validates the relevance of the Theory of Reasoned Action (Fishbein & Ajzen, 1975), which emphasizes that behavioral intention does not automatically translate into actual behavior—particularly when the individual lacks environmental support or practical capability.

The comprehensive results presented in Chapter IV provide a nuanced and empirically grounded understanding of the complex landscape for startups operating within Vietnam's education and healthcare sectors. Overall, the findings robustly suggest a high level of strategic awareness among both current entrepreneurs (SME owners) and aspiring founders (vocational students). Respondents largely recognize the paramount importance of aligning competitive strategy with core competencies, effectively leveraging digital

tools, and making strategic investments in human capital development. This indicates that an intentional mindset for innovation and a conceptual understanding of strategic imperatives broadly exist within the Vietnamese entrepreneurial ecosystem.

The analysis also confirms that both external and internal factors strategically constrain Vietnam's startup ecosystem in education and healthcare. On the external side, respondents identified legal complexity and access to capital as major barriers. These challenges have been consistently documented in prior research (Bruton et al., 2022; InnoLab Asia, 2021b), and were reaffirmed by over 75% of both respondent groups in this study. Internally, gaps in strategic management, human resource availability, and digital implementation continue to hinder startup efficiency and scalability, echoing findings from Baron et al. (2016) and Nguyen & Marjoribanks (2021).

The dual-response structure—comparing SMEs and students—further revealed a perception gap in several dimensions, most notably in digital readiness, strategic execution, and human resource planning. While both groups expressed shared values and aspirations, students showed less certainty in their ability to act on these ideas. This gap provides a clear direction for future educational reform, capacity-building programs, and mentorship models aimed at bridging the strategy and practice gap in Vietnam's entrepreneurial training systems.

Moreover, these findings reinforce and significantly extend existing frameworks in strategic entrepreneurship by empirically demonstrating how deeply institutional limitations—such as underdeveloped support ecosystems and fragmented regulatory structures—can profoundly moderate the impact of individual entrepreneurial intent on actual entrepreneurial outcomes. This is entirely consistent with Ajzen's (1991) Theory of Planned Behavior, which extends TRA by including "perceived behavioral control" as a crucial moderating factor in entrepreneurial decision-making. In addition, the quantitative

contrast between SME owners and vocational students distinctly highlights the indispensable role of practical exposure and accumulated professional experience in shaping actionable strategic judgment and realistic operational expectations. While student respondents demonstrated high conceptual agreement on aspirational challenges (e.g., capital, regulation), they consistently underrated critical operational dimensions such as human resource management and the intricacies of digital implementation.

Taken together, these findings call for a multi-dimensional discussion of how startups in service-based sectors operate under constrained environments, and how institutions—both educational and regulatory—can bridge the gap between intention and capability. The following sections will explore the specific challenges facing startups in the two sectors studied (5.2), followed by an analysis of sectoral and cross-sectoral contrasts (5.3–5.4), and finally address how entrepreneurial readiness and education design (5.5) must evolve to support a more aligned innovation system in Vietnam.

5.2 Challenges Facing Startups in Education and Healthcare

Startups in the education and healthcare sectors of Vietnam face a combination of sector-specific, and systemic challenges that are both structural and institutional in nature. These challenges can be grouped into two broad categories:

5.2.1 Financial and Managerial Barriers

One of the most persistent and multidimensional barriers identified in this study concerns the issue of financial access among startups operating in Vietnam’s education and healthcare sectors. Based on survey data from 221 respondents, over 79% of SME owners and 75% of vocational students identified capital access as a critical constraint (Q4). These constraints do not merely stem from a lack of available funding; they reflect structural mismatches between the financial system and the needs of early-stage, service-focused enterprises. In Vietnam, traditional credit institutions such as commercial banks often

maintain conservative lending standards and risk assessment frameworks that disadvantage startups with intangible assets or irregular cash flows (Dutta & Phan, 2023; Tran et al., 2020).

This finding resonates with international research. The OECD (2021) has emphasized that SMEs in public service sectors across Southeast Asia—especially in health and education—face a double burden: not only do they operate with constrained internal resources, but they are also underserved by external financing institutions. These businesses typically lack collateral, have limited formal credit histories, and often require patient capital that traditional banks are unwilling to provide. Furthermore, the World Bank’s (2022) findings confirm that public-sector-oriented startups rarely fit the mould of venture capital targets, which tend to favor rapidly scaling technology enterprises. As a result, these startups are caught in a “funding blind spot,” where neither banks nor high-risk investors perceive them as a viable opportunities.

Compounding the financial dilemma is a widespread gap in strategic and managerial capacity. This study revealed that 81.8% of SME owners and 72.6% of vocational students considered poor strategic planning a significant barrier to performance (Q7). This echoes Baron et al. (2016), who highlighted that entrepreneurs—particularly those with strong technical backgrounds—often lack the business acumen and leadership competencies necessary for sustainable growth. Deficiencies in operational planning, financial forecasting, human resource management, and governance systems were frequently cited in this research and have also been documented as common among Vietnamese SMEs (Nguyen & Marjoribanks, 2021).

Importantly, this managerial deficit appears to be both a cause and a consequence of limited financial access. Startups that lack robust planning and reporting systems are less likely to secure funding. At the same time, the absence of capital makes it difficult to

attract skilled managers, invest in systems development, or engage in long-term strategic thinking. This feedback loop reinforces the fragility of early-stage enterprises, resulting in high failure rates and limited scalability.

The issue is even more pronounced among vocational students who aspire to launch their own businesses. While they exhibit high motivation, their exposure to practical management experience remains limited. World Bank (2022) notes that Vietnam's vocational training system still emphasizes technical proficiency over managerial readiness, with few programs offering scenario-based planning, budget simulations, or mentorship from seasoned entrepreneurs. As a result, students lack confidence in navigating regulatory environments, developing business models, or leading teams—all of which are essential for the sustainability of startups in highly regulated sectors such as health and education.

To overcome these compounded barriers, scholars and policymakers increasingly call for integrated entrepreneurial support ecosystems. The OECD (2021) recommends a blended model that combines financial instruments (e.g., micro-grants, subsidized loans, and innovation vouchers) with capacity-building services such as business coaching, incubators, and regulatory navigation support. In the Vietnamese context, this could involve fostering cross-sector partnerships among banks, universities, local governments, and NGOs to incubate education and healthcare startups providing both capital and expertise.

In summary, the dual burden of capital scarcity and managerial underdevelopment continues to be a systemic impediment to entrepreneurial progress in Vietnam's service-oriented sectors. Addressing this issue will require a multi-pronged strategy: reforming lending criteria to accommodate early-stage social enterprises, integrating management

training into vocational programs, and investing in intermediary support platforms that can bridge the gaps between intention, capacity, and execution.

5.2.2 Market Competition and Regulatory Complexity

In addition to financial and managerial constraints, startups in Vietnam’s education and healthcare sectors face intense market competition and a highly complex regulatory environment, both of which present significant obstacles to entry, differentiation, and long-term success.

Perceived market saturation was evident in the responses to Question 2, where 77.3% of SME owners and 66.1% of vocational students rated the level of competition in their respective sectors as “high” or “very high”. This perception aligns with current industry trends: as Vietnam accelerates its push toward privatization and innovation in public services, an influx of new ventures—many backed by international capital or large institutional partnerships—has led to crowded, rapidly professionalizing markets (Phuong, 2024; InnoLab Asia, 2021a). In this context, early-stage startups struggle to secure market share, particularly when competing against established firms with superior brand recognition, operational maturity, and customer loyalty.

This dynamic is not unique to Vietnam. OECD (2021) highlights that across Southeast Asia, startups in education and healthcare are particularly vulnerable to market displacement due to high capital intensity, entrenched incumbents, and the commoditization of essential services. In countries such as Thailand and Indonesia, a similar pattern emerges: small providers are crowded out by larger firms offering bundled or vertically integrated solutions. These trends place immense pressure on Vietnamese startups to differentiate via innovation, yet the environment often discourages experimentation.

The second component of this challenge involves navigating Vietnam’s intricate legal and administrative frameworks, which were rated as difficult or very difficult by 79.3% of SME respondents and 61.3% of students (Q3). Despite ongoing efforts to streamline procedures under the Ministry of Planning and Investment and national digital transformation programs, many startups continue to encounter ambiguous regulations, redundant paperwork, and slow approval cycles, particularly in highly sensitive sectors such as education licensing and healthcare compliance (Ong & Cheow, 2024; MPI, 2024).

World Bank (2022) corroborates these concerns in its assessment of business regulations in developing countries. It notes that in many emerging economies, legal institutions lag behind market liberalization, resulting in regulatory frameworks that are reactive rather than anticipatory. For education and healthcare entrepreneurs in Vietnam, this means navigating outdated or overlapping statutes, vague enforcement practices, and inconsistent interpretations among provinces or administrative units.

This regulatory burden has dual consequences. First, it delays product development and service deployment, especially for tech-driven models such as online education platforms or telehealth applications. Second, it discourages innovation, as startups are often compelled to prioritize compliance over experimentation or service customization. In the long term, this regulatory inertia may lead to risk aversion, stalling the emergence of transformative business models in both sectors.

Furthermore, many startup founders reported that their legal literacy is limited, and that navigating rules requires costly legal consultations or excessive trial and error. This creates disproportionate pressure on resource-constrained ventures, further widening the gap between well-funded, institutionally backed players and grassroots innovators. This pattern is consistent with what OECD terms “regulatory bias,” where high compliance

costs indirectly favor incumbent players with dedicated legal and administrative teams (OECD, 2021).

To provide comparative context, table 4 below summarizes key regulatory and market challenges observed in other ASEAN economies:

Country	Primary Regulatory Challenge	Market Challenge	Source
Vietnam	Complex licensing, legal ambiguity	High saturation in urban centers	This study; MPI (2024)
Thailand	Provincial inconsistency in education law	Dominance of foreign-funded chains	OECD (2021)
Indonesia	Long registration delays	Poor consumer trust in early-stage firms	World Bank (2022)
Philippines	Multi-tiered healthcare regulation	Fragmented private education landscape	ADB (2021)

Table 4: Market and Regulatory Barriers for Public Service Startups

Taken together, market competition and regulatory complexity form a structural barrier that cannot be addressed solely through entrepreneurial effort. These challenges require policy-level intervention, including clearer legal frameworks, simplified licensing, digitalized administrative procedures, and regulations tailored to support early-stage ventures in high-impact public service domains. As Vietnam continues to reform its business environment under the National Digital Transformation Program, prioritizing regulatory coherence and predictability in education and healthcare will be crucial to fostering innovation, equity, and entrepreneurship.

5.2.3 Cross-National Comparisons and Policy Insights

While Vietnam’s startups in education and healthcare face formidable domestic challenges, a comparative regional perspective reveals that these are part of broader structural patterns observed across Southeast Asia. However, variations in how countries have addressed—or failed to address—such constraints offer valuable lessons. This section

synthesizes cross-national comparisons and outlines policy insights relevant to Vietnam’s regulatory and entrepreneurial reform.

a. Comparative Landscape in ASEAN Public-Service Startups

Table 4 previously highlighted how countries such as Thailand, Indonesia, and the Philippines also experience market saturation and regulatory bottlenecks. Yet, their institutional responses diverge significantly.

In Thailand, startups encounter inconsistencies in how national education policies are applied at the provincial level. This has led to regional disparities in startup density, with Bangkok remaining the dominant region. However, Thailand has made strides in linking entrepreneurship education to vocational and technical training, helping students transition into self-employment (OECD, 2021). Its integration of business simulation and incubator experience into Technical and Vocational Education and Training (TVET) programs stands as a model for Vietnam to follow.

Indonesia, while facing prolonged regulatory timelines, has demonstrated notable improvement through the Online Single Submission (OSS) system, which digitizes licensing for small businesses. Although imperfect, this initiative—part of the Job Creation Law reforms—demonstrates how centralized platforms can significantly lower entry barriers for early-stage ventures (World Bank, 2022; ADB, 2021).

In the Philippines, fragmentation of private education providers has paradoxically created both competition and opportunity. Its decentralized healthcare licensing system—though administratively burdensome—has allowed for more tailored local initiatives, such as regional telehealth projects that bypass national bottlenecks (OECD, 2022).

Vietnam, by contrast, remains at an intermediary stage. Its regulatory landscape suffers from vertical overlap (between ministries) and horizontal inconsistency (between provinces). Although the government has implemented e-governance reforms such as the

National Business Registration Portal, many education and healthcare sub-licenses are still manually processed and ambiguously defined, which deters small-scale innovation (MPI, 2024; Ong & Cheow, 2024).

b. Regulatory and Market Learning from Peer Economies

The comparison suggests that regulatory streamlining and entrepreneurial education reform are the two most actionable levers for improvement. Countries that have made progress—such as Singapore and Malaysia—have not merely digitized processes but have also restructured them. Malaysia’s MyCoID system, for example, consolidates more than five procedures into one portal offering startup-specific advisory services for social enterprises (ADB, 2021). This reduces the cognitive and legal burden for first-time founders.

Moreover, OECD (2021) notes that entrepreneurial ecosystems benefit from the presence of legal facilitation intermediaries such as startup legal clinics, ombudsman offices, and pro bono networks. These are almost absent in Vietnam, where entrepreneurs often rely on informal channels or pay disproportionately high consultancy fees, especially in healthcare compliance.

On the market front, countries such as Indonesia and the Philippines adopted bottom-up experimentation, enabling localized pilot projects in education and health to operate with temporary exemptions or sandbox licenses. This approach nurtures innovation while minimizing regulatory risk—something Vietnam has not yet institutionalized.

c. Strategic Recommendations for Vietnam

Based on the comparative insights above, three policy pathways emerge for Vietnam:

- Decentralized yet coherent licensing reform: Delegate procedural authority to provincial governments under a unified digital framework, with ministry-level oversight ensuring national consistency. Indonesia’s OSS system could serve as an adaptable model.
- Startup legal literacy programs: Establish subsidized legal clinics or public-private advisory partnerships focused on startup registration, compliance, and IP protection—especially in the healthtech and edtech space.
- Educational integration of entrepreneurship: Expand business simulation, strategic management, and regulatory training modules into vocational schools, modeled after Thailand’s TVET integration reforms. These efforts should also include policy case studies and scenario-based regulatory simulations.

Such initiatives would not only reduce friction for individual founders but also enhance the overall health of Vietnam’s public-sector entrepreneurship ecosystem. In the long term, adopting these lessons could increase startup resilience, reduce urban concentration, and foster equitable access to innovation resources.

5.3 Sector-Specific Observations and Differences

While this study analytically treated education and healthcare startups under a shared strategic lens, the granular and subsequent interpretation reveal several sector-specific distinctions that merit deeper consideration. These observed differences impact how startups within each domain experience operational barriers, approach innovation, and engage with complex regulatory systems, necessitating tailored strategic responses.

In the education sector, respondents—particularly vocational students—emphasized the critical importance of aligning training programs with labour market needs (Q10), yet expressed uncertainty about their own entrepreneurial readiness. This suggests that while there is broad recognition of education’s role in startup incubation, the institutional mechanisms for translating training into enterprise creation remain

underdeveloped. EdTech founders reported more confidence in using digital platforms (Q6), likely due to lower regulatory resistance and broader consumer familiarity with online learning systems. However, they also cited difficulties in differentiating offerings in an increasingly saturated and commoditized education market, echoing concerns raised by Phuong (2024) and the Future Education Magazine (2024b).

In stark contrast, healthcare startups face more severe external constraints, particularly in matters related to legal and compliance. HealthTech ventures face stricter oversight, especially when it comes to telemedicine, data privacy, and service licensing (MOH, 2023). Respondents from healthcare backgrounds expressed greater concern about staff shortages and quality assurance, which align with sector reports identifying a national shortfall in trained healthcare professionals and school-based medical staff (Duong, 2023; VOV, 2024). The healthcare sector also demands a higher degree of trust, accuracy, and regulatory clarity, which raises the operational threshold for entry and scale.

In summary, while both sectors share common pain points (e.g., capital, strategy, digitalization), education startups are more likely to innovate rapidly but face saturation, whereas healthcare startups are hindered by compliance burdens but occupy more mission-critical, underserved market spaces. These differences highlight the importance of tailoring strategic and policy responses based on sectoral characteristics.

Unexpected Findings and Contradictions

Beyond the expected distinctions between the education and healthcare sectors, several unexpected discrepancies emerged between how current SME owners and vocational students perceive strategic barriers and opportunities. These contrasts highlight not only generational or experiential divides but also a mismatch between perception and operational reality—a recurring theme with both pedagogical and policy implications.

One notable and concerning contradiction lies in the assessment of human resource challenges. While a substantial 87.5% of SME owners identified staffing limitations (e.g., recruitment of skilled teachers and medical experts, retention) as a major operational concern (Q8), only 61.3% of students considered human resources a significant barrier. This considerable gap suggests that younger, pre-entrepreneurial individuals may severely underestimate the complexities of talent acquisition, workforce management, and fostering a motivating corporate issue that seasoned entrepreneurs face on a daily basis, especially in human capital-intensive, service-based industries. This finding aligns with research on entrepreneurial self-efficacy, where aspiring individuals often overestimate their capabilities or underestimate the challenges in areas they have not yet directly experienced (Krueger & Day, 2010; OECD, 2021). The consequence of this blind spot is that future founders may enter the market ill-prepared for a critical operational and strategic hurdle.

Another significant contradiction relates to digital transformation and innovation culture. Although EdTech and HealthTech are often grouped under a shared “digital startup” label, SME responses reveal relatively low prioritization of digital tools and platforms, with only 44% reporting active engagement in digital innovation (Q6, Q9). In contrast, vocational students showed high expectations for the integration of technology in future ventures, especially in learning management systems and telemedicine. This discrepancy may be rooted in resource realities: while students envision tech-enabled enterprises, many SME owners lack access to digital talent, face budget constraints, or operate in sectors where legacy systems and regulatory lag hinder their ability to transform.

These observed contradictions underscore a deeper, systemic issue within Vietnam’s entrepreneurial landscape: the aspirations and theoretical understanding of emerging entrepreneurs often do not fully align with the complex operational realities faced by established businesses. This profound "expectation-reality mismatch" reinforces the

critical importance of incorporating robust, experience-based mentorship, fostering cross-generational learning initiatives, and designing curricula that integrate real-world startup case studies and practical simulations. Without effectively closing this perception gap, entrepreneurship education risks producing overconfident but fundamentally underprepared founders, ultimately reinforcing the cycle of high failure rates and persistent ecosystem fragmentation. Addressing these misalignments is paramount for building a more resilient and sustainable entrepreneurial pipeline in Vietnam.

5.4 Cross-Sector Integration and Strategic Opportunities

Despite their distinct challenges and operational nuances, the education and healthcare sectors in Vietnam present unique and compelling opportunities for integration, especially through innovative application of technology and the development of community-centered solutions. These opportunities are increasingly relevant in the Vietnamese context, where both sectors contribute directly to national development priorities related to innovation, inclusion, and human capital formation. Drawing from the digital pedagogy and tech adoption literature (Bates, 2020; Ng, 2021; Selwyn, 2022), this section explores the intersection of EdTech and HealthTech as a strategic space ripe for transformation development.

5.4.1 EdTech and HealthTech as Complementary Forces

One of the clearest strategic insights from this study is the potential synergy between EdTech and HealthTech, which are often treated as discrete verticals but in practice intersect across multiple use cases.

The survey results revealed strong support (over 86%) among SME owners for owners for leveraging digital platforms, not only for conventional marketing but also for critical functions such as specialized training, remote diagnostics, and service delivery (Q6,

Q9). This underscores a pragmatic understanding among entrepreneurs of technology’s transversal utility.

The interrelationship between these sectors, as articulated by the Human Society Theory (Durkheim, 1984), highlights that deficiencies in one can directly impact on the other, and conversely, advancements in one can mutually reinforce the development of the other. For instance, EdTech companies can play a pivotal role in bridging healthcare skill gaps by developing tailored training programs for health workers, particularly in underserved rural areas. This could include online modules for continuous professional education, certification courses for community health workers, or specialized modules on critical topics like mental health awareness for teachers (UNICEF, 2023; George, 2022). or rural healthcare providers (George, 2022). Such programs directly address the human resource constraints identified in Section 5.2.1. At the same time, HealthTech platforms can integrate educational components to enhance patient literacy, improve chronic disease management, or promote preventive health campaigns.

These insights are consistent with the framework of Digital Transformation in Pedagogy, which emphasizes the convergence of digital tools with socio-cognitive learning environments (Ng, 2021). In cross-sector settings, such as EduHealth models, this pedagogical evolution enables simultaneous learning and behavior change—essential in areas like hygiene education, maternal health, or early childhood intervention.

Furthermore, Selwyn (2022) emphasizes that technological leadership in public service innovation must stem not only from technical capability but also from ethical foresight and inclusive design. EdTech–HealthTech hybrids that co-create content with community stakeholders—especially in Vietnam’s rural and ethnic minority contexts—are more likely to be adopted and sustained.

Strategically, these integrations reduce duplication, maximize platform utility, and create shared infrastructure for public engagement. Startups operating at this intersection can appeal to multi-sector funders, forge institutional partnerships, and build more resilient business models by drawing from two resource pools. As Bates (2020) notes, the real opportunity of digital transformation lies in its interoperability and adaptability—two elements essential for startups navigating complex service landscapes.

5.4.2 Role in Human Capital and Community Wellness

Another profound area of cross-sector opportunity lies in the shared mission of human capital development and community wellness. Both education and healthcare contribute to the broader goal of building productive, informed, and healthy citizens, and startups at their intersection are uniquely positioned to deliver holistic services.

Findings from Question 10 indicated that 86.8% of SMEs agree on the importance of aligning human resource development with the real needs of the education and healthcare sectors. This includes not only technical training but also emotional intelligence, well-being, and community engagement. For instance, integrating school-based wellness programs that combine health screenings, nutritional education, and socio-emotional learning can simultaneously improve learning outcomes and public health indicators (UNICEF Policy Brief, 2022; MOET, 2022). Such programs, often delivered or supported by EdTech and HealthTech solutions, exemplify the practical application of interdisciplinary design. Bates (2020) emphasizes that scalable human development strategies in the digital era must be interdisciplinary by design—a view that supports the integration of well-being curricula, civic health, and soft skills development across educational and healthcare programs.

Furthermore, such innovative integrative models can address underserved rural communities where access to both health and education services is limited. By designing

mobile, modular, and culturally adaptive programs, startups can tackle systemic inequalities while unlocking new market segments. These models are already gaining traction in emerging markets such as India and Kenya, where community health educators are being trained via digital platforms embedded within school systems (World Bank, 2022).

In essence, the convergence of EdTech and HealthTech is more than a technological trend—it is a strategic imperative for startups seeking impact, sustainability, and policy alignment in a rapidly evolving Vietnamese innovation landscape. The integration of pedagogical theory and digital leadership literature reinforces the argument that cross-sector startups must be grounded not only in market logic but in evidence-based design, stakeholder collaboration, and system-level thinking. Equity in wellness entrepreneurship must also consider structural exclusions faced by female entrepreneurs and ethnic minority founders—many of whom operate in informal sectors and have limited access to finance, mentoring, and digital skills. Addressing these compounded disadvantages through targeted incentives and inclusive design is essential for sustainable community-based innovation.

5.5 Entrepreneurial Readiness and Education Gaps

A highly significant finding of this study is the persistent mismatch and concerning mismatch between entrepreneurial ambition and actual readiness, particularly among vocational students—who represent the next generation of startup founders in Vietnam’s education and healthcare sectors. Despite high levels of interest in entrepreneurship and a general understanding of market demands (Q1, Q5), only 18% of students reported feeling adequately prepared to start a business (Q10). This pronounced readiness gap unequivocally supports Fayolle and Gailly’s (2015) argument that without experiential

learning, coaching, and mentorship, traditional entrepreneurship education alone cannot effectively produce confident and capable founders.

The readiness gap is particularly evident across several critical operational domains, including strategic planning, digital skills, regulatory literacy, and human resource management. As revealed in the cross-group contrasts (Section 4.3.6), while vocational students demonstrated a theoretical understanding of market needs, they consistently scored lower than SME owners on perceptions of strategic capability (Q7) and operational confidence (Q4). Furthermore, they significantly underestimated the complexities of human resource challenges (Q8) and the practical intricacies of digital implementation (Q9). These findings collectively emphasize that entrepreneurship is not solely a question of attitude or innate talent—it is fundamentally about practical access to critical tools, comprehensive exposure to real-world complexity, and the availability of structured support systems that effectively bridge formal education with dynamic market application (Nguyen et al., 2023).

Additionally, the survey revealed that Vietnam’s vocational training programs are not yet fully aligned with the needs of local startup ecosystems. Students often lacked practical knowledge of legal procedures (Q3), capital acquisition strategies (Q4), and applied technology solutions (Q9), despite broadly recognizing their strategic importance. This reflects structural weaknesses in curriculum design, which tends to overemphasize technical specialization at the expense of entrepreneurial adaptability, market responsiveness, and innovation culture (Mori & Stroud, 2023).

To make this gap more tangible, Table 5 below summarizes the Top 5 Gaps in Entrepreneurial Readiness as reported by both SME owners and vocational students:

Rank	Gap Area	Common Issues Reported
1	Strategic Planning	Lack of clarity in business vision, weak long-term goals
2	Digital & Technological Skills	Poor familiarity with tools like CRM, LMS, digital ops
3	Regulatory & Legal Literacy	Confusion over licensing, compliance, legal setup
4	Financial Literacy	Limited knowledge of budgeting, fundraising, or costing
5	HR & Team Management	Challenges in recruiting, retaining, and leading a team

Table 5: Top 5 Gaps in Entrepreneurial Readiness

These gaps are critical because they affect not only entrepreneurial survival but also the ability to scale, innovate, and attract investment. The root causes extend beyond mere lack of practice; they include:

Outdated Curricula and Pedagogical Approaches: Many programs still rely on traditional, theoretical teaching methods that do not foster problem-solving, critical thinking, or creative solution development relevant to the volatile startup environment.

Limited Instructor Experience: A scarcity of vocational instructors with actual entrepreneurial or senior management experience hinders their ability to provide authentic, real-world insights and mentorship.

Insufficient Industry Linkages: Weak connections between vocational institutions and active startup ecosystems mean limited opportunities for internships, capstone projects with real businesses, or guest lectures from entrepreneurs.

Lack of Risk-Taking Culture: The prevailing educational and societal culture may inadvertently discourage experimentation and learning from failure, which are essential for entrepreneurial growth.

Addressing these gaps will require a multidimensional strategy. Vocational institutions must adopt more entrepreneurship-integrated curricula that incorporate real-world case studies, project-based learning, and exposure to regulatory and financial

systems. Mentorship networks should be expanded to connect students with active SME founders and industry practitioners, thereby fostering cross-generational learning and the acquisition of applied skills. Opportunities for hands-on startup engagement—such as internships, business simulations, and public-private accelerator partnerships—should be aggressively prioritized to ensure students develop the necessary operational confidence and realistic expectations.

The current study also opens several promising avenues for future investigation into entrepreneurial readiness:

Longitudinal Studies: Tracking vocational graduates over multiple years would provide deeper insight into how entrepreneurial readiness evolves post-graduation and which specific interventions most effectively close the gap between education and tangible business success. Such research would enable policymakers and educators to measure not just immediate outcomes but also long-term sustainability and entrepreneurial persistence.

Geographical Variation: Future studies should meticulously examine the geographical variation in entrepreneurial readiness, particularly by contrasting well-established urban hubs like Ho Chi Minh City and Hanoi with rural provinces. In these rural areas, startup ecosystems and training resources are often significantly underdeveloped, and regional disparities in access to finance, mentorship, and digital infrastructure may exacerbate the readiness gap, deserving tailored policy attention.

Effectiveness of Public-Private Training Partnerships: Another critical research pathway involves comprehensively evaluating the effectiveness of existing or nascent public-private training partnerships. Particularly those models that intricately integrate vocational education with local SME networks, community-based accelerators, and government-sponsored innovation programs. These partnerships could provide scalable

models for bridging the persistent disconnect between classroom instruction and the dynamic, unpredictable realities of entrepreneurship in Vietnam's service sectors.

In summary, entrepreneurial readiness within Vietnam's vocational pipeline remains largely aspirational but currently underdeveloped. Effectively closing this critical gap will necessitate coordinated action across the education, business, and policy sectors. Future research must, therefore, robustly focus on unpacking the nuanced pathways through which knowledge, confidence, and ultimately, sustainable entrepreneurial success can align and flourish over time

5.6 Implications for Entrepreneurs, Policymakers, and Investors

The comprehensive findings of this study carry profound and actionable implications for three primary stakeholder groups: entrepreneurs, policymakers, and investors. Each of these groups plays a critical, symbiotic role in shaping the success, sustainability, and transformative impact of Vietnam's nascent yet vital education and healthcare startup sectors. Effective coordination and targeted interventions from each perspective are essential for fostering an environment conducive to innovation and inclusive growth.

For Entrepreneurs:

Startup founders in Vietnam's education and healthcare sectors must recognize that their long-term viability and growth are contingent upon prioritizing strategic capacity building alongside product or service development. The consistent identification of managerial weakness as a core failure point (Q7) strongly suggests that entrepreneurs must proactively develop and continuously enhance their competencies in critical areas such as strategic planning, robust financial management, targeted marketing, and complex regulatory navigation. This includes:

Proactive Skill Development: Engaging in specialized training programs, workshops on lean startup methodologies, and executive education focused on business acumen and leadership tailored for social enterprises.

Building Strong Teams: Investing in human resource management skills to effectively recruit, train, and retain skilled personnel, thereby addressing the widespread staffing challenges (Q8). This may involve developing clear talent pipelines, fostering an attractive corporate culture, and offering competitive incentives.

Exploring Cross-Sector Models: Actively seeking out opportunities for cross-sector collaboration (e.g., EdHealth hybrids) to diversify revenue streams, enhance impact, and create integrated solutions. For example, an EdTech startup could partner with a HealthTech firm to offer comprehensive school wellness programs that combine health education with digital health monitoring, creating shared value and broader societal benefits.

Leveraging Digital Tools Strategically: Beyond basic usage, entrepreneurs must integrate human capital development, community engagement, and digital tools strategically into their core business models to streamline operations and effectively navigate competitive pressures (Q6, Q9). This includes adopting CRM systems, data analytics for decision-making, and advanced digital marketing techniques.

For Policymakers:

Government actors bear a significant responsibility in cultivating a truly enabling environment for startups. Their support must extend beyond mere funding and incubation to actively addressing systemic regulatory and bureaucratic obstacles. With over 75% of participants citing legal complexity as a serious constraint (Q3), there is an urgent and undeniable need for:

Streamlined Licensing and Clearer Regulations: Implementing simplified licensing procedures, developing clearer sector-specific guidelines (especially for emerging EdTech and HealthTech models like telemedicine and online accreditation), and digitalizing administrative processes to reduce bureaucratic delays and uncertainty.

Decentralized Regulatory Approval: Exploring models that decentralize procedural authority to provincial levels under a unified national framework, as seen in Indonesia's OSS system, to enhance agility and reduce inconsistencies across regions.

Enhanced Capital Access: Facilitating the creation of dedicated venture capital funds and grant programs specifically targeted at education and healthcare startups. Policymakers should also encourage social-impact investments through favorable tax incentives and innovative blended financing models, thereby addressing the pervasive financial bottlenecks (Q4).

Policy Convergence: Ministries such as the Ministry of Education and Training (MOET) and the Ministry of Health (MOH) must actively coordinate to foster policy convergence between vocational training and national workforce planning. This ensures that education reform genuinely supports entrepreneurship and prepares students for market realities, not just traditional employability. This includes promoting entrepreneurial literacy and practical experience within vocational curricula (MOET, 2020; UNESCO, 2022).

For Investors:

The private investment community must critically reconsider traditional risk assessments that frequently exclude education and healthcare ventures due to perceived low scalability or unclear short-term returns. The findings of this study unequivocally demonstrate significant market demand, strategic vision among entrepreneurs, and

immense digital engagement potential within these sectors, especially among SMEs (Q1, Q5, Q6). Investors should therefore:

Re-evaluate Investment Criteria: Develop new investment frameworks that account for social impact, long-term sustainability, and the unique hybrid business models (combining social purpose with commercial viability) characteristic of these sectors.

Targeted Funding: Actively seek out and fund models that integrate public benefit with profitability. Impact investors, in particular, can play a catalytic role by providing patient capital and value-added support beyond mere funding.

Value-Added Support: Offer not only financial capital but also crucial mentorship, network access, and deep sectoral knowledge to help startups navigate complexities and accelerate growth. This addresses the managerial capacity gaps identified (Q7) and enhances overall ecosystem strength.

Promote Cross-Sector Investment: Look for opportunities in EdTech–HealthTech intersection, as these ventures offer dual-sector impact potential and often tap into complementary markets and resource pools.

Together, these implications highlight an urgent need for concerted ecosystem-level coordination. Entrepreneurs, government entities, and capital providers must actively collaborate toward fostering inclusive, innovative-led growth within public service sectors. To the best of the researcher’s knowledge, this study is among the first to propose a localized strategic entrepreneurship model tailored for Vietnam’s education–healthcare startup ecosystem. By aligning their strategies and resources, they can collectively build a more resilient and impactful startup landscape in Vietnam.

5.7 Chapter Summary

This chapter has sought to weave together the empirical, theoretical, and strategic strands of the research—turning complex data into actionable insights for Vietnam’s

education and healthcare startup ecosystem. It pays particular attention to how these insights interact with established literature, reveal unexpected patterns, and inform future development pathways for Vietnam's startup ecosystem.

First, the chapter conducted a comprehensive comparison with existing theoretical frameworks in strategic management, entrepreneurship education, and digital transformation. The discussion extended beyond local data to incorporate regional and international studies, drawing from OECD (2021), World Bank (2022), and key pedagogical research (Ng, 2021; Bates, 2020). This cross-referencing validated many of the survey results while also highlighting sector-specific nuances in Vietnam's startup ecosystem that diverge from patterns observed in peer economies such as Thailand, Indonesia, and the Philippines, thus enriching the understanding of contextual factors.

Second, the chapter uncovered several significant and often unexpected findings and contradictions. Notably, a substantial "expectation-reality mismatch" was identified between the perceptions of vocational students and lived experiences of the SME owners' particularly regarding human resource challenges and digital readiness. This was particularly pronounced regarding the critical challenges of human resource management (where students significantly underestimated the complexities of staffing and retention) and the practical realities of digital readiness (where students overestimated the ease of adopting digital solutions). These crucial insights underscore the critical importance of bridging this perception gap through targeted experiential learning, comprehensive mentorship programs, and well-designed ecosystem support mechanisms. This mismatch highlights a fundamental area for intervention to prepare future entrepreneurs more effectively.

Third, the chapter thoroughly outlined strategic and research-oriented recommendations for the future action, directly stemming from the interpreted findings

Key policy directions proposed include the urgent decentralization of licensing processes, the imperative for strengthening public-private partnerships in vocational training to enhance entrepreneurial readiness, and the necessity of developing integrated support systems that effectively combine financial access with essential managerial capacity building. Furthermore, the chapter delineated crucial avenues for future research, such as longitudinal tracking of vocational graduates, detailed analyses of urban-rural discrepancies in entrepreneurial readiness, and rigorous evaluations of the effectiveness of cross-sector incubation models.

Ultimately, the in-depth findings of this chapter support the development of a localized strategic management framework that not only addresses Vietnam's institutional challenges but also leverages emerging opportunities in EdTech–HealthTech integration and community-centered innovation. This framework is specifically designed not only to address Vietnam's distinctive institutional challenges but also to strategically leverage its emerging opportunities, particularly in the promising areas of EdTech–HealthTech integration and community-centered innovation. This detailed discussion sets a strong foundation for Chapter VI, which will consolidate these contributions, offer practical roadmaps for entrepreneurs and policymakers, and present actionable recommendations for advancing Vietnam's entrepreneurial ecosystem towards sustainable and inclusive growth.

To consolidate these insights, Table 6 below summarizes key stakeholder implications derived from this study's findings:

Stakeholder	Strategic Implications
Entrepreneurs	Strengthen digital fluency, innovative mindset, and adaptive management capabilities.
Policymakers	Design inclusive policies, enable regulatory sandboxes, and foster mentoring systems.
Investors	Prioritize socially impactful startups with scalable, cross-sector models.
Civil Society/NGOs	Support underserved founders (women, youth, minorities) via incubation and access.

Table 6: Summary of Stakeholder Implications

Ultimately, this chapter serves as a bridge—connecting scholarly inquiry with real-world application, and turning analysis into agency for those working to transform vietnam’s future through innovation.

CHAPTER VI: SUMMARY, IMPLICATIONS, AND RECOMMENDATIONS

6.1 Summary of Research Objectives and Findings

This chapter serves to synthesize the entirety of this doctoral dissertation, providing a concise yet comprehensive summary of the research objectives, the methodologies employed, and the key empirical findings. Its ultimate aim is to present the theoretical and practical implications of the study, culminating in actionable recommendations for various stakeholders within Vietnam's education and healthcare startup ecosystems. In doing so, the chapter seeks not only to conclude the research but to translate insight into agency—bridging academic analysis with the urgent strategic needs of real-world actors. Whether through theory, data, or stakeholder reflection, the aim is to ensure that each contribution made here finds relevance beyond the page, in policy, in classrooms, and in the startup journeys ahead.

The primary aim of this research was to meticulously develop a personalized strategic management system tailored to address the unique needs of startups within Vietnam's education and healthcare sectors. These sectors are not only central to national socio-economic advancement but also represent fertile ground for digital transformation and cross-sector innovation. Despite their immense potential, startups operating in these domains continue to encounter a series of persistent barriers that constrain growth and limit scalability and impede their long-term sustainability. The core objectives guiding this study were fourfold, each meticulously designed to address specific lacunae in current understanding:

- To identify key operational and strategic challenges faced by startups within the Vietnamese education and healthcare landscape.

- To thoroughly explore cross-sector integration opportunities, particularly focusing on potential synergies between EdTech and HealthTech platforms.
- To comprehensively assess the entrepreneurial readiness of vocational students and their alignment with current startup realities.
- To design a tailored strategic management framework that directly addresses Vietnam's specific institutional constraints and the unique characteristics of its startup ecosystem.

The empirical research findings unequivocally confirmed the significant weight of capital constraints and regulatory complexity. Over 80% of SME owners and 75.8% of vocational students identified access to capital as a primary hurdle to business formation and growth (Nguyen & Marjoribanks, 2021). Similarly, the legal and administrative system was widely perceived as a substantial barrier, with 79.3% of SMEs and 61.3% of students describing Vietnam's regulatory environment as complex, fragmented, and inefficient (Pham & Dinh, 2024). These figures collectively underscore the systemic nature of these external challenges, which require targeted policy interventions.

Another pivotal insight revealed was the strategic management gap evident across both SME owners and vocational students. While SME owners reported inadequate strategic planning as a leading cause of underperformance (79.2%), only 18% of vocational students felt adequately prepared to launch and manage a startup. This readiness gap signals systemic shortcomings in Vietnam's vocational training system, which tends to prioritize technical competencies over entrepreneurial agility and practical regulatory navigation skills. (Nguyen & Marjoribanks, 2021).

Importantly, the research also uncovered several unexpected contradictions and a significant "expectation-reality mismatch." While vocational students expressed high aspirations for leveraging digital tools and technology-driven business models, active SME owners reported relatively lower actual engagement with advanced digital transformation

initiatives. Furthermore, students consistently underestimated the inherent complexity of human resource management, particularly the challenges associated with recruiting and retaining skilled personnel—when compared to the lived, daily experiences of seasoned SME founders. This perceptual misalignment highlights that entrepreneurship education in Vietnam may not sufficiently expose students to the full spectrum of operational demands and systemic obstacles that characterize early-stage startups, potentially contributing to high failure rates. The comparative analysis between the two respondent groups thus revealed meaningful differences in perception and readiness, underscoring the urgent need for tailored, cohort-specific interventions that can effectively bridge these generational and experiential gaps in entrepreneurial awareness and capability.

On a strategic level, the research identified compelling opportunities for cross-sector integration, particularly between EdTech and HealthTech platforms. The survey revealed strong support (over 86% of SMEs) for leveraging digital solutions to enhance training, diagnostics, and service delivery (Q6, Q9). Cross-functional innovations such as EduHealth platforms offer promising avenues for Vietnamese startups to simultaneously address market gaps in education, community wellness, and digital health literacy (UNICEF, 2023; George, 2022). These models also align closely with Vietnam's national development priorities in digitalization and human capital formation. This cross-sector potential directly contributes to broader global development agendas. In particular, the study advances alignment with multiple United Nations Sustainable Development Goals (SDGs), including SDG 3 (Good Health and Well-being), SDG 4 (Quality Education), and SDG 8 (Decent Work and Economic Growth). By fostering technology-enabled entrepreneurship in socially impactful sectors, Vietnamese startups have the opportunity not only to address domestic challenges but also to meaningfully participate in global sustainability efforts.

In addition, the study confirmed the critical role of technology adoption in driving startup competitiveness and sustainability. Both SME owners (87.4%) and students (67.7%) recognized the strategic value of digital marketing and operational technology. The adoption of integrated digital tools is not only essential for market expansion but also for long-term resilience in volatile sectors (InnoLab Asia, 2021b; Future Education Magazine, 2024b).

Human resource constraints emerged as another key barrier. 87.5% of SME owners and 61.3% of students acknowledged the difficulty of securing skilled staff, particularly in education and healthcare services. Both groups emphasized the importance of creating attractive workplace cultures and investing in long-term talent development to retain high-quality employees (Nguyen et al., 2022).

In summary, this study validated that startups in Vietnam's education and healthcare sectors face intertwined challenges: financial limitations, regulatory complexity, and insufficient managerial readiness. However, the research also identified actionable growth opportunities through cross-sector collaboration, digital transformation, and tailored vocational reform.

The personalized strategic management system proposed in this study offers a comprehensive framework for addressing these challenges, enhancing entrepreneurial readiness, and fostering sustainable startup ecosystems in Vietnam. This research contributes to both theory and practice by advancing strategic entrepreneurship discourse in emerging economies and providing practical roadmaps for institutional leaders, policymakers, and entrepreneurs alike.

6.2 Theoretical and Practical Implications

6.2.1 Theoretical Implications

This study makes several meaningful theoretical contributions to the field of strategic entrepreneurship, particularly within the context of emerging economies where startups often contend with resource scarcity, regulatory ambiguity, and market volatility. By focusing on Vietnam's education and healthcare sectors, this research extends and localizes existing strategic management theories, providing a nuanced understanding of how startups operate in socially critical yet structurally constrained environments.

One of the key theoretical contributions lies in the empirical validation of the Theory of Reasoned Action (TRA) within entrepreneurial contexts. The study confirms that the intentions of vocational students to pursue entrepreneurship are heavily influenced by their perceptions of external barriers, including regulatory complexity and limited access to capital. This finding reinforces TRA's central tenet that attitudes alone are insufficient to predict behavior—external constraints can decisively influence entrepreneurial engagement (Nguyen & Marjoribanks, 2021).

In addition, this research advances the Human Society Theory by illustrating how sectoral interdependence, particularly between education and healthcare, shape the performance and innovation potential of startups. The interconnectedness between these sectors creates opportunities for synergistic growth, where advances in one can positively reinforce the other. This aligns with the growing body of literature emphasizing cross-sector collaboration as a critical success factor in complex ecosystems (Nguyen et al., 2022).

The study also contributes to the evolving field of digital pedagogy and technological leadership in public services. By integrating the frameworks of Ng (2021), Bates (2020), and Selwyn (2022), the research highlights how digital transformation in

education is inseparable from broader socio-technical shifts in healthcare. It emphasizes that startups leveraging digital integration across sectors not only achieve operational efficiency but also catalyze systemic improvements in community health, learning outcomes, and workforce development.

Collectively, these theoretical insights offer a multi-sectoral entrepreneurship model applicable to other emerging markets where institutional fragmentation and resource gaps persist. The proposed framework emphasizes the need for strategic adaptability, digital integration, and collaborative ecosystem building as key pillars of sustainable entrepreneurship in public service sectors.

6.2.2 Practical Implications

From a practical perspective, this study provides actionable insights for entrepreneurs, policymakers, vocational institutions, and investors seeking to nurture Vietnam's education and healthcare startup ecosystems.

For entrepreneurs, the research highlights the importance of developing comprehensive management capabilities, particularly in strategic planning, financial governance, and navigating regulatory requirements. Given that over 79% of SME owners reported deficiencies in these areas, targeted capacity-building programs focusing on leadership, market positioning, and digital strategy are essential for improving startup viability (Nguyen & Taylor-Robinson, 2023).

The study strongly advocates for cross-sector collaboration as a strategic response to resource constraints. EdTech platforms can play a pivotal role in healthcare training, while HealthTech solutions can enhance student well-being and access to education. This EdTech–HealthTech synergy offers a practical blueprint for startups to co-create solutions that address shared societal challenges, especially in under-resourced communities (Future Education Magazine, 2024a).

For policymakers, the findings underscore the importance of creating supportive regulatory environments and digital infrastructure that foster startup growth. Priority areas include the decentralization of licensing processes, the expansion of legal support for startups, and the promotion of technology adoption in rural regions to bridge geographic disparities. Digital platforms can enable startups to overcome logistical barriers and reach underserved markets with scalable, high-impact solutions.

From an education policy perspective, the study reveals significant gaps in the entrepreneurial readiness of vocational students, with only 18% expressing confidence in their startup capabilities. This calls for a fundamental reform of vocational curricula, integrating practical entrepreneurship training, project-based learning, mentorship, and exposure to real-world startup ecosystems. Establishing public-private training partnerships that connect vocational students with active entrepreneurs, local SMEs, and community incubators can dramatically enhance preparedness and entrepreneurial confidence.

For investors and ecosystem builders, the study highlights the importance of supporting startups that operate at the intersection of EdTech and HealthTech, given their dual-sector impact potential. Investment strategies should prioritize startups that foster digital inclusion, community health, and equitable access to education—goals that align with Vietnam’s broader socio-economic development agenda.

In summary, this study makes a significant contribution to both theory and practice by providing a comprehensive, context-specific strategic management framework tailored to startups in Vietnam’s education and healthcare sectors. It provides clear roadmaps for entrepreneurs, institutional leaders, and policymakers to address structural barriers, leverage cross-sector synergies, and build resilient, innovation-driven ecosystems that can sustainably support Vietnam’s future growth. These strategic and policy implications also

advance Vietnam's alignment with SDG 3 (Good Health), SDG 4 (Quality Education), and SDG 8 (Decent Work), positioning cross-sector startups as vital contributors to inclusive and sustainable development.

6.3 Strategic and Policy Recommendations

Based on the research findings, several strategic and policy recommendations are proposed to enhance the competitiveness, sustainability, and scalability of startups in Vietnam's education and healthcare sectors. These recommendations are targeted at entrepreneurs, policymakers, and educational institutions, and are intended to provide a roadmap for overcoming the key challenges identified in this study.

For entrepreneurs, developing robust strategic management capabilities is an immediate priority. This research has demonstrated that many startup founders, particularly in the education and healthcare sectors, face persistent gaps in areas such as financial planning, regulatory navigation, human resource management, and market positioning. To address this, entrepreneurs should actively engage in continuous professional development through specialized training, mentorship from experienced founders, and participation in structured startup incubation programs. Such efforts would strengthen long-term strategic thinking, risk management, and operational resilience. Additionally, the research emphasizes the value of cross-sector collaboration, particularly the potential synergies between EdTech and HealthTech platforms. Entrepreneurs should seek to establish partnerships that transcend sectoral boundaries, enabling the co-development of integrated solutions that enhance both service delivery and social impact. For example, EdTech companies could collaborate with HealthTech startups to provide health-focused educational content or mobile wellness programs in schools, creating shared value for both sectors and addressing systemic gaps in community health and education simultaneously. These partnerships not only diversify revenue streams but also enable startups to scale

efficiently by leveraging shared infrastructure and target markets. Furthermore, technology adoption must be positioned at the core of entrepreneurial strategy. Entrepreneurs should fully utilize digital tools such as customer relationship management systems, digital marketing platforms, and cloud-based solutions to optimize business operations, increase outreach, and streamline service delivery. Incorporating advanced technologies, including artificial intelligence in educational platforms or telemedicine in healthcare services, will differentiate startups in an increasingly competitive market and expand their capacity to serve underserved rural areas.

From the perspective of policymakers, several structural reforms are necessary to create a supportive environment for early-stage ventures. The complexity of Vietnam's regulatory frameworks remains a significant barrier; this study recommends that policymakers simplify licensing procedures, digitize administrative processes, and decentralize regulatory approval to provincial levels while maintaining national oversight. Such reforms would reduce bureaucratic delays and improve the transparency and predictability of the startup environment. Furthermore, enhancing access to capital should become a national priority. Policymakers should facilitate the creation of dedicated venture capital funds and grant programs targeted at education and healthcare startups, while also encouraging social-impact investments through tax incentives and blended financing models. Improving digital infrastructure, particularly in rural regions, is also critical. The government should expand affordable internet access, digital payment systems, and mobile technology support to enable startups in remote areas to compete effectively and deliver services where they are most needed. Finally, policymakers should foster public-private collaboration platforms that connect vocational training providers, startup accelerators, and industry partners to streamline entrepreneurial education and support systems.

For educational institutions, curriculum reform is essential to address the entrepreneurial readiness gap identified in this study. Vocational training programs should be redesigned to integrate hands-on learning, startup simulations, and real-world business projects that expose students to the challenges and complexities of entrepreneurship. Collaborative initiatives with local SMEs and community incubators can provide students with direct access to operational experiences and regulatory processes. Moreover, educational institutions must emphasize sector-specific entrepreneurial skills, particularly in the context of EdTech and HealthTech innovations. Preparing students to navigate digital transformation, regulatory compliance, and strategic market positioning in these sectors will significantly improve their readiness to lead successful startups. Institutions should also promote an innovation-driven culture that encourages cross-disciplinary collaboration. Facilitating interdisciplinary projects, hackathons, and collaborative problem-solving activities that bring together students from healthcare, education, and technology backgrounds will instill in them the capacity to develop integrated, socially impactful solutions.

Implementation Roadmap for Ecosystem Alignment

To ensure effective adoption of the proposed strategic and policy recommendations, this study suggests a phased implementation roadmap that aligns with Vietnam's startup ecosystem development priorities and institutional capabilities.

In the short term (within 1 year), key focus areas should include the rapid deployment of foundational support mechanisms. Policymakers and educational institutions should:

- Establish startup legal clinics and public-private mentorship networks to provide immediate legal and managerial guidance to early-stage entrepreneurs.

- Introduce targeted tax incentives that encourage cross-sector startup collaborations, particularly between EdTech and HealthTech ventures.
- Pilot digital licensing platforms in selected provinces to streamline registration processes and reduce bureaucratic friction for startups.

In the medium term (over 2 to 3 years), the focus should shift towards scaling ecosystem support structures and enhancing nationwide access. Recommended actions include:

- Expanding public-private partnerships in vocational training to provide entrepreneurship-integrated curricula and hands-on startup engagement opportunities.
- Scaling national and regional startup incubators with a particular focus on EdTech–HealthTech convergence to accelerate the growth of cross-sector ventures.
- Deploying digital infrastructure and mobile connectivity support schemes in rural and underserved areas to ensure equitable access to entrepreneurial opportunities.

In the long term (within 5 years), Vietnam should aim to institutionalize system-wide reforms and build resilient, inclusive ecosystems. Long-term priorities should include:

- Fully decentralizing licensing and regulatory processing to local governments while maintaining national consistency through unified digital frameworks.
- Establishing cross-sector innovation clusters that formally connect education, healthcare, and technology stakeholders to foster sustained collaboration and knowledge exchange.
- Developing longitudinal monitoring systems that track startup success rates and the entrepreneurial outcomes of vocational graduates over time, providing data-driven feedback loops for policy refinement.

By adopting this phased roadmap, Vietnam can progressively build an enabling environment that supports innovation, reduces systemic barriers, and ensures that

education and healthcare startups can thrive within a well-coordinated, future-ready ecosystem.

Collectively, the strategic and policy recommendations outlined in this section provide a comprehensive and actionable pathway for strengthening Vietnam's education and healthcare startup ecosystems. By addressing the institutional barriers, supporting cross-sector collaboration, and enhancing entrepreneurial readiness through integrated educational reforms, Vietnam can unlock significant opportunities for inclusive growth and sustainable innovation. These efforts will not only foster resilient, socially impactful startups but also contribute meaningfully to Vietnam's broader goals of achieving equitable economic development, digital transformation, and enhancing community well-being.

6.4 Study Limitations and Directions for Future Research

6.4.1 Study Limitations

While this study provides valuable insights into the strategic challenges and growth opportunities for startups in Vietnam's education and healthcare sectors, several limitations should be acknowledged. First, the geographical focus of the study was largely restricted to major urban centers, specifically Ho Chi Minh City, Hanoi, and Da Nang. This urban concentration may not fully capture the diverse realities faced by startups operating in rural and remote areas, where access to financial capital, skilled human resources, and digital infrastructure may differ significantly. The regional disparities inherent in Vietnam's economic landscape suggest that the findings, while robust, may not be fully generalizable to the entire national startup ecosystem.

Second, the study's data collection method—an online survey administered through Google Forms—limited the research to structured, quantifiable responses. Although this method allowed for broad participation and statistical analysis, it did not capture the depth and nuance that might have been revealed through in-depth interviews, focus groups, or

longitudinal tracking. The absence of qualitative insights restricts the ability to explore complex decision-making processes, cultural influences, and the lived experiences of entrepreneurs as they navigate systemic barriers.

Third, while this research emphasized the importance of cross-sector collaboration between education and healthcare startups, it did not investigate specific, real-world partnership models or measure the effectiveness of such collaborations in practice. The study's cross-sectional design also limited the ability to assess how entrepreneurial readiness, particularly among vocational students, evolves and translates into actual startup formation and success.

Finally, although the study acknowledged the critical role of digital transformation, it did not analyze the differential impact of specific technologies on startup performance. The scope was limited to general perceptions of technology adoption without a granular examination of how particular digital tools, such as artificial intelligence, telemedicine platforms, or blockchain-based systems, influence scalability, operational efficiency, or customer satisfaction.

6.4.2 Directions for Future Research

Building upon the identified limitations of this study, several promising and critical directions for future research emerge. These avenues are designed to provide deeper, more nuanced, and ultimately more actionable understanding of how Vietnam's education and healthcare startups can thrive in increasingly complex and competitive environments, thereby contributing both theoretically and practically to the field of strategic entrepreneurship in emerging economies. To the best of the researcher's knowledge, this is one of the first studies to develop a sector-specific strategic management framework tailored to the realities of Vietnamese education and healthcare startups—thus filling a critical gap in both local research and applied practice To the best of the researcher's

knowledge, this is one of the first studies to develop a sector-specific strategic management framework tailored to the realities of Vietnamese education and healthcare startups—thus filling a critical gap in both local research and applied practice.

Regional Segmentation of the Vietnamese Startup Ecosystem:

Focus: Future studies should meticulously examine the geographical variation in entrepreneurial challenges and readiness across Vietnam. This involves a comparative analysis between established urban hubs (e.g., Ho Chi Minh City, Hanoi) and rural, peri-urban, or economically disadvantaged provinces.

Methodology: This could involve mixed methods of approaches, combining quantitative surveys with qualitative in-depth interviews or case studies from diverse regions.

Value: Such research reveals critical gaps in policy coverage, disparities in infrastructure access (e.g., digital connectivity, physical incubators), and varying levels of ecosystem maturity. Understanding these place-based disparities is essential for developing tailored policy interventions that foster equitable access to entrepreneurial opportunities across the nation.

Longitudinal Studies on Entrepreneurial Readiness and Outcomes:

Focus: A crucial direction involves tracking vocational graduates over multiple years to provide deeper, longitudinal insights into how entrepreneurial readiness develops post-graduation. This includes examining how initial aspirations translate into actual startup formation, survival rates, and sustained growth.

Methodology: This would require cohort studies, following the same group of students from their vocational training through their early entrepreneurial journeys.

Value: Such research would enable policymakers and educators to measure not only immediate educational outcomes but also long-term sustainability and entrepreneurial

persistence. It would offer empirical evidence on what specific educational reforms, mentorship exposure, and ecosystem participation most effectively close the gap between classroom learning and real-world business success.

In-depth Analysis of Cross-Sector Collaboration Models:

Focus: While this study identified compelling opportunities for cross-sector integration between education and healthcare startups, future research should explore practical, real-world partnership models in greater detail.

Methodology: Detailed case studies of successful (and unsuccessful) EdTech-HealthTech collaborations could illuminate the underlying mechanisms that enable shared resource utilization, joint product development, and sustainable business scaling. Qualitative interviews with founders, partners, and beneficiaries would be particularly insightful.

Value: Investigating the specific policy conditions (e.g., joint regulatory sandboxes, shared data governance frameworks) that either facilitate or hinder such collaborations would further strengthen the applied relevance of this research stream, providing a blueprint for fostering synergistic innovation.

Impact of Emerging Technologies on Startup Performance:

Focus: There is significant scope for examining the differential impact of specific emerging technologies on startup performance in Vietnam's public-service sectors.

Methodology: Future studies could employ quantitative methods (e.g., regression analysis) to analyze how the integration of particular digital tools—such as Artificial Intelligence (AI) in educational platforms, advanced telemedicine solutions, blockchain-based health record systems, or personalized mobile health applications—influences scalability, operational efficiency, customer satisfaction, and competitive positioning.

Value: A granular examination of technology adoption and its outcomes would provide actionable insights for entrepreneurs on strategic technology investment and for policymakers on fostering a supportive digital infrastructure.

Effectiveness of Public-Private Partnerships in Vocational Entrepreneurship Training:

Focus: This study highlighted the entrepreneurial readiness gap in vocational education. Future research should rigorously assess the effectiveness of public-private partnerships (PPPs) specifically designed for vocational entrepreneurship training.

Methodology: This could involve program evaluations, quasi-experimental designs comparing outcomes of students in PPP programs versus traditional programs, and qualitative assessments of stakeholder perceptions.

Value: Evaluating how these partnerships influence curriculum design, practical skill acquisition, industry alignment, and ultimately, startup formation rates among vocational graduates will offer critical insights into how Vietnam can build a more responsive, demand-driven, and future-ready entrepreneurial education system.

By diligently pursuing these diversified research directions, future studies can significantly deepen the understanding of how Vietnam's education and healthcare startups can not only survive but truly thrive in increasingly complex and competitive environments, contributing to both academic knowledge and national development. As Vietnam advances into the next phase of its digital and economic transformation, the convergence of education, healthcare, and technology will define the success of its startup ecosystem. A future where public services are reimagined through entrepreneurial energy, community collaboration, and adaptive policymaking is not only possible—but necessary.

6.5 Final Conclusion

This study has comprehensively examined the strategic challenges and growth opportunities encountered by startups operating within Vietnam's education and healthcare sectors—two domains that are both socially critical and structurally complex. Through a detailed analysis of resource constraints, regulatory barriers, and managerial capability gaps, this research has confirmed that these startups face multi-layered obstacles that inhibit sustainable development. However, the findings also highlight substantial growth potential, particularly through cross-sector integration, digital transformation, and the adoption of personalized strategic management systems that align with the unique institutional realities of Vietnam.

A central contribution of this study is its emphasis on the need for tailored management approaches that address the specific dynamics of the education and healthcare startup ecosystems. The research demonstrated that conventional management frameworks are insufficient for navigating the volatility, regulatory rigidity, and cross-sector dependencies inherent in these sectors. Instead, a personalized strategic management system that focuses on building managerial competencies, fostering technological innovation, and promoting collaborative synergies across sectors is essential for enhancing startup resilience and long-term scalability.

Notably, this study revealed significant discrepancies between entrepreneurial aspirations and practical readiness, particularly among vocational students who will form the next generation of startup founders. While students exhibited high enthusiasm for leveraging digital platforms and pursuing entrepreneurship, their operational understanding and strategic preparedness remain limited. This expectation-reality gap reinforces the importance of experience-based education, real-world mentorship, and

public-private partnerships that connect students with active entrepreneurs and industry ecosystems.

The study's practical implications provide actionable pathways for multiple stakeholders. Entrepreneurs must prioritize the acquisition of advanced strategic management skills and proactively seek cross-sector partnerships, particularly between EdTech and HealthTech domains. Policymakers should simplify regulatory frameworks, expand access to startup capital, and decentralize licensing processes to enable more agile business formation and growth, particularly in rural and underserved regions. Educational institutions should urgently reform vocational curricula to embed entrepreneurial skill-building, project-based learning, and sector-specific digital competencies.

This research also provides a phased implementation roadmap that outlines the immediate, medium-term, and long-term actions necessary to systematically strengthen Vietnam's startup ecosystem. From the establishment of legal clinics and mentorship networks in the short term to the creation of cross-sector innovation clusters and longitudinal monitoring systems in the long term, this roadmap provides a coherent strategy for aligning the ecosystem and sustaining entrepreneurial support.

Theoretically, this study extends the application of the Theory of Reasoned Action and Human Society Theory in emerging market contexts by demonstrating how individual entrepreneurial intentions are shaped—and often constrained—by systemic barriers such as regulatory complexity, capital inaccessibility, and fragmented institutional support. The research also integrates digital pedagogy and technological leadership theories, reinforcing that cross-sector digital convergence is not only a growth strategy but a structural necessity in Vietnam's public-service startups.

In conclusion, this study makes a substantive contribution to the literature on strategic entrepreneurship in emerging economies by providing a localized, sector-specific

strategic management framework that can guide entrepreneurs, educators, and policymakers in addressing Vietnam's most pressing startup challenges. By fostering innovation, investing in human capital, and building an enabling regulatory environment, Vietnam has the opportunity to unlock the full potential of its education and healthcare startup sectors. These coordinated efforts will not only promote startup sustainability and inclusive economic growth but also contribute meaningfully to Vietnam's broader national development goals and digital transformation agenda. In doing so, the study specifically advances Vietnam's commitment to achieving critical United Nations Sustainable Development Goals, including SDG 3 (Good Health and Well-being), SDG 4 (Quality Education), and SDG 8 (Decent Work and Economic Growth), through strategic entrepreneurship and cross-sector collaboration.

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