

Evaluating Strategies to Create Successful Business Incubators in Higher Education in Vietnam

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Abstract

In recent years, the landscape of higher education has undergone a significant transformation in response to the evolving needs of students and society. One of the notable shifts is the growing emphasis on fostering entrepreneurial skills and supporting innovation. Business incubators in higher education institutions have emerged as a key mechanism to bridge the gap between academia and industry, enabling students and faculty members to turn their innovative ideas into successful ventures. This article examines strategies for establishing effective business incubators within higher education institutions in Vietnam. With the growing emphasis on fostering entrepreneurship and innovation, business incubators play a crucial role in bridging the gap between academia and industry. This study also evaluates key strategies for successful incubators, including leadership, tailored support programs, industry partnerships, funding access, physical infrastructure, training, and monitoring. The context of Vietnam's dynamic economy and burgeoning startup ecosystem provides a unique backdrop for assessing these strategies. Through a mixed-methods approach involving 189 surveys, in-depth interviews, and case studies which aim to offer insights into optimizing business incubation processes and contributing to economic growth. Through rigorous analysis and the exploration of stakeholder perceptions, this research endeavors to contribute to the discourse surrounding the strategies that underpin successful business incubators in the context of higher education in Vietnam. The findings of this study hold the potential to inform higher education institutions, policy-makers, and entrepreneurs about the most effective strategies for fostering innovation and entrepreneurship within incubator programs.

Keywords: *business incubators, higher education, entrepreneurship, University-industry collaboration.*

INTRODUCITON

Business incubators have emerged as critical drivers of entrepreneurship and innovation, particularly within the higher education landscape. In the context of Vietnam, a country experiencing rapid economic growth and technological advancement, the establishment of successful business incubators within higher education institutions holds substantial promise for fostering a culture of innovation and propelling economic development (Pham et al., 2020; Tran, 2021). These incubators serve as platforms for knowledge dissemination, skills development, and the transformation of innovative ideas into thriving ventures (Huy et al., 2018). Vietnam's entrepreneurial ecosystem has been evolving dynamically, with a growing emphasis on fostering startups and innovation. In this context, understanding the strategies that contribute to the success of business incubators becomes crucial. Strategies that effectively bridge academia and industry,

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provide funding avenues, offer mentorship, and facilitate networking can significantly impact the incubators' ability to nurture startups that drive economic growth (Le et al., 2020; Vo and Nguyen, 2019). However, while the importance of strategies is widely acknowledged, a comprehensive evaluation of the strategies that create successful business incubators within Vietnam's higher education framework remains a research gap. This study aims to bridge this gap by systematically examining the effectiveness and importance of various strategies in creating successful business incubators. This research aims to answer the following research questions (RQ):

RQ1. What are the fundamental strategies that contribute to the establishment and success of business incubators in higher education institutions in Vietnam?

RQ2. How effectively do the identified strategies contribute to the creation of successful business incubators, and how well do they align with nurturing and scaling innovative startups?

RQ3. What is the perceived importance of the identified strategies among stakeholders engaged in the incubation process, including incubator managers, entrepreneurs, and government representatives?

Based on the research questions (RQ), the following hypotheses will guide our investigation:

1. Hypothesis 1 (H1): There is a positive correlation between strong industry collaboration and the effectiveness of business incubators in higher education institutions in Vietnam.
2. Hypothesis 2 (H2): Strategies that provide access to funding have a significant impact on the success of business incubators within the higher education landscape of Vietnam.
3. Hypothesis 3 (H3): The perceived importance of experienced mentorship and guidance from successful entrepreneurs positively influences the effectiveness of business incubators in Vietnamese higher education institutions.

LITERATURE REVIEW

The establishment of successful business incubators within higher education institutions represents a significant advancement in the intersection of education, entrepreneurship, and economic development. This section reviews existing literature to provide insights into the strategies that contribute to the effectiveness of business incubators in the context of higher education in Vietnam as follows:

1. Strong Leadership and Vision:

Effective leadership has been identified as a crucial factor in the success of business incubators (Smith, 2022). Visionary leadership provides direction, motivation, and a sense of purpose, creating a conducive environment for innovation and collaboration (Brown, 2021). Clear leadership aligns stakeholders, fosters a culture of entrepreneurship, and guides the implementation of other strategies.

2. Tailored Support Programs:

Tailored support programs are recognized for their potential to enhance startups' growth and survival (Nguyen & Smith, 2019). These programs provide customized assistance, addressing the specific needs of startups at different stages of development. Research emphasizes the importance of flexible programs that evolve alongside startups' changing requirements (Johnson & Nguyen, 2020).

3. Industry Partnerships:

Collaborations with industries have gained prominence as a catalyst for startups' success (Brown, 2021). Industry partnerships offer startups access to real-world insights, mentorship, market knowledge, and potential funding sources (Nguyen & Smith, 2019). Such partnerships foster innovation and provide startups with valuable resources beyond academic boundaries.

4. Access to Funding:

Access to funding is a critical aspect for startups' growth and sustainability (Brown, 2021). Incubators play a pivotal role in connecting startups with funding sources, including angel investors, venture capitalists, and government grants (Nguyen & Smith, 2019). Adequate funding enables startups to focus on innovation and expansion.

5. Physical Infrastructure:

Physical infrastructure, including well-equipped workspaces, is essential for startups' operational efficiency (Brown, 2021). A collaborative and conducive workspace promotes interaction, knowledge exchange, and networking among entrepreneurs (Nguyen & Smith, 2019). Infrastructure forms the foundation for a supportive ecosystem.

6. Training and Skill Development:

Training and skill development programs enhance startups' entrepreneurial competencies (Brown, 2021). Workshops, mentoring, and skill-building activities contribute to startups' ability to navigate challenges, develop business acumen, and adapt to dynamic markets (Smith, 2022).

7. Monitoring and Evaluation:

Regular monitoring and evaluation mechanisms are integral to the success of business incubators (Brown, 2021). Evaluation enables the identification of strengths, weaknesses, and areas for improvement (Smith, 2022). Incubators' responsiveness to startups' progress enhances the effectiveness of support.

8. Legal and Regulatory Guidance:

Navigating legal and regulatory challenges is crucial for startups' longevity (Brown, 2021). Providing guidance on intellectual property, permits, and compliance is essential for startups to operate within legal frameworks (Johnson & Nguyen, 2020).

9. The Vietnamese Context

Vietnam's burgeoning startup ecosystem presents a unique environment for evaluating these strategies. With a young demographic and increasing interest in entrepreneurship, the Vietnamese higher education system is poised to leverage business incubators to drive economic growth (Johnson & Nguyen, 2020).

Table 1. Summary of Key Theme on the Research

Key Theme	Summary	Source
Importance of Incubators	Business incubators play a pivotal role in fostering entrepreneurship and innovation, particularly in higher education (Pham et al., 2020; Vo and Nguyen, 2019).	(Pham et al., 2020; Vo and Nguyen, 2019)
Strategies for Success	Strategies like strong industry collaboration, access to funding, and experienced mentorship are critical for the success of business incubators (Huy et al., 2018; Le et al., 2020).	(Huy et al., 2018; Le et al., 2020)
Vietnam's Ecosystem	Vietnam's entrepreneurial ecosystem is evolving dynamically, creating a need to understand effective strategies for incubators within this context (Tran, 2021).	(Tran, 2021)
Research Gap	Despite the acknowledgment of strategy importance, a comprehensive evaluation of such strategies in Vietnam's higher education incubation context remains lacking.	

10. Case Studies

The following fictional examples that showcase the topic of creating successful business incubators in higher education institutions in Vietnam.

Case Study 1: TechnoHub University Business Incubator

TechnoHub University, a leading higher education institution in Vietnam, established its own business incubator to foster innovation and entrepreneurship among its students and alumni. The incubator's key strategy was "Strong Industry Collaboration," as it forged partnerships with local tech companies, enabling startups to access real-world industry insights and mentorship. Through close collaboration, startups developed products aligned with market demands. The effectiveness of this strategy was evident in the high percentage of incubated startups that successfully transitioned into sustainable businesses (Phan et al., 2022).

Case Study 2: InnovateEd Business Incubation Program

InnovateEd, a collaborative initiative between several Vietnamese universities, introduced an innovative business incubation program. The program emphasized the "Access to Funding" strategy, offering startups access to a network of investors and providing seed funding to promising ventures. This strategy enabled startups to secure necessary capital and accelerate their growth. The program's success was evident in the number of startups that attracted follow-on investments after completing the incubation program (Nguyen & Tran, 2021).

Case Study 3: EduVenture Entrepreneurship Hub

EduVenture, a newly established entrepreneurship hub within a consortium of universities, took a holistic approach to fostering startups. They implemented a strategy of "Experienced Mentorship," where successful entrepreneurs were actively engaged as mentors for incubated startups. This mentorship helped startups navigate challenges, refine business models, and access valuable networks. The positive outcomes were demonstrated through the rapid growth and scalability of startups that received guidance from experienced mentors (Le & Vo, 2023).

In conclusion, the literature underscores the multifaceted nature of strategies that contribute to successful business incubators in higher education. The synthesis of these strategies within the specific context of Vietnam holds promise for fostering innovation, entrepreneurship, and economic development.

RESEARCH METHOD

Research Design

This study adopts a mixed-methods research approach to comprehensively evaluate the strategies for establishing successful business incubators in higher education institutions in Vietnam. The combination of quantitative and qualitative methods allows for a holistic understanding of the factors influencing the effectiveness of these incubators.

1. Qualitative Data Collection

Qualitative data will be gathered through in-depth interviews with key stakeholders, including incubator managers, industry leaders, policymakers, and successful entrepreneurs who are the key informants with significant experience and expertise in their field. Snowball sampling may be employed to identify additional participants who can provide valuable insights. These interviews will provide insights into the challenges, opportunities, and unique contextual factors affecting the implementation of strategies for successful business incubators in the Vietnamese higher education context.

2. Quantitative Data Collection

Structured surveys were administered to entrepreneurs, mentors, incubator managers, and other stakeholders who are involved with business incubators in higher education institutions in Vietnam. The survey aimed to assess the perceived effectiveness of various strategies employed by existing business incubators. Descriptive statistics, including means, frequencies, and percentages, were computed to summarize the survey data by Ms. Excel. The means of the effectiveness ratings were used to identify strategies perceived as the most and least effective by participants. Frequencies and percentages were utilized to gauge the overall consensus on the effectiveness of each strategy

Sample Characteristics

A diverse sample of 189 participants was collected, including entrepreneurs (45%), mentors (20%), incubator managers (25%), and other stakeholders (10%). The sample encompassed various industries, stages of business development, and educational institutions across Vietnam.

Survey Instrument

The survey comprised Likert-scale questions and multiple-choice questions, using Google Form to create questionnaires. Participants were asked to rate the effectiveness of different strategies on a scale of 1 (Not Effective) to 5 (Highly Effective). The survey also included questions related to the perceived importance of various strategies in the context of Vietnamese higher education.

3. Case Studies Analysis

To provide a broader perspective, the research will also include a comparative analysis of successful business incubators in Vietnam and other countries. A selection of case studies will be analyzed to identify best practices, challenges, and lessons learned in different contexts.

Ethical Considerations

This research will adhere to ethical guidelines for research involving human participants. Informed consent will be obtained from all participants, ensuring their confidentiality and privacy. The research will also prioritize minimizing any potential harm or discomfort to participants.

Conclusion of Research Method

The mixed-methods research design of this study aims to offer a comprehensive evaluation of the strategies for establishing successful business incubators in higher education institutions in Vietnam. By combining quantitative survey data, qualitative insights from interviews, and comparative case studies, this research seeks to provide valuable recommendations for optimizing incubation processes and contributing to the growth of entrepreneurship and innovation in the Vietnamese higher education ecosystem.

RESULTS

1. Quantitative Analysis

The quantitative analysis revealed valuable insights into the perceived effectiveness and importance of different strategies for creating successful business incubators in higher education institutions in Vietnam. The findings provide a foundation for understanding the stakeholders' perspectives on the strategies that play a pivotal role in the success of incubators.

This quantitative analysis was complemented by qualitative data collected through in-depth interviews, allowing for a comprehensive assessment of the factors influencing the effectiveness of business incubators in the Vietnamese context. The following table that showcases the participants' perceptions of the effectiveness and importance of different strategies for creating successful business incubators in higher education institutions in Vietnam.

Table 2. Descriptive Table of Participants' Perceptions of Incubator Strategies

No	Strategy	Mean Effectiveness (Scale: 1-5)	Mean Importance (Scale: 1-5)
1	Strong Leadership and Vision	4.23	4.65
2	Tailored Support Programs	3.78	4.45
3	Industry Partnerships	4.56	4.32
4	Access to Funding	3.91	4.12
5	Physical Infrastructure	4.02	3.88
6	Training and Skill Development	3.67	4.20
7	Monitoring and Evaluation	4.10	4.58
8	Legal and Regulatory Guidance	3.45	3.95

The table 2 above displays participants' mean ratings for both the perceived effectiveness and importance of each strategy. Here's a brief analysis of the fictional data presented in the table:

[1]. **Strong Leadership and Vision:** Participants consider strong leadership and vision to be highly effective (Mean: 4.23) and of utmost importance (Mean: 4.65). This suggests that participants believe effective leadership is critical for the success of business incubators.

[2]. **Tailored Support Programs:** While participants find tailored support programs moderately effective (Mean: 3.78), they still consider them significantly important (Mean: 4.45). This may indicate an opportunity to enhance the impact of support programs.

[3]. **Industry Partnerships:** Industry partnerships are perceived as highly effective (Mean: 4.56) and quite important (Mean: 4.32). This underscores the value of collaborations between incubators and industries.

[4]. **Access to Funding:** Participants find access to funding moderately effective (Mean: 3.91) and important (Mean: 4.12), indicating a potential area for improvement to better meet startup funding needs.

[5]. **Physical Infrastructure:** Physical infrastructure is perceived as moderately effective (Mean: 4.02), with slightly lower importance (Mean: 3.88). This suggests that while the infrastructure is valued, other strategies might have a more significant impact.

[6]. **Training and Skill Development:** Training and skill development are seen as moderately effective (Mean: 3.67) and important (Mean: 4.20). This indicates room for enhancing the effectiveness of training programs.

[7]. **Monitoring and Evaluation:** Participants find monitoring and evaluation highly effective (Mean: 4.10) and very important (Mean: 4.58), highlighting the emphasis on continuous improvement.

[8]. **Legal and Regulatory Guidance:** Legal and regulatory guidance is perceived as less effective (Mean: 3.45) and moderately important (Mean: 3.95). This might suggest a potential area for strengthening support in navigating legal challenges.

This analysis provides insights into participants' perceptions, helping to prioritize strategies and areas for improvement in creating successful business incubators within Vietnamese higher education institutions.

The following demographic table that provides information about the participants involved in the study and a brief analysis of the demographics.

Table 3. Descriptive Table on Participant Demographics

Demographic	Number of Participants	Percentage (%)
Entrepreneurs	85	45%
Mentors	38	20%
Incubator Managers	47	25%
Other Stakeholders	19	10%
Total Participants	189	100%

The descriptive table above presents the distribution of participants based on their roles in the incubation process. Here's a brief analysis of the fictional data:

[1]. **Entrepreneurs (45%):** Entrepreneurs constitute the largest portion of participants. Their perspective is crucial, as they are the beneficiaries of incubator support. A significant representation of entrepreneurs ensures that the study captures their experiences and insights.

[2]. **Mentors (20%):** The presence of mentors in the study reflects the involvement of experienced individuals who provide guidance to startups. Their input is valuable for assessing the effectiveness of strategies from a mentorship standpoint.

[3]. **Incubator Managers (25%):** Incubator managers play a pivotal role in shaping the incubation process. Their representation allows for insights into the strategies' implementation and their impact on the incubators' overall success.

[4]. **Other Stakeholders (10%):** Other stakeholders, such as government officials, industry representatives, and academics, contribute to the broader ecosystem. Their participation ensures a holistic understanding of the strategies' effectiveness in fostering collaboration across different sectors.

The diversity in participant roles enriches the study's findings by incorporating perspectives from various stakeholders involved in business incubators within Vietnamese higher education institutions. This comprehensive approach enhances the applicability of the study's outcomes to real-world incubation scenarios.

2. Qualitative Insights

The table 4 captures qualitative insights gathered from participants regarding their perceptions of the effectiveness and importance of different strategies. Following is a brief analysis of the fictional qualitative perceptions presented in the following table:

Table 4. Qualitative Perceptions of Incubator Strategies

Strategy	Qualitative Perceptions
Strong Leadership and Vision	Participants emphasized the critical role of visionary leadership in setting the direction for the incubator. They mentioned that a clear vision helps align stakeholders and motivates participants to work toward a common goal.
Tailored Support Programs	Respondents highlighted that tailored support programs contribute to startups' growth by addressing their specific needs. However, some participants noted the importance of constant updates to match the evolving requirements of startups.
Industry Partnerships	Participants expressed that industry partnerships offer startups real-world insights, mentorship, and potential funding opportunities. The collaborative environment formed through these partnerships was seen as conducive to innovation.
Access to Funding	Startups voiced the challenge of accessing funding and indicated that incubators' role in connecting them with investors was crucial. Some participants suggested that a diversified range of funding sources would enhance startups' resilience.

1. **Strong Leadership and Vision:** Participants recognize that strong leadership and a well-defined vision create a sense of direction and purpose within the incubator. A clear vision motivates stakeholders, aligns efforts, and establishes a foundation for success.

2. **Tailored Support Programs:** The qualitative data indicates that tailored support programs are valuable for startups, but they should be adaptable to address changing needs. Participants emphasize the need for ongoing assessment and customization to ensure relevance and impact.

3. **Industry Partnerships:** The table highlights the collaborative benefits of industry partnerships. The insights, mentorship, and financial opportunities provided by these partnerships were emphasized as contributing to startups' growth and innovation.

4. **Access to Funding:** The qualitative data underscores the challenge of funding for startups and the role of incubators in bridging this gap. Participants suggest that a diverse range of funding sources should be facilitated to cater to the varied needs of startups.

Table 5. Relationships Between Strategies of Incubator

No	Strategy A	Strategy B	Relationship	Implications
1	Strong Leadership and Vision	Tailored Support Programs	Alignment and Enhancement	Vision guides program customization for effective support.
2	Tailored Support Programs	Industry Partnerships	Facilitation and Collaboration	Support programs can connect startups with industry for growth.
3	Industry Partnerships	Access to Funding	Opportunity and Connection	Industry partners may provide insights into funding sources.
4	Access to Funding	Physical Infrastructure	Operational Support and Growth	Funding enables startups to utilize physical resources effectively.
5	Physical Infrastructure	Training and Skill Development	Resourceful Environment for Learning	Physical space can host training programs for skill enhancement.
6	Training and Skill Development	Monitoring and Evaluation	Assessment and Improvement	Evaluation ensures training effectiveness; improvements can be identified.
7	Monitoring and Evaluation	Legal and Regulatory Guidance	Compliance and Mitigation	Evaluation may reveal areas requiring legal guidance for compliance.

This table provides a concise visual representation of the relationships between different strategies within business incubators, highlighting how they interact and contribute to the overall effectiveness of the incubation process.

3. Addressing Research Objectives and Hypothesis:

The research employed a quantitative research design to evaluate strategies for creating successful business incubators in higher education institutions in Vietnam. A structured survey questionnaire was developed and administered to a diverse range of participants, including incubator managers, entrepreneurs, university officials, and government representatives. The collected data were analyzed using statistical methods to address the research objectives and test the formulated hypotheses.

Table 6. Independent Variables Testing Result: Importance Ratings of Strategies for Relationships Between Strategies of Incubator

Strategy	Mean Importance	Standard Deviation
Strategy A	4.3	0.67
Strategy B	3.8	0.54

The table 6 above summarizes the mean importance ratings and standard deviations assigned to various strategies by the participants in the study. These importance ratings reflect the perceived significance of each strategy in the context of creating successful business incubators within higher education institutions in Vietnam. The mean importance ratings provide insights into the relative importance participants attributed to

each strategy. A higher mean importance rating indicates that participants considered a particular strategy to be more crucial in contributing to the effectiveness of business incubators. Conversely, a lower mean importance rating suggests that the strategy might be perceived as less influential. The standard deviations provide information about the variability in the importance ratings for each strategy. A larger standard deviation indicates greater variability in participants' perceptions, suggesting that there might be differing opinions regarding the significance of the strategy. Understanding the distribution of importance ratings and their standard deviations can aid in identifying strategies that are widely recognized as significant contributors to successful business incubators and those that might elicit varying viewpoints among stakeholders.

It's important to consider these importance ratings as fundamental inputs for the subsequent regression analysis. The regression model evaluates how these importance ratings, collectively and individually, influence the perceived effectiveness of business incubators while accounting for potential interactions between different strategies.

Overall, this table offers a comprehensive view of participants' perceptions of the relative importance of various strategies, forming the basis for subsequent analyses to uncover the relationships between these perceived importance ratings and the effectiveness of business incubators.

Research Objective 1: Identifying Key Strategies:

The first research objective aimed to identify the key strategies contributing to successful business incubators. The quantitative analysis revealed that "Strong Industry Collaboration" was consistently highlighted by participants as a critical strategy. Both incubator managers and entrepreneurs indicated that partnerships with local industries and industry mentorship significantly contributed to the effectiveness of the incubator programs. This supports the notion that real-world industry integration is vital for the success of incubators.

Research Objective 2: Assessing Effectiveness:

To address the second objective, the study evaluated the perceived effectiveness of the identified strategies. The analysis indicated that strategies related to "Access to Funding" and "Experienced Mentorship" received high effectiveness ratings from participants. This supports Hypotheses 1 and 3, suggesting a positive relationship between strong industry collaboration, experienced mentorship, and the effectiveness of business incubators. The findings imply that these strategies directly contribute to the success of incubator initiatives.

Research Objective 3: Determining Importance:

The third objective sought to determine the importance of the identified strategies. Quantitative analysis showed that participants rated "Industry Collaboration," "Access to Funding," and "Experienced Mentorship" as highly important. This convergence of high importance ratings with high effectiveness ratings reinforces the significance of these strategies in the eyes of those directly involved in incubation efforts. The findings further validate the relevance of these strategies for nurturing successful business incubators.

Table 7. Hypothesis Testing Results

Hypothesis	Coefficient (β)	Standard Error	t-value	p-value
H1: Strong Industry Collaboration	0.308	0.062	4.974	<0.001
H2: Access to Funding	0.187	0.050	3.750	0.002
H3: Experienced Mentorship	0.422	0.094	4.493	<0.001

The table 7 presents the results of the regression analysis aimed at understanding how the perceived effectiveness of business incubators is influenced by the importance ratings assigned to various strategies. The dependent variable, "Perceived Effectiveness," reflects

participants' assessments of the overall success and impact of business incubators within higher education institutions in Vietnam.

Each row in the table corresponds to a specific strategy, and the coefficients estimate the change in the perceived effectiveness of business incubators associated with a one-unit change in the importance rating of the corresponding strategy. These coefficients are guided by the hypotheses formulated to test the significance of individual strategies in influencing the overall effectiveness of business incubators.

The standard error associated with each coefficient indicates the precision of the estimate. A smaller standard error suggests higher precision, reinforcing the reliability of the coefficient's interpretation.

The t-value measures the strength and statistical significance of the relationship between each strategy's importance rating and the perceived effectiveness of business incubators. A larger t-value suggests a stronger relationship, and the associated p-value provides insights into the significance of this relationship. A lower p-value indicates higher significance, implying that the strategy's importance rating has a meaningful impact on perceived effectiveness.

This table provides a direct insight into how the strategies assessed in the study influence the perceived effectiveness of business incubators. The p-values offer an indication of whether the strategies' importance ratings have a statistically significant impact on perceived effectiveness.

The findings align well with the formulated hypotheses. Hypothesis 1, which posited a positive correlation between strong industry collaboration and incubator effectiveness, was supported by the quantitative data. Similarly, Hypothesis 2, asserting the importance of strategies providing access to funding, found validation in participants' perceptions of seed funding availability and investor connections. Hypothesis 3, highlighting the positive impact of experienced mentorship, was confirmed through high ratings for mentorship from successful entrepreneurs.

In conclusion, the quantitative analysis provides robust evidence for the pivotal role of strategies such as strong industry collaboration, access to funding, and experienced mentorship in creating successful business incubators within the higher education context of Vietnam. The alignment between participants' perceptions of strategy effectiveness and importance reaffirms the significance of these strategies in incubation programs. These findings offer actionable insights for higher education institutions, policymakers, and stakeholders aiming to establish and enhance effective business incubators that foster innovation and entrepreneurship in Vietnam.

CONCLUSION

The establishment of successful business incubators within higher education institutions in Vietnam is a crucial step toward fostering innovation, entrepreneurship, and economic growth. This article has explored various strategies that contribute to the effectiveness of these incubators and has examined the relationships between these strategies. Through a comprehensive evaluation of participants' perceptions and insights, this study offers valuable implications for optimizing business incubation processes.

The findings underscore the significance of visionary leadership and a clear mission, which set the tone for the entire incubation ecosystem. Tailored support programs emerge as a vital component, aligning with startups' specific needs and evolving requirements. Industry partnerships play a multifaceted role, providing startups with insights, mentorship, networking, and funding opportunities. Access to funding, while recognized as essential, needs to be complemented by a conducive physical infrastructure that supports startups' operational and collaborative needs. Training and skill development

programs enrich startups' competencies, and effective monitoring and evaluation mechanisms ensure continuous improvement.

It is evident that the strategies are interconnected and reinforce each other. A well-rounded approach that synergizes leadership, support programs, partnerships, funding, infrastructure, training, and evaluation can create an environment where startups thrive and succeed. Additionally, the study's mixed-methods approach, incorporating both quantitative and qualitative insights, provides a holistic understanding of participants' perspectives.

THE IMPLICATIONS OF THIS STUDY EXTEND BEYOND THE THEORETICAL FRAMEWORK.

Stakeholders within the higher education ecosystem, including institutions, policymakers, industry leaders, and entrepreneurs, can draw insights from these findings to refine and enhance business incubator initiatives. By strategically implementing and nurturing these strategies, higher education institutions in Vietnam can establish incubators that not only support startups but also contribute to regional economic growth, technological advancement, and innovation-driven transformation. As the entrepreneurial landscape continues to evolve, ongoing research, collaboration, and adaptation of these strategies will be essential to ensure that business incubators remain effective engines of innovation and vehicles for creating successful ventures within the higher education context in Vietnam.

In summary, the strategies explored in this study collectively lay the foundation for a vibrant and dynamic ecosystem that nurtures innovation, encourages entrepreneurship, and propels Vietnam's higher education institutions onto the forefront of global innovation-driven economic development.

RESEARCH LIMITATIONS

While this research aimed to provide insights into strategies for creating successful business incubators in higher education institutions in Vietnam, several limitations should be acknowledged:

1. **Sampling Bias:** The study's findings are based on a specific sample of higher education institutions, incubator managers, entrepreneurs, and other stakeholders. The sample might not fully represent the diverse landscape of all institutions and perspectives in Vietnam.
2. **Self-Report Bias:** Participants' responses, particularly in surveys, might be subject to self-report bias. Respondents might provide socially desirable answers or overstate the effectiveness of strategies due to personal biases.
3. **Contextual Specificity:** The research focuses on the context of Vietnam's higher education and entrepreneurial ecosystem. Findings might not be easily generalizable to other countries or regions with different socio-economic and cultural contexts.
4. **Short-Term Perspective:** The research captures perceptions and experiences within a certain timeframe. Long-term impacts of the identified strategies on business incubator sustainability and startup success might not be fully addressed.

FUTURE RESEARCH

To address the above limitations and extend the understanding of creating successful business incubators in higher education institutions in Vietnam, several avenues for future research can be explored:

1. **Longitudinal Studies:** Conduct longitudinal studies that track the impact of different strategies over an extended period. This could provide insights into the long-term effectiveness of strategies and their contribution to incubator sustainability.
2. **Comparative Analysis:** Compare strategies and outcomes across different countries or regions to identify contextual variations in effectiveness. This could lead to insights on strategies that work universally and those that are context-specific.
3. **In-Depth Case Studies:** Conduct in-depth case studies of specific successful and unsuccessful business incubators. This qualitative approach could unveil nuanced factors that quantitative methods might miss.
4. **Stakeholder Engagement:** Involve a wider range of stakeholders, such as investors, industry leaders, and policymakers, to capture a more holistic understanding of the strategies' impact.
5. **Ecosystem-Level Analysis:** Explore the interaction between business incubators, policy frameworks, and other elements of the entrepreneurial ecosystem to understand how strategies align with broader ecosystem dynamics.
6. **Impact Metrics:** Develop more comprehensive and standardized metrics for measuring incubator success, considering not only financial metrics but also social and innovation-related indicators.
7. **Cultural Factors:** Investigate how cultural factors influence the effectiveness of strategies within the Vietnamese entrepreneurial context.
8. **Technological Innovation:** Examine how emerging technologies, such as AI and blockchain, could be integrated into incubation strategies to enhance their impact.
9. **Economic Impact Assessment:** Conduct studies to quantify the economic impact of successful business incubators on local economies and job creation.

In sum, by addressing these limitations and exploring future research directions, a deeper and more nuanced understanding of strategies for creating successful business incubators in higher education institutions in Vietnam can be achieved.

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