

The Impact of Creative Barriers and Entrepreneurship Education on University Students' Entrepreneurial Intention in Vietnam: The Mediating Role of Entrepreneurial Self-Efficacy

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ABSTRACT: This study investigates the influence of Creative barriers (CB) and Entrepreneurship education (EE) on the Entrepreneurial intention (EI) of university students in Vietnam, while examining the mediating role of Entrepreneurial Self-efficacy (ESE). Integrating the Theory of Planned Behavior, Social Cognitive Theory, and Human Capital Theory, this research develops a comprehensive framework to explain intention formation in emerging economies. Using a quantitative approach, survey data from 588 undergraduates were analyzed via Partial Least Squares Structural Equation Modeling (PLS-SEM) in SmartPLS 4.0. Results support all seven hypotheses, revealing that CB significantly inhibit both ESE ($\beta = -0.190$, $p < 0.001$) and EI ($\beta = -0.199$, $p < 0.001$). In contrast, Entrepreneurship education exerts a robust positive impact on ESE ($\beta = 0.557$, $p < 0.001$) and EI ($\beta = 0.331$, $p < 0.001$), while ESE serves as a primary predictor of intention ($\beta = 0.401$, $p < 0.001$). Mediation analysis confirms that ESE acts as a partial mediator; notably, the positive indirect effect of education through ESE ($\beta = 0.223$) substantially outweighs the negative indirect impact of barriers ($\beta = -0.076$). These findings emphasize that fostering actionable self-belief is more critical than mitigating external constraints alone. The study contributes theoretically by extending the Theory of Planned behavior through a domain-specific lens and offers practical insights for policymakers to prioritize experiential curricula over theoretical instruction. Ultimately, reducing institutional barriers and enhancing psychological efficacy are vital for cultivating a sustainable entrepreneurial spirit in Vietnam.

KEYWORDS: Creative barriers, Entrepreneurship education, Entrepreneurial Self-efficacy, Entrepreneurial intention, Vietnam.

1. INTRODUCTION

In the dynamic global economic landscape, entrepreneurship is recognized as a significant factor driving economic growth, innovation, and employment. Within emerging economies such as Vietnam, university students represent a potential cohort for developing a future generation of entrepreneurs due to their access to modern knowledge, innovative mindsets, and flexibility in adapting to market shifts (Liñán & Chen, 2009; Wardana et al., 2024). Consequently, fostering entrepreneurial intention (EI) within this demographic is considered an educational objective and a strategic national priority to enhance competitive advantage in the digital era.

Building on this strategic importance, literature has established the role of entrepreneurship education (EE) as a means for equipping students with human capital and professional orientation. By providing specialized knowledge and technical skills, EE contributes to the development of entrepreneurial self-efficacy (ESE)—an individual's belief in their capacity to execute the tasks required to launch a business venture (Souitaris et al., 2007; Liñán & Chen, 2009; Yousaf et al., 2021). Within this framework, the theory of planned behavior (TPB) and social cognitive theory (SCT) are frequently employed to explain the mechanism through which education translates into intention, with ESE serving as a predictive variable driving behavioral outcomes (Wardana et al., 2024).

However, despite the implementation of entrepreneurship education, the rate at which students in Vietnam formulate entrepreneurial intentions remains below the expectations of policymakers. This discrepancy highlights a research gap: a considerable number of contemporary studies focus primarily on drivers while neglecting the impact of inhibitors, particularly creative barriers (CB). The central thesis of this study posits that the formation of entrepreneurial intention is an interactive mechanism between educational drivers and environmental constraints. This research argues that in East Asian cultures, which often value stability, creative barriers—including resource scarcity and the fear of failure—act as agents that may influence ESE, thereby affecting students' behavioral intentions (Sandhu et al., 2011; Shahab et al., 2019). Thus, ESE functions as an output of education as a psychological filter reflecting how individuals navigate external obstacles to maintain their professional trajectory.

The Impact of Creative Barriers and Entrepreneurship Education on University Students' Entrepreneurial Intention in Vietnam: The Mediating Role of Entrepreneurial Self-Efficacy

This issue is noteworthy in Vietnam, where cultural values often emphasize career stability and risk aversion. Success is traditionally associated with positions in the public sector or large corporations, often rendering entrepreneurship an uncertain path. For students lacking practical experience or a familial business background, creative barriers can become acute, fostering a perception that entrepreneurship lies beyond their locus of control. This gap underscores the necessity of developing an integrated model encompassing TPB, SCT, and human capital theory (HCT) to gain a more nuanced understanding of the entrepreneurial intention formation process among university students.

Accordingly, this study aims to analyze the impact of creative barriers and entrepreneurship education on entrepreneurial intention, while testing the mediating role of ESE through two main questions:

RQ1: How do creative barriers and entrepreneurship education influence students' entrepreneurial intentions?

RQ2: What is the mediating role of entrepreneurial self-efficacy in the relationship between these drivers, barriers, and entrepreneurial intention?

Addressing these questions offers both theoretical and practical contributions. Theoretically, the study extends the TPB framework by integrating ESE as a manifestation of perceived behavioral control and reinforces SCT by demonstrating ESE as a mediating mechanism. Practically, the findings provide a scientific foundation for universities and policymakers to design entrepreneurship curricula that emphasize bolstering internal confidence and mitigating psychological barriers for students in the current digital economy.

2. THEORETICAL FRAMEWORK AND HYPOTHESES DEVELOPMENT

2.1. Theoretical Framework

This research is constructed upon an integrated theoretical framework that elucidates the mechanism of entrepreneurial intention formation among university students within the Vietnamese higher education context.

2.1.1. Theory of Planned Behavior (TPB)

According to Ajzen (1991), intention to perform a behavior serves as a significant predictor of actual behavior. This intention is influenced by three cognitive antecedents: attitude toward the behavior, subjective norms, and perceived behavioral control. In entrepreneurship research, TPB is utilized to explain intention through the lens of an individual's perceived ease or difficulty in performing entrepreneurial acts. Within this framework, entrepreneurial self-efficacy (ESE) is recognized as a specific manifestation of perceived behavioral control, reflecting the degree of confidence students possess in executing the tasks required to launch a venture.

2.1.2. Social Cognitive Theory (SCT)

Bandura (2001) posits that human behavior originates from the reciprocal interaction between personal factors, behavior, and the social environment. A central concept of SCT is self-efficacy—the individual's belief in their capacity to successfully complete a specific task. SCT provides the theoretical basis to explain the mediating role of ESE between external inputs, such as creative barriers or entrepreneurship education, and behavioral outputs like entrepreneurial intention. In this view, environmental factors and personal experiences influence intention by potentially reinforcing or diminishing this internal belief system.

2.1.3. Human Capital Theory (HCT)

As established by Becker (1964), investments in education and skills enhance individual productivity and generate economic value. In this study, entrepreneurship education is viewed as a form of human capital investment. Training programs are intended to do more than provide management knowledge; they foster innovative mindsets and risk-taking abilities. Consequently, these educational interventions contribute to the development of both the individual's entrepreneurial self-efficacy and their subsequent intention to pursue business ventures.

2.2. Constructs and operational definitions

Creative barriers (CB): This construct refers to factors perceived as hindering the formation and realization of innovative ideas, including financial resource constraints, a lack of support networks, and the fear of failure (Sandhu et al., 2011; Gankandage & Jayathilaka, 2025). In Vietnam, these barriers often stem from social pressures regarding career stability, which can diminish behavioral control and erode students' entrepreneurial self-efficacy (Shahab et al., 2019).

Entrepreneurship education (EE): This involves providing learners with the knowledge, skills, and mindset necessary to identify opportunities and operate a business (Souitaris et al., 2007; Guo et al., 2024). Modern educational programs emphasizing experiential learning help students transition from theoretical awareness to practical competence, thereby influencing personal belief systems and entrepreneurial intentions (Yousaf et al., 2021; Li et al., 2023).

Entrepreneurial self-efficacy (ESE): ESE is the level of confidence an individual possesses in their ability to successfully perform entrepreneurial tasks, such as resource mobilization and risk management (Chen et al., 1998; Zhao et al., 2005). According to SCT and TPB, ESE acts as a psychological filter that coordinates the impact of external environmental factors on an individual's internal intentions.

The Impact of Creative Barriers and Entrepreneurship Education on University Students' Entrepreneurial Intention in Vietnam: The Mediating Role of Entrepreneurial Self-Efficacy

Entrepreneurial intention (EI): This is a cognitive state reflecting an individual's readiness to pursue business creation activities (Liñán & Chen, 2009). Empirical studies suggest that ESE is a significant predictor of EI (Wardana et al., 2024; Elnadi & Gheith, 2021).

2.3. Research model and Hypotheses development

The proposed research model integrates the aforementioned theories to illustrate the simultaneous impact of driving and inhibiting factors on entrepreneurial intention through the mediating role of entrepreneurial self-efficacy.

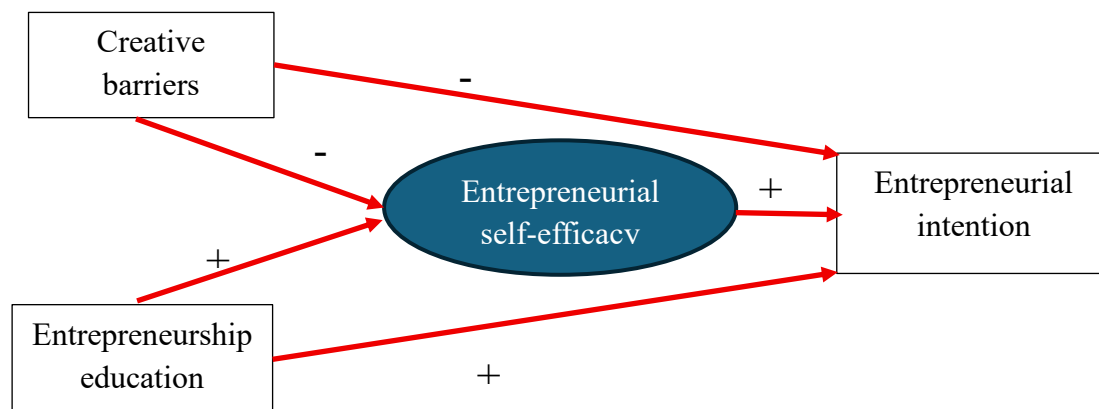


Figure 1. Proposed research model

As depicted in Figure 1, the model consists of two exogenous variables (Creative barriers and Entrepreneurship education) and two endogenous variables (Entrepreneurial self-efficacy and Entrepreneurial intention). The paths from CB and EE to EI represent the direct effects, while the paths through ESE represent the indirect effects, forming a sequential cognitive process from environmental perception to intention. Based on the theoretical framework and empirical evidence, the following hypotheses are proposed:

- H1:** Creative barriers have a negative impact on Entrepreneurial self-efficacy.
- H2:** Creative barriers have a negative impact on Entrepreneurial intention.
- H3:** Entrepreneurship education has a positive impact on Entrepreneurial self-efficacy.
- H4:** Entrepreneurship education has a positive impact on Entrepreneurial intention.
- H5:** Entrepreneurial self-efficacy has a positive impact on Entrepreneurial intention.
- H6:** Entrepreneurial self-efficacy mediates the relationship between Creative barriers and Entrepreneurial intention.
- H7:** Entrepreneurial self-efficacy mediates the relationship between Entrepreneurship education and Entrepreneurial intention.

3. METHODOLOGY

3.1. Research design

This study employs a quantitative research approach with a deductive logic to verify the theoretical model integrated from TPB, SCT, and HCT. A cross-sectional survey design was selected to measure students' perceptions, attitudes, and entrepreneurial intentions at a single point in time. This design is considered appropriate for Partial Least Squares Structural Equation Modeling (PLS-SEM), a technique utilized to evaluate complex structural relationships and mediating roles within the research framework (Hair et al., 2014).

3.2. Participants and sampling procedure

The primary participants are undergraduate students currently enrolled at universities in Vietnam, encompassing diverse academic disciplines including Economics, Social Sciences, and STEM fields (Science, Technology, Engineering, and Mathematics). The selection of this demographic is based on their potential to engage with entrepreneurship education and their capacity for future business creation. To ensure a comprehensive analysis, the study includes students across all undergraduate levels: freshmen, sophomores, juniors, and seniors. This inclusive sampling strategy allows the research to capture a wide spectrum of entrepreneurial perceptions, from the initial expectations of freshmen entering higher education to the more developed professional orientations of seniors who have had substantial exposure to specialized curricula and campus startup support systems.

A multi-stage quota sampling method was applied to ensure the representation of the student population based on academic discipline and year of study. Data collection was facilitated through coordination with lecturers at five major universities representing the Northern, Central, and Southern regions of Vietnam (Hanoi, Hue, and Ho Chi Minh City). The survey process was

The Impact of Creative Barriers and Entrepreneurship Education on University Students' Entrepreneurial Intention in Vietnam: The Mediating Role of Entrepreneurial Self-Efficacy

conducted both online and offline, adhering to the principles of voluntary participation and total anonymity to reduce potential common method bias.

3.3. Sample size and measurement scales

The sample size was determined in accordance with the 10 times rule recommended by Hair et al. (2014) for PLS-SEM analysis. Given that the main endogenous variable receives a maximum of three direct paths, the technical minimum sample size is 30. However, to ensure statistical reliability, generalizability, and sufficient sensitivity for mediation testing via bootstrapping, a target sample size of 300 to 500 valid responses was established. This scale is consistent with established international studies on entrepreneurial intention.

Regarding measurement, the research constructs were evaluated using a 5-point Likert scale ranging from 1 (Strongly Disagree) to 5 (Strongly Agree). The measurement system was adapted from established international scales to ensure suitability for the higher education context in Vietnam.

Table 1. Sources and measurement items of the constructs

Construct	Code	Measurement Items	Source
Creative barriers (CB)	CB1	I feel a lack of resources (financial, facilities) to realize my creative and entrepreneurial ideas.	Sandhu et al. (2011);
	CB2	Current university policies and learning environments do not support testing new ideas.	Gankandage &
	CB3	Risk aversion and fear of failure prevent me from proposing innovative solutions.	Jayathilaka (2025)
	CB4	I lack sufficient networks (mentors, partners) to develop and protect creative ideas.	
Entrepreneurship education (EE)	EE1	My university courses help me understand how to start and manage a business.	Souitaris et al. (2007);
	EE2	The university provides practical knowledge and skills (planning, financial management).	Guo et al. (2024)
	EE3	Teaching methods encourage innovative, proactive, and creative thinking.	
	EE4	Extracurricular activities, clubs, and workshops are helpful for my career orientation.	
Entrepreneurial Self-efficacy (ESE)	ESE1	I am confident in my ability to identify and evaluate new business opportunities.	Zhao et al. (2005);
	ESE2	I am capable of developing a detailed and feasible business plan.	Chen et al. (1998);
	ESE3	I am confident in mobilizing and managing resources to realize ideas.	Wardana et al. (2024)
	ESE4	I believe I can manage risks and overcome pressures when running a business.	
Entrepreneurial intention (EI)	EI1	I am ready to do anything to become an entrepreneur.	Liñán & Chen (2009);
	EI2	My professional goal is to start my own business rather than being an employee.	Ajzen (1991)
	EI3	I intend to establish a business in the future.	
	EI4	I have started thinking and planning seriously for my own startup.	

3.4. Data analysis

The data analysis process is conducted through an integrated workflow within the SmartPLS 4.0 environment. This procedure follows a systematic sequence: initially, raw data is cleaned to remove invalid responses or straight-lining patterns. Descriptive statistics are generated to outline the demographic characteristics of the sample. Additionally, preliminary tests for missing values, outliers, and data distribution are performed [to verify] the quality of the input.

Following the pre-processing phase, the study applies PLS-SEM analysis. In the measurement model assessment stage, internal consistency is established through Cronbach's Alpha and Composite Reliability (CR > 0.70). Convergent validity is verified

The Impact of Creative Barriers and Entrepreneurship Education on University Students' Entrepreneurial Intention in Vietnam: The Mediating Role of Entrepreneurial Self-Efficacy

via outer loadings (> 0.70) and Average Variance Extracted ($AVE > 0.50$). Discriminant validity is tested using the Fornell–Larcker criterion and the HTMT ratio (< 0.90) (Hair et al., 2014).

Subsequently, the structural model is assessed to test the hypotheses using the bootstrapping technique with 5,000 resamples to determine the significance of path coefficients (β). Hypotheses are accepted when the p-value is < 0.05 and the t-value is > 1.96 . Model performance is evaluated through the coefficient of determination (R^2) and predictive relevance (Q^2). Finally, the mediation role of ESE is analyzed using the indirect effect method (Preacher & Hayes, 2008). Mediation is determined when the 95% confidence interval does not include zero, allowing for the distinction between full and partial mediation in the relationships between creative barriers, education, and entrepreneurial intention.

4. RESULTS

4.1. Descriptive statistics

Before conducting the structural equation modeling, the demographic profile of the 588 respondents was examined to ensure the data represented a diverse student population. This step is essential for confirming that the sample provides a valid basis for interpreting the findings within the Vietnamese higher education context. The demographic characteristics of the participants, including gender, academic seniority, field of study, and entrepreneurial background, are summarized in Table 2.

Table 2. Respondents' demographic characteristics (N = 588)

Category	Characteristic	Frequency (n)	Percentage (%)
Gender	Male	275	46.77%
	Female	313	53.23%
Academic year	Freshmen	167	28.40%
	Sophomores	125	21.26%
	Juniors	173	29.42%
	Seniors	123	20.92%
Academic major	Economics	106	18.03%
	Science	97	16.50%
	Technology	90	15.31%
	Engineering	92	15.65%
	Mathematics	96	16.33%
	Social Sciences	107	18.20%
Prior business experience	Yes	32	5.44%
	No	556	94.56%
Family business background	Yes	163	27.72%
	No	425	72.28%

As detailed in Table 2, the sample exhibits a balanced gender distribution, with female students accounting for 53.23%. This proportionality is intended to minimize the risk of gender-related variance bias in the assessment of entrepreneurial intentions. The distribution across academic years is also relatively uniform, covering the undergraduate spectrum from freshmen (28.40%) to seniors (20.92%).

Regarding the academic background, students from STEM disciplines (Science, Technology, Engineering, and Mathematics) constitute a significant proportion of the sample at 63.77%. This concentration provides an empirical basis for analyzing how creative barriers affect students with technical expertise compared to those in Economics and Social Sciences (36.23%). Furthermore, the finding that 94.56% of respondents lack prior business experience and 72.28% do not come from entrepreneurial families suggests that the observed intentions are likely shaped by current educational and environmental factors rather than past experiences or family traditions.

4.2. Measurement model assessment

In accordance with the PLS-SEM procedure, the measurement model is evaluated through a systematic examination of indicator reliability, internal consistency, convergent validity, and discriminant validity.

4.2.1. Construct reliability and convergent validity

The Impact of Creative Barriers and Entrepreneurship Education on University Students' Entrepreneurial Intention in Vietnam: The Mediating Role of Entrepreneurial Self-Efficacy

The assessment begins with the examination of outer loadings to ensure that each indicator sufficiently represents its respective latent construct. As shown in Table 3, all factor loadings exceed the recommended threshold of 0.70, indicating that the observed variables are reliable indicators of the constructs.

Table 3. Factor loadings of measurement items

	CB	EE	EI	ESE
CB1	0.859			
CB2	0.808			
CB3	0.836			
CB4	0.78			
EE1		0.846		
EE2		0.855		
EE3		0.799		
EE4		0.904		
EI1			0.837	
EI2			0.8	
EI3			0.819	
EI4			0.833	
ESE1				0.82
ESE2				0.853
ESE3				0.869
ESE4				0.779

Since all loadings reported in Table 3 are above 0.70, no items were excluded from the model. Following item reliability, the study evaluates the internal consistency and convergent validity. The values for Cronbach's Alpha, rho_A, Composite Reliability (CR), and Average Variance Extracted (AVE) are presented in Table 4.

Table 4. Construct reliability and validity

	Cronbach's Alpha	rho_A	Composite Reliability	Average Variance Extracted (AVE)
CB	0.839	0.843	0.892	0.675
EE	0.873	0.874	0.913	0.725
EI	0.841	0.842	0.893	0.676
ESE	0.85	0.853	0.899	0.690

The results in Table 4 demonstrate that all constructs possess high internal consistency, as evidenced by Cronbach's Alpha and CR values exceeding 0.70. Convergent validity is also established, as all AVE values are above 0.50, satisfying the criteria suggested by Hair et al. (2014).

4.2.2. Discriminant validity

Discriminant validity is primarily assessed using the Fornell–Larcker criterion, which verifies that a construct is more closely related to its own indicators than to other constructs. As illustrated in Table 5, the square root of the AVE for each latent variable is compared with the inter-construct correlations.

Table 5. Discriminant validity (Fornell–Larcker Criterion)

	CB	EE	EI	ESE
CB	0.821			
EE	-0.554	0.852		
EI	-0.582	0.706	0.822	
ESE	-0.498	0.662	0.719	0.831

In Table 5, the bold values on the diagonal represent the square root of the AVE. Since these values are higher than the off-diagonal correlation coefficients, the requirements for discriminant validity are met. To further substantiate these findings, the study employed the Heterotrait-Monotrait (HTMT) ratio. The HTMT ratios for each pair of constructs are summarized in Table 6.

Table 6. Discriminant validity assessment

The Impact of Creative Barriers and Entrepreneurship Education on University Students' Entrepreneurial Intention in Vietnam: The Mediating Role of Entrepreneurial Self-Efficacy

	CB	EE	EI	ESE
CB				
EE	0.646			
EI	0.689	0.822		
ESE	0.587	0.767	0.848	

The HTMT ratios in Table 6 are all below the 0.85 threshold. The highest ratio (0.848 between EI and ESE) confirms that while these constructs are related, they represent conceptually distinct structures.

4.2.3. Multicollinearity assessment

Potential multicollinearity issues among the indicators were evaluated to ensure the integrity of the structural path coefficients. As detailed in Table 7, the Variance Inflation Factor (VIF) values for each measurement item are presented.

Table 7. Multicollinearity assessment (VIF)

Item	VIF	Item	VIF
CB1	2.592	EI1	1.981
CB2	1.850	EI2	1.942
CB3	2.487	EI3	1.933
CB4	1.767	EI4	2.130
EE1	2.238	ESE1	2.660
EE2	2.323	ESE2	2.515
EE3	1.715	ESE3	2.831
EE4	3.088	ESE4	2.126

Consistent with Hair et al. (2014), all VIF values in Table 7 are below 5.0, with the highest value recorded at 3.088. This absence of critical multicollinearity suggests the stability and reliability of the subsequent structural model analysis.

4.3. Structural model assessment

4.3.1. Explanatory power (R^2)

The explanatory power of the structural model is examined using the coefficient of determination (R^2), which indicates the proportion of variance in the endogenous constructs explained by the exogenous variables. As detailed in Table 8, the R^2 and Adjusted R^2 values provide evidence of the model's substantial explanatory capacity.

Table 8. Explanatory power of the structural model (R^2 and Adjusted R^2)

	R^2	Adjusted R^2
EI	0.638	0.636
ESE	0.463	0.461

The results in Table 8 reveal that the model explains 63.8% of the variance in Entrepreneurial Intention (EI). According to the criteria established by Hair et al. (2014), an R^2 value of 0.638 signifies a substantial level of explanatory power for behavioral intentions. Furthermore, the predictors (Creative barriers and Entrepreneurship education) account for 46.3% of the variance in Entrepreneurial self-efficacy (ESE). The minimal discrepancy between R^2 and Adjusted R^2 indicates that the model is stable and does not appear to be over-fitted with redundant variables.

4.3.2. Predictive relevance (Q^2)

To assess the model's predictive accuracy, the Stone–Geisser's Q^2 value was calculated using the blindfolding procedure. The results of the predictive relevance assessment for the endogenous constructs are summarized in Table 9.

Table 9. Stone–Geisser's predictive relevance (Q^2) assessment

	SSO	SSE	$Q^2 (=1-SSE/SSO)$
CB	2352	2352	
EE	2352	2352	
EI	2352	1356.986	0.423
ESE	2352	1613.43	0.314

The Impact of Creative Barriers and Entrepreneurship Education on University Students' Entrepreneurial Intention in Vietnam: The Mediating Role of Entrepreneurial Self-Efficacy

As illustrated in Table 9, both endogenous constructs yield Q^2 values significantly greater than zero. Specifically, the Q^2 for EI (0.423) and ESE (0.314) demonstrate medium to strong predictive relevance. The high Q^2 value for Entrepreneurial Intention, in particular, supports the capability of the proposed model to predict student intentions in practical settings.

4.3.3. Direct hypotheses testing

The structural relationships and the significance of the hypothesized paths were evaluated using the bootstrapping technique with 5,000 resamples. As shown in Table 10, the path coefficients (β), t-values, and p-values provide the basis for assessing the direct hypotheses.

Table 10. Structural model assessment and direct hypotheses testing

Hyp.	Relationship	Path Coefficient (β)	T-value	P-value	Remarks
H1	CB $\rightarrow$ ESE	-0.19	4.931	0	Supported
H2	CB $\rightarrow$ EI	-0.199	6.417	0	Supported
H3	EE $\rightarrow$ ESE	0.557	15.351	0	Supported
H4	EE $\rightarrow$ EI	0.331	9.038	0	Supported
H5	ESE $\rightarrow$ EI	0.401	11.1	0	Supported

The empirical results in Table 10 indicate that all direct hypotheses are supported. Entrepreneurship education (EE) exhibits the most substantial positive impact on Entrepreneurial self-efficacy (ESE) ($\beta = 0.557$, $t = 15.351$), suggesting that educational interventions are among primary driver of student confidence in business activities. Correspondingly, ESE significantly contributes to Entrepreneurial intention (EI) ($\beta = 0.401$, $t = 11.100$), underscoring the central role of self-efficacy in the intention-formation process.

Conversely, Creative barriers (CB) exert a statistically significant negative influence on both ESE ($\beta = -0.190$) and EI ($\beta = -0.199$). These findings reflect that perceptions of resource scarcity, institutional constraints, and the fear of failure act as meaningful inhibitors, diminishing both students' self-belief and their overall readiness to pursue entrepreneurship. With all direct paths confirmed, the analysis proceeds to evaluate the mediating mechanisms within the model.

4.4. Mediation analysis

The results of the indirect effect analysis indicate that Entrepreneurial self-efficacy (ESE) serves as a statistically significant mediator in both hypothesized pathways.

Table 11. Indirect effects and mediation analysis results

Hyp.	Mediating relationship	Indirect effect (β)	T-value	P-value	Remarks
H6	CB $\rightarrow$ ESE $\rightarrow$ EI	-0.076	4.412	0	Supported
H7	EE $\rightarrow$ ESE $\rightarrow$ EI	0.223	9.58	0	Supported

As illustrated in Table 11, the indirect effect of Creative Barriers (CB) on Entrepreneurial Intention (EI) via ESE is significant ($\beta = -0.076$, $t = 4.412$). This finding suggests that creative barriers not only diminish intentions directly but also indirectly erode students' self-belief in their entrepreneurial capabilities.

Furthermore, the indirect effect of Entrepreneurship Education (EE) on EI through ESE is the most substantial indirect path in the model ($\beta = 0.223$, $t = 9.580$). This highlights that a significant outcome of entrepreneurial education is its ability to foster the internal confidence necessary to trigger business intentions. Since both the direct effects (identified in Section 4.3.3) and these indirect effects are statistically significant, ESE is determined to play a partial mediating role in both relationships.

In summary, the empirical evidence supports all proposed hypotheses from H1 to H7. The structural analysis confirms that Entrepreneurship education is the most influential driver of Entrepreneurial self-efficacy, which in turn serves as the strongest predictor of Entrepreneurial intention within the current model.

The Impact of Creative Barriers and Entrepreneurship Education on University Students' Entrepreneurial Intention in Vietnam: The Mediating Role of Entrepreneurial Self-Efficacy

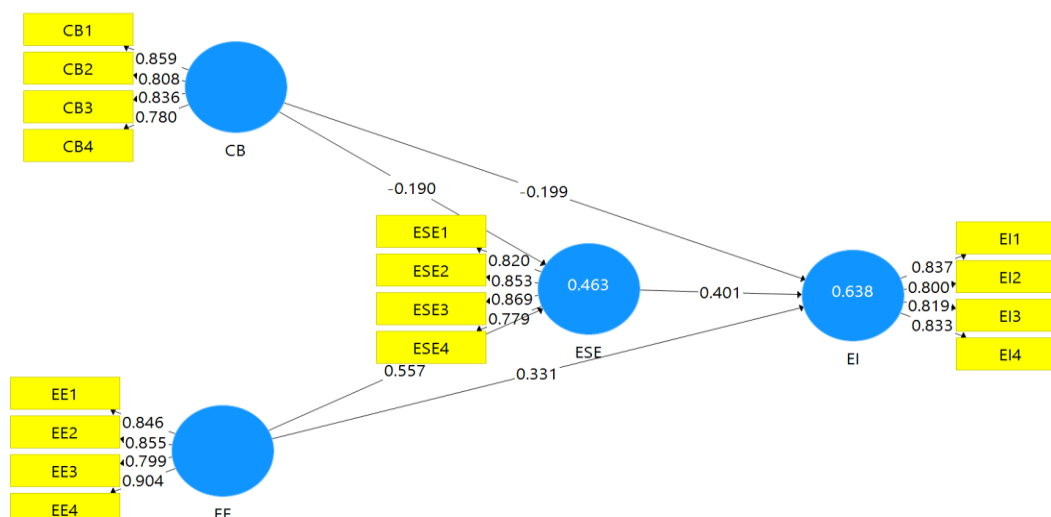


Figure 2. Structural model assessment results

The primary finding of this study is that Entrepreneurial self-efficacy functions as a pivotal psychological bridge. It effectively mediates the impact of both educational interventions and environmental barriers, translating them into entrepreneurial intentions among university students in Vietnam.

5. DISCUSSION

5.1. Discussion of findings

The main objective of this study was to examine the impact of Creative barriers (CB) and Entrepreneurship education (EE) on the Entrepreneurial intention (EI) of university students in Vietnam, while evaluating the mediating role of Entrepreneurial self-efficacy (ESE). The PLS-SEM analysis confirmed all seven hypotheses (H1–H7), validating the robustness of the proposed integrated model.

The results indicate that Creative barriers exert a significant negative influence on both ESE and EI. This suggests that when students perceive a deficit in financial resources, a restrictive institutional environment, or a lack of mentorship, their confidence in their ability to manage a venture may diminish, consequently eroding their desire to pursue entrepreneurship. In the specific context of Vietnam, these findings likely reflect a prevailing "job security" mindset, where career stability in large corporations or the public sector is often prioritized over higher-risk entrepreneurial paths. The relative scarcity of mature startup ecosystems within universities, particularly in non-economic disciplines or provinces outside major urban centers, further contributes to the difficulty of transforming creative ideas into viable business models.

Conversely, Entrepreneurship education shows a substantial positive impact on both ESE and EI. Notably, the path from EE to ESE represents the strongest relationship in the model ($\beta = 0.557$). This underscores that the value of entrepreneurship education lies not merely in the dissemination of theoretical business knowledge but in its capacity to cultivate internal confidence. When curricula are designed with an emphasis on experiential learning—such as startup simulations, pitching competitions, and incubation support—students tend to feel better equipped to navigate the complexities of business creation. These results suggest that in contemporary higher education, the pedagogical focus should shift from merely teaching "how to start a business" to fostering the belief that one is capable of initiating a business.

Furthermore, Entrepreneurial self-efficacy stands as the central psychological determinant of intention ($\beta = 0.401$). This finding reinforces the core tenets of the Theory of Planned Behavior (TPB) and Social Cognitive Theory (SCT), identifying ESE as a key cognitive filter through which environmental factors are processed. Intention is more likely to form when students believe they can effectively identify opportunities, mobilize resources, and mitigate risks.

A noteworthy contribution of this study is the confirmation of ESE as a partial mediator in the relationships between CB, EE, and EI. The indirect effect of EE through ESE ($\beta = 0.223$) is significantly stronger than the inhibiting indirect effect of CB ($\beta = -0.076$). This implies that a robust educational system capable of building self-efficacy can effectively buffer the negative impact of external barriers. In this model, ESE functions as a psychological "transformer," converting external environmental inputs into internal behavioral readiness.

5.2. Comparison with Previous studies

The Impact of Creative Barriers and Entrepreneurship Education on University Students' Entrepreneurial Intention in Vietnam: The Mediating Role of Entrepreneurial Self-Efficacy

The findings of this study align closely with contemporary international literature while offering unique insights into emerging economies.

Firstly, the positive influence of entrepreneurship education on self-efficacy and intention is consistent with the findings of Yousaf et al. (2021), Guo et al. (2024), and et al. (2024). These scholars consistently argue that effective educational interventions directly enhance entrepreneurial belief systems. The fact that EE has the strongest impact on ESE in this study aligns with Bandura's (2001) assertion that mastery experience is the most potent source of self-efficacy, confirming that practical engagement is more effective than passive learning.

Secondly, the negative role of creative barriers corresponds with research by Sandhu et al. (2011), Shahab et al. (2019), and Gankandage & Jayathilaka (2025). These studies highlight that resource constraints and a fear of failure are widespread inhibitors. However, this study extends the literature by testing the mediating role of ESE in the CB–EI relationship—an area that remains under-researched in emerging markets. By demonstrating that barriers do not just block actions but can actively degrade the psychological structure of the learner, this research offers a deeper understanding of the "inhibitory mechanism" in entrepreneurship.

Thirdly, the role of ESE as a primary predictor of intention is supported by Zhao et al. (2005) and Ferreira-Neto et al. (2023). In the Vietnamese context, the significance of ESE is potentially more pronounced due to cultural factors that often favor risk avoidance and traditional career paths. Consequently, internal self-belief may become a more decisive factor in Vietnam than in some developed nations with high social safety nets.

In conclusion, this research supports the universal applicability of TPB, SCT, and HCT in explaining entrepreneurial behavior while providing further empirical evidence from a developing nation. These contributions bridge the gap between global theory and local practice, enriching the academic discourse on student entrepreneurship.

6. CONCLUSION AND IMPLICATIONS

6.1. Conclusion

This research was conducted to analyze the impact of Creative barriers (CB) and Entrepreneurship education (EE) on the Entrepreneurial intention (EI) of university students in Vietnam, while simultaneously examining the mediating role of Entrepreneurial self-efficacy (ESE). By integrating three foundational theories—the Theory of Planned Behavior (TPB), Social Cognitive Theory (SCT), and Human Capital Theory (HCT)—a theoretical model comprising seven hypotheses was established and tested using PLS-SEM.

The empirical results confirm that all seven hypotheses (H1–H7) are supported. Specifically, creative barriers exert a negative influence on both self-efficacy and intention, whereas entrepreneurship education acts as a robust positive driver for both constructs. Notably, education has a substantial impact on building self-efficacy, while self-efficacy serves as a primary predictor of a student's intention to start a business.

Furthermore, the mediation analysis indicates that ESE plays a partial mediating role in the relationships between both exogenous factors and intention. This suggests that environmental and educational factors do not influence intention solely through direct paths but significantly by either strengthening or weakening a student's internal belief in their own capabilities. A key takeaway of this study is that Entrepreneurial self-efficacy acts as a fundamental psychological bridge that transforms external inputs—whether supportive or restrictive—into behavioral readiness.

6.2. Theoretical implications

This research contributes to the academic discourse on entrepreneurial intention by integrating and extending foundational cognitive theories. Firstly, it refines the Theory of Planned Behavior (TPB) by validating entrepreneurial self-efficacy as a domain-specific manifestation of perceived behavioral control, offering a more granular explanation of how internal confidence dictates intent. Secondly, by confirming the mediating role of ESE within the framework of Social Cognitive Theory (SCT), the study elucidates the complex interplay between environmental inputs and psychological outputs. Specifically, the evidence provided for the CB → ESE → EI pathway addresses a critical gap in literature concerning inhibitory mechanisms in transition economies. Finally, the application of Human Capital Theory (HCT) reinforces the strategic value of entrepreneurship education, positioning it as a fundamental investment that enhances both individual innovative capacity and broader economic potential within the East Asian cultural context.

6.3. Practical implications

6.3.1. For Universities and Educators

The findings suggest a necessary paradigm shift for higher education institutions, moving from traditional pedagogical models toward experiential entrepreneurship education. Given that ESE is the primary driver of intention, curricula should be restructured to prioritize high-engagement activities such as startup simulations, business incubation, and direct mentorship from

The Impact of Creative Barriers and Entrepreneurship Education on University Students' Entrepreneurial Intention in Vietnam: The Mediating Role of Entrepreneurial Self-Efficacy

industry practitioners. Such interventions are likely more effective than theoretical instruction in fostering the resilience and risk-taking mindset required for business creation. Furthermore, establishing a robust campus ecosystem—comprising seed funds, innovation centers, and alumni networks—is essential to provide students with the practical platform needed to transition from ideation to venture implementation.

6.3.2. For Policymakers

To mitigate the restrictive impact of creative barriers, government bodies should focus on creating a more supportive institutional and financial framework. Policy interventions should prioritize expanding access to capital through specialized grant programs and low-interest loans tailored for young entrepreneurs, thereby reducing the perceived risk of failure. Additionally, fostering a synchronized ecosystem that bridges the gap between academia, industry, and venture capital is recommended to enhance the scalability of student-led ventures. On a broader scale, social communication strategies aimed at destigmatizing business failure may effectively bolster students' self-efficacy, transforming a culture of risk aversion into one of innovation and opportunity pursuit.

6.4. Limitations and Future research

Several limitations provide avenues for future inquiry. First, the cross-sectional design limits the ability to capture the temporal evolution of intentions; thus, longitudinal studies are warranted to track fluctuations across the undergraduate lifecycle. Second, as the sample was drawn from specific universities, future research should expand the geographic and disciplinary scope to enhance generalizability. Third, while this study confirms the mediating role of ESE, it does not account for potential moderators; subsequent models could incorporate boundary conditions such as gender, family background, or regional culture. Finally, integrating additional constructs, such as entrepreneurial passion or perceived social support, could further enhance the model's explanatory power and provide a comprehensive understanding of the intention-formation process.

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The Impact of Creative Barriers and Entrepreneurship Education on University Students' Entrepreneurial Intention in Vietnam: The Mediating Role of Entrepreneurial Self-Efficacy

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