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DEVELOPING AN INTEGRATED MODEL OF FACTORS INFLUENCING ENTREPRENEURIAL INTENTION: A CASE STUDY OF THE UNIVERSITY OF FINANCE - MARKETING

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ARTICLE INFO	ABSTRACT
DOI: 10.52932/jfmr.v3i4en.1003 Received: June 24, 2025 Accepted: October 15, 2025 Published: November 25, 2025	In Vietnam's current push for innovation and entrepreneurship, university students are seen as a vital force for building the next generation of entrepreneurs, but their entrepreneurial intentions still face many barriers and lack real motivation. This study examines the factors that shape students' entrepreneurial intentions and provides practical implications for education and policy. Data were collected from 400 business administration students at the University of Finance and Marketing (UFM) using convenience sampling, with 36 measurement items analyzed through PLS-SEM. The results show that Perceived
Keywords: Entrepreneurial intention; Theory of Planned Behavior; Shapero's Entrepreneurial Event; Theory of Trying; Business students. JEL codes: M1, M10, M13	Desirability (PD) is the strongest predictor of entrepreneurial intention and also moderates the link between Perceived Behavioral Control (PBC) and entrepreneurial intention (EI). Entrepreneurship Education (EE) indirectly influences EI through ATE and PBC, while Subjective Norms (SN) and Perceived Feasibility (PF) are not significant. These findings suggest that universities should focus on designing more experiential, motivation-based entrepreneurship programs, while policymakers should adjust support initiatives to emphasize the personal appeal and long-term motivation of entrepreneurship.

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1. Introduction

Entrepreneurship has become a key driver of socio-economic development, especially in emerging economies such as Vietnam. In recent years, the Vietnamese government has launched multiple programs, with Project 844 as the primary initiative, to build an innovation-driven entrepreneurial ecosystem by the year 2025 (Bo Khoa hoc va Cong nghe, 2022). Within this context, university students represent a vital human capital base, whose entrepreneurial intentions are essential to supporting long-term national competitiveness (Nguyen Van Dinh et al., 2021; Vo Hien & Le Hoang Van Trang, 2021).

To better understand the formation of entrepreneurial contemporary intentions, important research draws upon three theoretical frameworks: the Theory of Planned Behavior (TPB) (Ajzen, 1991), Shapero's Entrepreneurial Event Theory (EET) (Shapero & Sokol, 1982), and the Theory of Trying (TOT) (Bagozzi, 1990). These models provide different perspectives: TPB focuses on attitudinal, normative, and control beliefs; EET highlights the importance of perceived feasibility and desirability in starting entrepreneurial action; and TOT examines the motivational persistence required to convert intention into continued effort despite uncertainty or failure. Multiple empirical studies have confirmed the roles of Attitude Toward Entrepreneurship, Subjective Norm, Perceived Behavioral Control, Perceived Feasibility, and Perceived Desirability forming entrepreneurial intentions (Fitzsimmons & Douglas, 2011; Krueger et al., 2000). Recent literature has further emphasized the relevance of cognitive and contextual antecedents in shaping entrepreneurial particularly within emerging intention, economies (Elbaz et al., 2025; Ferdousi et al., 2025; Suanpong et al., 2025; Valencia-Arias et al., 2025). Meanwhile, Entrepreneurship Education and prior entrepreneurial experience

are also seen as important contextual factors, yet their interactive or moderating effects remain understudied, particularly in emerging-market contexts like Vietnam (Aga, 2023; Fayolle & Gailly, 2015).

Although Perceived Desirability frequently been treated as a direct antecedent of entrepreneurial intentions, recent evidence (e.g., Zhang et al., 2022) suggests that it may also function as a moderator, potentially strengthening or weakening the influence of cognitive antecedents such as Perceived Behavioral Control and Perceived Feasibility. However, no empirical research to date has examined Perceived Desirability's moderating role within a unified theoretical framework combining TPB, EET, and TOT, especially among business students in Vietnamese universities. Furthermore, existing research often neglects the potential variations in these mechanisms based on students' demographics or academic exposure.

To address these theoretical and empirical gaps, this study develops an integrated model and proposes three guiding research questions:

RQ1: Which psychological and educational constructs, namely Attitude Toward Entrepreneurship (ATE), Subjective Norm (SN), Perceived Behavioral Control (PBC), Perceived Feasibility (PF), Perceived Desirability (PD), and Entrepreneurship Education (EE), significantly influence entrepreneurial intention among Vietnamese business students?

RQ2: To what extent does Entrepreneurship Education (EE) influence entrepreneurial intention indirectly through its effects on students' perceived behavioral control (PBC) and attitude toward entrepreneurship (ATE)?

RQ3: Does Perceived Desirability (PD) moderate the relationship between Perceived Behavioral Control (PBC) and Entrepreneurial Intention (EI)?

2. Theoretical framework

2.1. Background theory

The judicious selection of theoretical underpinnings constitutes a fundamental prerequisite for constructing a rigorous analytical framework in entrepreneurial intention (EI) research. The present investigation employs a tripartite theoretical architecture comprising the "Theory of Planned Behavior" (TPB) advanced by Ajzen (1991), "Shapero's Entrepreneurial Event Theory" (EET) articulated by Shapero & Sokol (1982), and the "Theory of Trying" (TOT) propounded by Bagozzi (1990). This theoretical triangulation facilitates a holistic examination of the cognitive, behavioral determinants affective, and that shape entrepreneurial intention with particular emphasis on the experiential realities confronting students within Vietnamese tertiary education institutions. (details see Appendix 6 online)

2.2. Literature review and research hypotheses

Entrepreneurial Intention (EI)

Entrepreneurial Intention (EI) represents individuals' readiness and commitment to engage in future entrepreneurial behavior (Ajzen, 1991; Bird, 1988). According to the Theory of Planned Behavior (TPB), EI formation stems from three key determinants: Attitude Toward Entrepreneurship (ATE), Subjective Norm (SN), and Perceived Behavioral Control (PBC), which collectively shape self-confidence, feasibility motivation, and perceptions regarding venture creation (Mustofa & Setiawan, 2022; Vamvaka et al., 2020; Krueger et al., 2000). Subsequent theoretical developments have incorporated Shapero's model (Shapero & Sokol, 1982), highlighting the complementary roles of feasibility and desirability in EI formation (Fitzsimmons & Douglas, 2011). For university students, a demographic with high entrepreneurial potential but limited practical experience, EI assessment provides crucial insights for predicting entrepreneurial trends and designing targeted support programs (Nguyen Van Dinh et al., 2021; Vo Hien & Le Hoang Van Trang, 2021). EI serves as both a critical link between entrepreneurial cognition and action and a reliable predictor of actual venture creation in contemporary dynamic business environments (Fayolle & Gailly, 2015).

Entrepreneurship Education (EE)

Entrepreneurship Education (EE) Perceived Behavioral Control (PBC). Based on TPB (Ajzen, 1991), Perceived Behavioral Control (PBC) encompasses self-efficacy beliefs regarding capabilities, resources, and autonomy in entrepreneurial behaviors. Entrepreneurship Education (EE) enhances PBC through knowledge, competencies, and experiential learning (Aga, 2023; Mustofa & Setiawan, 2022; Adu et al., 2020). Empirical evidence confirms EE's impact on entrepreneurial self-efficacy. Aga (2023) demonstrated that EE enabled Ethiopian students to master strategic planning and risk assessment, increasing perceived control. Mustofa and Setiawan (2022) found that Entrepreneurship Education helped Indonesian non-business students acquire venture competencies. While TPB emphasizes intention formation, TOT (Bagozzi, 1990) recognizes that intention alone doesn't guarantee action, introducing "trying", a motivational state persisting through uncertainty. EE thus functions as both an intention catalyst (TPB) and an action perseverance mechanism (TOT). Through simulations and project-based learning, EE encourages trying, failure-based learning, and persistence, strengthening control perceptions. Adu et al. (2020) showed EE builds resilience by reducing uncertainty and risk perception barriers. Integrating TPB and TOT, this study proposes that EE significantly enhances PBC by shaping intention (TPB) and reinforcing behavioral persistence (TOT). Therefore:

Hypothesis H1a: Entrepreneurship Education (EE) exerts a statistically significant positive influence on Perceived Behavioral Control (PBC) concerning entrepreneurial behavioral intentions.

Entrepreneurship Education (EE) and Attitude Toward Entrepreneurship (ATE). Based on TPB (Ajzen, 1991), attitude toward entrepreneurship constitutes a fundamental factor directly influencing entrepreneurial intention. Positive attitudes toward entrepreneurship strengthen venture initiation intentions.

Entrepreneurship Education (EE) enhances students' awareness, competencies, and positive attitudes toward entrepreneurial behavior. Effective EE programs impart knowledge while stimulating motivation and facilitating recognition of entrepreneurship's career value.

Research confirms the positive EE-ATE relationship. Fayolle and Gailly (2015) demonstrated that European students in EE courses exhibited marked positive attitude transformations. Packham et al. (2010) showed EE shapes social perceptions and mitigates psychological risks in entrepreneurial career selection. Mahendra et al. (2017) confirmed that EE indirectly influences intention through positive attitudes, contingent upon experiential program design. Therefore, we propose:

Hypothesis H1b: Entrepreneurship Education (EE) exerts a positive influence on Attitude Toward Entrepreneurship (ATE).

Subjective Norm - SN

Grounded in TPB (Ajzen, 1991), subjective norm (SN) represents perceived social expectations from referents, parents, peers, and mentors, regarding entrepreneurial engagement. SN reflects the extent students internalize encouragement or disapproval from significant others concerning entrepreneurial aspirations. Empirical research confirms the

SN-entrepreneurial intention (EI) relationship among students. Maydiantoro (2021) found maternal aspirations and pedagogical encouragement as pivotal SN determinants among 400 Indonesian tertiary students. Batz Liñeiro et al. (2024) demonstrated that entrepreneurial exemplars served as influential referents, catalyzing motivation through normative mechanisms among 1,500 Latin American students.

In Vietnam's collectivist context, Nguyen Quoc Cuong & Nguyen Minh Tu Anh (2022) confirmed that familial endorsement, peer support, and academic mentorship fostered positive SN among engineering students lacking formal business education. These findings suggest SN compensates for knowledge deficits while bolstering venture initiation self-efficacy.

Evidence from Indonesian, Latin American, and Vietnamese contexts demonstrates that SN positively catalyzes students' entrepreneurial intention crystallization. Therefore, we propose:

Hypothesis H2: Subjective Norm (SN) exerts a statistically significant positive influence on students' Entrepreneurial Intention (EI) formation.

Perceived Feasibility (PF)

Anchored in Shapero and Sokol's (1982) Entrepreneurial Event Theory, Perceived Feasibility (PF) represents self-efficacy beliefs regarding entrepreneurial capacity based on resource evaluations, intellectual capital, competencies, networks, and financial assets. PF, alongside Perceived Desirability and Propensity to Act, constitutes a fundamental EI antecedent.

Empirical evidence validates PF across contexts. Ranga (2019) found PF wielded the strongest influence on Indian business students' EI, where self-assurance and infrastructure access proved indispensable. Romero-Galisteo et al. (2022) confirmed PF's relevance beyond

business domains, showing Spanish health technical sciences students' confidence catalyzed healthcare entrepreneurship. Peng's (2012) Chinese study (n=400+) established experiential learning and risk tolerance as integral PF dimensions predicting EI. Fitzsimmons & Douglas (2011) demonstrated PF-PD synergy, where concurrent perceptions of desirability and feasibility maximize EI. Contemporary perspectives expand conceptualization, Shabbir (2025) positioned digital literacy and innovation capabilities as fundamental PF components for IT students. Johnson et al. (2024) articulated PF as a mediating mechanism linking individual agency with entrepreneurial activation. Evidence confirms PF's pivotal function in transforming aspirations into intentions, empowering action despite uncertainties. Therefore:

Hypothesis H3: Perceived Feasibility (PF) exerts a statistically significant positive influence on Entrepreneurial Intention (EI) within university student populations.

Perceived Behavioral Control (PBC)

Based on TPB (Ajzen, 1991), Perceived Behavioral Control (PBC) represents selfefficacy beliefs regarding behavioral capacity, evaluated through resource availability. In entrepreneurship, PBC manifests as confidence in venture initiation capabilities based on perceived access to capital, competencies, and networks. Empirical evidence confirms PBC's positive relationship with Entrepreneurial Intention (EI). Vamvaka et al. (2020) found that PBC strongly influenced Greek students' particularly among females, managerial self-efficacy exceeded attitudinal influence. Idrees (2022)demonstrated that PBC mediates between intrapersonal attributes, optimism and self-confidence, and EI among Pakistani students, functioning as a "strategic psychological conduit." Otchengco Jr. and Akiate (2021) revealed PBC's contextual contingency in the Philippines, where entrepreneurial curricula, mentorship, and incubator access augmented PBC, fostering venture intentions.

PBC operates as a self-efficacy belief and a manifestation of support infrastructure for entrepreneurial engagement, with implications for educational interventions and policy frameworks. Therefore, we hypothesize that:

Hypothesis H4: Perceived Behavioral Control (PBC) exerts a statistically significant positive influence on Entrepreneurial Intention (EI).

Attitude Toward Entrepreneurship (ATE)

TPB posits attitudes toward behaviors as fundamental intention antecedents (Ajzen, 1991). Attitude toward entrepreneurship (ATE) encompasses evaluative appraisals of venture initiation, attractiveness, societal value, and personal utility. Empirical evidence confirms robust ATE-EI relationships.

Maydiantoro (2021) used **SEM** with Indonesian students, finding that **ATE** demonstrated superior EI predictive capacity over other TPB constructs. Batz Liñeiro (2024) showed that ATE channels Spanish entrepreneurs toward intrinsically motivated trajectories. In Vietnam, Phuong et al. (2020) examined 2,141 students across 12 institutions, confirming that those valuing entrepreneurship formulated concrete business strategies, with personality dimensions mediating ATE-EI relationships. Dao et al. (2021) found that ATE remained the strongest EI predictor, particularly among engineering students. Therefore:

Hypothesis H5: Attitude Toward Entrepreneurship (ATE) exerts a statistically significant positive influence on Entrepreneurial Intention (EI).

Perceived Desirability (PD): Moderating role of Perceived Desirability in the PBC-EI relationship

Perceived Desirability (PD) represents the cognitive appraisal of entrepreneurship as appealing and value-congruent. While traditionally conceptualized as a direct EI antecedent (Liñán & Chen, 2009; Krueger et al., 2000), contemporary research investigates PD's moderating function in the PBC-EI relationship. Zhang et al. (2022) found PD moderates the PBC-EI relationship among Spanish healthcare students, elevated PD amplifies this association while diminished PD attenuates it. Romero-Galisteo et al. (2022) confirmed that students require both high PBC and PD for substantial intention formation. PD functions as a "motivational catalyst" transforming selfefficacy into intentions when entrepreneurship is perceived as meaningful. This aligns with TOT (Bagozzi, 1990), which posits motivational appraisals moderate volitional control's translation into intentions. Shabbir (2025) noted PD's heterogeneous manifestation across demographics in digital contexts. Post-2017 research demonstrates that PD both directly influences EI and moderates PBC's impact. For emerging economy students, entrepreneurial desirability potentially catalyzes the selfefficacy-intention relationship. Therefore:

Hypothesis H6: Perceived Desirability (PD) moderates the relationship between Perceived Behavioral Control (PBC) and Entrepreneurial Intention (EI), whereby this association demonstrates enhanced magnitude under conditions of elevated PD.

Perceived desirability (PD)

Perceived desirability (PD) represents individuals' affective evaluation of entrepreneurship as an attractive career path. Central to Shapero and Sokol's (1982) Entrepreneurial Event Theory, PD and perceived feasibility serve as immediate intention precursors. While TPB emphasizes cognitive beliefs (Ajzen, 1991), SEE captures personal values and emotional attraction.

Empirical evidence confirms PD's predictive role. Fitzsimmons and Douglas (2011) demonstrated PD's significant influence on entrepreneurial intention, independently or interacting with feasibility. Ranga et al. (2019) found that PD strongly drives students' intentions when linked to personal values.

In Vietnam, Dao et al. (2021) noted the emotional appeal's vital role in intention formation among students. Nguyen Van Dinh et al. (2021) confirmed that students who view entrepreneurship as exciting show higher pursuit likelihood. These findings align with Schlaegel and Koenig's (2014) meta-analysis showing desirability as a consistent crosscultural predictor. Therefore,

Hypothesis H7: Perceived desirability has a positive effect on entrepreneurial intention.

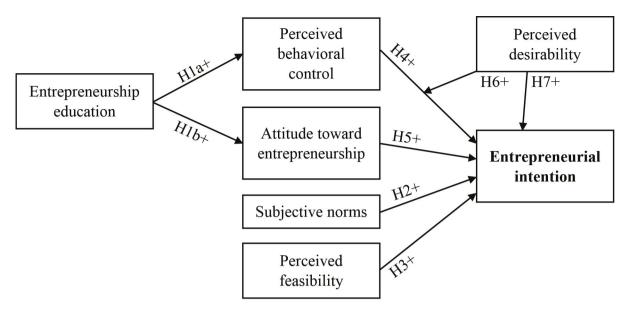


Figure 1. Research Model

3. Research methodology

3.1. Measurement scales and questionnaire development

The measurement scales were derived from established theoretical frameworks and prior empirical studies to capture key constructs in the proposed model. The questionnaire employed a five-point Likert scale (1 = strongly disagree to 5 = strongly agree). To ensure linguistic and cultural appropriateness, the instrument was revised based on expert feedback and pilot-tested with 50 students. The final questionnaire included two parts: (1) screening and demographic questions; (2) 36 items measuring seven constructs. (details see Appendix 7 online)

3.2. Sampling and data collection

This study utilized a purposive sampling strategy, selecting respondents who are currently enrolled in the Faculty of Business Administration at the University of Finance - Marketing (UFM). This sampling method is appropriate given the research objective of examining the cognitive and motivational antecedents of entrepreneurial intention within

a population actively engaged in business education.

Businessadministrationstudents, particularly those with exposure to entrepreneurship-related coursework, represent a relevant and information-rich subgroup for testing theoretical constructs derived from the Theory of Planned Behavior (TPB), the Entrepreneurial Event Theory (EET), and the Theory of Trying (TOT). The selection of UFM students was also contextually justified, as the university is aligned with national entrepreneurship education policies (e.g., Project 844), making its student body an ideal target for empirical analysis.

were collected via an online questionnaire distributed through institutional social emails academic networks. Participants were informed of the study's purpose, voluntary nature, and confidentiality protocols. A screening question ensured that only currently enrolled UFM business students were included in the final sample. After data cleaning, 400 valid responses were retained, exceeding the minimum sample size requirement calculated using Tabachnick and Fidell's (1996) formula and satisfying the 10:1 observation-to-indicator ratio recommended for PLS-SEM (Hair et al., 2022).

3.3. Analytical procedure

Data were analyzed using SmartPLS 3.0. Internal consistency was assessed via Cronbach's Alpha. Construct validity was examined through Exploratory and Confirmatory Factor Analyses. Partial Least Squares Structural Equation Modeling (PLS-SEM) was employed to test hypotheses and examine relationships between constructs. Model fit was evaluated using SRMR, R², t-values, and p-values. The use of a quantitative approach and transparent procedures ensures rigor and replicability.

4. Results and discussion

4.1. Results

The study obtained 400 valid responses (see Appendix 2), comprising 54% male and 46% female participants. The distribution across academic years showed Year 3 students representing the largest proportion (30%), with Year 2 and Year 4 students each accounting for 25%, Year 1 students comprising 15%, and remaining participants constituting 5%.

Regarding entrepreneurial exposure, 22.5% of respondents reported participation in startup-related activities. Post-graduation plans revealed that 38% intended to seek corporate employment, while 31% remained undecided about their career paths. Additionally, 23% planned to pursue further education, with 4% each aspiring to become teaching assistants or establish their own ventures. A significant finding emerged regarding entrepreneurship education exposure: 35% of participants

had completed entrepreneurship-related coursework, while 65% had not, suggesting substantial opportunities for expanding entrepreneurial content within the curriculum.

To assess the reliability of measurement scales in this research, two indices were employed: Cronbach's Alpha coefficient and Composite Reliability (CR). The findings demonstrated that all measurement scales satisfied reliability requirements, with Cronbach's Alpha coefficients ranging from 0.846 to 0.921, exceeding the minimum threshold of 0.7 recommended by Hair et al. (2017). Additionally, CR values ranged from 0.897 to 0.935, further substantiating the high level of stability and internal consistency among observed variables within each construct. The interaction variable PBC*PD was treated as an artificial construct; thus, its reliability coefficient was conventionally assigned as 1.

Regarding convergent validity, the research conducted assessments by examining the Average Variance Extracted (AVE) and outer loadings of individual observed variables. Results indicated that all outer loadings surpassed the minimum acceptable threshold of 0.5, with values ranging from 0.736 to 0.93. Concurrently, AVE values for each scale exceeded the recommended level of 0.5, ranging from 0.615 to 0.774, demonstrating that observed variables effectively reflected the latent constructs they represented. Consequently, all measurement scales in this research achieved convergent validity, fulfilling the prerequisites for inclusion in measurement and structural model analyses (Table 1, details see Appendix 7 online).

Table 1. Results of reliability and convergent validity analysis of measurement scales					
Construct Number of Observed		Reliability		Convergent Validity	
	Variables	Cronbach's Alpha	CR	Outer loadings	AVE
A TT	4	0.002	0.022	0.012 0.001	0.774

Construct	Number of Observed	Reliability		Convergent Validity	
	Variables	Cronbach's Alpha	CR	Outer loadings	AVE
ATE	4	0.903	0.932	0.813 - 0.901	0.774
EE	9	0.921	0.935	0.744 - 0.88	0.615
EI	5	0.907	0.931	0.814 - 0.93	0.731
PBC	4	0.846	0.897	0.79 - 0.873	0.685
PBC*PD		1	1		1
PD	5	0.903	0.928	0.833 - 0.866	0.721
PF	5	0.865	0.901	0.736 - 0.859	0.646
SN	4	0.847	0.897	0.805 - 0.868	0.686

Note: EE: Entrepreneurship Education; ATE: Attitude Toward Entrepreneurship; SN: Subjective Norm; PBC: Perceived Behavioral Control; PF: Perceived Feasibility; PD: Perceived Desirability

The discriminant validity analysis results Fornell-Larcker employing the revealed that the square root of AVE for each construct (diagonal values) exceeded the correlation coefficients with other constructs (off-diagonal values). Concurrently, Heterotrait-Monotrait ratio (HTMT) assessment demonstrated that all coefficients were below the threshold of 0.85 (Henseler et al., 2015), confirming that the measurement scales in the model achieved satisfactory discriminant validity (see Appendix 9 and 10 online).

Structural Model

To examine the relationships among variables in the model, this research conducted a structural model evaluation using PLS-SEM through the following procedures:

First, the multicollinearity assessment through variance inflation factor (VIF) indices indicated that all values fell below the threshold of 5, ranging from 1.524 to 4.476, consistent with recommendations by Hair et al. (2017). This finding demonstrates the absence of severe multicollinearity among independent variables in the model. The interaction variable PBC*PD, being an artificial construct, yielded a VIF

value of 1. Consequently, the model ensures stability and reliability for structural analysis (see Appendix 11 online).

Second, the research employed resampling procedure to test the statistical significance and strength of relationships within the structural model. The results indicated that hypotheses H1a, H1b, H4, H5, H6, and H7 were all supported with p-values < 0.05, consistent with recommendations by Hair et al. (2017). In contrast, H3 (PF \rightarrow EI) and H2 (SN → EI) failed to achieve statistical significance and were therefore rejected (p = 0.083 and p = 0.141, respectively). Among the significant relationships, Perceived Desirability (PD) showed the strongest influence on entrepreneurial intention (EI) with a coefficient of $\beta = 0.487$, followed by EE \rightarrow PBC ($\beta = 0.495$), PBC \Rightarrow EI ($\beta = 0.344$), EE \Rightarrow ATE ($\beta = 0.329$), and ATE \rightarrow EI (β = 0.159). Of particular importance, the interaction variable PBC*PD also displayed a substantial impact on EI (β = 0.109, p = 0.000), showing the positive moderating role of PD in the relationship between perceived behavioral control (PBC) and entrepreneurial intention. These findings contribute to strengthening the reliability of the research model (Table 2).

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (O/STDEV)	P Values	Results
ATE -> EI	0.159	0.156	0.046	3.472	0.001	Accepted
EE -> ATE	0.329	0.332	0.054	6.069	0.000	Accepted
EE -> PBC	0.495	0.498	0.055	9.055	0.000	Accepted
PBC -> EI	0.344	0.346	0.049	7.037	0.000	Accepted
PBC*PD -> EI	0.109	0.107	0.025	4.321	0.000	Accepted
PD -> EI	0.487	0.491	0.05	9.656	0.000	Accepted
PF -> EI	-0.102	-0.103	0.059	1.736	0.083	Rejected
SN -> EI	0.085	0.084	0.058	1.471	0.141	Rejected

Table 2. Assessment of Relationships Among Variables in the Model

Third, the explanatory power of the model was evaluated through the coefficient of determination R². The findings revealed that independent variables in the model accounted for 64.8% of the variance in the dependent variable EI (Adjusted R² = 0.642), indicating high model fit. Additionally, the predictor variables explained 24.5% of the variance in PBC and 10.9% of the variance in ATE. All Adjusted R² values were at acceptable levels, demonstrating that the research model possessed satisfactory explanatory power for both mediating and dependent variables (see Appendix 12 online).

Fourth, the research conducted indirect effects testing to elucidate the mediating roles of ATE and PBC in the relationship between EE and EI. The results demonstrated that both indirect pathways achieved statistical significance with p < 0.05. Specifically, EE exerted an indirect influence on EI through ATE with a coefficient of β = 0.052 (p = 0.002), and through PBC with a coefficient of β = 0.170 (p=0.000). These findings indicated that ATE and PBC served as critical mediating mechanisms, thereby reinforcing the relationship between entrepreneurship education (EE) and learners' entrepreneurial intention (EI) (Table 3).

Table 3. Indirect effect

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (O/STDEV)	P Values	Results
EE -> ATE -> EI	0.052	0.052	0.017	3.113	0.002	Accepted
EE -> PBC -> EI	0.17	0.172	0.031	5.509	0.000	Accepted

Fifth, the overall model fit was assessed through various fit indices, including SRMR, d_ULS, d_G, Chi-Square, and NFI. The results revealed that the estimated model's SRMR value reached 0.116, exceeding the recommended threshold of 0.08 (Hu & Bentler, 1999), indicating suboptimal model fit. Similarly, the d_ULS and d_G indices for the estimated model (8.946 and

1.028) were substantially higher than those of the saturated model (2.574 and 0.865), suggesting certain discrepancies. However, the NFI index of the estimated model achieved 0.806, surpassing the acceptable threshold of 0.80 according to Bentler and Bonett (1980), indicating that the model attained relatively adequate fit within the research context (Table 4).

Table 4. Model fit

	Saturated Model	Estimated Model
SRMR	0.062	0.116
d_ULS	2.574	8.946
d_G	0.865	1.028
Chi-Square	1712.694	1919.247
NFI	0.827	0.806

4.2. Discussion

The structural model evaluation provided empirical support for six of eight proposed hypotheses, examining the relationships among psychological, educational, and motivational factors in entrepreneurial intention formation within the Vietnamese business education context.

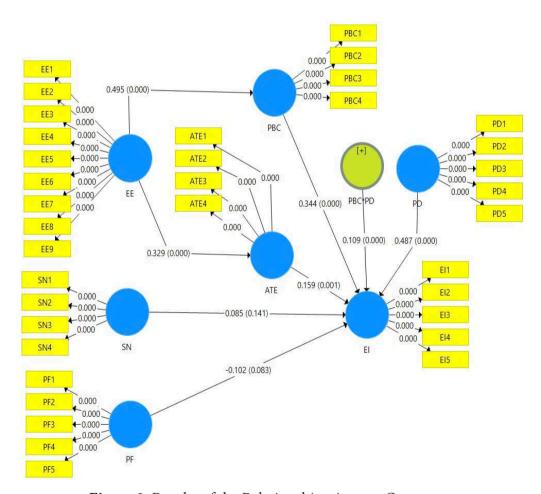


Figure 2. Results of the Relationships Among Constructs

The empirical validation of Hypothesis 1a shows a strong positive relationship between Entrepreneurship Education and Perceived Behavioral Control. This finding confirms the important role of structured entrepreneurial curricula in building students' confidence regarding venture creation capabilities. The results match Aga's (2023) research and align

with Mustofa and Setiawan's (2022) evidence concerning entrepreneurship education's dual cognitive-behavioral development mechanisms. The substantial variance explained in Perceived Behavioral Control highlights the pedagogical value of entrepreneurial education as a key factor in capacity building.

Similarly, Hypothesis 1b was confirmed, showing that Entrepreneurship Education has a significant positive influence on Attitude Toward Entrepreneurship. This suggests that beyond skill development, formal educational interventions can shape students' affective evaluations of entrepreneurship as a career path. This observation aligns with Fayolle and Gailly's (2015) findings, who argue that entrepreneurship education produces lasting attitudinal change.

Hypothesis 4 received strong empirical support, confirming Perceived Behavioral Control's central role within the entrepreneurial intention formation process. This finding supports Ajzen's (1991) theoretical framework while matching Schlaegel and Koenig's (2014) meta-analytic evidence identifying perceived control as one of the strongest predictors of intention across different cultural and institutional contexts.

The validation of Hypothesis 5 confirms the significant, though moderate, influence of Attitude Toward Entrepreneurship on intention formation. This result extends Liñán and Chen's (2009) cross-cultural framework while supporting Peterman and Kennedy's (2003) emphasis on affect's role in shaping entrepreneurial choices. It confirms that attitudinal dispositions work alongside other cognitive factors, such as control beliefs and motivational evaluations.

Most significantly, Hypothesis 6 showed the strongest direct relationship within the model, establishing Perceived Desirability as a primary factor in entrepreneurial intention. This finding

supports Shapero and Sokol's (1982) theoretical premise that desirability perceptions drive commitment to new venture creation. It also aligns with Fitzsimmons and Douglas's (2011) empirical observations that entrepreneurial intention increases when individuals perceive entrepreneurship as both meaningful and desirable.

The additional Hypothesis 7 showed a direct path from Perceived Desirability to Entrepreneurial Intention. While Perceived Desirability was initially viewed as a moderating variable, the results suggest it also has independent explanatory power. This dual role aligns with Shapero and Sokol (1982) and is supported by Fitzsimmons and Douglas (2011), who showed that desirability interacts with feasibility but can also function independently in driving intention. These findings suggest that increasing the perceived personal significance of entrepreneurship, through inspirational exposure, value alignment, and aspirational examples, can independently produce stronger entrepreneurial commitment.

In contrast, Hypothesis 2 failed to achieve statistical significance, showing that Subjective Norms have minimal influence on entrepreneurial intention formation among Vietnamese business students. This matches Phuong et al.'s (2020) findings and reflects a broader pattern in transitional economies where individual agency may exceed normative pressures in career decision-making.

Similarly, Hypothesis 3 lacked empirical support, showing a "feasibility-action gap" in which students who cognitively recognize entrepreneurial viability may still refrain from forming strong behavioral intentions. This observation aligns with Piperopoulos and Dimov's (2015) framework, which suggests that feasibility assessments may remain inactive without sufficient motivational triggers or affective connection.

Finally, the empirical validation of Perceived Desirability's moderating effect confirms its key function within the extended framework. The interaction between Perceived Behavioral Control and Perceived Desirability shows how confidence in capabilities becomes stronger when combined with strong motivational desire. This finding advances the integrative approach suggested by Fitzsimmons and Douglas (2011), highlighting the importance of aligning self-efficacy with intrinsic motivation to increase entrepreneurial drive.

These results show that entrepreneurial intention formation among Vietnamese undergraduate business students is mainly shaped by internal psychological mechanisms, such as efficacy beliefs, affective attitudes, and desirability perceptions, rather than by social expectations or feasibility-based calculations. These insights have important implications for entrepreneurship education, suggesting that effective teaching strategies should emphasize both competence-building and motivational inspiration to develop a strong entrepreneurial mindset.

5. Conclusion and implications

5.1. Conclusion

This research examines factors affecting students' entrepreneurial intention using an extended TPB model enriched by EET and TOT. Six of eight hypotheses were supported. Entrepreneurship Education indirectly influences intention through attitude and behavioral control, with the latter showing strong mediation. Both factors directly affect intention formation. Perceived Desirability functions dually: as a direct predictor and moderator strengthening the behavioral control-intention relationship. This highlights how desirability increases entrepreneurship's value and converts capabilities into intentions. Subjective Norm and Perceived Feasibility showed no significant effects, indicating internal beliefs outweigh social pressures or feasibility considerations. The findings suggest entrepreneurship education should develop students' behavioral control and positive attitudes while cultivating desirability. These insights inform curriculum design and policy interventions for emerging markets.

5.2. Implications

For educators and institutional leaders, these findings indicate the need to redesign entrepreneurship education programs to emphasize experiential learning psychological empowerment. Rather than solely transferring knowledge, programs should develop students' belief in their ability to act, foster positive entrepreneurial attitudes, and increase the perceived desirability of entrepreneurial careers. Activities such as startup bootcamps, alumni mentorship, and personal goal-setting workshops could strengthen both behavioral control and emotional engagement.

While normative and feasibility constructs may appear statistically non-significant, they should not be overlooked in practice. Instead, institutions should create environments that normalize entrepreneurial behavior and reduce perceived risk through structured incubation, financial access, and social validation. As noted by Peterman and Kennedy (2003), exposure to entrepreneurial role models and ecosystems can recalibrate students' perceptions of viability and support.

These insights have policy implications for entrepreneurship development within Vietnamese universities. Decision-makers should prioritize integrated ecosystem design, combining curriculum innovation, resource accessibility, and psychological development, to enable students not only to form intentions

but also to transition from ideation to implementation. As Piperopoulos and Dimov (2015) indicate, the relationship between education design and entrepreneurial outcomes depends not just on course content but also on pedagogical structure and student agency.

In the context of the University of Finance and Marketing (UFM), our findings suggest that the university should place greater emphasis on integrating entrepreneurship courses into the official curriculum, rather than limiting them to short-term or extracurricular activities. The Entrepreneurship upcoming Management program should be designed around Project-Based Learning (PBL). Instead of only learning business plan theory, students should engage in structured projects, such as building prototypes, market simulating running tests, and fundraising. This approach would help students develop risk management and strategic planning skills, while also strengthening their confidence in their ability to handle challenges in entrepreneurship (PBC). By connecting these courses to real business cases in Vietnam, students can also build a more positive attitude (ATE) toward entrepreneurship.

At the same time, UFM could establish an entrepreneurship support and incubation center on campus, linking students with businesses, successful alumni, and investors. Such a model would not only increase the perceived attractiveness (PD) of entrepreneurship but also reduce psychological barriers when students test their ideas. Programs like mentorship and alumni talks can further highlight the personal encouraging entrepreneurship, value students to see it as a realistic and desirable career path. The goal is not only to teach practical skills but also to show students the meaning, autonomy, and personal value-fit of becoming an entrepreneur. This aligns with the Theory of Trying (TOT), which emphasizes motivation and persistence in the ongoing process of trying.

At the policy level, these results can support the Ministry of Education and Training and the Ministry of Science and Technology (through Project 844) in adjusting student entrepreneurship programs to focus more on action capability and personal value. Rather than focusing only on business knowledge and feasibility (PF), policies should put greater weight on nurturing intrinsic motivation and entrepreneurial aspiration through experiential innovation competitions, activities, supportive mechanisms for experimentation. In addition, UFM could set up a formal incubation mechanism that offers facilities, legal advice, and seed funding opportunities, helping to turn entrepreneurial intentions into real actions and close the "feasibility-action gap." Finally, integrating success stories of entrepreneurs into the official curriculum could increase the social validation of entrepreneurship, helping students to view it as a socially accepted and viable career path, even when social norms (SN) are not the strongest driver.

5.3. Limitations

This research still contains certain limitations. *First*, data were collected using a cross-sectional quantitative method, which cannot capture causal relationships over time. *Second*, the survey population was limited to Business Administration students at a single university, making it difficult to generalize the findings to the entire Vietnamese student population. *Finally*, the research model integrated only three main theories without considering cultural factors or macro-contextual elements that may influence entrepreneurial intention.

References

- Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes*, 50(2), 179–211. https://doi.org/10.1016/0749-5978(91)90020-T
- Adu, I. N., Boakye, K. O., Suleman, A.-R., & Bingab, B. B. B. (2020). Exploring the factors that mediate the relationship between entrepreneurial education and entrepreneurial intentions among undergraduate students in Ghana. *Asia Pacific Journal of Innovation and Entrepreneurship*, 14(2), 215–228. https://doi.org/10.1108/APJIE-07-2019-0052
- Aga, M. K. (2023). The mediating role of perceived behavioral control in the relationship between entrepreneurship education and entrepreneurial intentions of university students in Ethiopia. *Journal of Innovation and Entrepreneurship*, 12. https://doi.org/10.1186/s13731-023-00297-w
- Bagozzi, R. P. (1992). The self-regulation of attitudes, intentions, and behavior. *Social Psychology Quarterly*, 55(2), 178–204. https://doi.org/10.2307/2786945
- Batz Liñeiro, A., Romero Ochoa, J. A., & Montes de la Barrera, J. (2024). Exploring entrepreneurial intentions and motivations: A comparative analysis of opportunity-driven and necessity-driven entrepreneurs. *Journal of Innovation and Entrepreneurship, 13.* https://doi.org/10.1186/s13731-024-00366-8
- Bentler, P. M., & Bonett, D. G. (1980). Significance tests and goodness of fit in the analysis of covariance structures. *Psychological Bulletin*, 88(3), 588–606. https://doi.org/10.1037/0033-2909.88.3.588
- Bird, B. (1988). Implementing entrepreneurial ideas: The case for intention. *Academy of Management Review*, *13*(3), 442–453. https://doi.org/10.5465/amr.1988.4306970
- Dao T. K., Bui, A. T., Doan, T. T. T., Dao, N. T., Le, H. H., & Le, T. T. H. (2021). Impact of academic majors on entrepreneurial intentions of Vietnamese students: An extension of the theory of planned behavior. *Heliyon*, 7(3). https://doi.org/10.1016/j.heliyon.2021.e06381
- Dinis, A., do Paço, A., Ferreira, J., Raposo, M., & Gouveia Rodrigues, R. (2013). Psychological characteristics and entrepreneurial intentions among secondary students. *Education + Training*, 55(8/9), 763–780. https://doi.org/10.1108/ET-06-2013-0085
- Elbaz, A. M., Sayed, B. S. Y., Amjed, S., Salem, I. E., & Shamas, G. (2025). Entrepreneurship education, mindset and entrepreneurial intentions: The moderating effects of creativity and role models. *The International Journal of Management Education*, 23(1). https://doi.org/10.1016/j.ijme.2025.101240
- Fayolle, A., & Gailly, B. (2015). The impact of entrepreneurship education on entrepreneurial attitudes and intention: Hysteresis and persistence. *Journal of Small Business Management*, 53(1), 75–93. https://doi.org/10.1111/jsbm.12065
- Ferdousi, F., Rahman, M. Z., & Qamruzzaman, M. (2025). The role of business education in shaping entrepreneurial intentions: Examining psychological and contextual determinants among university students in Bangladesh. Frontiers in Education, 10. https://doi.org/10.3389/feduc.2025.1536604
- Fitzsimmons, J. R., & Douglas, E. J. (2011). Interaction between feasibility and desirability in the formation of entrepreneurial intentions. *Journal of Business Venturing*, 26(4), 431–440. https://doi.org/10.1016/j.jbusvent.2010.01.001
- Hair, J. F., Hult, G. T. M., Ringle, C. M., & Sarstedt, M. (2017). A primer on partial least squares structural equation modeling (PLS-SEM) (2nd ed.). SAGE Publications.
- Henseler, J., Ringle, C. M., & Sarstedt, M. (2015). A new criterion for assessing discriminant validity in variance-based structural equation modeling. *Journal of the Academy of Marketing Science*, 43, 115–135. https://doi.org/10.1007/s11747-014-0403-8
- Hu, L. T., & Bentler, P. M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling: A Multidisciplinary Journal*, *6*(1), 1–55. https://doi.org/10.1080/10705519909540118
- Idrees, F., Hassan, H., Syed, T., Ahmad, S. N., & Khan, M. M. (2022). Perceived behavioral control mediates the relationship between personal characteristics and psycho-sociological factors, and entrepreneurial intentions. *Research Journal for Societal Issues*, 4(1), 217–232.
- Johnson, C., AlRasheed, R., Gray, C., Triplett, N., Mbwayo, A., Weinhold, A., Whetten, K., & Dorsey, S. (2024). Uncovering determinants of perceived feasibility of TF-CBT through coincidence analysis. *Implementation Research and Practice*, 5. https://doi.org/10.1177/26334895231220277

- Krueger, N. F., Jr., Reilly, M. D., & Carsrud, A. L. (2000). Competing models of entrepreneurial intentions. *Journal of Business Venturing*, 15(5–6), 411–432. https://doi.org/10.1016/S0883-9026(98)00033-0
- Liñán, F., & Chen, Y.-W. (2009). Development and cross-cultural application of a specific instrument to measure entrepreneurial intentions. *Entrepreneurship Theory and Practice*, 33(3), 593–617. https://doi.org/10.1111/j.1540-6520.2009.00318.x
- Mahendra, A. M., Djatmika, E. T., & Hermawan, A. (2017). The effect of entrepreneurship education on entrepreneurial intention mediated by motivation and attitude among management students, State University of Malang, Indonesia. *International Education Studies*, 10(9), 61–69. https://doi.org/10.5539/ies.v10n9p61
- Maydiantoro, A., Jaya, T. M. B. S., Basri, M., & Yulianti, D., Sinaga, R. M., & ARIF, S. (2021). The influence of entrepreneurial attitudes, subjective norms, and self-efficacy on entrepreneurial intentions. *International Journal of Information and Decision Sciences*, 24(4S), 1–12. http://repository.lppm.unila.ac.id/id/eprint/38101
- Mustofa, A., & Setiawan, A. (2022). Perceived behavioral control builds students' entrepreneurial intentions. *Al-Ishlah: Jurnal Pendidikan*, 14(3), 3241-3248. https://doi.org/10.35445/alishlah.v14i3.1511
- Packham, G., Jones, P., Miller, C., Pickernell, D., & Thomas, B. (2010). Attitudes towards entrepreneurship education: A comparative analysis. *Education + Training*, *52*(*8*-9), 568–586. https://doi.org/10.1108/00400911011088926
- Phuong, N. T. M., Quoc, T. H., Cup, L. V., & Lien, L. T. K. (2020). The students' attitudes and entrepreneurial intention: Evidence from Vietnam universities. *Management Science Letters*, 11, 783–794. https://doi.org/10.5267/j.msl.2020.10.028
- Nguyen Quoc Cuong & Nguyen Minh Tu Anh (2022). Các yếu tố ảnh hưởng đến ý định khởi nghiệp của sinh viên ngành kỹ thuật tại Trường Đại học Công nghiệp Thành phố Hồ Chí Minh [Factors Influencing Engineering Students' Entrepreneurial Intention at Ho Chi Minh City University of Industry]. *Tạp chí Khoa học và Công nghệ IUH*, 58(4). https://doi.org/10.46242/jstiuh.v58i04.4495
- Nguyen Van Dinh, Le Thi Mai Huong, & Cao Thi Sen. (2021). Các nhân tố ảnh hưởng đến ý định khởi nghiệp của sinh viên Trường Đại học Nam Cần Thơ [Factors Influencing Students' Entrepreneurial Intention at Nam Can Tho University]. *Tạp chí Khoa học Đại học Mở TP.HCM Kinh tế và Quản trị Kinh doanh, 17*(2), 52–68. https://doi.org/10.46223/HCMCOUJS.econ.vi.17.2.1301.2022
- Otcengco Jr., A. M., & Akiate, Y. W. D. (2021). Entrepreneurial intentions on perceived behavioral control and personal attitude: Moderated by structural support. *Asia Pacific Journal of Innovation and Entrepreneurship*, *15*(1), 14-25. https://doi.org/10.1108/APJIE-08-2020-0124
- Peng, Z., Lu, G., & Kang, H. (2012). Entrepreneurial intentions and its influencing factors: A survey of the university students in Xi'an China. *Creative Education*, *3*(8B), 95–100. https://doi.org/10.4236/ce.2012.38B021
- Piperopoulos, P., & Dimov, D. (2015). Burst bubbles or build steam? Entrepreneurship education, entrepreneurial self-efficacy, and entrepreneurial intentions. *Journal of Small Business Management*, 53(4), 970–985. https://doi.org/10.1111/jsbm.12116
- Peterman, N. E., & Kennedy, J. (2003). Enterprise education: Influencing students' perceptions of entrepreneurship. *Entrepreneurship Theory and Practice*, 28(2), 129–144. https://doi.org/10.1046/j.1540-6520.2003.00035.x
- Ranga, V., Jain, S., & Venkateswarlu, P. (2019). Exploration of entrepreneurial intentions of management students using Shapero's model. *Theoretical Economics Letters*, 9(4), 959–972. https://doi.org/10.4236/tel.2019.94062
- Romero-Galisteo, R.-P., González-Sánchez, M., Gálvez-Ruiz, P., Palomo-Carrión, R., Casuso-Holgado, M. J., & Piñero-Pinto, E. (2022). Entrepreneurial intention, expectations of success and self-efficacy in undergraduate students of health sciences. *BMC Medical Education*, 22. https://doi.org/10.1186/s12909-022-03731-x
- Schlaegel, C., & Koenig, M. (2014). Determinants of entrepreneurial intent: A meta-analytic test and integration of competing models. *Entrepreneurship Theory and Practice*, 38(2), 291–332. https://doi.org/10.1111/etap.12087
- Shabbir, M. S. (2025). Entrepreneurial mindset: Skills, attitudes, and intentions in information technology. *Journal of the International Council for Small Business*. *5*(2), 1–21. https://doi.org/10.1080/26437015.2025.2457611
- Shapero, A., & Sokol, L. (1982). The social dimensions of entrepreneurship. In C. A. Kent, D. L. Sexton, & K. H. Vesper (Eds.), *Encyclopedia of entrepreneurship* (pp. 72–90). Prentice-Hall.
- Suanpong, K., Yeing-aramkul, Y., Yoochayantee, K., & Tripopsakul, S. (2025). Cognitive and motivational drivers of entrepreneurial intention in an emerging economy: Implications for open innovation dynamics. *Journal of Open Innovation: Technology, Market, and Complexity, 11*(2). https://doi.org/10.1016/j.joitmc.2025.100568
- Tabachnick, B. G., & Fidell, L. S. (1996). Using Multivariate Statistics (3rd ed.). HarperCollins.

- Valencia-Arias, A., Agudelo Ceballos, E. J., Palacios-Moya, L., & Londoño-Celis, W., Ipaguirre Sanchez, K., Rodríguez-Correa, P. A., & Martínez Rojas, E. (2025). Factors influencing the sustainable entrepreneurial intention of university students from an emerging economy in Latin America: Evidence from the theory of extended planned behavior. *Discover Sustainability*, 6. https://doi.org/10.1007/s43621-025-01289-4
- Vamvaka, V., Stoforos, C., Palaskas, T., & Botsaris, C. (2020). Attitude toward entrepreneurship, perceived behavioral control, and entrepreneurial intention: Dimensionality, structural relationships, and gender differences. *Journal of Innovation and Entrepreneurship*, 9. https://doi.org/10.1186/s13731-020-0112-0
- Vo Hien, & Le Hoang Van Trang (2021). Nghiên cứu các yếu tố ảnh hưởng đến ý định khởi nghiệp của sinh viên Trường Đại học Tiền Giang [A Study on Factors Influencing Entrepreneurial Intention among Students at Tien Giang University]. *Tạp chí Khoa học Đại học Mở TP.HCM Kinh tế và Quản trị Kinh doanh*, 16(2), 170–192. https://doi.org/10.46223/HCMCOUJS.econ.vi.16.2.578.2021
- Zhang, J., Jiang, N., Turner, J. J., & Pahlevan-Sharif, S. (2022). The impact of scarcity on consumers' impulse buying based on the S-O-R theory. *Frontiers in Psychology, 13*. https://doi.org/10.3389/fpsyg.2022.792419
- Zollo, L., Laudano, M. C., Ciappei, C., & Zampi, V. (2017). Factors affecting universities' ability to foster students' entrepreneurial behaviour: An empirical investigation. *Journal of Management Development*, 36(2), 268–285. https://doi.org/10.1108/JMD-06-2016-0093
- Bo Khoa hoc va Cong nghe (2022). Đề án hỗ trợ hệ sinh thái khởi nghiệp đổi mới sáng tạo quốc gia đến năm 2025 (Đề án 844) [The National Program for Supporting the Startup Ecosystem in Vietnam through 2025 (Program 844)]. http://dean844.most.gov.vn/