FACTORS INFLUENCING YOUTH ENTREPRENEURIAL SPIRIT: EVIDENCE FROM LAO CAI PROVINCE

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Abstract: ***Youth entrepreneurship is vital for innovation and inclusive economic growth in developing areas. This study examines determinants of the entrepreneurial spirit among young people in Lao Cai province, a mountainous and ethnically diverse region of northern Vietnam. Based on the Theory of Planned Behavior (TPB), the model includes seven factor groups: family background, education, institutional support, personal capacity, technology–innovation, globalization, and socio-cultural context. Using survey data from 450 respondents, Exploratory Factor Analysis (EFA) and multiple regression identify family background, socio-cultural factors, and technology–innovation as the strongest positive predictors. Globalization slightly reduces entrepreneurial drive, while education exerts limited impact. The findings highlight the need for integrated support across families, communities, and institutions to nurture innovation-oriented youth entrepreneurship. This research provides new insights into entrepreneurial behavior in rural and underdeveloped settings, offering implications for policy design and entrepreneurship education.***

• Keywords: *youth entrepreneurship; entrepreneurial spirit; Lao Cai provice; factor analysis.*

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1. Introduction

In the context of a global economy increasingly reliant on innovation and workforce autonomy, entrepreneurship has emerged as a critical pathway for promoting inclusive and sustainable growth (OECD, 2022). Both developed and developing nations regard the development of small and medium-sized enterprises (SMEs)-particularly youth-led ventures-as a strategic solution to job creation, income generation, and the mobilization of internal resources (European Commission. 2003; GEM. 2023). In Vietnam, entrepreneurship is recognized as a core driver of the knowledge economy, contributing to employment generation and social welfare, especially given the rapid growth of the young labor force (VCCI. (2022).

The entrepreneurial tendency among Vietnamese youth has grown markedly in recent years, as reflected in the rising number of youth-founded enterprises and increased youth participation in national startup initiatives (VCCI., 2022). Notably, rural and ethnic minority youth are also engaging in entrepreneurship through models tailored to local conditions (UNDP Vietnam, 2021). According to the Global Entrepreneurship Monitor (2023), over 35% of Vietnamese youth aged 18–35 intend to start a business within three years-higher than the global average-indicating a strong entrepreneurial spirit.

However, alongside quantitative growth, youth entrepreneurship in Vietnam faces significant limitations. Chief among them is a lack of foundational business knowledge, including financial planning, human resource management, marketing, and legal compliance (GEM, 2023; VCCI, 2022). A UNDP (2021) survey in eight northern mountainous provinces revealed that over 70% of ethnic minority youth entrepreneurs had never received formal business training. Similarly, the 2022 National Startup Report by the Ministry of Science and Technology showed that 42% of youth-led startups faced major challenges in financial and market management, resulting in a high failure rate within the first two years.

Theoretically, numerous studies have identified various factors influencing youth entrepreneurial spirit, including: (1) education and entrepreneurship training (Fayolle & Gailly, 2015); (2) family background and parental influence (Kickul et al., 2008); (3) personal financial resources and access to capital (Brixiová et al., 2020); (4) peer and community influence (Farrukh et al., 2019); (5) behavioral perceptions such as attitudes, subjective norms, and perceived behavioral control (Ajzen, 1991); and (6) the level of entrepreneurial culture and institutional environment (Hofstede et al., 2004; GEM, 2023).

However, most studies in Vietnam remain limited to assessing entrepreneurial spirit or descriptive characteristics of youth entrepreneurship. Few have comprehensively examined the determinants of entrepreneurial spirit-particularly among youth in

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ethnic minority areas (Vu et al., 2023)-which reflect their readiness, intrinsic motivation, and long-term commitment to business ventures (Luthje & Franke, 2003). Moreover, distinctions among youth subgroups (e.g., rural youth, ethnic minorities, unskilled youth) have not been clearly addressed in large-scale quantitative research.

From this perspective, a critical research question emerges: how can youth entrepreneurial spirit be enhanced by identifying key influencing factors and tailoring policies to specific groups? Addressing this question not only advances the theoretical framework of entrepreneurial behavior but also offers practical value for designing youth entrepreneurship support policies in Vietnam in the coming years.

2. Literature Review and Hypothesis Development

2.1. Concept and Role of Entrepreneurial Spirit

Entrepreneurial spirit denotes the intrinsic motivation that drives individuals to identify opportunities, take calculated risks, and innovate under uncertainty (Luthje & Franke, 2003). It reflects persistence and proactive behavior, essential for entrepreneurial success (Zhao et al., 2005). In Vietnam, youth entrepreneurial spirit is increasingly recognized as a key driver of sustainable growth, digital transformation, and poverty reduction (UNDP, 2021). Particularly in Lao Cai a province with 66.2% ethnic minority population entrepreneurship provides an effective means for young people to enhance livelihoods and foster local economic development (Vu et al., 2023).

2.2. Theoretical Background

Entrepreneurial spirit is a form of intentional behavior grounded in individual cognition and motivation (Krueger et al., 2000). The Theory of Planned Behavior (TPB) proposed by Ajzen (1991) explains entrepreneurial intention through three core dimensions: (1) *attitude toward entrepreneurship*, or the perceived desirability of starting a business; (2) *subjective norms*, or perceived social expectations; and (3) *perceived behavioral control* (PBC), referring to confidence in one's entrepreneurial capability. Building on TPB, scholars have extended the model to include contextual and environmental factors such as family influence, education, culture, and institutional conditions (Schlaegel & Koenig, 2014; Fayolle & Gailly, 2015). Given Lao Cai's socio-economic disparities and ethnic diversity, this study applies an Extended TPB (ETPB) framework to capture both psychological and contextual determinants of youth entrepreneurial spirit.

2.3. Hypothesis Development

H1: Family background positively influences youth entrepreneurial spirit (Kickul et al., 2008).

H2: Educational environment positively influences youth entrepreneurial spirit (Huang & Cheng, 2021).

H3: Institutional environment positively influences youth entrepreneurial spirit (OECD, 2022; Ali et al., 2020; Huang et al., 2021).

H4: Personal competence positively influences youth entrepreneurial spirit (Shinnar et al., 2014; Vu et al., 2023).

H5: Technology and innovation positively influence youth entrepreneurial spirit (GEM, 2023; Zang et al., 2023; UNDP, 2021).

H6: Globalization and international integration influence youth entrepreneurial spirit (Fernhaber & Zou, 2022; Slesman et al., 2021; Vu et al., 2023).

H7: Socio-cultural factors positively influence youth entrepreneurial spirit (Hofstede et al., 2004; Ali et al., 2020; UNDP, 2021).

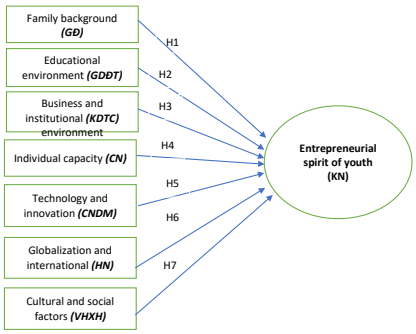
3. Materials and Methods

3.1. Sample and Data Collection

The study surveyed youth aged 18–35 living, studying, and working in Lao Cai province representing diverse ethnicities, education levels, and occupations. The questionnaire, developed from the Theory of Planned Behavior and prior studies, comprised three parts: (i) demographics; (ii) measures of influencing factors (attitude, subjective norms, perceived behavioral control, and contextual factors); and (iii) entrepreneurial spirit.

A pilot test ensured linguistic clarity and reliability. Data were collected from March to June 2024 with assistance from youth unions, schools, and community groups. Of 500 distributed questionnaires, 450 were valid (90% response rate). Participation was voluntary, with informed consent and confidentiality maintained throughout.

Figure 1. Proposed Research Model



3.2. Data Analysis

Data were analyzed using SPSS 22. Descriptive statistics summarized demographic characteristics. Exploratory Factor Analysis (EFA) using Principal Component Analysis with Varimax rotation validated

the measurement structure. The Kaiser-Meyer-Olkin (KMO) test and Bartlett's Test of Sphericity confirmed sample adequacy. Factors with eigenvalues >1 and loadings >0.5 were retained; reliability was assessed via Cronbach's Alpha.

Subsequently, multiple linear regression examined the influence of independent variables (derived from EFA) on entrepreneurial spirit, controlling for gender, education, and residence. Diagnostic checks for multicollinearity and residual independence were conducted. All statistical tests were performed at $p < 0.05$ to evaluate the proposed hypotheses and the applicability of the extended TPB model to Lao Cai's youth context.

4. Results

4.1. Respondents' profile

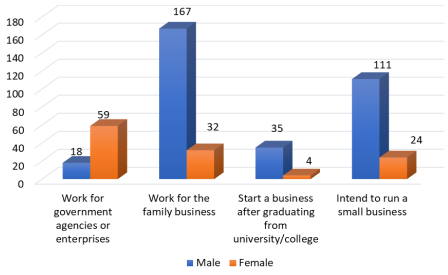
Table 1. Demographic Characteristics of Surveyed Youth

Criteria		Number (people)	Proportion (%)
Gender	Male	331	73.56
	Female	119	26.44
Ethnic composition	Kinh	287	63.78
	Ethnic minorities	163	36.22
Education attainment	Secondary school and bellow	20	4.44
	High school	69	15.33
	University/college	360	80.00
	Post-graduate	1	0.22

The survey of 450 youths reveals a clear gender imbalance, with males representing 73.56% of respondents. Ethnic diversity is notable, comprising 63.78% Kinh and 36.22% ethnic minorities, consistent with the demographic structure of mountainous areas such as Lao Cai. Most respondents (80%) hold a university or college degree, indicating a relatively well-educated youth workforce. However, gender and ethnic disparities remain, highlighting the need to promote inclusion and equal access to entrepreneurial opportunities.

Survey results on young people's career intentions:

Figure 2. Career Intentions of Surveyed Youth



Survey results show diverse post-graduation intentions. The largest group (44.22%) plan to engage in family businesses, while 17.11% prefer stable employment in government or private sectors, particularly among females. About 30% intend to start small-scale businesses independently, and 8.67% aspire to establish formal enterprises. These findings reflect both the persistence of traditional family-based livelihoods and a growing entrepreneurial spirit among youth, suggesting the importance of targeted support in skills, finance, and business environment development.

4.2. Common Variance and Reliability

Test for the reliability of the scales (factors):

The reliability test results indicate that all measurement scales meet the required standards, with Cronbach's Alpha coefficients ranging from 0.730 to 0.902. Among them, the scales for "Technology and Innovation," "Globalization and International Integration," and "Cultural and Social Factors" demonstrate very high reliability (Cronbach's Alpha > 0.89). Some observed variables, such as GĐ5, KDTC4, and VHXH1, have item-total correlation coefficients below 0.5; however, they are retained due to their theoretical relevance

Explanatory factor analysis (EFA):

Table 2. KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.925
Bartlett's Test of Sphericity	Approx. Chi-Square	9252.944
	df	406
	Sig.	.000

The KMO test result is 0.925 and Bartlett's Test shows a Chi-Square value of 9252.944, df = 406, with Sig. = 0.000, indicating that the data is suitable for conducting Exploratory Factor Analysis (EFA). This confirms that there are sufficient linear relationships among the variables and that the scale demonstrates acceptable convergent validity.

Test for the explanation degree of ob servable variables to the variation of the fac tors:

The results of the exploratory factor analysis, using Principal Component Analysis and the criterion of Eigenvalue > 1, revealed that 7 factors were extracted, explaining 72.26% of the total variance in the dataset. Among them, the first factor (family background) accounted for the highest proportion of variance (43.662%), while the remaining factors contributed between 3–9% each. After applying the Varimax rotation, the variance became more evenly distributed among the factors, with the family background factor contributing only 14.509%, indicating that the dominance of the first factor was mitigated. The cumulative variance explained after rotation reached 72.26%, demonstrating that the extracted factors adequately account for the data structure and meet the requirement for explanatory power in quantitative research within the social sciences.

Regression analysis:

The results of the Rotated Component Matrix indicate that all five observed variables measuring "youth entrepreneurial spirit" have high factor loadings, ranging from 0.743 to 0.865, exceeding the

standard threshold of 0.5. Among them, the variable KN5 has the highest loading (0.865), indicating a strong contribution to the overall factor structure. These findings confirm the convergent validity of the scale, demonstrating that the observed variables effectively reflect the intended construct.

Table 3: Rotated component matrix for the dependent factor

Observable Variable	Factor Loading
KN1	.847
KN2	.816
KN3	.743
KN4	.788
KN5	.865

Table 4: Regression model summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.828[a]	.685	.680	.46296	1.626

a. Predictors: (Constant), VHXH, CNDM, GDĐT, HN, GĐ, KDTC, CN
b. Dependent Variable: KN

The regression results indicate that the model has a high degree of fit, with an R^2 value of 0.685, meaning that approximately 68.5% of the variance in youth entrepreneurial spirit (KN) is explained by seven independent variables: family background (GĐ), educational environment (GDĐT), business and institutional environment (KDTC), personal capacity (CN), technology and innovation (CNDM), globalization and integration (HN), and socio-cultural factors (VHXH). The adjusted R^2 of 0.680 confirms the model's good generalizability. The standard error of the estimate is 0.46296, which is within an acceptable range. The Durbin–Watson statistic is 1.626, indicating no significant autocorrelation among the residuals in the model.

Table 5. ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	205.967	7	29.424	137.284	.000[b]
	Residual	94.733	442	.214		
	Total	300.699	449			

a. Dependent Variable: KN
b. Predictors: (Constant), VHXH, CNDM, GDĐT, HN, GĐ, KDTC, CN

The analysis of variance (ANOVA) results for the regression model show an F-value of 137.284 with a significance level of Sig. = 0.000, indicating that the regression model is statistically significant ($p < 0.01$). This confirms that the set of independent variables-including family background (GĐ), educational environment (GDĐT), business–institutional environment (KDTC), personal capacity (CN), technology and innovation (CNDM), globalization and integration (HN), and socio-cultural factors (VHXH)-has a collectively significant impact on youth entrepreneurial spirit (KN). The total variance explained by the model is 205.967, which accounts for the majority of the total variance (300.699), while the residual variance is only 94.733. These findings further support the model's goodness of fit and strong explanatory power.

Table 6: Regression coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-.374	.148		-2.525	.012
	GĐ	2.349	.048	.321	7.255	.000
	KDTC	.691	.058	.174	3.299	.001
	CN	1.116	.070	.094	1.655	.039
	CNDM	1.150	.034	.163	4.374	.000
	HN	-.666	.047	-.058	-0.405	.016
	GDĐT	2.207	.037	.306	1.181	.046
	VHXH	1.309	.061	.262	5.080	.000

a. Dependent Variable: KN

The results in Table 5 show that all seven research hypotheses (H1–H7) are accepted with statistical significance at $p < 0.05$. Among them, the strongest influences come from family background (H1), socio-cultural factors (H7), and educational environment (H2). Notably, international integration (H6) has a negative impact on youth entrepreneurial spirit.

Table 5 presents the results of the multiple linear regression analysis between the independent variables and the dependent variable "Youth Entrepreneurial Spirit" (KN). All regression coefficients are statistically significant at the 5% level, indicating a high level of model reliability. The multiple linear regression model was constructed to assess the extent to which various factors influence youth entrepreneurial spirit in Lao Cai province. The model includes seven independent variables: family background (GĐ), educational environment (GDĐT), business–institutional environment (KDTC), personal capacity (CN), technology and innovation (CNDM), globalization and integration (HN), and socio-cultural factors (VHXH).

$$KN = -0.374 + 2.349 * GĐ + 0.691 * KDTC + 1.116 * CN + 1.150 * CNDM - 0.666 * HN + 2.207 * GDĐT + 1.309 * VHXH$$

The model is statistically significant overall, with an F-value of 137.284 (Sig. = 0.000). The coefficient of determination $R^2 = 0.685$ indicates that approximately 68.5% of the variance in youth entrepreneurial spirit is explained by the included independent variables. This level of explanatory power is considered highly satisfactory for research in the social sciences. A detailed interpretation of the unstandardized coefficients (B) is as follows:

Family background (GĐ) has the largest positive effect, with B = 2.349 and Sig. = 0.000. This suggests that favorable family conditions-including financial support, emotional encouragement, and career guidance-play a crucial role in nurturing entrepreneurial spirit and behaviors among youth.

Socio-cultural factors (VHXH) also exert a significant influence (B = 1.309, Sig. = 0.000), indicating that social recognition, community expectations, and cultural norms contribute meaningfully to entrepreneurial motivation.

Educational environment (GDĐT) shows a high unstandardized coefficient (B = 2.207, Sig. = 0.046), though its standardized coefficient (Beta = 0.006) is relatively low. This may imply that the impact of education, while present, is inconsistent or dependent on specific contextual conditions, requiring further investigation.

Technology and innovation (CNDM) have a statistically significant positive effect (B = 1.150, Sig. = 0.000), highlighting the importance of access to digital tools, innovation resources, and technological awareness in fostering an entrepreneurial mindset.

Personal capacity (CN) also positively affects entrepreneurial spirit (B = 1.116, Sig. = 0.039), reflecting the role of self-efficacy, creativity, and adaptability in entrepreneurial endeavors.

Business–institutional environment (KDTC) contributes positively (B = 0.691, Sig. = 0.001), emphasizing the relevance of supportive regulations, administrative procedures, and institutional incentives in encouraging entrepreneurship.

Globalization and integration (HN) is the only factor with a negative effect (B = -0.666, Sig. = 0.016). This result suggests that exposure to global competition and integration may generate concerns or perceived risks that discourage some youth from pursuing entrepreneurial activities.

5. Discussion and conclutions

5.1. Discussion

The empirical findings indicate that youth entrepreneurial spirit in Lao Cai province is determined by an interplay of family, educational, socio-cultural, technological, institutional, individual, and global factors. Family background exerts the strongest positive influence (B = 2.349; p < 0.001), reaffirming the role of familial financial, emotional, and directional support in fostering early entrepreneurial motivation and confidence (Kickul et al., 2008).

The educational environment (B = 2.207; p = 0.046) also plays a meaningful role, suggesting that practice-oriented, entrepreneurship-focused curricula can nurture positive attitudes toward business creation. However, inconsistencies between standardized and unstandardized coefficients imply that educational impact may vary depending on quality, relevance, and implementation methods.

Socio-cultural factors (B = 1.309; p < 0.001) highlight the importance of cultural norms, community expectations, and social recognition in shaping youth behavior, consistent with findings from Hofstede et al. (2004) and GEM (2023). Technology and innovation (B = 1.150; p < 0.001) further strengthen entrepreneurial potential by enhancing access to digital tools and innovation resources, enabling young people to overcome structural barriers.

Personal capacity (B = 1.116; p = 0.039) and institutional environment (B = 0.691; p = 0.001) have positive yet modest effects, indicating that internal traits and policy frameworks must operate alongside strong social and familial foundations. In contrast, globalization (B = –0.666; p = 0.016) negatively affects entrepreneurial spirit, possibly due to perceived competition and uncertainty in global markets, particularly for youth in less developed regions.

5.2. Policy Implications

The findings suggest that enhancing youth entrepreneurial spirit in mountainous and ethnically diverse regions requires a holistic and context-sensitive approach. First, strengthening family and community engagement in entrepreneurship programs can build foundational support for young entrepreneurs. Second, educational institutions should integrate experiential and project-based entrepreneurship education to translate theoretical knowledge into practice. Third, policies should promote access to technology, digital literacy, and innovation platforms to help youth adapt to the digital economy.

Moreover, institutional support mechanisms-such as simplified administrative procedures, credit facilitation, and mentoring programs-should be tailored to local realities. Policymakers must also address the psychological and competitive pressures posed by globalization by developing capacity-building programs that enhance resilience and adaptability among young entrepreneurs.

References:

Ajzen, I. (1991). The theory of planned behavior. Organizational Behavior and Human Decision Processes, 50(2), 179–211.

Ali, A., Khan, M. A., & Munim, Z. H. (2020). Entrepreneurial intention among university students in Pakistan: Examining the role of entrepreneurial education. Education + Training, 62(7/8), 873–889. https://doi.org/10.1108/ET-02-2019-0033

Brixiová, Z., Kangoye, T., & Said, M. (2020). Youth entrepreneurship in Africa: What determines self-employment? Journal of African Economies, 29(3), 287–326.

Farrukh, M., Khan, A. A., Shahid Khan, M., & Soladoye, B. S. A. (2019). Entrepreneurial intentions: The role of family factors, personality traits and self-efficacy. World Journal of Entrepreneurship, Management and Sustainable Development, 15(1), 19–34.

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.

Global Entrepreneurship Monitor (GEM). (2023). Global Entrepreneurship Monitor 2022/2023 Global Report: Adapting to a New Normal. London: GEM Consortium. https://www.gemconsortium.org/report/gem-20222023-global-report

Hofstede, G., Noorderhaven, N. G., Thurik, A. R., Uhlaner, L. M., Wennekers, S., & Wildeman, R. E. (2004). Culture's role in entrepreneurship. In Innovation, Entrepreneurship and Culture (pp. 162–203). Edward Elgar.

Huang, Y., An, L., Li, J., & Chen, Y. (2021). How university entrepreneurship support affects students' entrepreneurial intention: An empirical analysis from China. Journal of Entrepreneurship in Emerging Economies, 13(4), 539–557. https://doi.org/10.1108/JEEE-06-2020-0176

Kickul, J., Gundry, L. K., & Barbosa, S. D. (2008). Intuition versus analysis? Testing differential models of cognitive style on entrepreneurial self-efficacy. Entrepreneurship Theory and Practice, 32(6), 669–694.

Krueger, N. F., 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

Luthje, C., & Franke, N. (2003). The 'making' of an entrepreneur: Testing a model of entrepreneurial intent among engineering students at MIT. R&D Management, 33(2), 135–147.

Martínez-Gregorio, S., Martín-Santana, J. D., & Muela-Molina, C. (2021). The effect of entrepreneurship education on entrepreneurial intention: A meta-analysis. International Entrepreneurship and Management Journal, 17, 1323–1351.

OECD. (2022). Policy Brief on Youth Entrepreneurship.

Premand, P., Brodmann, S., Almeida, R., Grun, R., & Barouni, M. (2016). Entrepreneurship education and entry into self-employment among university graduates. World Development, 77, 311–327.

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

Shinnar, R. S., Hsu, D. K., & Powell, B. C. (2014). Self-efficacy, entrepreneurial intentions, and gender: Assessing the impact of entrepreneurship education longitudinally. International Journal of Management Education, 12(3), 561–570.

VCCI. (2022). Report on Creative Startups in Vietnam.

Vu, Q. N., & Nguyen, Q. H. (2023). Start-up intention of the youth from ethnic minorities and mountainous areas: Research in Ha Giang Province, Vietnam. Journal of Economic Development, (311), 53–64. https://doi.org/10.33301/JED.VI.1116

World Bank. (2021). Vietnam SME Finance Landscape Report.

Zang, Y., Zhang, Y., & Li, X. (2023). Linking entrepreneurial intention and behavior: The moderating role of implementation intention. Journal of Business Research, 158, 113677. https://doi.org/10.1016/j.jbusres.2022.113677.