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Understanding College Students' Entrepreneurial Intention: A Case Study of Shanxi University of Finance and Economics

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Abstract

Purpose: This study investigates key factors influencing college students' entrepreneurial intentions, proposing a model where entrepreneurship education (EE), need for achievement (NA), perceived behavioral control (PBC), entrepreneurial self-efficacy (ESE), and emotional competence (EC) predict entrepreneurial intention (EI). It further evaluates an intervention design implementation (IDI) aimed at enhancing these intentions. **Research design, data and methodology:** Adopting a quantitative approach, the study validated its instrument using the Item-Objective Consistency Index (IOC) and Cronbach's alpha (n=40). Multiple linear regression was conducted on 200 valid responses from students at Shanxi University of Finance and Economics to test the hypothesized relationships. Subsequently, a 16-week IDI was carried out with 40 participants, and pre- and post-IDI outcomes were analyzed using paired-sample t-tests. **Results:** All five factors significantly influenced EI, with PBC having the strongest effect, followed by EC, NA, ESE, and EE. Post-IDI analysis showed significant improvements in all constructs. The greatest increase was in EI (+0.58), followed by ESE (+0.45), EE (+0.44), PBC (+0.42), NA (+0.41), and EC (+0.33). **Conclusions:** The IDI approach effectively enhanced students' entrepreneurial mindsets. Educational programs should incorporate targeted interventions to strengthen self-efficacy, emotional skills, and perceived control to foster entrepreneurship.

Keywords: Perceived Behavioral Control, Emotional Competence, Self-efficacy, Entrepreneurial Intention, Undergraduate Student

JEL Classification Code: A22, I23, L26, M10

1. Introduction

The term entrepreneurship first emerged in the early 18th century, referring to "middlemen" who acted as intermediaries without investing their own capital. Over time, the concept expanded to encompass planning, operations, organization, ownership of production, and risk-taking. Engaging in entrepreneurial activities contributes to employment generation, economic development, and increased productivity (Van Praag & Versloot, 2007). It is widely recognized as a key driver of national economic growth (Mokaya et al., 2012) and plays a critical role in industrial upgrading and structural economic transformation (Hathaway & Litan, 2014). Consequently, entrepreneurship is often viewed as a "panacea" for addressing socio-economic challenges such as unemployment (Thurik, 2003).

For university students, entrepreneurship involves creating businesses or studios based on their expertise, skills, and available resources. Through this process, students aim to generate economic and social value, gain wealth and status, and pursue personal aspirations. In China, the number of student entrepreneurs has risen with the support of the Internet, mobile technologies, and government incentives. However, the COVID-19 pandemic in 2020 disrupted global economic activities (China Macroeconomic Forum, 2020), delaying recruitment events and worsening employment prospects. As a result, the proportion of graduates starting businesses declined sharply (Mycos Institute, 2020). This

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downward trend continued in 2021-2022, with only 1.2% of graduates opting for entrepreneurship (Mycos Institute, 2022).

The pandemic created a socio-economic crisis that increased uncertainty and worsened the entrepreneurial environment. As a result, younger generations have become more risk-averse, gravitating toward stable careers and showing less entrepreneurial enthusiasm (Li & Li, 2023). Although university students today possess specialized knowledge and teamwork experience and benefit from policy support, they still face significant barriers such as limited capital, lack of entrepreneurial experience, academic pressures, and management challenges. Despite these difficulties, the rise of digital entrepreneurship has opened new opportunities, and institutional and governmental support has increased. Still, economic pressures, high failure rates, and a lack of practical skills remain substantial threats.

Entrepreneurship remains a promising solution to the employment challenges faced by students, but reducing the associated risks requires strong support from universities, government agencies, and other stakeholders. Among the factors influencing entrepreneurial behavior, entrepreneurial intention is regarded as the most critical (Lüthje & Franke, 2003). Recent research has identified psychological, emotional, and educational factors such as self-efficacy, emotional competence, and entrepreneurship education, as key predictors of students' entrepreneurial intentions (Abbas et al., 2021; Karimi & Makreet, 2023; Yan et al., 2022).

However, while much of the existing literature focuses on general student populations or final-year students, relatively few studies examine the early formation and development of entrepreneurial intention among freshmen or track its evolution over time. In addition, there is limited empirical evidence assessing how targeted interventions can strengthen intention-related variables in real educational contexts. This represents a notable gap in the current research.

Therefore, the primary objectives of this study are (1) to examine the effects of need for achievement, emotional competence, entrepreneurship education, entrepreneurial self-efficacy, and perceived behavioral control on college students' entrepreneurial intentions; and (2) to evaluate the effectiveness of a structured intervention designed to enhance these variables. The research focuses on freshmen and juniors from the School of Public Finance and Public Administration at Shanxi University of Finance and Economics, enabling the investigation of developmental differences. A key component of the study is the design and implementation of an intervention-based educational program (IDI) aimed at strengthening entrepreneurial-related attributes and, in turn, improving entrepreneurial intention. The study compares these variables before and after the intervention to assess its practical impact and inform future policy and curriculum development.

2. Literature Review

2.1 Entrepreneurial Intention

Entrepreneurial intention refers to an individual's belief in and willingness to pursue entrepreneurial goals (goal intention) as well as their plan to achieve them (implementation intention) (Thompson, 2009). Recent research highlights that entrepreneurial intentions are significantly influenced by tailored educational and psychological interventions, particularly when addressing youth in uncertain job markets (Abbes, 2024; Ooi & Loang, 2024).

Existing literature indicates that a wide range of factors contribute to the formation of entrepreneurial intention. Demographic characteristics (e.g., gender, age, education) are important, but recent studies have shown that psychological traits such as self-efficacy, need for achievement, and risk-taking propensity, play even more significant roles (Abbes, 2024; Yousaf et al., 2021). Contextual elements, like financial access and educational support, also critically shape intentions (Svotwa et al., 2022; Talukder et al., 2024).

This study narrows its focus to the entrepreneurial intentions of university students, aiming to unpack the psychological traits (self-efficacy, need for achievement, emotional competence) and contextual factors (entrepreneurship education, perceived behavioral control, financial support) that uniquely influence this demographic.

2.2 Entrepreneurship Education

Entrepreneurship education is a learning process that encompasses various components, including entrepreneurial knowledge, skills, attitudes, and personal character development (Hussain & Norashidah, 2015). It plays an indispensable role in shaping and promoting entrepreneurial attitudes and intentions (Pihie & Akmaliah, 2009; Thompson & Kwong, 2016). Today, entrepreneurship education is widely regarded as the most effective tool for fostering an entrepreneurial mindset and is essential to the growth and development of entrepreneurs (Saadat et al., 2021).

A substantial body of research supports the positive influence of entrepreneurship education on the entrepreneurial intentions of university students (Cui & Sun, 2019; Liu et al., 2019; Wang, 2018; Xu & Hao, 2019). It significantly shapes students' attitudes, intentions, and entrepreneurial behaviors (Otache et al., 2019). By providing students with structured opportunities to acquire entrepreneurial knowledge, develop business-related competencies, and enhance confidence in their ability to start ventures, entrepreneurship education directly strengthens their intention to engage in entrepreneurial activities. The

more relevant and experiential the educational exposure, the greater the likelihood of increased entrepreneurial motivation and self-efficacy. Based on the literature discussed above, the following hypothesis is proposed:
H1: Entrepreneurship education (EE) has a significant influence on entrepreneurial intention.

2.3 Need for Achievement

The need for achievement refers to an individual's strong desire to attain success in tangible, real-world terms. It can be described as a persistent and determined effort to reach ambitious goals while maintaining self-confidence (McClelland, 1987; Murray, 1938). As a fundamental motivational trait, it drives individuals to seek outcomes that reflect personal accomplishment.

This construct was introduced into entrepreneurship research as a key personality trait as early as the 1970s (Bandura, 1978). Recent empirical studies have reaffirmed its critical role in shaping entrepreneurial intentions. For instance, Yuniasanti et al. (2024) found a positive relationship between achievement motivation and entrepreneurial intention among Indonesian university students. Similarly, Lin et al. (2024) reported that both achievement motivation and entrepreneurial self-efficacy significantly predict entrepreneurial intention.

These findings suggest that individuals with strong need-for-achievement tendencies are more likely to set entrepreneurial goals, sustain effort under uncertainty, and maintain confidence in navigating startup challenges, thereby strengthening their intention to launch ventures. Based on the discussion above, the following hypothesis is proposed:
H2: The need for achievement (NA) has a significant influence on entrepreneurial intention.

2.4 Perceived Behavioral Control

Perceived behavioral control (PBC) is a core component of the Theory of Planned Behavior (TPB), reflecting an individual's perception of the ease or difficulty of performing a behavior (Ajzen & Fishbein, 1980). In the context of entrepreneurial intention, PBC is identified as one of the strongest predictors of whether individuals intend to pursue entrepreneurial activities.

Recent empirical studies continue to underscore its importance. For instance, Muda et al. (2025) found that PBC had the strongest standardized effect on entrepreneurial intention among Malaysian university students, stronger than subjective norms or attitudes. Similarly, Aga (2023) reported in Ethiopia that PBC not only had a significant direct influence on intention but also partially mediated the effect of entrepreneurship education.

These results suggest that when students perceive they have sufficient skills, resources, and autonomy, their motivation to initiate entrepreneurial activities increases significantly. Moreover, PBC may act as a key conduit through which education and institutional support amplify entrepreneurial motivation. Based on the review of existing literature, the following hypothesis is proposed:
H3: Perceived Behavioral Control (PBC) has a significant influence on entrepreneurial intention.

2.5 Emotional Competence

Emotional competence refers to an individual's ability to recognize, understand, manage, and express emotions effectively, including both intrapersonal and interpersonal emotional skills (Mayer et al., 1999). Beyond its known benefits for academic and career success, research has increasingly explored its role in entrepreneurship education and intention.

Recent studies among university students have reinforced emotional competence as a meaningful driver of entrepreneurial outcomes. For example, Nwibe and Ogbuanya (2024) found that emotional intelligence had a significant positive direct effect on entrepreneurial intention among Nigerian undergraduates, and that two self-efficacy dimensions, perceived competence and persistence, partially mediated this relationship. Similarly, González Ramos and Castillo Ávila (2023) reported that while emotional competence did not directly affect entrepreneurial intention among Colombian students, it significantly enhanced entrepreneurial self-efficacy, which in turn strengthened entrepreneurial intention in alignment with the Theory of Planned Behavior.

These findings suggest that emotional competence enhances students' belief in their entrepreneurial capabilities (self-efficacy), improves resilience and goal orientation, and fosters self-awareness, all factors that collectively elevate their intention to pursue entrepreneurial paths. Building upon the aforementioned findings, the following hypothesis is proposed:
H4: Emotional Competence (EC) has a significant influence on entrepreneurial intention.

2.6 Entrepreneurial Self-Efficacy

Self-efficacy is an individual's confidence in their own skills and abilities to initiate and complete tasks (Bandura, 1978). Within the Social Cognitive Career Theory framework, entrepreneurial self-efficacy (ESE) refers to the

belief in one's capacity to successfully start and manage a business (Le et al., 2023).

Recent studies underscore ESE as a critical predictor of entrepreneurial intention among university students. For example, Ye and Kang (2025) reported that entrepreneurial self-efficacy had a stronger direct effect on entrepreneurial intention than entrepreneurial attitude, and also partially influenced intention via attitudes, highlighting both direct and mediated pathways. Additionally, Adeniyi (2023) found that ESE mediates the impact of entrepreneurship education on startup readiness among Nigerian college students, indicating that higher self-efficacy enhances the translation of educational experience into practical entrepreneurial intent.

These empirical findings suggest that students with strong entrepreneurial self-efficacy not only believe in their ability to perform key entrepreneurial tasks but also leverage educational experiences more effectively, amplifying their intention to venture into entrepreneurship. Based on the existing literature, the following hypothesis is proposed:

H5: Entrepreneurial self-efficacy has a significant influence on entrepreneurial intention.

3. Research Methods and Materials

3.1 Research Framework

This study was conducted among undergraduate students at Shanxi University of Finance and Economics, with the objective of exploring the factors influencing college students' entrepreneurial intentions. To guide the development of the research framework, four well-established theoretical models from previous studies were referenced.

Wardana et al. (2020) constructed a theoretical framework to examine the relationship between entrepreneurship education and students' entrepreneurial mindset. Nabil et al. (2023) employed structural equation modeling to investigate the effects of personal traits, environmental conditions, and situational factors on entrepreneurial intention, using students from two Yemeni universities as their sample. Isaac et al. (2021) developed a theoretical framework grounded in the Theory of Planned Behavior (TPB) to explore the determinants of entrepreneurial intention among university students. Yuan et al. (2020) created a framework to examine how affective competence and entrepreneurial self-efficacy influence students' entrepreneurial intentions.

Drawing on these studies, this research integrates elements from the Theory of Planned Behavior, Entrepreneurial Event Theory, Self-Determination Theory, and the Economic Psychological Model to construct the conceptual framework illustrated in Figure 1.

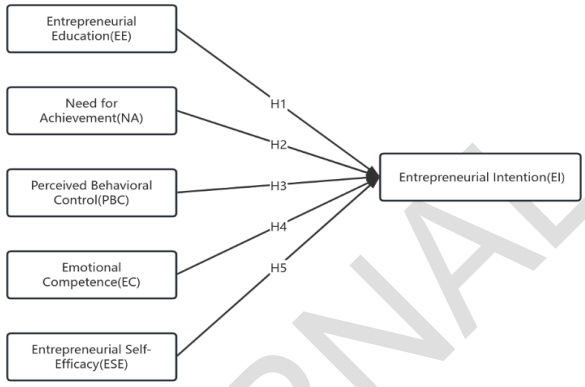

Figure 1: Conceptual Framework

3.2 Research Methodology

The research process consists of three distinct phases:

Phase I: The researcher first conducted semi-structured interviews with 25 students, randomly selected from the broader participant pool, to explore their entrepreneurial intentions and behaviors within the university context.

Phase II: The qualitative data from the interviews were reviewed and analyzed to inform the design of a structured questionnaire, developed based on the proposed conceptual framework and relevant literature. Content validation was performed with the assistance of academic experts. The finalized questionnaire was then distributed to all research participants. Multiple linear regression analysis was applied to test the proposed hypotheses. Supported hypotheses were retained, while those that did not meet the statistical significance criteria were excluded.

Phase III: An intervention design implementation (IDI) was carried out with a group of 40 students, comprising the original 25 interviewees and an additional 15 randomly selected participants. Upon completion of the intervention, the same questionnaire was administered again to this group. A paired-sample t-test was conducted to compare the pre- and post-intervention results. Additionally, 10 of the original 25 interview participants were randomly selected for follow-up interviews.

These three phases collectively ensured a comprehensive assessment of the research objectives and hypotheses.

3.3 Research Population, Sample Size, and Sampling Procedures

3.3.1 Research Population

The target population for this study consists of freshmen and juniors enrolled in the College of Finance and Public Economics at Shanxi University of Finance and Economics.

The college has a total of 642 students, comprising 328 juniors and 314 freshmen. For this research, 102 juniors and 106 freshmen were selected, resulting in a total sample of 208 students.

3.3.2 Sample Size

To verify the reliability of the questionnaire, the research process began with a pilot survey involving 40 students. After confirming the reliability through the pilot test, the researcher distributed questionnaires to all 208 selected participants. A total of 200 valid responses were collected and used to examine the relationships between the independent and dependent variables through multiple linear regression analysis. Finally, 40 students were randomly selected from the valid sample and voluntarily participated in the Intervention Design Implementation (IDI) phase.

3.3.3 Sampling Procedure

The researcher employed multiple sampling strategies across different stages of the study. The sampling procedures were as follows:

Sample 1: Interview Sampling

Twenty-five students were randomly selected from among the freshmen and juniors enrolled in the School of Finance and Public Economics at Shanxi University of Finance and Economics. These students participated in interviews to explore their entrepreneurial intentions and behaviors and to provide qualitative insights to support questionnaire development.

Sample 2: Pilot Test Sampling

Forty students from the first and third years were randomly selected to complete the draft questionnaire and provide feedback. This pilot survey was conducted to assess and verify the validity and reliability of the questionnaire.

Sample 3: Regression Analysis Sampling

A total of 208 students from the same cohort were randomly selected to complete the finalized questionnaire. After data screening, 200 valid responses were retained for multiple linear regression analysis to examine the relationships between variables.

Sample 4: IDI Sampling

In addition to the 25 students who participated in the initial interviews, another 15 students were randomly selected from those who completed the questionnaire. These 40 students volunteered to participate in the Intervention Design Implementation (IDI) phase.

Sample 5: Post-IDI Interview Sampling

Following the IDI, 10 students were randomly selected from the original 25 interview participants to be interviewed again. This phase aimed to qualitatively assess any changes in their entrepreneurial intentions and behaviors after the intervention.

3.4 Research Instruments

3.4.1 Questionnaire Design

The researcher designed the questionnaire through the following three steps:

Step 1: The questionnaire items were developed based on insights from relevant published studies and initial interview findings (Bigos & Michalik, 2020; Hussain & Norashidah, 2015; Ibrahim, 2019; Liu et al., 2018).

Step 2: The questionnaire was adapted and contextualized for Chinese university students to ensure cultural and academic relevance.

Step 3: The questionnaire underwent validation using the Item-Objective Congruence (IOC) method, with expert review to assess content validity.

3.4.2 Questionnaire Components

The questionnaire was divided into three parts:

Part 1: Basic Information

This section aimed to collect demographic data to provide a general overview of the participants' background.

Part 2: Independent Variables

This section addressed the study's independent variables, with specific items designed to measure entrepreneurial self-efficacy (5 items), entrepreneurship education (4 items), need for achievement (4 items), perceived behavioral control (4 items), and emotional competence (4 items).

Part 3: Dependent Variable

This section focused on the dependent variable, entrepreneurial intention, and included 10 items assessing students' intention to engage in entrepreneurial activities.

3.4.3 IOC Results

Content validity was evaluated using the Index of Item-Objective Consistency (IOC), which involves expert judgment on whether questionnaire items align with the study objectives. Four Chinese experts were invited for this purpose: two university instructors specializing in career guidance and two senior scholars from the National College Students' Employment Service Platform with expertise in student entrepreneurship.

The IOC scale used in this evaluation followed the standard criteria: +1 = consistent, 0 = questionable, and -1 = inconsistent. In this study, all questionnaire items received IOC scores exceeding the threshold value of 0.67. As a result, all items were retained for use in the final version of the questionnaire.

3.4.4 Reliability and Validity

Cronbach's Alpha (CA) was used to assess the reliability of the questionnaire. A pilot survey was conducted with 40 randomly selected participants. As shown in Table 1, all constructs demonstrated acceptable internal consistency, with CA values exceeding the 0.70 threshold (Nunnally & Bernstein, 1994). Specifically, reliability scores were: entrepreneurship education (0.814), need for achievement (0.839), perceived behavioral control (0.891), emotional competence (0.881), entrepreneurial self-efficacy (0.851), and entrepreneurial intention (0.952).

Table 1: Pilot Test Result (n=40)

Variable	No. of Items	Cronbach's Alpha	Strength of Association
Entrepreneurship Education	4	0.814	Good
Need for Achievement	4	0.839	Good
Perceived Behavioral Control	4	0.891	Good
Emotional Competence	4	0.831	Good
Entrepreneurial Self-Efficacy	5	0.851	Good
Entrepreneurial Intention	10	0.952	Excellent

4. Results and Discussion

4.1 Results

4.1.1 Demographic Information

The demographic characteristics of the entire study population (n=200) as well as the selected group of students who participated in the IDI (n=40) are presented in Table 2.

Table 2: Demographic Information

Demographic and General Data (n=200)		Frequency	Percentage
Gender	Male	88	44.0
	Female	112	56.0
Age	18-20 years old	131	65.5
	21-23 years old	63	31.5
	Over 24 years old	6	3.0
Major	Public Finance	62	31.0
	Taxation	78	39.0
	National Economy Management	60	30.0
Entrepreneurial Experience	Yes	48	24.0
	No	152	76.0
Attitude towards entrepreneurship	Very interested	72	36.0
	Somewhat interested	72	36.0
	Unsure	27	13.5
	Not very interested	27	13.5
	Not interested at all	2	1.0
IDI Participants (n=40)		**Frequency**	**Percentage**
Gender	Male	20	50.0
	Female	20	50.0
Age	18-20 years old	24	60.0
	21-23 years old	16	40.0
	Over 24 years old	0	0.0
Major	Public Finance	14	35.0
	Taxation	16	40.0
	National Economy Management	10	25.0
Entrepreneurial Experience	Yes	6	15.0
	No	34	85.0
Attitude towards Entrepreneurship	Very interested	14	35.0
	Somewhat interested	13	32.5
	Unsure	7	17.5
	Not very interested	5	12.5
	Not interested at all	1	2.5

Note: Constructed by the Author

4.1.2 Results of Multiple Linear Regression

Multiple linear regression (MLR) was used to test the hypotheses. Variance inflation factor (VIF) analysis showed that VIF values are all below the threshold of 5, indicating no multicollinearity among the variables (Hair et al., 1995).

As shown in Table 3, the p-values for all five independent variables were below 0.05, and the overall model was statistically significant with an F-value of 32.5 (df = 5,194), exceeding the critical value of 1.98. The R^2 value was 0.456, indicating that 45.6% of the variance in entrepreneurial intention (EI) is explained by the model.

All standardized regression coefficients were positive, confirming a positive correlation between the independent variables and EI. Among the predictors, PBC had the strongest effect (β = 0.282), followed by EC (β = 0.189), NA (β = 0.186), ESE (β = 0.168), and EE (β = 0.131), which had the least effect. These results support hypotheses H1 through H5.

Table 3: The MLR Results on Entrepreneurial Intention (n=200)

Variable	Standardized Coefficients Beta Value	t-value	p-value	VIF	R^2
Entrepreneurship Education	0.131	1.991	.048*	1.53	0.456
Need for Achievement	0.186	3.096	.002*	1.28	
Perceived Behavioral Control	0.282	4.726	<.001*	1.27	
Emotional Competence	0.189	3.061	.003*	1.36	
Entrepreneurial Self-Efficacy	0.168	2.486	.014*	1.63	

Note: p-value <.05*

Following this, the Intervention Design Implementation (IDI) phase was conducted to test the following hypotheses:

H6: There is a significant difference in entrepreneurship education (EE) between the pre-IDI and post-IDI stages.

H7: There is a significant difference in need for achievement (NA) between the Pre-IDI and Post-IDI stages.

H8: There is a significant difference in perceived behavioral control (PBC) between Pre-IDI and Post IDI

stages.

H9 There is a significant difference in emotional competence (EC) between Pre-IDI and Post IDI stages.

H10: There is a significant difference in entrepreneurial self-efficacy (ESE) between Pre-IDI and Post-IDI stages.

H11: There is a significant difference in entrepreneurial intention (EI) between the pre-IDI and post-IDI stages.

4.2 IDI Intervention Stage

The Intervention Design Implementation (IDI) was a 16-week program aimed at enhancing participants' development in entrepreneurship education (EE), need for achievement (NA), perceived behavioral control (PBC), emotional competence (EC), and entrepreneurial self-efficacy (ESE), with the ultimate goal of increasing their entrepreneurial intentions. Table 4 presents the timeline of the IDI program along with the corresponding outcomes of the intervention.

Table 4: Process and Results of IDI

No.	Time and Duration	Intervention Keywords	Outcomes
1	Week 1-2 80 hours	Literature Review, Team Formation, Goal Setting, Interviews, SWOT Analysis	Participants analyzed recent employment and entrepreneurship trends, formed teams, set SMART goals, and contributed to SWOT analysis and questionnaire design through interviews.
2	Week 3-4 8 hours	Group mentoring	Gained understanding of entrepreneurship and key factors; conducted personalized SWOT analyses and expressed entrepreneurial aspirations.
3	Week 5-9 20 hours	Practical course	Participated in entrepreneurship simulations; improved practical and communication skills; some showed increased entrepreneurial intention.
4	Week 10-14 14 hours	Individual counseling	Developed entrepreneurial skills through mentorship; set and refined specific goals using SWOT and career assessments.
5	Week 15-16 40 hours	Interview and summary	Participants submitted final reports summarizing their learning, and reflected on how key factors influenced their entrepreneurial intentions.

4.3 Results Comparison between Pre- and Post-IDI

To evaluate the effectiveness of the intervention, the researchers conducted a paired-sample t-test on all six variables. This analysis compared the participants' scores before and after the IDI phase to determine whether significant differences existed. The detailed comparison results are presented in Table 5.

Table 5: Paired-sample T-test Results

Variable		Mean	SD	t-value	p-value
Entrepreneurship Education	Pre-IDI	3.48	0.824	-2.15	0.038
	Post-IDI	3.84	0.766		
Need for Achievement	Pre-IDI	3.42	0.881	-2.37	0.023
	Post-IDI	3.83	0.723		
Perceived Behavioral Control	Pre-IDI	3.38	1.043	-2.07	0.046
	Post-IDI	3.80	0.773		
Emotional Competence	Pre-IDI	3.31	0.941	-2.14	0.038
	Post-IDI	3.70	0.939		
Entrepreneurial Self-Efficacy	Pre-IDI	3.08	0.891	-2.16	0.037
	Post-IDI	3.53	0.978		
Entrepreneurial Intention	Pre-IDI	3.03	1.029	-3.01	0.005
	Post-IDI	3.61	0.928		

As can be seen from Table 5, EE in the post-IDI stage ($M = 3.84$, $SD = 0.766$) is higher than in the pre-IDI stage ($M = 3.48$, $SD = 0.766$); t-value = -2.15, $p < 0.05$. The mean difference is 0.36. Therefore, hypothesis 6 is supported.

There is an increase in the NA in the post-IDI stage ($M = 3.83$, $SD = 0.723$) as compared to the pre-IDI stage ($M = 3.42$, $SD = 0.881$); t-value = -2.37, $p < 0.05$. The mean difference is 0.41. Therefore, hypothesis 7 is supported.

There was an improvement in PBC in the post-IDI stage ($M = 3.80$, $SD = 0.773$) as compared to the pre-IDI stage ($M = 3.38$, $SD = 1.043$); t-value = -2.07, $p < 0.05$. The mean difference was 0.42. Therefore, hypothesis 8 is supported.

There is a significant increase in EC in the post-IDI stage ($M = 3.70$, $SD = 0.939$) as compared to the pre-IDI stage ($M = 3.31$, $SD = 0.941$); t-value = -2.14, $p < 0.05$. The mean difference is 0.39. Therefore, hypothesis 9 is supported.

There is a significant increase in ESE in the post-IDI stage ($M = 3.53$, $SD = 0.978$) as compared to the pre-IDI stage ($M = 3.08$, $SD = 0.978$); t-value = -2.16, $p < 0.05$. The mean difference is 0.45. Therefore, hypothesis 10 is supported.

There is a significant increase in the level of optimism in the post-IDI stage ($M = 3.61$, $SD = 0.928$) compared to the pre-IDI stage ($M = 3.03$, $SD = 1.029$); t-value = -3.01, $p < 0.05$. The mean difference is 0.58. Therefore, hypothesis 11 is supported.

The quantitative results presented above indicate that there was a significant change in the pre- and post-IDI phases for each variable, and Hypotheses 6-11 are supported by the quantitative data.

5. Conclusions and Recommendation

5.1 Conclusions

This study aimed to examine the key factors influencing entrepreneurial intention among university students and to evaluate the effectiveness of a multi-phase intervention designed to enhance these factors. In light of ongoing economic challenges, including those amplified by the COVID-19 pandemic, and the rising number of college graduates, entrepreneurship is increasingly seen as a viable path for self-employment and economic contribution. Understanding how to foster entrepreneurial intention is thus of significant practical and academic value.

Grounded in established theories and prior research, the study proposed a conceptual model comprising five independent variables: entrepreneurship education (EE), need for achievement (NA), perceived behavioral control (PBC), emotional competence (EC), and entrepreneurial self-efficacy (ESE), with entrepreneurial intention (EI) as the dependent variable. Data were collected from 200 undergraduate students using a validated questionnaire. Multiple linear regression analysis revealed that all five factors significantly influenced EI ($p < 0.05$), with PBC exerting the strongest effect, followed by NA, EC, ESE, and EE.

To explore how these factors could be enhanced in practice, a 16-week Intervention Design Implementation (IDI) was conducted. The IDI included group mentoring, entrepreneurship simulations, individual counseling, and reflective activities. Results from the paired-sample t-test analysis demonstrated statistically significant improvements in all six variables after the intervention, with entrepreneurial intention increasing most notably (mean difference = 0.58, $p = 0.005$).

These findings are consistent with recent studies showing that perceived behavioral control plays a dominant role in predicting entrepreneurial intention (Aga, 2023; Muda et al., 2025). Similarly, emotional competence has been shown to indirectly influence intention by enhancing entrepreneurial self-efficacy (Nwibe & Ogbuanya, 2024), while need for achievement and self-efficacy act as strong cognitive and motivational enablers (Talukder et al., 2024; Ye & Kang, 2025). Moreover, entrepreneurship education, while having the weakest direct effect, still contributes meaningfully when reinforced through experiential learning and support systems (Abbes, 2024; Adeniyi, 2023).

Overall, the study confirms that entrepreneurial intention is shaped by an integrated set of cognitive, emotional, and motivational drivers. The findings also demonstrate that interventions combining educational content, hands-on experience, and psychological development can effectively enhance students' entrepreneurial preparedness. These results provide updated empirical support for institutional strategies that promote entrepreneurship in higher education, particularly when designed to build perceived capability, emotional resilience, and achievement motivation, thus setting the stage for the practical recommendations presented in the next section.

5.2 Recommendations

To enhance college students' entrepreneurial intentions, it is essential to provide them with more targeted guidance, support, and motivation. Based on the findings of this study, the following recommendations are proposed to strengthen each of the five identified influencing variables:

First, entrepreneurship education (EE) should be made more experiential, integrated, and student-centered. While theoretical courses provide foundational knowledge, universities should focus on active learning strategies such as simulation-based modules, design thinking workshops, and start-up internships. These experiential methods can deepen understanding and increase student engagement. Curricula should also incorporate real-world case studies and interactive mentoring to bridge the gap between theory and practice.

Second, to enhance need for achievement (NA), institutions should cultivate goal-oriented learning environments that challenge students to pursue high standards. This can be achieved by organizing structured entrepreneurship competitions, milestone-based project grants, and innovation awards. Publicly recognizing student accomplishments not only promotes motivation but also builds an internal drive toward excellence.

Third, perceived behavioral control (PBC) can be improved by ensuring students feel capable and supported in their entrepreneurial efforts. Universities and government agencies should simplify access to entrepreneurial resources such as start-up capital, workspace, legal guidance, and mentorship while offering step-by-step toolkits or incubation pathways that guide students through business initiation. This removes psychological barriers and strengthens their belief in their ability to execute entrepreneurial tasks.

Fourth, enhancing emotional competence (EC) requires building students' emotional resilience and interpersonal skills. Universities should embed emotional intelligence training and reflective practices within entrepreneurship programs and offer individual coaching or group counseling that fosters self-awareness, empathy, stress management, and emotional regulation. These are critical soft skills that enable students to cope with uncertainty and team dynamics during their entrepreneurial journey.

Fifth, entrepreneurial self-efficacy (ESE) should be fostered by helping students build small, successful experiences that reinforce their confidence. Institutions

should implement incremental venture-building tasks, peer mentoring systems, and alumni entrepreneur panels, allowing students to learn from relatable role models and gradually strengthen their confidence in entrepreneurial abilities.

Together, these targeted strategies can reinforce the psychological, cognitive, and contextual drivers of entrepreneurial intention, enabling universities to create a more supportive and empowering entrepreneurial ecosystem for their students.

5.3 Limitation and Further Study

Due to limitations in research conditions, the participants in this study were all students from Shanxi University of Finance and Economics. This sample constraint may have resulted in an uneven distribution in terms of regional, industrial, and demographic characteristics such as age, which could affect the generalizability of the findings. Additionally, the study focused on a limited number of variables and could not fully capture the wide range of dimensions that influence college students' entrepreneurial intentions. As such, the conclusions drawn from this research should be interpreted within the context of these limitations.

Although several studies have examined the factors affecting college students' entrepreneurial intentions, this topic remains complex, involving numerous interrelated elements that are often influenced by broader socio-economic conditions and policy environments. Future research should aim to explore additional external factors that may impact entrepreneurial intention, including economic trends, institutional support systems, and cultural influences. Moreover, further investigation is needed to understand the transition from entrepreneurial intention to actual entrepreneurial behavior, which remains a critical gap in current literature. Longitudinal studies or mixed-methods approaches may provide deeper insights into how intentions are translated into real-world entrepreneurial actions.

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