

Relationship Between Perceived Social Support, Entrepreneurial Passion, and Entrepreneurial Intention Among Cross-Cultural Youth: A Delphi and Empirical Analysis

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Abstract This study uses Delphi and empirical analysis to examine the relationship between perceived social support, entrepreneurial passion, and entrepreneurial intention among cross-cultural youth. Valid scales for entrepreneurial passion, perceived social support, and entrepreneurial intention were developed and refined through 12 expert feedback. 200 Chinese students tested the scales through exploratory factor analysis and confirmatory factor analysis. Cronbach's α for perceived social support is 0.845, for entrepreneurial passion is 0.870, and for entrepreneurial intention is 0.860. Researchers conducted a difference analysis, correlation analysis, and structural equation test on 287 Chinese students in Thailand. The results showed that the structural equation test showed a good fit ($\chi^2/df=2.085$, CFI=0.981, TLI=0.975, RMSEA=0.060, SRMR=0.032), perceived social support had a significant positive impact ($\beta=0.26$, $t=4.72$, $P<0.001$) on entrepreneurial intention, and entrepreneurial passion played a partial mediating effect (42.22%) between perceived social support and entrepreneurial intention. Support from family, friends, and significant others enhances entrepreneurial passion and boosts entrepreneurial intention. Individuals without entrepreneurial experience perceive higher levels of social support than those with experience, indicating the need for focused support in entrepreneurship education.

Keywords Perceived social support; Entrepreneurial passion; Entrepreneurial intention; Cross-culture; Youth

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Introduction

Entrepreneurship is force driving economic growth and social development. In recent years, with the rapid changes in the global economic environment and the continuous increase in innovative entrepreneurial activities, more and more young people have chosen to embark on entrepreneurship. However, entrepreneurship requires not only creative ideas and business skills but also the support of the external environment and the driving force of personal internal motivation. Especially among college students, the formation and realization of entrepreneurial intentions are affected by many factors. As the backbone of society in the future, the entrepreneurial activities of college students will not only affect their personal career development but also have a profound impact on the economic vitality and innovation ability of the entire society. Therefore, an in-depth exploration of the factors affecting college students' entrepreneurial intentions has essential theoretical and practical significance (Hisrich et al., 2017).

Perceived social support has been considered an important influencing factor in entrepreneurship research. Social support includes emotional support from family, friends, and significant others, as well as practical help and resources. Research shows that perceived social support can significantly reduce entrepreneurs' stress and anxiety during the entrepreneurial process and enhance their entrepreneurial confidence and passion (Koellinger et al., 2007; Pushkarskaya et al., 2021). For example, when college students encounter difficulties and challenges in starting a business, encouragement, and support from family and friends can help them overcome psychological barriers and increase their confidence in success. In addition, practical support such as entrepreneurial guidance, resource provision, and financial assistance also alleviates the difficulties in the early stages of entrepreneurship to a great extent, allowing entrepreneurs to focus more on business development and innovation. Perceived social support plays a dual role in the entrepreneurial process of emotional support and resource provision and important in forming entrepreneurial intentions.

As a positive psychological state, entrepreneurial passion also impacts the formation and development of entrepreneurial intentions. Entrepreneurial passion can stimulate creativity and motivation and help them maintain a positive attitude and tenacity in facing difficulties (Moghtader & Shamloo, 2019; Grichnik, 2010). Entrepreneurial passion usually manifests as a high commitment to entrepreneurial activities. This emotional drive enables entrepreneurs to maintain motivation and focus on long-term efforts and setbacks. In addition, entrepreneurial passion can also enhance entrepreneurs' sense of self-efficacy, making them more determined to believe that they can overcome difficulties and achieve their entrepreneurial goals. This positive psychological state not only helps to enhance entrepreneurial intentions but also improves the sustainability and success rate of entrepreneurial activities. Therefore, understanding the role of entrepreneurial passion in the entrepreneurial process is significant for stimulating and maintaining college students' entrepreneurial intentions.

Research objective

To create valid youth entrepreneurial passion scale, youth perceived social support scale and youth entrepreneurial intention scale.

To analyze the impact of different demographic characteristics (such as gender, age, education level, entrepreneurial experience, and birthplace) on perceived social support, entrepreneurial passion, and entrepreneurial intention.

To test the direct impact of perceived social support on entrepreneurial intention.

To explore the mediating role of entrepreneurial passion between perceived social support and entrepreneurial intention.

Literature review

Perceived social support and entrepreneurial intention

Entrepreneurial activity is a behavior that is highly dependent on the environment. To a large extent, individuals rely on their perceptions rather than objective reality to adopt a confident “self-view” of their situation and overestimate their entrepreneurial prospects (Koellinger et al., 2007). Perceived social support in entrepreneurship represents the self-feeling of emotional and practical help from family and friends around the individual (Zhou et al., 2020). In contrast, objective support reflects the physical resources the surrounding environment provides (Li & Zhang, 2018). Subjective support embodies emotional support (Wang & Chen, 2019). Both represent the individual’s subjective normative perception, and both bring a signal to the individual: the surrounding people recognize their entrepreneurial activities (Li & Zhang, 2018; Wang & Chen, 2019). Entrepreneurs will evaluate this support positively, which reduces the entrepreneurial pressure individuals feel, thereby promoting the development of entrepreneurial intention (Zhou et al., 2020). The entrepreneurial intention will actively guide entrepreneurial behavior so that individuals will adopt entrepreneurial behaviors (Wang & Chen, 2019). Individuals face difficulties that cannot be solved now (Zhou et al., 2020). When they can get support from the surrounding environment to solve the problem, the individual will actively overcome the difficulties (Zhang & Li, 2019). When individuals can use social support, they can solve the problems they face in the early stages of entrepreneurship, thereby improving entrepreneurial behavior. When individuals receive respect, resources, and support, their entrepreneurial confidence will be significantly enhanced (Pushkarskaya et al., 2021). Research shows that increasing confidence in one’s business and entrepreneurial self-efficacy will significantly improve individual entrepreneurial behavior (Boyd & Vozikis, 1994). Individuals perceive that the group within the interpersonal relationship provides financial support during the critical and challenging period of entrepreneurship and provides entrepreneurial knowledge, skills, and experience to help and support them (St-Jean & Audet, 2012). It can help potential entrepreneurs form a clear understanding of entrepreneurship, boost their confidence in success, sustain entrepreneurial activities, and anticipate reduced obstacles, enabling them to take decisive entrepreneurial actions (Fayolle & Gailly, 2015).

Most people are embedded in their society, culture, and environment, and those who perceive their surroundings as supportive of entrepreneurship demonstrate a higher level of perceived behavioral control in the relationship between perceived social support and entrepreneurial intention (Solevik, 2013), Neneh (2022) found that perceived social support significantly affects entrepreneurial behavior. Hossain et al. (2020) found that social support and self-efficacy can affect individuals’ entrepreneurial intentions. Liu et al. (2022) proposed that when individuals perceive that entrepreneurship has lost social support, they will fear failure, thereby reducing the individual’s entrepreneurial tendency. The individual will not engage in entrepreneurial behavior without adequate perceived social support. Existing research shows that perceived social support has a significant impact on entrepreneurial intention.

The mediating role of entrepreneurial passion

When entrepreneurs perceive the support of family, friends, and other influential individuals, they will improve their happiness and reduce individual stress, and individuals will do things they identify with. The cognitive evaluation theory in the emotion theory explains that individuals produce their cognitive evaluations of certain environmental stimuli, which will affect their own emotions, and emotions will further affect individual behavioral outcomes. Emotions are the product of the interaction between people and the environment. In emotional activities, people accept the impact of stimulating environmental events on themselves and regulate their reactions to stimuli. When individuals perceive and anticipate a higher degree of social support, they will better understand the activity of entrepreneurship. As an internal positive psychological reality, perceived social support will affect people’s external behavior and long-term development. The individual’s behavior will be

affected by psychological emotions, and positive emotions will bring positive behaviors (Moghtader & Shamloo, 2019). Especially for entrepreneurial individuals, starting a business is uncertain and involves high risks. Irrational emotions, such as entrepreneurial passion, are likely to influence their entrepreneurial behavior (Grichnik, 2010).

After an entrepreneurial individual perceives the stimulation of support from family, friends, and other essential individuals when establishing a new business, the individual will selectively evaluate this support. Perceiving that there are fewer future entrepreneurship obstacles, one evaluates that supporting this stimulus benefits self-development, passion arises, and positive emotions drive entrepreneurial behavior (Newman et al., 2019). Perceived social support encourages individuals to view starting a business as “less stressful and easier to manage”, which in turn generates passion. Entrepreneurial passion can improve entrepreneurial self-efficacy (Li et al., 2022). Entrepreneurial self-efficacy represents the degree of confidence an individual believes in successfully starting a business and the belief that they can complete entrepreneurial activities (Zhao et al., 2005). Individuals will adopt behaviors corresponding to emotions, and entrepreneurial behaviors, to further evaluate this behavior later. Entrepreneurial individuals incorporate the creation of enterprises into their self-identity (Farmer et al., 2011). To achieve the goal of creating their enterprises, individuals will adjust their behavior and adopt corresponding entrepreneurial behaviors to make their behavior consistent with their goals (Boyd & Vozikis, 1994). Secondly, when entrepreneurial individuals recognize the expected support from family, friends, and other essential individuals for the development and growth of their business, they produce an evaluation: The expected obstacles to developing a business are minor and will bring positive emotions accordingly (Gielnik et al., 2015). Developing a business belongs to the positive emotions after establishing the business, and the passion for developing can reduce the entrepreneur’s fear of failure (Zhou et al., 2022). Entrepreneurial individuals perceive the support of interpersonal relationships around them, which can improve their positive evaluation of the development and growth of the enterprise. This evaluation is transformed into emotion—specifically, the development of passion—which then guides self-driven entrepreneurial behavior.

Research methodology

Population and sample

This paper uses literature analysis to construct a structured questionnaire for the evaluation system of entrepreneurial intention. Researchers use the modified Delphi method to send it to relevant experts. Researchers establish the final version of the evaluation items by integrating the experts’ opinions. Experts and scholars are the research samples of this study, and there are three groups: corporate management, business education scholars, and government business officials.

The researcher invited 12 experts, including 3 business management experts, 7 business education scholars, and 2 government department work-related injuries. Considering cross-cultural differences in gender and location, the numbers were distributed evenly across genders and regions as much as possible. Among the 12 experts, 8 are male and 4 are female; 7 are from China, 5 are from Thailand.

To ensure the validity and reliability of the main study results, the pre-study of this study used a different sample from the main study (Creswell, 2014). Considering the scarcity of the main study sample, this study selected a group with characteristics similar to the pre-study sample (Hertzog, 2008). The sample statistics of the pre-study and main study are as follows (Table 2).

The pre-study samples were collected online at a university in Ningbo, China, using stratified sampling. The results from 200 samples indicated a higher proportion of females (60%) than males (40%). Most participants were aged 19-25 (60%) and were primarily senior undergraduates (40%). Most had no entrepreneurial experience (70%), and most were from southern China (40%).

The main study samples were collected from Chinese students at a university in Thailand using stratified sampling. From 287 samples, females again outnumbered males (55.2% vs. 44.8%). Most

were aged 19-25 (54.9%) and were predominantly senior undergraduates (34.7%). Most participants had no entrepreneurial experience (65.3%) and were primarily from central China (39.9%).

Table 1 Delphi research samples

Expert	Identity	Gender	Location	n
Corporate Management Experts	Everyone has over 10 years of experience in corporate management, cross-culture companies or related industries.	Male (2); Female (1)	China (2); Thailand (1)	3
Business Education Scholars	Professors, associate professors, or researchers specialising in business administration, corporate management, and related fields. Everyone has published high-level academic papers and participated in significant research projects.	Male (5); Female (2)	China (4); Thailand (3)	7
Government Business Officials	Middle to senior officials in government business management departments, particularly those with extensive practical experience and an understanding of the youth entrepreneur or entrepreneurial intention.	Male (1); Female (1)	China (1); Thailand (1)	2

Table 2 Pre-study and main study samples

Variables	Pre-Study		Main Study		
	n	prop.(%)	n	prop.(%)	
Gender	Male	83	41.50	129	44.47
	Female	117	58.50	158	55.21
Age	14-18	21	10.50	28	9.72
	19-25	119	59.50	159	54.86
	26-30	40	20.00	72	25.00
	31-35	20	10.00	28	9.72
Education	Lower-level undergraduate	61	30.50	72	25.00
	Senior undergraduate	80	40.00	100	34.72
	Master	40	20.00	72	25.00
	Doctoral	19	9.50	43	14.93
Experience	Yes	60	30.00	100	34.72
	No	140	70.00	187	65.28
Birthplace	Southern	80	40.00	100	34.72
	Central	70	35.00	115	39.93
	Western	50	25.00	72	25.00

Research instrument

The demographic variable scale has five parts: Gender (GEN), Age (AGE), Education (EDU), Entrepreneurial Experience (EXP), and Place of Birth (BRP). Among them, gender includes male and female. The research object of this article is youth. According to the definition of youth in “The Middle- and Long-term Youth Development Plan (2016-2025)” of the State Council of the People’s Republic of China (2017), that is, youth between 14 and 35 years old. Therefore, the ages in this study include 14-18 years old, 19-25 years old, 26-30 years old, and 31-35 years old. Since this study’s respondents are all students, Education includes lower-level undergraduate students (first and second

years of undergraduate studies), senior undergraduate students (third and fourth years of undergraduate students), Master students are currently studying, and doctoral students are currently studying. Entrepreneurial experience consists of those with entrepreneurial experience and those without entrepreneurial experience. They divide place of birth according to China's economic zones, which include southern China, central China, and western China.

The Youth Perceived Social Support Scale adopts the revised Multi-dimensional Scale of Perceived Social Support (the revised MSPSS) used by Wongpakaran and Wongpakaran (2012). The Youth Perceived Social Support Scale has a total of 12 items and a total of 3 subscales, of which the Significant Others scale has a total of 4 items, the Family scale has a total of 4 items, and the Friends scale has four items. Since the survey subjects of this study focus on Chinese students in Thailand, this study defines the support of Significant others as school teachers, etc. The Youth Perceived Social Support Scale adopts a seven-point Likert-type scale, with 1 is strongly disagree, 2 is disagree, 3 is neutral, 4 is agree, 5 is strongly agree. The higher the score, the stronger the youth perceived social support.

The Youth Entrepreneurial Passion Scale adopts the entrepreneurial passion scale designed by Cardon et al. (2013). The scale has a total of 13 items and a total of 3 subscales. Among them, the Inventing Scale has 5 items, the Founding Scale has 4 items, and the Developing Scale has 4 items. The Youth Entrepreneurship Passion Scale adopts a five-point Likert-type scale, with 1 is strong disagreement, 2 is disagree, 3 is neither agree nor disagree, 4 is agree, and 5 is strongly agree. The higher the score, the stronger the entrepreneurial passion of the youth.

The Youth Entrepreneurial Intention Scale refers to the individual entrepreneurial intention scales of Fayolle and Liñán (2014) and Kusmintarti et al. (2016). It was appropriately revised based on the background of Chinese students in Thailand to form the scale of entrepreneurial intention used in this study. There are 5 items in the Youth Entrepreneurship Intention Scale, using a five-point Likert-type scale, with 1 is strongly agree, 2 is agree, 3 is neither agree nor disagree, 4 being disagree, and 5 being strongly disagree. The lower the score, the higher the youth's entrepreneurial intention.

Results

Delphi analysis

The research conducted three rounds of Delphi surveys to gather expert opinions on the youth's entrepreneurial intentions, passion, and perceived social support. In each round, experts from corporate management, business education, and government sectors provided feedback on the importance and clarity of various evaluation items. Researchers analyzed the results of each round to determine the level of consensus among experts, aiming to refine and validate the evaluation framework. Table 3 presents the results of the three rounds.

Table 3 shows that the expert's assessment of the importance of the questions has improved in each round. From the first round to the second round, the number of questions with a standard deviation of less than 1.0 increased from 27 to all, the number of questions with a mode of 5 increased from 23 to 24, the number of questions with an interquartile range of less than 0.6 risen from 16 to 26, and the number of questions with a coefficient of variation of less than 0.25 increased from 28 to 29. In the third round, the average importance score of all questions was higher than 4.0; the standard deviation was less than 1.0; the number of questions with a mode of 5 increased to 27, and the number of questions with an interquartile range of less than 0.6 increased to all. The number of questions with a coefficient of variation of less than 0.25 also increased to all. These changes show that through the round-by-round feedback and adjustment of the Delphi method, the expert's assessment of the importance of the questions gradually converged, and the recognition of the importance of the questions continued to increase and finally reached a highly consistent evaluation result.

Table 3 Results of three rounds of Delphi analysis

Item	M	SD	Mo	QD	CV	Item	M	SD	Mo	QD	CV
1st Round											
1S1	4.4	0.7	5	1	0.2	1P4	3.2	1.4	3a	2.5	0.2
1S2	4.4	0.7	5	1	0.2	1P5	4.8	0.4	5	0.5	0.1
1S3	4.3	0.7	4a	1	0.2	1P6	4.1	0.6	4	0.5	0.1
1S4	3.9	1.1	4a	2	0.3	1P7	4.7	0.5	5	1	0.2
1S5	4.1	0.8	4	1.5	0.2	1P8	4.9	0.3	5	0	0.1
1S6	4.8	0.4	5	0.5	0.1	1P9	4.7	0.7	5	0.5	0.2
1S7	4.6	0.7	5	1	0.2	1P10	4.9	0.3	5	0	0.1
1S8	4.6	0.5	5	1	0.1	1P11	4.9	0.3	5	0	0.1
1S9	3.6	1.1	4	2	0.3	1P12	4.2	0.7	4	1	0.2
1S10	4.4	0.7	5	1	0.2	1P13	4.7	0.5	5	1	0.1
1S11	4.8	0.4	5	0.5	0.1	1I1	4.7	0.7	5	0.5	0.2
1S12	4.8	0.4	5	0.5	0.1	1I2	4.9	0.3	5	0	0.1
1P1	4.9	0.3	5	0	0.1	1I3	4.7	0.7	5	0.5	0.2
1P2	4.7	0.7	5	0.5	0.2	1I4	4.6	0.7	5	1	0.2
1P3	4.8	0.4	5	0.5	0.1	1I5	4.8	0.4	5	0.5	0.1
2nd Round											
2S1	4.6	0.5	5	1	0.1	2P4	3.8	1	4	1.5	0.3
2S2	4.7	0.5	5	1	0.1	2P5	5	0	5	0	0
2S3	4.4	0.5	4	1	0.1	2P6	4.1	0.6	4	0.5	0.2
2S4	4.6	0.7	5	1	0.2	2P7	4.7	0.5	5	1	0.1
2S5	4.2	0.7	4	1	0.2	2P8	4.9	0.3	5	0	0.1
2S6	4.9	0.3	5	0	0.1	2P9	4.8	0.4	5	0.5	0.1
2S7	4.6	0.7	5	1	0.2	2P10	4.9	0.3	5	0	0.1
2S8	4.8	0.4	5	0.5	0.1	2P11	5	0	5	0	0
2S9	3.8	1	4	1.5	0.3	2P12	4.2	0.7	4	1	0.2
2S10	4.6	0.7	5	1	0.2	2P13	4.7	0.5	5	1	0.1
2S11	4.8	0.4	5	0.5	0.1	2I1	4.7	0.7	5	0.5	0.2
2S12	3.8	0.4	5	0.5	0.1	2I2	4.9	0.3	5	0	0.1
2P1	4.6	0	5	0	0	2I3	4.9	0.3	5	0	0.1
2P2	4.8	0.4	5	0.5	0.1	2I4	4.8	0.4	5	0.5	0.1
2P3	4.8	0.4	5	0.5	0.1	2I5	4.8	0.4	5	0.5	0.1
3rd Round											
3S1	4.9	0.3	5	0	0.1	3P4	4.1	0.3	4	0	0.1
3S2	5	0	5	0	0	3P5	5	0	5	0	0

Item	M	SD	Mo	QD	CV	Item	M	SD	Mo	QD	CV
3S3	4.2	0.4	4	0.5	0.1	3P6	5	0	5	0	0
3S4	5	0	5	0	0	3P7	5	0	5	0	0
3S5	5	0	5	0	0	3P8	4.9	0.3	5	0	0.1
3S6	4.9	0.3	5	0	0.1	3P9	4.9	0.3	5	0	0.1
3S7	5	0	5	0	0	3P10	5	0	5	0	0
3S8	5	0	5	0	0	3P11	5	0	5	0	0
3S9	4.1	0.3	4	0	0.1	3P12	5	0	5	0	0
3S10	5	0	5	0	0	3P13	5	0	5	0	0
3S11	5	0	5	0	0	3I1	5	0	5	0	0
3S12	5	0	5	0	0	3I2	4.8	0.4	5	0.5	0.1
3P1	4.9	0.3	5	0	0.1	3I3	5	0	5	0	0
3P2	5	0	5	0	0	3I4	5	0	5	0	0
3P3	5	0	5	0	0	3I5	5	0	5	0	0

Table 4 Kendall's coefficient of concordance test results for each round

	Round 1	Round 2	Round 3
N	12	12	12
Kendall's W	0.255	0.278	0.655
Chi-Square	66.470	72.456	170.932
df	29	29	29
Asymp.Sig.	0.000	0.000	0.000

The results of Kendall's Coefficient of Concordance clearly show changes and improvements in expert consensus across three rounds of the Delphi survey. Kendall's W value for the first round was 0.255, indicating low agreement among expert opinions, but $p < 0.001$ indicated that the results were statistically significant. The Kendall's W value in the second round was 0.278, which was slightly increased compared to the first round, indicating that the consistency of expert opinions has improved after the first feedback and correction. Similarly, $p < 0.001$ indicates that the results are statistically significant. The Kendall's W value in the third round increased significantly to 0.655, indicating that the consistency of expert opinions increased significantly after the feedback and adjustments in the first two rounds, and $p < 0.001$ once again proved that the results were statistically significant.

Exploratory factor analysis

The Bartlett sphericity test χ^2 value of the perceived social support scale was 2283.399 ($p < 0.001$), and the KMO coefficient was 0.927; the Bartlett sphericity test χ^2 value of The Youth Entrepreneurial Passion Scale was 2591.318 ($p < 0.001$), and the KMO coefficient was 0.936; the Bartlett sphericity test χ^2 value of The Youth Entrepreneurial Intention Scale was 741.496 ($p < 0.001$), and the KMO coefficient was 0.846. The KMO values for the three scales exceeded 0.800, indicating that these scales are suitable for exploratory factor analysis. in Table 5 shows the results of the exploratory factor analysis.

Table 5 Results of exploratory factor analysis

Variables	Component			Communities	Variance%	KMO	
	1	2	3				
Perceived Social Support	Friend	0.834			0.696	35.787	0.927 <i>p</i> <0.001
		0.829			0.690		
		0.870			0.757		
		0.807			0.656		
	Family		0.851		0.729	20.465	
			0.792		0.634		
			0.773		0.604		
			0.802		0.645		
	Others			0.808	0.663	10.531	
				0.747	0.588		
				0.804	0.653		
				0.797	0.643		
Entrepreneurial Passion	Founding	0.889			0.795	56.073	0.936 <i>p</i> <0.001
		0.870			0.759		
		0.882			0.778		
		0.857			0.741		
	Developing		0.869		0.761	9.781	
			0.854		0.734		
			0.858		0.742		
			0.874		0.772		
	Inventing			0.786	0.620	7.900	
				0.831	0.701		
				0.854	0.736		
				0.841	0.709		
Entrepreneurial Intention			0.856	0.741	67.167	0.846 <i>p</i> <0.001	
		0.795		0.632			
		0.811		0.658			
		0.837		0.701			
		0.824		0.679			
	0.830		0.689				

The results in Table 5 show that the factors of the Youth Perceived Social Support Scale are 3 factors, and the total variance of the final 12 items was 61.783%. The Youth Entrepreneurial Passion Scale has 3 factors, and the total variance of the final 13 items was 73.753%. The Youth Entrepreneurial Intention Scale is a single factor; the total variance was 67.167%. The results show that All factor loading coefficients are greater than 0.70, indicating a strong correlation between the items and their respective factors. Additionally, the communalities of the factors exceed 0.30, demonstrating that each item significantly contributes to the factor structure. These results show that the scale has high reliability and validity and is suitable for subsequent research and data analysis.

Confirmatory factor analysis

Based on the exploratory factor analysis, researchers used confirmatory factor analysis to estimate the structural validity of the scale. The results are shown in Table 6.

Table 6 Confirmatory factor analysis results

Covariances		Estimate	Std.Err	t	P
Perceived Social Support	Friend	0.766	0.028	27.164	0.000
		0.797	0.024	33.022	0.000
		0.841	0.022	37.886	0.000
		0.778	0.025	30.783	0.000
	Family	0.592	0.036	16.265	0.000
		0.785	0.027	29.602	0.000
		0.761	0.028	26.809	0.000
		0.817	0.027	30.674	0.000
	Others	0.842	0.022	38.472	0.000
		0.784	0.029	27.064	0.000
		0.824	0.022	37.079	0.000
		0.818	0.022	37.027	0.000
Entrepreneurial Passion	Founding	0.841	0.021	40.793	0.000
		0.835	0.023	36.705	0.000
		0.840	0.020	42.106	0.000
		0.807	0.026	30.887	0.000
	Developing	0.838	0.020	42.659	0.000
		0.810	0.023	35.086	0.000
		0.795	0.025	31.649	0.000
		0.818	0.021	38.799	0.000
	Inventing	0.732	0.030	24.030	0.000
		0.782	0.028	27.849	0.000
		0.823	0.019	43.078	0.000
		0.797	0.024	32.615	0.000
Entrepreneurial Intention	0.807	0.021	37.847	0.000	
	0.726	0.034	21.600	0.000	
	0.748	0.032	23.328	0.000	
	0.791	0.028	28.293	0.000	
	0.784	0.023	33.646	0.000	
		0.788	0.027	29.633	0.000

The results in Table 6 show that the structural validity of The Youth Perceived Social Support Scale has good fitting indicators ($\chi^2/df=3.505$, CFI=0.930, TLI=0.910, RMESA=0.065, SRMR=0.053), and each factor loading coefficient All are greater than 0.50 (0.592-0.842); the structural validity of The Youth Entrepreneurial Passion Scale has good fitting indicators ($\chi^2/df=1.248$, CFI=0.993, TLI=0.991, RMESA=0.029, SRMR=0.025), and each item The factor loading coefficients are all greater than 0.70 (0.732-0.841); the structural validity of The Youth Entrepreneurial Intention Scale has good fitting indicators ($\chi^2/df=3.794$, CFI=0.963, TLI=0.927, RMESA=0.066, SRMR=0.035). In addition, the factor loading coefficients of each factor are greater than 0.70 (0.726-0.788). The structural validity of the three scales all performed well, and all fitting indicators reached the evaluation standards, indicating that the model fit the actual data well. The factor loading coefficients of each scale are significant, indicating that the correlation between the items and the factors to which they belong is strong. These results verified the reliability and validity of the scales, indicating their suitability for subsequent research and data analysis.

Reliability analysis

This study conducted a reliability analysis on the Youth Entrepreneurial Education and Youth Entrepreneurship Scales. Cronbach's α value equal to 0.7 is the boundary value of the acceptable scale (Taber, 2018). Table 7 shows the results of the reliability analysis.

Table 7 Result of reliability analysis

		N	Cronbach's α	
Perceived Social Support	Friend	4	0.860	0.845
	Family	4	0.825	
	Others	4	0.835	
Entrepreneurial Passion	Founding	4	0.880	0.870
	Developing	4	0.865	
	Inventing	5	0.875	
Entrepreneurial Intention		5	0.860	

The reliability analysis results show that the reliability coefficients of the various scales are between 0.8 and 0.9, indicating that these scales have good internal consistency and stability. Specifically, the overall reliability coefficient of the Perceived Social Support scale is 0.845, with the subscales Friend, Family, and Others having reliability coefficients of 0.860, 0.825, and 0.835, respectively; the overall reliability coefficient of the Entrepreneurial Passion scale is 0.870, with the subscales Founding, Developing, and Inventing having reliability coefficients of 0.880, 0.865, and 0.875 respectively; the reliability coefficient of the Entrepreneurial Intention scale is 0.860. These results indicate that all scales are highly reliable and suitable for subsequent research analysis.

Difference analysis results

Based on the scales analyzed, Table 8 presents the difference analysis results, which explores the variations in perceived social support, entrepreneurial passion, and entrepreneurial intention across different demographic groups.

Based on the difference analysis (Table 8), the results show that males reported significantly higher perceived social support ($M=3.641$, $SD=0.811$, $p<0.05$) than females ($M=3.474$, $SD=0.831$). Additionally, students without entrepreneurial experience reported significantly higher perceived social support ($M=3.662$, $SD=0.985$, $p<0.05$) than students with entrepreneurial experience ($M=3.437$, $SD=0.838$). There are significant differences in age and education in entrepreneurial passion and entrepreneurial intention. Lower-level undergraduate students have significantly higher perceived social support ($M=3.910$, $SD=0.800$, $p<0.01$), entrepreneurial passion ($M=3.893$, $SD=0.779$, $p<0.01$), and entrepreneurial intention ($M=3.831$, $SD=0.972$, $p<0.01$) compared to students at other educational levels. There are no significant differences between entrepreneurial passion and intention by gender and entrepreneurial experience ($p>0.05$). There are no differences in perceived social support, entrepreneurial passion, and intention by birthplace ($p>0.05$).

Correlation analysis

The correlation in Table 9 shows significant positive correlations between perceived social support, entrepreneurial passion, and entrepreneurial intention ($r=0.33-0.58$, $p<0.001$).

SEM analysis

To fully utilise the observed data for each variable, researchers used the balance method to

package the items of entrepreneurial passion and perceived social support, dividing them into a total of 3 item packages. Subsequently, researchers constructed a mediation effect model. Upon testing, the structural validity of the mediation model showed a good fit ($\chi^2/df=2.085$, $CFI=0.981$, $TLI=0.975$, $RMSEA=0.060$, $SRMR=0.032$). Perceived social support had a significant positive predictive effect on entrepreneurial passion ($\beta=0.34$, $t=5.68$, $P<0.001$), and entrepreneurial passion also had a significant positive predictive effect on entrepreneurial intention ($\beta=0.56$, $t=8.92$, $P<0.001$). The mediation effect of entrepreneurial passion in the influence of perceived social support on entrepreneurial intention was 0.19, with a 95% confidence interval of [0.12, 0.27] based on the bias-corrected non-parametric percentile bootstrap method, which does not include 0, indicating that the mediation effect of entrepreneurial passion in the influence of perceived social support on entrepreneurial intention is significant. Additionally, perceived social support had a significant positive predictive effect on entrepreneurial intention ($\beta=0.26$, $t=4.72$, $P<0.001$). Therefore, this mediation model can be considered a partial mediation model, with a mediation effect size of 42.22%.

Table 8 Difference analysis results

Variable		Perceived Social Support		Entrepreneurial Passion		Entrepreneurial Intention	
		M±SD	t/F	M±SD	t/F	M±SD	t/F
Gender	Male	3.64±0.81	1.738*	3.49±0.80	0.584	3.33±0.89	0.358
	Female	3.47±0.83		3.43±0.85		3.29±0.92	
Age	14-18	3.58±0.73	0.908*	3.17±0.97	0.582**	3.47±1.12	0.495*
	19-25	3.44±0.83		3.37±0.86		3.21±0.89	
	26-30	3.75±0.87		3.51±0.90		3.25±0.85	
	31-35	3.56±0.84		3.51±0.80		3.37±0.89	
Education	Lower-level undergraduate	3.91±0.80	0.348**	3.89±0.78	1.647**	3.83±0.97	1.574**
	Senior undergraduate	3.50±0.78		3.53±0.63		3.32±0.91	
	Master	3.51±0.82		3.38±0.75		3.27±0.88	
	Doctoral	3.55±0.84		3.46±0.91		3.29±0.91	
Experience	Yes	3.44±0.84	2.371*	3.44±0.84	0.448	3.30±0.91	0.172
	No	3.66±0.96		3.48±0.81		3.32±0.89	
Birthplace	Southern	3.60±0.71	0.348	3.56±0.72	2.248	3.38±0.84	0.604
	Central	3.51±0.88		3.36±0.85		3.25±0.90	
	Western	3.57±0.85		3.57±0.87		3.34±1.00	

Note: * $p<0.05$, ** $p<0.01$

Table 9 Correlation coefficients of variables

	Perceived Social Support	Entrepreneurial Passion	Entrepreneurial Intention
Perceived Social Support	1		
Entrepreneurial Passion	0.33***	1	
Entrepreneurial Intention	0.43***	0.58***	1
<i>M</i>	3.548	3.457	3.307
<i>SD</i>	0.817	0.824	0.901

Note: *** $p<0.001$

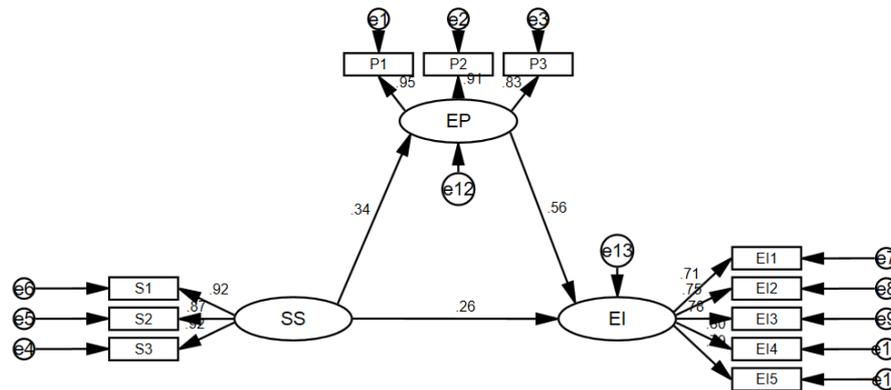


Figure 1 SEM result

Conclusion

This study explores the relationships between perceived social support, entrepreneurial passion, and entrepreneurial intention, revealing the significant impact of perceived social support on university students' entrepreneurial intention. The results indicate that perceived social support directly and indirectly influences entrepreneurial intention through the mediating variable of entrepreneurial passion. Specifically, when individuals perceive support from family, friends, and significant others, their entrepreneurial passion is enhanced, increasing their entrepreneurial intention. Additionally, the study finds that individuals without entrepreneurial experience perceive higher levels of social support than those with entrepreneurial experience. This suggests that in entrepreneurship education and practice should place greater emphasis on supporting and assisting inexperienced students. Overall, this study validates the crucial role of perceived social support in enhancing university students' entrepreneurial intention, providing important insights for policymakers and educators to strengthen social support networks in entrepreneurship education, ignite students' entrepreneurial passion, and promote entrepreneurial activities.

Discussion

This study investigates the relationship between perceived social support, entrepreneurial passion, and entrepreneurial intention. The results indicate that perceived social support significantly and positively predicts entrepreneurial intention, with this effect further enhanced by the mediating role of entrepreneurial passion. These findings are consistent with previous research, further confirming the importance of social support in the entrepreneurial process (Koellinger et al., 2007; Pushkarskaya et al., 2021). Perceived social support provides emotional comfort and encouragement and offers practical help and resources, which is especially crucial for entrepreneurs as the entrepreneurial journey is fraught with uncertainty and risk. Therefore, this study further validates the indispensable role of social support in the entrepreneurial process, emphasizing that social support should be a critical consideration in entrepreneurial education and policy formulation.

Perceived social support includes emotional support from family and friends and tangible assistance such as sharing entrepreneurial knowledge and experience. This support enables individuals to better cope with entrepreneurial challenges, enhancing their entrepreneurial intention. This result aligns with the studies by Neneh (2022) and Hossain et al. (2020), which indicate that social support and self-efficacy jointly influence individuals' entrepreneurial intentions. Additionally, this study finds that social support significantly reduces the stress and anxiety of entrepreneurs during the entrepreneurial process, allowing them to focus more on achieving their entrepreneurial goals. This suggests that social support during the entrepreneurial process is not just the provision of resources but

also a critical guarantee of the entrepreneur's mental health, further enhancing their entrepreneurial motivation and confidence.

Entrepreneurial passion partially mediates between perceived social support and entrepreneurial intention. When individuals perceive support from family, friends, and significant others, they enhance their sense of well-being and belonging reduce their entrepreneurial stress and stimulate entrepreneurial passion. This finding aligns with the cognitive appraisal theory in emotion theory, which posits that individuals' cognitive appraisal of environmental stimuli affects their emotions, influencing behavioral outcomes (Moghtader & Shamloo, 2019). Thus, perceived social support promotes entrepreneurial intention by enhancing entrepreneurial passion. Furthermore, this study reveals that entrepreneurial passion is a personal love and commitment to entrepreneurial activities and a positive psychological state influenced by social support. By boosting entrepreneurial passion, individuals can better cope with setbacks and challenges in the entrepreneurial process, demonstrating higher entrepreneurial persistence and resilience, thereby increasing the likelihood of entrepreneurial success.

Suggestion

Universities and entrepreneurial support institutions should strengthen students' social support networks by establishing mentorship programs, entrepreneurial clubs, and alumni networks to provide emotional support and practical assistance. Schools can organize entrepreneurial lectures and workshops, inviting successful entrepreneurs to share experiences, thus enhancing students' confidence and passion. Alum networks can offer practical guidance and resources, helping students cope with entrepreneurial challenges. Educational institutions should implement systematic entrepreneurship courses, including theory, business plan writing, market analysis, and financing strategies, with practical aspects such as simulations and hands-on activities. Providing internships and project incubation for students without entrepreneurial experience can help build their confidence and skills, reducing uncertainty and anxiety and increasing entrepreneurial intention and success rates. Additionally, the government and schools should provide policy and financial support to overcome initial entrepreneurial barriers, such as establishing entrepreneurial funds, offering low-interest loans, and introducing favorable policies like tax reductions and subsidies. Schools can also collaborate with enterprises to provide internships and job opportunities, helping students accumulate practical experience and resources, thus increasing entrepreneurial intention and success rates and promoting innovation and economic growth.

While this study has made important methodological contributions, further improvements are needed. Increasing the sample size beyond the 287 collected can enhance reliability and validity. Future research should expand the sample scope and include different regions and types of universities to test the results' generalizability. Enhancing sample diversity is also crucial, including more students from various backgrounds, economic levels, and family situations to provide a comprehensive understanding of entrepreneurial intention. Surveys should compare students from different disciplines, such as arts, sciences, and engineering, to understand different influencing factors. Finally, incorporating longitudinal study designs can capture dynamic changes in entrepreneurial intention, which cross-sectional studies cannot. Tracking the same group of students over time can provide better insights into the formation and development of entrepreneurial intention. Combining qualitative methods like in-depth interviews or focus groups can complement quantitative research, offering a richer understanding for policymakers and educators.

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