

# อิทธิพลของความตั้งใจของผู้ประกอบการและความสามารถของผู้ประกอบการ ต่อผลการดำเนินงานของผู้ประกอบการ

## THE INFLUENCE OF ENTREPRENEURIAL INTENTION AND ENTREPRENEURIAL CAPABILITY ON ENTREPRENEURIAL PERFORMANCE

เพิง หลิว<sup>1</sup> และ พุทธิวัต สิงห์ดง<sup>2</sup>  
Feng Liu<sup>1</sup> and Putthiwat Singhdong<sup>2</sup>

Received 05 April 2024

Revised 06 June 2024

Accepted 28 June 2024

### บทคัดย่อ

การศึกษาครั้งนี้มีวัตถุประสงค์เพื่อศึกษาผลกระทบของความตั้งใจของผู้ประกอบการ และความสามารถของผู้ประกอบการต่อการปฏิบัติงานของผู้ประกอบการในหมู่นักศึกษามหาวิทยาลัย ตลอดจนบทบาทการก่อตั้งธุรกิจของพลวัตด้านสิ่งแวดล้อมเพื่อให้บรรลุเป้าหมายนี้ จึงมีการนำแนวทางเชิงปริมาณมาใช้โดยมุ่งเน้นไปที่นักศึกษามหาวิทยาลัยที่มีส่วนร่วมในกิจกรรมการเป็นผู้ประกอบการ ข้อมูลถูกเก็บรวบรวมผ่านแบบสอบถามแบบสำรวจ ส่งผลให้มีผู้ตอบถูก 424 รายวิเคราะห์โดยใช้การวิเคราะห์ปัจจัยเชิงยืนยัน ผลการวิจัยระบุว่าความตั้งใจของผู้ประกอบการมีอิทธิพลเชิงบวกต่อผลการดำเนินงานของผู้ประกอบการและความสามารถของผู้ประกอบการยังช่วยเพิ่มประสิทธิภาพของผู้ประกอบการอย่างมีนัยสำคัญอีกด้วย นอกจากนี้พลวัตด้านสิ่งแวดล้อมยังช่วยกลั่นกรองความสัมพันธ์เชิงบวกระหว่างความตั้งใจของผู้ประกอบการและประสิทธิภาพของผู้ประกอบการ เช่นเดียวกับระหว่างความสามารถของผู้ประกอบการและประสิทธิภาพของผู้ประกอบการ

**คำสำคัญ:** ความตั้งใจของผู้ประกอบการ ความสามารถของผู้ประกอบการ ผลการดำเนินงานของผู้ประกอบการ พลวัตด้านสิ่งแวดล้อม

<sup>1</sup> นักศึกษาปริญญาดุษฎีบัณฑิต, คณะบริหารธุรกิจ มหาวิทยาลัยเทคโนโลยีราชมงคลธัญบุรี

Ph.D. Student Program, Faculty of Business Administration, Rajamangala University of Technology Thanyaburi.

<sup>2</sup> ผู้ช่วยศาสตราจารย์, ดร., คณะบริหารธุรกิจ มหาวิทยาลัยเทคโนโลยีราชมงคลธัญบุรี

Assistant Professor, Ph.D., Faculty of Business Administration, Rajamangala University of Technology Thanyaburi.

Corresponding author email: putthiwat\_s@rmutt.ac.th

## Abstract

The purpose of this study is to investigate the effects of entrepreneurial intention and entrepreneurial capability on entrepreneurial performance among university students, as well as the moderating role of environmental dynamics. To achieve this goal, a quantitative approach was adopted, focusing on university students engaged in entrepreneurial activities. Data were collected through survey questionnaires, resulting in 424 valid responses, which were analyzed using confirmatory factor analysis. The findings indicate that entrepreneurial intention positively influences entrepreneurial performance, and entrepreneurial capability also significantly enhances entrepreneurial performance. Moreover, environmental dynamics positively moderate the relationships between entrepreneurial intention and entrepreneurial performance, as well as between entrepreneurial capability and entrepreneurial performance.

**Keywords:** Entrepreneurial Intention, Entrepreneurial Capability, Entrepreneurial Performance, Environmental Dynamics

## Introduction

The Chinese government emphasizes innovation and entrepreneurship as key national policies. According to Startup Blink's Global Entrepreneurial Ecosystem Index 2022, China ranks 10th among the world's 100 largest economies (Blink, 2023). The Global Innovation Index Report 2022 by the World Intellectual Property Organization ranks China 11th in innovation and entrepreneurship (WIPO, 2022). These reports indicate significant improvements in China's entrepreneurial environment. The China Youth Entrepreneurship Development Report 2022 highlights that individual aged 19-23, including college students, fresh graduates, and the unemployed, are central to youth entrepreneurship, with 90% holding a college education or higher and 70% of ventures in sectors like agriculture, trade, education, and entertainment (Kangtao, 2022).

Despite supportive policies such as tax reductions, creative office spaces, and guaranteed loans, the entrepreneurship success rate among Chinese college students remains low at 2-3%, compared to over 20% in the U.S. (Mycos, 2017; Sieger, 2016). Research has explored the effects of entrepreneurial intention and capability on performance, but key issues remain. The mechanisms by which these factors influence performance are unclear, as is the moderating role of environmental dynamics. Additionally, there is limited research on the entrepreneurial performance of university students.

This study aims to address these gaps by investigating the impact of entrepreneurial intention and capability on university students' entrepreneurial performance. The objectives are to examine the relationships between entrepreneurial intention, capability, and performance, investigate the moderating role of environmental dynamics, and provide evidence-based recommendations for educators, entrepreneurs and policymakers.

## Literature Review

### Entrepreneurial Intention

The concept of intention, deeply rooted in psychology, serves as an early indicator of anticipated behavior and is closely linked to individuals' specific beliefs about the future. Intent, characterized by its dynamic and tension-laden nature, empowers individuals to adhere to their values, demonstrate perseverance, and exert sustained effort in the face of adversity and resistance (Bugental et al., 1985). The incorporation of intention research from psychology into the entrepreneurial domain has significantly enriched entrepreneurship studies, particularly with the concept of entrepreneurial intention. This concept is a pivotal construct in entrepreneurship research, acting as an intermediate stage between entrepreneurial education and entrepreneurial action (Krueger et al., 2000). Some scholars also refer to it as "entrepreneurial orientation" or "entrepreneurial inclination."

Entrepreneurial intention is a paramount research indicator in entrepreneurship literature. However, its dimensions vary. For instance, Liu, Zhi posits that entrepreneurial intention includes perceived desirability, entrepreneurial behavioral tendencies, and entrepreneurial feasibility (Liu, 2014). Guo Rui propose personal background, entrepreneurial attitudes, entrepreneurial beliefs, and entrepreneurial tendencies as dimensions (Guo, 2014). Studies on entrepreneurial intention often follow the Theory of Planned Behavior (TPB), which includes attitudes, subjective norms, and perceived behavioral control. Shapero's Entrepreneurial Event Model categorizes entrepreneurial intention into perceived desirability, perceived feasibility, and inclination towards action. Krueger further refines this model by exploring factors influencing perceived desirability and feasibility, highlighting the roles of specific needs and self-efficacy (Krueger & Carsrud, 1993).

Despite the lack of a unified understanding of the dimensional structure of entrepreneurial intention, it is generally agreed that it comprises three basic dimensions: behavioral tendency, aspiration, and feasibility. This study uses the theory of planned behavior as its theoretical basis and selects key variables from Shapero's entrepreneurial event model to predict entrepreneurial intention, employing perceived desirability (PD), perceived feasibility (PF), and propensity to act (PA).

Research on the outcome variable of entrepreneurial intention primarily focuses on its impact on entrepreneurial behavior, a central concern in entrepreneurship research. Entrepreneurial intention pertains to an individual's psychological inclination and eagerness to engage in entrepreneurial activities, while entrepreneurial behavior encompasses actual engagement in such pursuits (Bird, 1988). Studies consistently show a positive correlation between entrepreneurial intention and subsequent entrepreneurial behavior (Kautonen et al., 2015). Although entrepreneurial intention does not always translate directly into behavior, it is a reliable predictor (Liu, 2011; Wen, 2010).

Entrepreneurial intention reflects the level of aspiration and commitment a prospective entrepreneur holds toward entrepreneurial endeavors (Ajzen, 2005). It involves beliefs and desires about one's capability to undertake entrepreneurial actions. The stronger the entrepreneurial intention, the higher the likelihood of implementation. Factors such as entrepreneurial efficacy significantly influence entrepreneurial intention (Ju, 2022). Social Cognitive Theory suggests that performance outcomes stem from self-efficacy and outcome expectations, with entrepreneurial self-efficacy exerting a positive influence on startup performance (Zhong, 2012).

This study focuses on university students engaged in entrepreneurial activities. Entrepreneurial performance refers to the extent to which entrepreneurs successfully complete tasks or achieve goals, reflected in aspects such as increased personal income and improved social status. Entrepreneurial performance is categorized into financial performance (FP) and growth performance (GP) (Su et al., 2016).

The entrepreneurial landscape is continuously shaped by economic and societal shifts, including customer behaviors, competitors, technological advancements, and regulatory frameworks (Huang, 2010). A dynamic market environment introduces challenges and unveils opportunities, spurring entrepreneurs to seek innovation and entrepreneurial prospects (Zhang et al., 2017). Environmental dynamics are categorized into the intrapreneurial environment (IE) and external environment (ETE) of the firm (Wang, 2019).

Based on the above, we propose the following hypotheses:

H1: Entrepreneurial intention significantly affects the entrepreneurial performance of college students.

H3: Environmental dynamics moderate the effect of entrepreneurial intention on entrepreneurial performance.

### **Entrepreneurial Capability**

Entrepreneurial capability encompasses various facets such as educational attainment, professional skills, leadership, communication, decision-making, and innovative thinking (McClelland & Boyatzis, 1982; Van Horn & Harvey, 1998). It includes both specialized knowledge and psychological traits like self-efficacy, stress tolerance, and resilience (Zhao, Seibert, & Hills, 2005). Enhancing entrepreneurial capability through education and training is crucial, enabling entrepreneurs to acquire necessary skills and improve their prospects for success (Liñán et al., 2011).

Entrepreneurial capability also involves proficiency in building social networks and leveraging resources. Entrepreneurs must establish social connections, secure resources, and understand market dynamics to adapt to a continuously changing business environment (Aldrich et al., 1986). This multi-dimensional understanding emphasizes the different skills and

attributes required for entrepreneurial ventures, which can be refined through continuous learning and practical experience.

For this study, entrepreneurial capability is defined as the aptitude of college students to engage in entrepreneurial activities, both during their studies and in the one-to-five-year period following graduation (Yang, 2023). It includes opportunity identification capability (OIC), managerial capability (MC), financial readiness capability (FRC), and team-building capability (TBC).

Entrepreneurial capability is intrinsically linked to entrepreneurial behavior, fostering innovation and new ideation (Shane, 2003). Leaders with strong leadership skills excel in business operations and drive companies toward their goals (Ensley et al., 2006). Research indicates that entrepreneurial capability significantly influences entrepreneurial pursuits and success (Guo, 2014; Rasmussen et al., 2011; Zhang & Wang, 2011). Empirical studies show that entrepreneurial capability positively impacts decision-making, operational success, and overall performance of nascent businesses (Pieterse et al., 2011).

Entrepreneurial capability enables entrepreneurs to proactively seize opportunities, foster risk awareness, and conduct objective evaluations, contributing to the financial and strategic success of firms (Zhang et al., 2009). It also facilitates resource acquisition, crucial for developing and realizing opportunities (Withers et al., 2011). These capabilities collectively reinforce entrepreneurial success by identifying and harnessing growth avenues.

Based on the above, we propose the following hypotheses:

H2: Entrepreneurial capability significantly affects the entrepreneurial performance of college students.

H4: Environmental dynamics moderate the effect of entrepreneurial capability on entrepreneurial performance.

## Methodology

To effectively measure the research hypotheses, this study employed a quantitative analysis approach. Established measurement scales commonly used by domestic and international scholars were adapted to develop eleven measurement items across four variables, alongside the inclusion of seven demographic questions. A Likert five-point scale was utilized for response options, spanning from strongly disagree to strongly agree. After completing the questionnaire design, seven experts were asked to score the questionnaire, and the survey questions were subsequently revised. A small pre-survey was conducted prior to the formal research. The pre-survey received positive feedback, affirming the questionnaire's consistency and reliability.

To ensure a representative sample, the study utilized a stratified sampling technique based on the categorization of Chinese universities by the Ministry of Education.

These categories encompass: HEIs under Central Ministries and Agencies, Academic HEIs, Professional HEIs, Vocational HEIs. Surveys were distributed via Questionnaire Star from December 2023 to January 2024, with a total of 600 questionnaires distributed. After removing questionnaires with consistent responses or clear inconsistencies in logic before and after, a total of 424 valid samples were collected, resulting in an effective response rate of 70.67%.

Based on measured data, the survey revealed that 74.29% of respondents were male. The age group of 23-27 years old was the largest, comprising 52.12% of the total respondents. Undergraduates constituted the majority of respondents at 69.81%. In terms of educational institution types, respondents came from HEIs affiliated with Central Ministries and Agencies (24.53%), Academic HEIs (28.30%), Professional HEIs (25.24%), and Vocational HEIs (21.93%). Management was the dominant professional category at 45.28%, followed by finance (29.95%), education (10.61%), engineering (8.37%), and other fields (5.42%). Regarding enterprise size, businesses with fewer than 10 employees comprised 76.89% of the sample, while those with 11-20 employees accounted for 17.22%, 21-50 employees for 2.83%, and over 50 employees for 3.07%. In terms of industry sectors, trade and services were predominant at 64.86%, followed by traditional manufacturing (20.28%), finance (4.01%), high-tech (3.54%), and construction/real estate (3.30%).

## Discussion

### **Descriptive statistical and normality test of formal survey**

Based on the results of the descriptive statistical and normality test for the formal survey data, the mean values of all items range from 2.870 to 3.483, indicating a relatively balanced distribution. The standard deviations of all items range from 0.957 to 1.311, suggesting minimal dispersion within the sample data.

Additionally, the skewness values for all items fall between -0.255 and 0.154, and the kurtosis values range from -1.169 to -0.434. According to Joanes and Gill, when the absolute value of skewness is less than 3 and the absolute value of kurtosis is less than 8, the observed variable is generally considered to adhere to a normal distribution (Joanes & Gill, 1998). In this study, all skewness and kurtosis values meet these criteria, indicating that the sample data likely exhibits a normal distribution pattern.

This alignment with normal distribution assumptions supports the analytical requirements of the research hypotheses outlined in this paper, ensuring the validity of the subsequent statistical analyses.

### **Reliability Analysis of Formal Survey**

The reliability analysis still uses Cronbach's alpha reliability coefficient to test the degree of consistency of the research variables in the questionnaire for each measurement item. DeVellis argues that for a variable to have good reliability, it needs Cronbach's alpha coefficient to be greater than .7 (DeVellis et al., 1991). The measurement results are shown in table 1 below.

**Table 1** Reliability Analysis of Formal Survey

Variable	Dimension	Item	CITC	Cronbach's $\alpha$
EI	PD	PD1	.718	
		PD2	.705	
		PD3	.788	.895
		PD4	.754	
		PD5	.751	
	PF	PF1	.738	
		PF2	.720	
		PF3	.730	.893
		PF4	.749	
		PF5	.760	
EC	PA	PA1	.718	
		PA2	.691	.863
		PA3	.720	
		PA4	.726	
	OIC	OIC1	.726	
		OIC2	.728	.847
		OIC3	.705	
		MC1	.684	
ED	MC	MC2	.662	
		MC3	.735	.859
		MC4	.747	
		FRC1	.702	
	FRC	FRC2	.763	
		FRC3	.769	.894
		FRC4	.754	
		FRC5	.721	
	TBC	TBC1	.709	
		TBC2	.680	
		TBC3	.690	.855
		TBC4	.722	
IE	IE	IE1	.638	
		IE2	.616	
		IE3	.734	.841
		IE4	.736	
	ETE	ETE1	.763	
ETE	ETE	ETE2	.730	
		ETE3	.726	.893
		ETE4	.747	
		ETE5	.731	

**Table 1** Reliability Analysis of Formal Survey (Cont.)

Variable	Dimension	Item	CITC	Cronbach's $\alpha$
EP	PF	PF1	.693	
		PF2	.710	.838
		PF3	.709	
	GP	GP1	.735	
		GP2	.724	
		GP3	.789	.903
		GP4	.767	
		GP5	.778	

As shown in table 1, the Cronbach's alpha coefficient for each part of the entrepreneurship intention, entrepreneurship capability, environmental dynamics, and entrepreneurship performance scale is more than .8. The CITC value is also more than .6. This means that the variables are internally consistent, and the measurement questions and items meet the needs of the study.

#### Validity Analysis of Formal Survey

In the formal investigation, this study will use Amos 26.0 software to construct Confirmatory Factor Analysis structural equation models for the three latent variables (EI, EC, and EP), and employ the CFA method to retest their structural validity and convergent validity. The results of the convergent validity analysis for each latent variable scale are shown in table 2.

**Table 2** Convergent Validity Analysis

Construct	Item	Factor Loading	CR	AVE
EI	PD1	.780		
	PD2	.766		
	PD3	.837	.897	.635
	PD4	.808		
	PF1	.799		
	PF2	.780		
	PF3	.782	.894	.628
	PF4	.794		
	PF5	.808		

**Table 2** Convergent Validity Analysis (Cont.)

Construct	Item	Factor Loading	CR	AVE
PA	PA1	.790		
	PA2	.762		
	PA3	.793	.865	.616
	PA4	.793		
OIC	OIC1	.822		
	OIC2	.814	.850	.654
	OIC3	.790		
	MC1	.770		
	MC2	.751		
	MC3	.790	.863	.611
	MC4	.814		
	FRC1	.743		
	FRC2	.821		
	FRC3	.817	.896	.633
TBC	FRC4	.817		
	FRC5	.776		
	TBC1	.787		
	TBC2	.749		
	TBC3	.754	.857	.600
	TBC4	.806		
	FP1	.785		
	FP2	.801	.841	.638
GP	FP3	.810		
	GP1	.791		
	GP2	.776		
	GP3	.838	.904	.654
	GP4	.808		
	GP5	.828		

**Table 2** Convergent Validity Analysis (Cont.)

Construct	Item	Factor Loading	CR	AVE
IE	IE1	.788	.891	.672
	IE2	.826		
	IE3	.834		
	IE4	.831		
ED	ETE1	.808	.897	.636
	ETE2	.801		
	ETE3	.776		
	ETE4	.805		
	ETE5	.796		

As can be seen from Table 2, the factor loading values for each question item in the first order range from .743 to .838, all of which are greater than .7, indicating that the measurement terms meet the requirements of scale measurement and are of good quality. CR range values for all measured variables were .841-.904, all greater than .7, and AVE values ranged from .6-.672, all greater than .5.

### Discriminant Validity Analysis

**Table 3** Discriminant Validity

	ETE	IE	GP	TBC	MC	OIC	FP	FRC	PA	PD	PF
ETE	<b>.947</b>										
IE	.546	<b>.944</b>									
GP	.138	.227	<b>.951</b>								
TBC	.164	.131	.506	<b>.926</b>							
MC	.183	.163	.520	.671	<b>.929</b>						
OIC	.080	.064	.517	.631	.652	<b>.922</b>					
FP	.120	.257	.618	.469	.469	.448	<b>.917</b>				
FRC	.142	.128	.544	.668	.678	.644	.509	<b>.947</b>			
PA	.078	.098	.519	.419	.470	.402	.504	.445	<b>.930</b>		
PD	.084	.086	.423	.334	.334	.261	.431	.350	.629	<b>.947</b>	
PF	.065	.092	.493	.289	.368	.262	.476	.420	.672	.623	<b>.946</b>

Note: Diagonal numbers = squared correlation, Off-diagonal numbers= Square root of AVE

The results of the discriminant validity are shown in table 3. According to Haire et al. (2014), discriminant validity is confirmed when the square root of the Average Variance Extracted (AVE) for each construct exceeds the correlation coefficients between those constructs. The AVE numbers are higher than the correlation coefficients of the dimensional variables they represent, which is in line with the criteria for discriminative validity. This means that the study has good discriminative validity.

### Proposed Structural Model Analysis

In order to clearly see the direct effects among the variables, the study deleted the moderator variable, Environmental Dynamics (ED). Figure 1 displays the path coefficients. During the CFA, this study examined the fit indices of the data, and the results showed that  $\chi^2/df$  is 1.249, RMR is .045, RMSEA is .024, GFI is .912, AGFI is .900, NFI is .922, TLI is .982, CFI is .983, indicating over-fitting of the model. Table 4 displays the outcomes of direct influence.

As can be seen in table 4, entrepreneurial intention has a significant positive effect on entrepreneurial performance ( $\beta=.454$ ,  $p<.001$ ), and this result indicates that hypothesis H1 is supported. Entrepreneurial capability has a significant positive effect on entrepreneurial performance ( $\beta=.525$ ,  $p<.001$ ), and this result indicates that hypothesis H2 is supported.

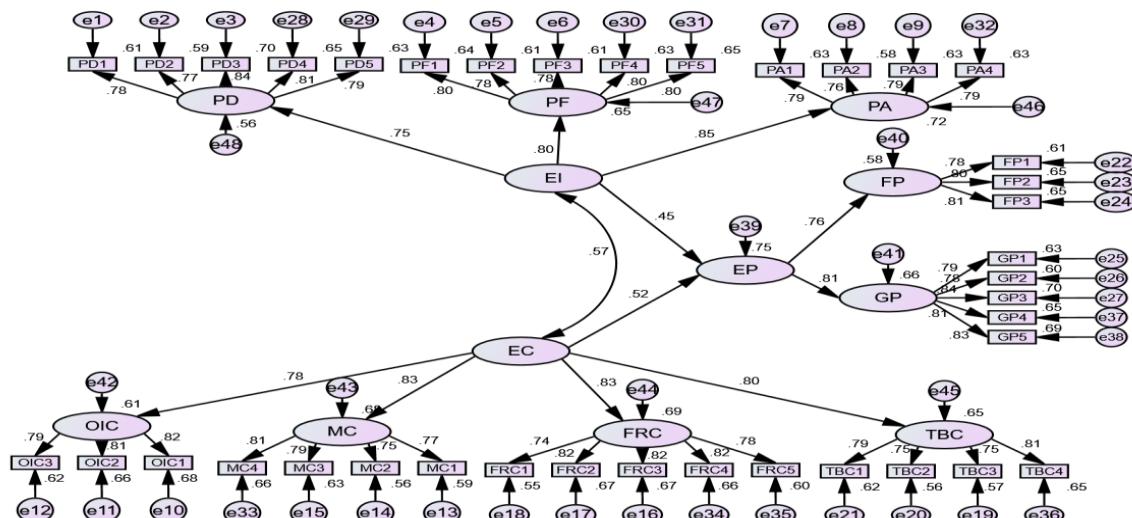


Figure 1 Structural Equation Model

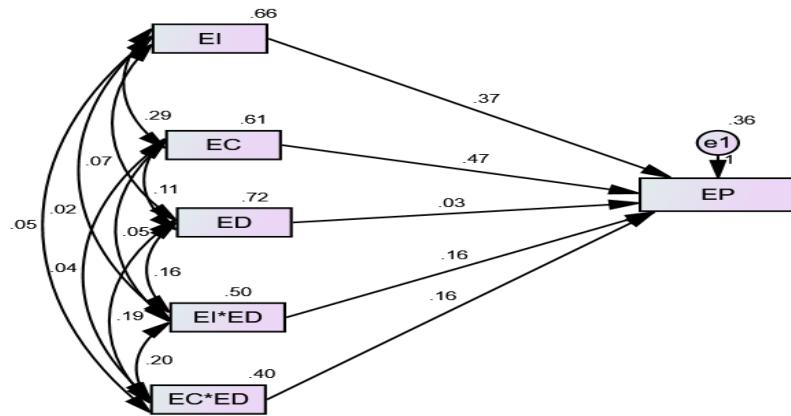
Table 4 Hypothesis Testing of Model

Path	Standardized Estimate	Unstandardized Estimate	S.E.	C.R.	P	Hypothesis
EP $\leftarrow$ EI	.454	.480	.077	6.265	***	H1
EP $\leftarrow$ EC	.525	.488	.068	7.171	***	H2

Note: \* denotes  $P<.05$ , \*\* denotes  $P<.01$ , \*\*\* denotes  $P<.001$

### Tests of Moderating Effect

In testing the moderation effect, the data were first mean-centered, followed by the creation of interaction terms (Dawson, 2014; Frazier et al., 2004; Hayes, 2018). The results of testing the moderation effect are presented below.



**Figure 2** Path Diagram of The Moderating Effects

**Table 5** The Path Coefficients for Moderating Effect

Path	Estimate	S.E.	C.R.	P
EP $\leftarrow$ EI*ED	.133	.047	3.502	***
EP $\leftarrow$ EC*ED	.119	.053	3.063	**

Note: \* denotes  $P < .05$ , \*\* denotes  $P < .01$ , \*\*\* denotes  $P < .001$

According to table 5, the results showed that EI (EI\*ED) had a significant effect on increasing EP under favorable ED conditions, with  $\beta = .133$  ( $p < .001$ ). These findings indicate that EI (EI\*ED) positively influenced EP, benefiting from favorable ED effects, thus supporting hypothesis H3. Similarly, EC (EC\*ED) demonstrated a significant effect on increasing EP under favorable ED conditions, with  $\beta = .119$  ( $p < .05$ ). These findings suggest that EC (EC\*ED) positively affected EP, benefiting from favorable ED effects, thereby supporting hypothesis H4.

### Conclusion

**The impact of entrepreneurial intention on entrepreneurial performance in the context of environmental dynamics.**

Entrepreneurial intention, defined as the subjective inclination of potential entrepreneurs to engage in entrepreneurial activities, serves as the primary intrinsic motivation for university students to pursue entrepreneurship and is essential for the success of enterprises (Wang et al., 2013). Scholars assert that entrepreneurial intention is a strong predictor of entrepreneurial behavior, with higher entrepreneurial intentions positively linked

to better performance (Nabi et al., 2017). During critical stages of enterprise development, high entrepreneurial intention gained through entrepreneurship education can drive entrepreneurs to actively seek necessary growth resources, resulting in superior performance. Furthermore, participation in entrepreneurial student organizations enhances university students' learning and collaboration with peers and mentors who possess entrepreneurial tendencies or experience, reinforcing the subjective norms of entrepreneurial behavior. This supports the formation and strengthening of their entrepreneurial intentions, subsequently promoting entrepreneurial actions and improving performance. The study's findings empirically validate hypothesis H1.

The significant positive moderating effect of environmental dynamics on the relationship between entrepreneurial intention and performance confirms hypothesis H3. High environmental dynamism amplifies the effect of entrepreneurial intention on performance. In a dynamic environment, entrepreneurs encounter more opportunities and challenges. Rapid market changes and uncertainties may provide more innovation opportunities and market space. This enables entrepreneurs to identify opportunities and create paths for startups, thereby stimulating their entrepreneurial intentions (Zhang & Zhang, 2018). In such an environment, entrepreneurs with strong intentions are more proactive in addressing challenges and can more flexibly adjust their strategies to cope with market changes. Consequently, their performance improves (Lee & Chu, 2013).

### **The impact of entrepreneurial capability on entrepreneurial performance in the context of environmental dynamics.**

University-provided entrepreneurship education offers students practical experience and direct engagement in entrepreneurial activities, honing critical skills in team building and organizational management (Sancho et al., 2022). Strong entrepreneurial capability significantly enhances performance by enabling efficient team building and maximizing team potential. Implementing incentives and team-building activities enhances cohesion and collaboration, motivating participation in entrepreneurial endeavors and improving overall performance.

Participation in innovation competitions and university-enterprise projects enhances students' ability to identify opportunities, innovate, and analyze markets through peer interactions. They develop skills in resource integration, negotiation, and collaboration with entrepreneurs, managers, and technical experts, gaining financial support, expanding networks, and compensating for capital and market insight gaps (Withers et al., 2011; Yin, 2019; Zhang et al., 2009). Entrepreneurial capability positively impacts performance, supporting hypothesis H2.

Environmental dynamics significantly moderate the relationship between entrepreneurial capability and performance, as hypothesized in H4. In dynamic environments,

entrepreneurial capability allows entrepreneurs to leverage their skills effectively (Teece et al., 1997). Effective strategic decisions and adaptability to environmental changes lead to higher performance for startups. Strong capabilities enable prompt adjustments in strategies and enhance resource integration and opportunity identification. Environmental shifts influence entrepreneurial leadership and innovation (Jansen et al., 2006; Omri, 2015) encouraging startups to innovate and respond to market demands. This co-evolution accelerates startup performance improvement, fostering internal cohesion and external competitiveness (Rubin et al., 2005; Vera & Crossan, 2004).

#### **Managerial implication**

Universities should integrate entrepreneurship education and develop robust entrepreneurial competitions, science parks, and incubators tailored to their unique characteristics. This fosters an entrepreneurial environment on and off campus, stimulating students' entrepreneurial intentions and capabilities through comprehensive, multi-stage approaches.

Entrepreneurs should actively pursue self-directed learning and practical entrepreneurial activities to achieve their ideals and enhance entrepreneurial intentions. Focus on skill development in business management, team building, critical thinking, and entrepreneurial financing enhances problem-solving, efficiency, and decision-making, thereby boosting entrepreneurial performance.

Entrepreneurs must understand and adapt to dynamic environments characterized by new technologies, evolving consumer preferences, and market shifts. Utilizing big data analysis and staying informed about industry trends allows entrepreneurs to maintain industry leadership, anticipate changes, and mitigate risks effectively.

Governments should prioritize creating a fair market environment and implementing tailored regulatory systems. Continued administrative reforms aimed at efficiency and service improvement support business development, fostering collaboration between the nation and new enterprises to enhance overall effectiveness.

#### **Limitation and Future Research**

This study is conducted within the context of China, and whether these conclusions are applicable to other countries remains subject to further investigation. The sample collection for this study was confined to a single time frame, utilizing static data selected by the authors. However, this approach lacks a dynamic perspective, which is crucial for understanding the impact of university entrepreneurship education on students' entrepreneurial performance. Additionally, it overlooks the potential evolution of respondents' entrepreneurial intentions over time.

## Reference

Ajzen, I. (2005). *EBOOK: Attitudes, Personality and Behaviour*: McGraw-Hill education.

Aldrich, H., Zimmer, C., & Jones, T. (1986). Small business still speaks with the same voice: A replication of 'the voice of small business and the politics of survival. *The Sociological Review*, 34(2), 335-356. <https://doi.org/10.1111/j.1467-954X.1986.tb02705.x>

Bird, B. (1988). Implementing entrepreneurial ideas: The case for intention. *The Academy of Management Review*, 13(3), 442-453. <https://doi.org/10.2307/258091>

Blink, S. (2023). *Global Startup Ecosystem Index 2023*. Retrieved from <https://www.startupblink.com/blog/global-startup-ecosystem-index/>

Bugental, D. B., Caporael, L., & Shennan, W. A. (1980). Experimentally produced child uncontrollability: Effects on the potency of adult communication patterns. *Child Development*, 520-528. <https://doi.org/10.2307/1129287>

Dawson, J. F. (2014). Moderation in management research: What, why, when, and how. *Journal of Business and Psychology*, 29(1), 1-19. <https://doi.org/10.1007/s10869-013-9308-7>

DeVellis, R. F., Blalock, S. J., Holt, K., Renner, B. R., Blanchard, L. W., & Klotz, M. L. (1991). Arthritis patients' reactions to unavoidable social comparisons. *Personality and Social Psychology Bulletin*, 17(4), 392-399. <https://doi.org/10.1177/0146167291174006>

Ensley, M. D., Pearce, C. L., & Hmieleski, K. M. (2006). The moderating effect of environmental dynamism on the relationship between entrepreneur leadership behavior and new venture performance. *Journal of Business Venturing*, 21(2), 243-263.

Frazier, P. A., Tix, A. P., & Barron, K. E. (2004). Testing moderator and mediator effects in counseling psychology research. *Journal of Counseling Psychology*, 51(1), 115. <https://doi.org/10.1037/0022-0167.51.1.115>

Guo, R., & Cai, L. (2014). An empirical study of the relationship between strategic experimentation, entrepreneurial ability and competitive advantage of new firms in the context of transition economy. *Foreign Economics and Management*, 36(12), 3-12. <https://doi.org/10.16538/j.cnki.fem.2014.12.002>

Hayes, A. F. (2018). Partial, conditional, and moderated moderated mediation: Quantification, inference, and interpretation. *Communication Monographs*, 85(1), 4-40. <https://doi.org/10.1080/03637751.2017.1352100>

Huang, J. R. (2010). *A study of the impact of environmental characteristics, entrepreneurial networks on entrepreneurial opportunity identification*. [Doctoral dissertation, Jilin University].

Jansen, J. J. P., Van Den Bosch, F. A. J., & Volberda, H. W. (2006). Exploratory innovation, exploitative innovation, and performance: Effects of organizational antecedents and environmental moderators. *Management Science*, 52(11), 1661-1674.

Joanes, D. N., & Gill, C. A. (1998). Comparing measures of sample skewness and kurtosis. *Journal of the Royal Statistical Society: Series D (The Statistician)*, 47(1), 183-189.

Ju, W. (2022). *A study of academic engagement, entrepreneurial intentions, and academic entrepreneurial performance*. [Doctoral dissertation, Nanjing University of Science and Technology].

Kangtao, Y. (2022). *China Youth Entrepreneurship Development Report 2022*. Retrieved from <https://mbaen.rmbs.ruc.edu.cn/>

Kautonen, T., Van Gelderen, M., & Fink, M. (2015). Robustness of the theory of planned behavior in predicting entrepreneurial intentions and actions. *Entrepreneurship Theory and Practice*, 39(3), 655-674. <https://doi.org/10.1111/etap.12056>

Krueger Jr, 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](https://doi.org/10.1016/S0883-9026(98)00033-0)

Krueger, N. F., & Carsrud, A. L. (1993). Entrepreneurial intentions: Applying the theory of planned behaviour. *Entrepreneurship & Regional Development*, 5(4), 315-330. <https://doi.org/10.1080/08985629300000020>

Lee, T., & Chu, W. (2013). How entrepreneurial orientation, environmental dynamism, and resource rareness influence firm performance. *Journal of Management & Organization*, 19(2), 167-187.

Liñán, F., Rodríguez-Cohard, J. C., & Rueda-Cantuche, J. M. (2011). Factors affecting entrepreneurial intention levels: A role for education. *International Entrepreneurship and Management Journal*, 7, 195-218. <https://doi.org/10.1007/s11365-010-0154-z>

Liu, M., Lu, G., & Peng, Z. (2011). Analysis of Gender Differences and Influencing Factors of College Students' Entrepreneurial Intention. *Fudan Education Forum*, 9(06), 55-62. <https://doi.org/10.13397/j.cnki.fef.2011.06.012>

Liu, Z. (2014). *Research on the structure, influencing factors, and enhancement countermeasures of college students' entrepreneurial intention*. [Doctoral degree, Northeast Normal University].

McClelland, D. C., & Boyatzis, R. E. (1982). Leadership motive pattern and long-term success in management. *Journal of Applied Psychology*, 67(6), 737. <https://doi.org/10.1037/0021-9010.67.6.737>

Mycos. (2017). *China College Student Employment Report 2017*. Retrieved from [https://www.mycos.com/En/index.php\\_s=%252FIndex%252Fservice\\_info%252Fnav%252F2%252Fi%252F4.html](https://www.mycos.com/En/index.php_s=%252FIndex%252Fservice_info%252Fnav%252F2%252Fi%252F4.html)

Nabi, G., Liñán, F., Fayolle, A., Krueger, N., & Walmsley, A. (2017). The impact of entrepreneurship education in higher education: A systematic review and research agenda. *Academy of Management Learning & Education*, 16(2), 277-299.

Omri, W. (2015). Innovative behavior and venture performance of SMEs: The moderating effect of environmental dynamism. *European Journal of Innovation Management*, 18(2), 195-217.

Pieterse, A. N., Van Knippenberg, D., & van Ginkel, W. P. (2011). Diversity in goal orientation, team reflexivity, and team performance. *Organizational Behavior and Human Decision Processes*, 114(2), 153-164. <https://doi.org/10.1016/j.obhdp.2010.11.003>

Rasmussen, E., Mosey, S., & Wright, M. (2011). The evolution of entrepreneurial competencies: A longitudinal study of university spin-off venture emergence. *Journal of Management Studies*, 48(6), 1314-1345. <https://doi.org/10.1111/j.1467-6486.2010.00995.x>

Rubin, R. S., Munz, D. C., & Bommer, W. H. (2005). Leading from within: The effects of emotion recognition and personality on transformational leadership behavior. *Academy of Management Journal*, 48(5), 845-858.

Sancho, M. P. L., Ramos-Rodriguez, A. R., & Vega, M. d. l. A. F. (2022). The influence of university entrepreneurship-oriented training in the transformation of intentions into new businesses. *The International Journal of Management Education*, 20(2), 100631. <https://doi.org/10.1016/j.ijme.2022.100631>

Shane, S. A. (2003). *A general theory of entrepreneurship: The individual-opportunity nexus*. Edward Elgar Publishing.

Sieger, P., Fueglstaller, U., & Zellweger, T. (2016). *Student Entrepreneurship 2016: Insights From 50 Countries*. Retrieved from [https://boris.unibe.ch/89857/1/GUESSS\\_2016\\_INT\\_Report\\_final.pdf](https://boris.unibe.ch/89857/1/GUESSS_2016_INT_Report_final.pdf)

Su, L. L., Pang, Y. L., & Kong, R. (2016). A study on the impact of farmers' entrepreneurial ability on entrepreneurial acquisition - based on the mediating effect of entrepreneurial performance and the moderating effect of entrepreneurial motivation. *Agricultural Technology and Economics*(12), 63-75. <https://doi.org/10.13246/j.cnki.jae.2016.12.007>

Teece, D. J., Pisano, G., & Shuen, A. (1997). Dynamic capabilities and strategic management. *Strategic Management Journal*, 18(7), 509-533.

Van Horn, R. L., & Harvey, M. G. (1998). The rural entrepreneurial venture: Creating the virtual megafirm. *Journal of Business Venturing*, 13(4), 257-274. [https://doi.org/10.1016/S0883-9026\(97\)00012-8](https://doi.org/10.1016/S0883-9026(97)00012-8)

Vera, D., & Crossan, M. (2004). Strategic leadership and organizational learning. *Academy of Management Review*, 29(2), 222-240.

Wang, B. (2019). *A Study of the Mechanism of Entrepreneurial Learning on the Performance of New Ventures*. [Doctoral dissertation, Jilin University].

Wang, Y., Feng, W., & Wang, Y. (2013). A study on the correlation between entrepreneurial environment and entrepreneurial intention of college students - based on gnyawali & fogel's five-latitude model perspective. *Educational Exploration* (01), 150-151.

Wen, L., & Li, L. (2010). Analysis of factors influencing entrepreneurial intention. *Explore* (09), 78-79. <https://doi.org/10.16059/j.cnki.cn43-1008/c.2010.09.077>

WIPO. (2022). *Global Innovation Index 2022*. Retrieved from [https://www.wipo.int/global\\_innovation\\_index/en/2022/index.html](https://www.wipo.int/global_innovation_index/en/2022/index.html)

Withers, M. C., Drnevich, P. L., & Marino, L. (2011). Doing more with less: The disordinal implications of firm age for leveraging capabilities for innovation activity. *Journal of Small Business Management*, 49(4), 515-536. <https://doi.org/10.1111/j.1540-627X.2011.00334.x>

Yang, R. (2023). *A study on the continuous entrepreneurial ability of Chinese university students*. [Doctoral dissertation, University of Science and Technology Beijing].

Yin, F. (2019). Entrepreneurship education, entrepreneurial intention, and college students' entrepreneurial performance: An empirical analysis based on a survey of 235 questionnaires. *Technology, Economics & Management Research*, 2, 41-46.

Zhang, M., Tansuhaj, P., & McCullough, J. (2009). International entrepreneurial capability: The measurement and a comparison between born global firms and traditional exporters in China. *Journal of International Entrepreneurship*, 7, 292-322. <https://doi.org/10.1007/s10843-009-0042-1>

Zhang, X., Qi, W., & Li, Z. (2017). A study of the mechanism of entrepreneurial experience on entrepreneurial opportunity identification. *Scientific Research*, 35(03), 419-427. <https://doi.org/10.16192/j.cnki.1003-2053.2017.03.013>

Zhang, X. E., & Zhang, K. (2018). The relationship between creativity and entrepreneurial intention: A moderated mediating effect model. *Foreign Economics & Management*, 40(03), 67-78.

Zhang, Y., & Wang, X. (2011). An empirical study of prior experience, learning styles and entrepreneurial competence. *Management Science*, 24(03), 1-12.

Zhao, H., Seibert, S. E., & Hills, G. E. (2005). The mediating role of self-efficacy in the development of entrepreneurial intentions. *Journal of Applied psychology*, 90(6), 1265. <https://doi.org/10.1037/0021-9010.90.6.1265>

Zhong, W., & Huang, Z. (2012). An empirical study of the relationship between relationship strength, self-efficacy and entrepreneurial performance of entrepreneurs. *China Science and Technology Forum*(01), 131-137.