



An Analysis of the Mechanism Model of the Impact of Entrepreneurial Psychological Capital on the Entrepreneurial Performance of Students in Private Undergraduate Institutions

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Abstract. This study takes entrepreneurial students in private undergraduate colleges and universities as the research object, collects data by distributing questionnaires to many private undergraduate colleges and universities across China, and adopts regression modeling to test the mechanism of entrepreneurial psychological capital of students in private undergraduate colleges and universities on their entrepreneurial performance, as well as the moderating role of the entrepreneurial institutional environment. The empirical results indicate that the entrepreneurial psychological capital of students in private undergraduate colleges and universities has a significant positive effect on their entrepreneurial performance; at the same time, the entrepreneurial institutional environment plays a significant positive moderating role in the relationship between entrepreneurial psychological capital and entrepreneurial performance, i.e., a good entrepreneurial institutional environment strengthens the positive effect of psychological capital on performance. The study reveals the role of entrepreneurial psychological capital as the core motivation in private students' entrepreneurship and emphasizes the importance of optimizing the external institutional environment, which provides a theoretical basis and practical inspiration for the reform and policy formulation of entrepreneurship education in private colleges and universities.

Keywords: private undergraduate institutions; entrepreneurial psychological capital; entrepreneurial institutional environment; entrepreneurial performance;

1 Introduction

In the context of the deepening of the national strategy of “mass entrepreneurship and innovation” and the popularization of higher education, private undergraduate colleges and universities, as an important position for the cultivation of applied talents, are of great significance in promoting the development of the regional economy and alleviating the pressure of employment through the entrepreneurial activities of their stu-

dents. Existing studies have shown that the intrinsic psychological traits of entrepreneurs are the key elements that drive entrepreneurial success^[1], and that entrepreneurship among private college students is more likely to be constrained by external institutional factors such as local policies, cultural atmosphere, and market maturity. Currently, scholars mostly focus on the group of students or entrepreneurs in public colleges and universities, and pay less attention to the special group of students in private undergraduate colleges and universities. Based on this, this study focuses on the group of entrepreneurial students in private undergraduate colleges, integrates psychological capital theory and institutional theory, and explores and analyzes the relationship between entrepreneurial psychological capital, entrepreneurial performance and entrepreneurial institutional environment.

The purpose of this paper is to reveal the internal and external synergistic mechanisms affecting the entrepreneurial performance of private students, and to provide targeted theoretical support and practical guidance for the optimization of the entrepreneurship education system in private colleges and universities, and for the improvement of entrepreneurship support policies by local governments.

The rest of the paper is structured as follows: section 2 provides a literature review, section 3 explores the research methodology and data, section 4 presents the empirical results, and section 5 concludes.

2 Literature Review and Theoretical Foundations

2.1 Literature Review

(1) Entrepreneurial psychological capital

Luthans (2006) proposed that entrepreneurial psychological capital is a positive psychological state that entrepreneurs possess that is measurable, exploitable, and influences performance fits the entrepreneurial group in the context of the process of entrepreneurial activity^[2]. Huang, Meijiao (2023) argued that entrepreneurial psychological capital is a key factor for entrepreneurs to sustain entrepreneurial activity and achieve entrepreneurial success^[3]. Shao, Hanmei (2025) suggested that in order to enhance the success rate of entrepreneurship, group counseling can be provided to students with low psychological capital for entrepreneurship^[4]. Cui Zhifang (2024) from the perspective of entrepreneurial psychological capital to enhance the entrepreneurial success rate of higher vocational students can not be separated from the analysis of the factors affecting entrepreneurial psychological capital^[5].

This paper defines entrepreneurial psychological capital as a unique positive psychological state exhibited by entrepreneurs that meets the psychological requirements of the entrepreneurial process and promotes the success of entrepreneurial activities. Entrepreneurial psychological capital includes seven dimensions: enthusiasm and innovation, sensitivity and excellence, social intelligence, optimism and hope, self-efficacy, proactive coping, and positive growth.

(2) Entrepreneurial performance

Scholar Zhu Yen-Peng (2024) suggests that the concept of entrepreneurial performance is the result of the interaction of multiple factors that form^[6]. Foreign scholars

Sandberg and Hofer proposed a model of startup performance, which stipulates that the performance of a startup is formed by the interaction of three elements: entrepreneur (E), strategy (S) and industrial structure (IS). Although Sandberg's model is significant and attractive, it is incomplete.

(3) Institutional environment for entrepreneurship

On the basis of summarizing the results of previous research, Scott, a foreign scholar, incorporates the theory of institutional environment and proposes that the institutional environment is a kind of constraint with stable social relations, and this constraint is composed of three elements: regulation, norms and cognition^[1]. To understand how the three-factor model works^[7], Busebitz surveyed business students in six countries and explored the level of entrepreneurial ventures as well as elucidated the different roles of regulatory, cognitive, and normative dimensions in determining the level of entrepreneurship in each location^[8]. Busebitz et al. suggest that members of society should share common values about entrepreneurial activity itself, and Bruton et al. suggest that the institutional environment created by the government is not passive, but rather plays an active and positive role, which refers to the provision of relevant resources and support services for entrepreneurial activity^[9].

(2) Theoretical foundation and theoretical modeling

① Theoretical Foundations

According to resource conservation theory, entrepreneurial psychological capital, as a kind of positive psychological resource unique to entrepreneurial individuals, can provide powerful psychological resources for the success of entrepreneurial activities; The new institutional theory suggests that the relevant decisions and behaviors of business organizations are influenced by institutional factors determined in the external social environment in which they are located, and that institutions are embedded in the behavior and performance of firms; In the context of China's economic transition, there are differences in the level of entrepreneurship between different regions, and these differences are widening. The entrepreneurial environment and institutional environment can explain, to a certain extent, the differences in entrepreneurial activity between different regions. Compared to other groups in society, university students are more dependent on external entrepreneurial systems and environments when starting a business. If the regulatory dimension of the entrepreneurial institutional environment in which college students currently engage in entrepreneurship is considered to be at a high level, then external factors such as the government and society must have established comprehensive legal and other supportive measures. A high level of normative dimension tends to indicate a favorable social environment for entrepreneurship. When the external entrepreneurial environment in which the entrepreneurial entity operates is favorable, entrepreneurial beliefs are strengthened, further promoting the effective conduct of entrepreneurial activities. A favorable entrepreneurial environment can boost college students' confidence and hope for entrepreneurial success, and this positive psychological state will further promote improvements in entrepreneurial performance. According to the self-determination theory, on the basis of the comprehensive understanding of the individual's inner needs and the information of the external environment, the individual can independently choose to make the relevant initiatives that are conducive to the success of entrepreneurial activities, so that entrepreneurial sub-

jects with a high level of entrepreneurial psychological capital subjectively admit that they have a wealth of entrepreneurial knowledge and skills that enable them to make the correct and efficient decisions in the process of entrepreneurial activities, which will lead to higher performance for the entrepreneurial enterprise. The entrepreneurial enterprise will then achieve higher performance.

Based on the above theories, the following hypotheses are proposed in this paper:

Entrepreneurial psychological capital has a positive effect on entrepreneurial performance; entrepreneurial institutional environment enhances the effect of entrepreneurial psychological capital on entrepreneurial performance.

② Theoretical Modeling

Based on the theory of entrepreneurial psychological capital, this study establishes a theoretical model of the impact of entrepreneurial psychological capital on entrepreneurial performance, which takes entrepreneurial psychological capital as the independent variable and entrepreneurial performance as the dependent variable, and introduces the entrepreneurial institutional environment variable on the basis of the role of entrepreneurial psychological capital and entrepreneurial performance, and explores the moderating role of the entrepreneurial institutional environment in the relationship between entrepreneurial psychological capital and entrepreneurial performance.

3 Data and Methodology

3.1 Feature Variables

In this paper, for the entrepreneurial psychological capital measure is the entrepreneurial psychological capital scale prepared by domestic researcher Gao Na in 2014 in the “Preliminary Development of the Entrepreneurial Psychological Capital Scale”, which is in line with the domestic socio-cultural context of the entrepreneurial psychological capital scale^[10]. The psychological capital of entrepreneurship contains 31 questions. The measurement of entrepreneurial performance in this paper is based on the entrepreneurial performance scale compiled by foreign scholars Covin and Chandler et al. Wu Yan, which was finalized after repeated discussions with relevant well-known domestic experts, and is divided into financial dimension (three items) and non-financial dimension (three items); the measurement of entrepreneurial institutional environment in this paper adopts the entrepreneurial institutional environment scale compiled by Busenitz et al. The entrepreneurial institutional environment scale compiled by Busenitz et al. has three dimensions: regulatory dimension (five items), normative dimension (four items), and cognitive dimension (four dimensions), which has been cited by most scholars and has good reliability and validity.

3.2 Data Collection

This paper uses questionnaire star to prepare and distribute questionnaires, the questionnaire collection of this study began in May 2025 and ended in July 2025, a total of 1002 questionnaires were collected, according to the quality of questionnaire response

screening and elimination, the results of the remaining 904 valid responses, the questionnaire recovery effectiveness rate of 90.3%.

The individual characteristics of private undergraduate college student entrepreneurs were analyzed by using SPSS 22.0 statistical analysis software on 904 valid samples collected. There are 616 males in the samples, accounting for 68.14%, which shows that the ratio of male college student entrepreneurs in entrepreneurial activities is slightly higher than that of female college student entrepreneurs, which is basically in line with other studies; the age of entrepreneurial age is 21-30 years old, 472 people, accounting for 52.21%, the age distribution of entrepreneurial main body is close to that of the current situation that China's entrepreneurial activities are mainly for the middle-aged and young people; the nature of entrepreneurial enterprise is private enterprise. The nature of entrepreneurial enterprises is private enterprise, accounting for 64.6% of 584 people, which is in line with the actual situation of entrepreneurship in China, and the proportion of private enterprises in China has exceeded 80%; 196 people have participated in relevant entrepreneurship courses, accounting for 21.68%, which shows that the proportion of university entrepreneurs in China who have received relevant entrepreneurship courses is relatively small.

3.3 Data Analysis

(1) Correlation analysis among variables

From Table 1, it can be found that entrepreneurial psychological capital, entrepreneurial performance and entrepreneurial institutional environment have obvious positive correlation, and the correlation coefficient value between entrepreneurial psychological capital and entrepreneurial performance is 0.752, and shows the significance at 0.01 level, which indicates that there is a significant positive correlation between entrepreneurial psychological capital and entrepreneurial performance. The correlation coefficient between entrepreneurial psychological capital and entrepreneurial institutional environment is 0.683 and is significant at 0.01 level, thus indicating a significant positive relationship between entrepreneurial psychological capital and entrepreneurial institutional environment. The data show that the relationship between the variables is consistent with the direction of the hypothesis of this study, which provides a certain basis for the further verification of the hypothesis in the following section.

Table 1. Results of correlation analysis of variables.

	Average value	Standard deviation	1	2	3	4	5	6	7	8
1. Sex	1.680	0.466	1							
2. Age	2.381	0.601	0.481 **	1						
3. Education	2.084	0.429	-0.02 1	0.013	1					
4. whether attended entrepreneurship	1.783	0.413	0.401 **	0.352 **	-0.148 **	1				

course										
5.entrepreneurial										
venture	1.730	1.148	-0.46	-0.33	-0.017	-0.11	1			
nature			0**	4		5				
6.entrepreneurial										
psychology	4.169	0.760	0.285	0.176	0.051	0.056	-0.360	1		
capital			**	**			**			
7.Entrepreneurial										
performance	4.134	0.737	0.436	0.255	-0.059	0.192	-0.385	0.752	1	
			**	**		**		**		
8.Entrepreneurial										
institutional	4.220	0.632	0.394	0.237	0.006	0.163	-0.382	0.683	0.7	1
environment			**	**		*	**	**	40*	*

4 Hypothesis Testing

4.1 Regression Analysis of Entrepreneurial Psychological Capital on Entrepreneurial Performance

In this study, entrepreneurial psychological capital is defined as the independent variable and entrepreneurial performance is defined as the dependent variable, and the results are shown in Table 2, and the R-squared value of the model is 0.661, which indicates that the construct of entrepreneurial psychological capital can explain 66.1% of the variation process affecting the dependent variable. The next step is to conduct F-test on the model, and it is found that the model passes the F-test with the F-value of 436.413 and the p-value is less than 0.05, which also indicates that entrepreneurial psychological capital will definitely have an effect on the dependent variable, and the value of the regression coefficient of entrepreneurial psychological capital is 0.852 (t=20.891, p=0.000<0.01), and the model formula is: Entrepreneurial performance=0.581+0.852* entrepreneurial psychological capital, the model formula is: Entrepreneurial performance=0.581+0.852+0.852* entrepreneurial psychological capital. 0.852* entrepreneurial psychological capital, indicating that: all of entrepreneurial psychological capital will form a significant positive influence relationship on entrepreneurial performance.

Table 2. Results of regression analysis of entrepreneurial psychological capital on entrepreneurial performance.

	Non-standardized coefficient		t	p	Adjustment of R ²	F value
	B	standard error				
Constants	0.581	0.173		0.001*	0.661	436.413**
Entrepreneurial Mental Capital	0.852	0.041	20.891	0.000*		

4.2 A test of the Moderating Role of the Institutional Environment for Entrepreneurship

In order to further verify the moderating role of entrepreneurial institutional environment in the influence of entrepreneurial psychological capital on entrepreneurial performance, the moderating effect data analysis was continued, and a hierarchical regression model was introduced, i.e., the data analysis was realized by adding independent variables and moderators, and interactions between independent variables and moderators layer by layer, in order to prevent the formation of multiple covariance problems due to the addition of interactions, and the results were centered on both independent variables and moderators, as shown in Table 3. The moderating effect mainly consists of three models, and Model 1 includes the independent variable entrepreneurial psychological capital, and five control variables such as gender and age, etc. Model 1 is designed to study the degree of influence of the independent variable of entrepreneurial psychological capital on the dependent variable, and there is no role of moderating variables in this degree of influence. The independent variable, entrepreneurial psychological capital, is significant ($t=19.327$, $p=0.000<0.05$). Adding the moderator variable of entrepreneurial institutional environment to model 1, model 2 was obtained, and the data analysis results showed that the F-value was significant at the p less than 0.001 level. The interaction term between the independent variable and the moderator variable is added to Model 2 to obtain Model 3, and the extent of the moderating effect can be detected by looking at the significance of the interaction term in Model 3. The interaction term between entrepreneurial psychological capital and entrepreneurial institutional environment in Model 3 is significant ($t=2.510$, $p=0.013<0.05$), which indicates that when entrepreneurial psychological capital affects entrepreneurial performance, the magnitude of the effect of the entrepreneurial institutional environment as a moderator variable varies significantly at different levels, and that the level of the entrepreneurial institutional environment influences the extent to which entrepreneurial psychological capital affects entrepreneurial performance. The level of entrepreneurial institutional environment affects the degree of influence of entrepreneurial psychological capital on entrepreneurial performance.

Table 3. Results of the analysis of the moderating role of the institutional environment for entrepreneurship.

	Model 1	Model 2	Model 3
Constant	3.742**	4.163**	4.169**
Gender	0.310**	0.117*	0.113*
Age	0.010	0.004	-0.004
Education	-0.159*	-0.115**	-0.120**
Whether attended entrepreneurship course	0.115	0.006	0.005
Nature of entrepreneurial venture	-0.016	-0.004	-0.005
Psychological capital of entrepreneurship	0.790**	-0.025	-0.021

Institutional environment of entrepreneurship		1.014**	1.044**
Psychological capital of entrepreneurship* Institutional environment of entrepreneurship			0.070*
R ²	0.718	0.893	0.896
Adjusted R ²	0.710	0.889	0.892
F-value	93.006***	355.271***	6.301*

Note: * refers to p , ** refers to $p < 0.01$, *** refers to $p < 0.001$

Based on the above empirical data, it can be seen that entrepreneurial psychological capital has an important positive impact on entrepreneurial performance, and the entrepreneurial institutional environment also plays an important moderating role in the positive correlation between entrepreneurial psychological capital and entrepreneurial performance, which shows that the hypotheses put forward in this study have been tested and verified.

5 Conclusion

The synergistic mechanism of entrepreneurial psychological capital and institutional environment revealed in this paper provides important management insights for the reform of entrepreneurship education system in private undergraduate colleges and universities. Private colleges and universities need to break through the traditional skills training paradigm, build a strategic management system with entrepreneurial psychological capital development as the core and institutional empowerment as the main line, and realize the systematic enhancement of entrepreneurship education effectiveness through organizational changes.

Private universities should incorporate the cultivation of entrepreneurial psychological capital into the top-level design of their organizational strategies and establish it as a core competitive element of entrepreneurial education. Specifically, universities should develop specialized psychological capital development plans, converting the seven dimensions of entrepreneurial psychological capital into quantifiable cultivation objectives. This can be achieved by establishing a “failure case repository” to systematically collect failure experiences and regularly conducting “black swan event stress tests” to simulate extreme business scenarios, thereby establishing a positive feedback loop mechanism of “failure-learning-evolution” at the organizational level.

Private colleges and universities need to optimize the institutional empowerment environment through synergy: first, co-establishment of enterprise real data pool, desensitized customer complaints, supply chain disruption cases into teaching resources, to achieve industrial risk awareness of the front of the training. Secondly, in terms of policy transformation, we set up the “Entrepreneurship Policy Actuarial Center” to transform local policies into materials for real-world sandbox rehearsals.

This paper still has many shortcomings, some of which point the way forward for future research. First, the study did not delve deeper into the potential influence of other variables during the process, resulting in conclusions that are somewhat one-sided.

Therefore, future research should explore these issues more thoroughly to ensure the comprehensiveness and rationality of the influence process; Second, the survey data collected in this study is primarily concentrated in private universities in the Northeast region, which has certain limitations. The entrepreneurial institutional environment in the Northeast region differs from that in southern cities. Future research should further expand the coverage of the survey data subjects.

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