

A Study on Influence Factors of College Students' Entrepreneurial Behaviors in China

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Abstract. College students are the main pioneer in the era of "entrepreneurship and innovation". How to promote them to actively innovate and start a business and improve the entrepreneurial work for them are urgent problems. This paper subdivides college students' living environment and deduces the factors affecting college students' entrepreneurship behaviors from perspectives of individuals, schools, social communities and macro-environment. Then this paper explores the relevancy between these factors and college students' entrepreneurship behaviors by binary logistic regression model analysis. The research shows that there is a big gap between the transformation of college students' entrepreneurial desires and entrepreneurial behaviors in China, the entrepreneurial initiative, self-confidence, innovation and entrepreneurship curriculum, campus entrepreneurship practice center, family support, national entrepreneurship atmosphere and the development of the industry of the entrepreneurship project have significant positive influence on the entrepreneurship behavior of college students.

Keywords: College students' entrepreneurship, entrepreneurial behavior; influence factor, Logistic regression.

1. Introduction

Premier Li Keqiang mentioned the strategic decision of "mass entrepreneurship and innovation" in the "Government Work Report" in 2015 [1]. In the same year, he also argued that college students were the new pioneer to implement the innovation-driven development strategy and promote "mass entrepreneurship and innovation." Promoting college students to start a business can alleviate the problems of employment difficulties caused by the slowdown of the national economic growth and the stagnation of industrial restructuring. What's more, it can also improve the dilemma that many graduates are unemployed upon graduating. However, the actual situation of college students' entrepreneurship is counterproductive. The proportion of college graduates who graduated in 2017 is only 4.78% [2], which is a far below 30% of the developed countries. Thus in order to promote college students' entrepreneurship and provide new training ideas and precise guidance for college students, it is of great significance to clarify the key factors affecting college students' entrepreneurial behavior and to analyze the mechanism of these factors.

2. The Empirical Study on the Influence Factors of College Students' Entrepreneurship Behavior

2.1 Research Objects and Data Sources

Considering that this study needs a large number of college students who have made entrepreneurship behaviors as research objects, so we selected 25 "World-class universities and world-class disciplines" universities in "The List of the First National Model Universities for Deepening Innovation and Entrepreneurship Education Reform". The survey was conducted among college students from these 25 universities such as Peking University and Tsinghua University. A total of 900 questionnaires were sent out. 832 valid questionnaires were collected, with an effective recovery rate of 92.4%.

2.2 Model Construction

2.2.1 Model Setting

Because of the dependent variable of this study, "Will you choose to start a business?" is a binary variable, so the binary logistic model is chosen to analyze the influence factors of college students' entrepreneurship behavior, and the regression parameters are estimated by the maximum likelihood estimation method.

We select Y as a dependent variable. When the value is 1, it means that college students will make entrepreneurship behavior; when the value is 0, it means that college students will not make entrepreneurship behavior. The influence factors of college students' entrepreneurship behavior are X_i ($i=1,2,3,\dots,n$), X_i and Y are related independent variables. Assuming that the probability of a college student's entrepreneurship behavior is P , the general expression of logistic regression analysis model is as follows:

$$\text{Logit}(P|Y=1) = \ln \frac{P}{1-P} = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \dots + \beta_n X_n \quad (1)$$

Logistic cumulative distribution function is used to build the model as follows:

$$P = \frac{e^{(\beta_0 + \sum \beta_i X_i + \mu)}}{1 + e^{(\beta_0 + \sum \beta_i X_i + \mu)}} \quad (2)$$

In formulas (1) and (2), X_i ($i=1,2,3,\dots,n$) are independent variables, representing various factors affecting college students' entrepreneurship behavior. β_0 is a constant term, n represents the number of independent variables, μ represents the random error terms, and β_i ($i=1,2,3,\dots,n$) are the regression coefficients of independent variables, reflecting the direction and degree of independent variables affecting college students' entrepreneurship behavior.

2.2.2 Variable Selection

College students' entrepreneurship behavior is the result of the interaction between entrepreneurs and the environment [3]. That is to say, the factors affecting entrepreneurship behavior can be divided into individual perspective and environmental perspective. According to the particularity of college students' living environment, this paper divides the environmental perspective into three angles: school, social group and macro environment, and analyses the factors affecting college students' entrepreneurship behavior from each angle.

In this study, a problem is used to ask, "Would you choose to start a business?" The results of this problem are taken as a dependent variable. The dependent variable has three features, namely "no", "not at present, will try in the future", "yes, is in the process of entrepreneurship". The first feature is categorized into a group with a value of 0, which means that no entrepreneurship will be done. The latter two features are categorized into one group with a value of 1, which indicates that the entrepreneurship behavior will be made. The statistical results of dependent variables are shown in Table 1. Independent variables are all influencing factors at both individual and environmental perspectives.

Table 1. Statistics of Dependent Variables

Project	Not engage in entrepreneurship	Engage in entrepreneurship	
		not at present, will try in the future	yes, is in the process of entrepreneurship
The number of college students	240	417	175
Proportion (%)	28.8	44.7	26.5

2.3 Analysis of Empirical Results

2.3.1 Model Checking

This paper uses SPSS23.0 statistical software to carry out logistic regression on the data. The regression results show that the accurate prediction ratio of the model is 84.6%, which indicates that the overall prediction accuracy of the model is high. The likelihood ratio Chi-square is 92.87, P is 0, which is less than the given significance level of 0.05. That is to say, all regression coefficients of the binary Logistic model are different from 0 at the same time, and the linear relationship between all independent variables and Logit P is significant, which shows that the established model is suitable. Hosmer-Lemeshow's observation value is 6.472, P value is 0.573, which is larger than the given significant level of 0.05. It shows that the difference between the observation value and the expected value is not significant, and the fitting effect of the model is good.

2.3.2 Analysis and Discussion of Model Results

Variables and the estimated results of the binary logistic model are shown in Table 2.

Table 2. Logistic Model Regression Results

Variable Category		Variable Name	Regression Coefficient (B)	Significance Level (Sig)	$Exp(B)$
Individual		Interpersonal Relationship	0.007	0.862	1.097
		Entrepreneurial Initiative	0.746	0.032	1.956
		Innovation Ability	0.586	0.073	1.698
		Self-confidence	0.838	0.017	2.259
Environment	School	Innovation And Entrepreneurship Curriculum	0.624	0.042	1.871
		Lectures about Innovative Entrepreneurship	0.002	0.924	1.014
		Innovative Entrepreneurship Research Project	0.112	0.568	1.305
		Innovative Entrepreneurship Competition	0.496	0.088	1.527
		Campus Entrepreneurship Practice Center	0.942	0.002	2.483
	Social Communities	Family Support	0.719	0.035	1.934
		Teachers' Help	0.492	0.094	1.502
		Classmates' Help	0.109	0.588	1.298
		The Help of Entrepreneurs around	0.437	0.102	1.598
	Macro-environment	National Entrepreneurial Atmosphere	0.698	0.039	1.888
		The Preferential Strength of College Students' Entrepreneurship Policy	0.575	0.077	1.682
		The Development of The Industry of The Entrepreneurship Projects	0.825	0.029	1.974
		The Overall Economic Situation of The Country	0.354	0.283	1.496

2.3.3 Individual Perspective

Entrepreneurial initiative and self-confidence have a significant impact on college students' entrepreneurship behavior, but the interpersonal relationship and innovation ability have not passed the significant test. The entrepreneurial initiative of college students has a significant positive impact on their entrepreneurial behavior, the regression coefficient is 0.746, indicating that the higher the enthusiasm of college students towards entrepreneurship, the more likely they will start their own businesses. The degree of College Students' self-confidence in entrepreneurship has a significant

positive impact on College Students' entrepreneurship behavior. The regression coefficient is 0.838, which indicates that the higher the degree of college students' self-confidence in entrepreneurship, the higher the possibility of entrepreneurship.

2.3.4 Environmental Dimension

From the angle of school, innovation and entrepreneurship curriculum and campus entrepreneurship practice centers have a significant impact on college students' entrepreneurship behavior. Lectures about innovative entrepreneurship, innovative entrepreneurship research project and innovative entrepreneurship competitions failed to pass the significant test. Innovation and entrepreneurship curriculum has a significant positive impact on college students' entrepreneurship behavior, the regression coefficient is 0.624, indicating that the innovation and entrepreneurship curriculum has a positive effect on their entrepreneurship behavior. The campus entrepreneurship practice center has a significant positive impact on college students' entrepreneurship behavior, the regression coefficient is 0.942, indicating that the campus entrepreneurship practice center set up by the school has greatly affected college students' entrepreneurship behavior.

From the angle of social communities, family support has a significant impact on college students' entrepreneurship behavior. Teachers' help, classmates' help and the help of entrepreneurs around have not passed the significant test. Family support has a significant positive impact on college students' entrepreneurial behavior, the regression coefficient is 0.719, indicating that the higher the family support for entrepreneurship, the higher the possibility of college students to make entrepreneurial behaviors.

From the angle of macro-environment, the national entrepreneurial atmosphere and the development of the industry of the entrepreneurship projects have a significant impact on college students' entrepreneurship behavior. The preferential strength of college students' entrepreneurship policy and the overall economic situation of the country have not passed the significant test. The national entrepreneurial atmosphere has a significant positive impact on the entrepreneurial behavior of college students, the regression coefficient is 0.698, indicating that the stronger the national entrepreneurial atmosphere of the country, the higher the possibility of college students to make entrepreneurial behaviors. The development of the industry of the entrepreneurship projects has a significant positive impact on the entrepreneurial behavior of college students, with the regression coefficient of 0.825, indicating that the development of the industry of the entrepreneurship projects is closely related to whether the college students make entrepreneurial behaviors.

3. Conclusion and Suggestions

3.1 Lighten the Ideological Burden of College Students' Entrepreneurship and Encourage Them to Take the First Step of Entrepreneurship Boldly

The research shows that there is a big gap between college students' entrepreneurship intention and entrepreneurship behavior. In order to transform entrepreneurship intention into entrepreneurship behavior, we should not only carry out targeted education for college students, but also construct a good environment for entrepreneurship. At present, many college students are afraid of entrepreneurship because they lack the understanding of entrepreneurship. They think that entrepreneurship is risky. Therefore, even if they have the idea of entrepreneurship, they are unwilling to put it into action. Schools can help college students understand entrepreneurship by carrying out various entrepreneurial activities, making them familiar with the risks and avoidance methods in the process of entrepreneurship, and alleviating the ideological burden of college students on entrepreneurship.

3.2 Entrepreneurship Education Needs to Combine Theoretical Teaching with Practical Entrepreneurship

The research shows that innovative entrepreneurship courses and school entrepreneurship practice centers play obvious roles in promoting entrepreneurship. Learning courses related to entrepreneurship

is of great help to the establishment of college students' entrepreneurship thinking and stimulate their interest in entrepreneurship. Therefore, if the school wants students to have some knowledge about entrepreneurship, it is very effective to set up a series of public elective courses with the theme of "entrepreneurship". In addition, as a practical activity, entrepreneurship requires students to experience the whole process through practice and make full use of entrepreneurial knowledge. Therefore, it is of great benefit for college students to participate in entrepreneurial practice centers on campus and practice entrepreneurship.

3.3 Strengthen the Cultivation of the "Soft Power" for College Students' Entrepreneurship and Enhance the Qualities That Entrepreneurs Need to Possess

The results show that higher initiative and self-confidence in entrepreneurship can significantly promote college students' entrepreneurship. Therefore, entrepreneurship education should not only focus on deepening college students' entrepreneurship knowledge and enhancing their practical ability, but also enhance their subjective initiative to start a business, so that college students can actively start a business and enjoy the process of entrepreneurship. At the same time, in order to succeed in the process of entrepreneurship, entrepreneurs' essential qualities such as self-confidence and ability to cope with risks need to be emphatically trained in entrepreneurship education.

3.4 Utilize Family to Expand Entrepreneurship Resources and Enhance Entrepreneurship Motivation

The research shows that family support plays a significant role in promoting college students' entrepreneurship. The words and deeds of family members have a great impact on college students' entrepreneurship concept. Most of the contemporary college students are only children in their families. They attach great importance to the attitude and opinions of their families. In addition, due to their limited economic strength, many college students will borrow family funds in the process of starting a business. If they fail, they will probably bring losses to their families. This is what many college students worry about when deciding whether to start a business or not. Therefore, if the family encourages and supports college students' entrepreneurship, it not only brings motivation to college students' entrepreneurship, but also reduces the worries. In addition to attitude support, family members will also bring help to college students in terms of networking, funding and other aspects, which greatly reduce the risk of business failure.

3.5 Search Suitable Industries and Identify Favorable Business Opportunities

The research shows that the development of the industry in which the entrepreneurship project is developed has a significant positive impact on college students' entrepreneurship behavior. A good industrial environment can provide a comfortable incubation platform for the growth of entrepreneurship projects and improve the success rate of entrepreneurship. College students need to pay attention to the development of various industries in the country, and choose industries that are in good condition and conducive to project growth for entrepreneurship.

3.6 Create a Strong Entrepreneurial Atmosphere and Stimulating Innovation and Entrepreneurship Vitality

Research shows that the national entrepreneurial atmosphere has a significant positive impact on college students' entrepreneurial behavior. Creating a strong entrepreneurial atmosphere can encourage college students to invest in innovation and entrepreneurship, thus stimulating innovation and entrepreneurship vitality, and accelerating economic development. Therefore, government departments can actively build innovation exchange platform, organize a series of innovation and entrepreneurship activities, provide a stage for innovation and entrepreneurship, and strive to create and cultivate innovation and entrepreneurship culture.

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