

Research on the Influencing Factors of College Graduates' Intention to Start Their Own Business under the Perspective of Linear Regression Method

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Abstract. This study provides a comprehensive analysis of entrepreneurial tendencies among Chinese university graduates in 2022. Surveying 2,208 graduates across eastern, central, and western regions, we find that while overall entrepreneurial inclination is moderate, key determinants, including the entrepreneurial environment and individual characteristics, exert significant and stable influence, while university and family-related factors play a minor, less stable role.

Keywords: Graduating Students, Entrepreneurial Propensity, Determinants, Autonomous Entrepreneurship, Premium Employment

1 Introduction

The 18th Party Congress report clearly emphasizes the importance of achieving higher-quality employment, encouraging diversified employment through various channels, and promoting entrepreneurship to generate employment opportunities. In 2015, policy documents were introduced to promote innovation and entrepreneurship education in higher education institutions, aiming to nurture talents in innovation and entrepreneurship. The "Internet Plus" initiative encourages innovation and entrepreneurship, fostering a new engine of economic growth^[1]. Entrepreneurship among university students aligns with national policies, facilitating the integration of individual and societal values.^[8] This article aims to inspire the entrepreneurial aspirations of university students, analyze influencing factors, and measure entrepreneurial tendencies based on scales developed by Thompson, Zhao, and Seibert^[2]. Entrepreneurial tendencies are influenced by both intrinsic characteristics and external environmental factors. Multiple linear regression analysis is employed to study the impact, degree, and stability of individual, family, university, and entrepreneurial environment factors on entrepreneurial tendencies among university students. This research contributes to theoretical support and promotes greater engagement of university students in entrepreneurship.

2 Research Sample and Design

This study focuses on the 2022 graduating class of university students in different regions and types of institutions in China. Data collection was conducted through a survey questionnaire. When constructing the sample, we took into full consideration the characteristics of universities in the eastern, central, and western regions, including factors such as school type, academic level, and disciplinary distribution^[3]. A total of 3,000 survey questionnaires were distributed, with 2,208 valid responses received, resulting in a high effective response rate of 90.74%. The distribution of the valid sample is as follows: 159 respondents from Peking University, 155 from Tsinghua University, 160 from Fudan University, 158 from Shanghai Jiao Tong University, 154 from Wuhan University, 162 from Huazhong University of Science and Technology, 157 from Sun Yat-sen University, 156 from Nanchang University, 161 from Xiamen University, 153 from Tongji University, 163 from South China University of Technology, 152 from Zhongnan University of Economics and Law, 164 from South China Normal University, and 151 from Jinan University. Among these, there are 1,357 male and 851 female respondents; 1,050 respondents from key universities (985 or 211 institutions) and 1,158 from non-key universities; 1,125 respondents from science and engineering majors and 1,083 from humanities and social sciences majors; 375 respondents from major cities, 860 from urban/county-level cities, and 972 from rural areas; 483 respondents with entrepreneurial experience and 1,725 without entrepreneurial experience.

This study evaluates university graduates' entrepreneurial inclination across five key dimensions: preferences, personal outlook, independent entrepreneurship willingness, constrained occupational intentions, and career plans^[4]. Measurement items were designed with a Likert scale, allowing respondents to rate their views on a scale from "strongly disagree" (1) to "strongly agree" (6). This approach provides a precise understanding of graduates' entrepreneurial tendencies.

3 Research Findings

3.1 Analysis of the Current Status of Entrepreneurial Intentions Among College Students

This study measures five indicators: preferences, personal outlook, willingness for independent entrepreneurship, career inclination under constraints, and career plans, as shown in Figure 1. Based on the data in **Figure 1**, the following conclusions can be drawn: University students score between 3.79 and 3.92 in career inclination under constraints, personal outlook, preferences, and willingness for independent entrepreneurship^[5]. This indicates their interest and expectation in entrepreneurship, displaying determination and resilience in the face of challenges or failures. However, the score for career plans is only 3.57, indicating a relative lack of preparation for entrepreneurship. This may contribute to the current low rate of independent entrepreneurship among university students. In summary, the entrepreneurial intention of Chinese university students is moderately low, possibly a significant factor behind their low rates of independent entrepreneurship.

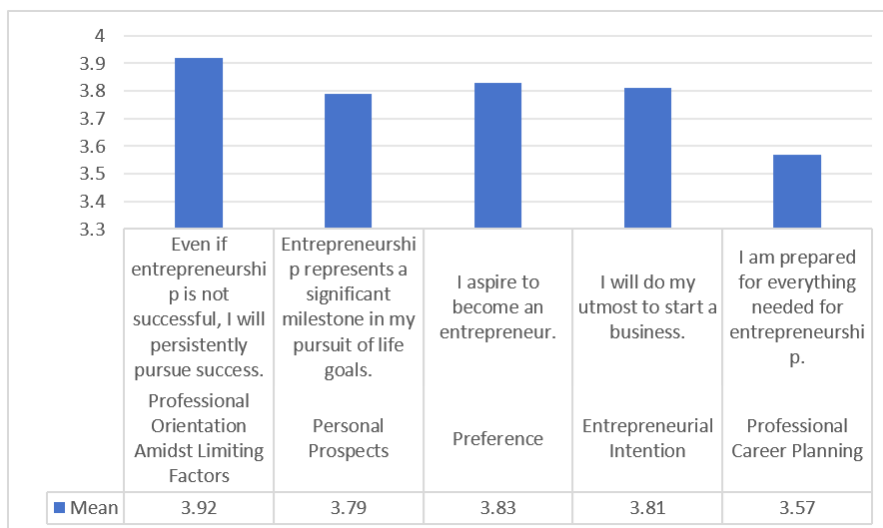


Figure 1. Measurement Factors of Entrepreneurial Intentions

3.2 Regression Analysis of Factors Impacting University Students' Entrepreneurial Intentions

In order to gain a deeper understanding of the underlying reasons for the relatively low levels of entrepreneurial intentions among current university students, this paper employs a multiple linear regression analysis approach. Models 1 through 4 correspond to the results of multiple linear regression analyses for individual factors, university factors, family factors, and entrepreneurial environment factors related to university students' entrepreneurial intentions. [9] Model 4, in turn, provides a comprehensive overview of the combined impact of these four factors. Detailed data is presented in the table below.

In Model One of Table 1. Analysis of Individual Factors of Entrepreneurial Intention of College Students, individual factors related to college students' entrepreneurial intentions were examined. The results indicate that, concerning individual factors, gender significantly influences college students' entrepreneurial intentions, with male college students displaying a notably higher inclination toward entrepreneurship compared to their female counterparts. Furthermore, factors such as innovation consciousness, entrepreneurial effectiveness, and entrepreneurial spirit positively influence college students' entrepreneurial intentions. This suggests that stronger innovation consciousness, greater entrepreneurial effectiveness, and enhanced entrepreneurial spirit among college students are associated with a more pronounced entrepreneurial intention.

Table 1. Analysis of Individual Factors of Entrepreneurial Intention of College Students

		Model 1						
independent variable	Gender (Male assigned as 1, female as 0)	adventurous spirit	motivation for achievement	innovation awareness	Personal Management	entrepreneurial spirit	Effectiveness	Entrepreneurial Experience (1 if present, 0 if absent)

	Female as 0)		veme nt					
Dependent Variable : Entrepre neurial Intent	0.061* **	0.03 0	-0.04 1	0.089* **	-0.028	0.707***	0.152 ***	0.055***
R2	0.694							
F	566.05***							
N	2208							

*P<0.05;**P<0.01;***P<0.001

In Model 2 of Table 2, we examine the influence of family factors on the entrepreneurial intentions of university students. The results indicate that when considering family factors as the sole independent variables, differences in urban-rural backgrounds significantly affect the entrepreneurial intentions of university students. Compared to their counterparts from large and medium-sized cities, university students from rural areas demonstrate a greater inclination toward independent entrepreneurship. This suggests that many rural university students, lacking support from family and social networks in job searching and job applications, tend to opt for independent entrepreneurship as their career path. Furthermore, parents' entrepreneurial experiences also exert a significant influence on university students' entrepreneurial intentions, highlighting a positive role model effect of parental entrepreneurial experiences in sparking entrepreneurial interest among university students. Additionally, positive evaluations and support from the family, along with support from social network connections, also positively impact university students' entrepreneurial intentions. In essence, higher levels of positive family evaluations of entrepreneurship and stronger support from both the family and social network connections are associated with higher entrepreneurial intentions among university students.

Table 2. The Influence of Family Factors on Entrepreneurial Intentions of College Students

Independent Variable: Place of Residence (Rural)	Model 2								
	large urban centers	Urban Housch old Econom ic Income (Low Income)	mid dle inco me	high income	Parental Entrepreu rial Experience (1 assigned for presence, 0 for absence)	Entrepreneurial Experience Involving Family and Friends (1 assigned for presence, 0 for absence)	Family Assessme nt and Support	Social Network Support	major urban centers
Dependent Variable: Entrepreu rial Intent	-0.076 **	-0.027	-0.0 26	0.030	0.114***	0.021	0.080***	0.213***	-0.076 **
R2	0.075								
F	20.40***								
N	2208								

*P<0.05;**P<0.01;***P<0.001

In Table 3, Model 3 investigates the impact of entrepreneurial environmental factors on the entrepreneurial intentions of college students. From the analysis results, it becomes evident that when considering only entrepreneurial environmental factors as independent variables, factors such as entrepreneurial policy guidance, entrepreneurial funding support, entrepreneurial public opinion orientation, and the establishment of entrepreneurial service systems all exert a significant influence on the entrepreneurial intentions of college students. This implies that with the creation of a more favorable entrepreneurial environment by both

the nation and society, along with increased encouragement and support, college students exhibit a stronger inclination toward independent entrepreneurship, thereby enhancing their likelihood of embarking on the path of independent entrepreneurship.

Table 3. The influence status of entrepreneurial environment factors on entrepreneurial intention of college students

independent variable	Model 3			
	Entrepreneurship Policy Guidance	Startup Capital Assistance	Entrepreneurship Public Opinion Orientation	Entrepreneurship Support Ecosystem
Dependent Variable: Entrepreneurial Intent	0.053***	0.049***	0.586***	0.334***
R2	0.718			
F	1273.74***			
N	2208			

*P<0.05;**P<0.01;***P<0.01

Table 4's Model 4 analyzes college students' entrepreneurial intentions, considering various factors (individual, university, family, environment). In Model 1, gender, experience, attitude, spirit, and self-efficacy affect intentions, a trend maintained in Model 4. But some control factors show negative effects. In Model 2, major type remains influential, while other university factors lose significance. In Model 3, family-related factors lose significance, except family income. In Model 4, only entrepreneurial funding loses significance. Entrepreneurial policy, public opinion, and service systems stay influential in Model 4.

Table 4.A Comprehensive Impact Analysis of Entrepreneurial Intentions of College Students

Independent Variable	Model 4							
	Gender (Male assigned as 1, Female as 0)	adventurous spirit	motivation for achievement	innovation awareness	Personal Management	entrepreneurial spirit	Effectiveness	Entrepreneurial Experience (1 if present, 0 if absent)
Dependent Variable: Entrepreneurial Intent	0.029*	0.016	0.564***	0.058***	-0.039*	-0.031	0.097***	0.028*
Independent Variable: Place of Residence (Rural)	large urban centers	Economic Income (Low Income)	middle income	high income	Parental Entrepreneurial Experience	Entrepreneurial Experience Involving Family and Friends	Family Assessment and Support	Social Network Support
Dependent Variable: Entrepreneurial Intent	-0.013	0.005	-0.050**	0.032	0.002	0.015	0.007	0.004
Independent Variable	Entrepreneurship Policy Guidance	Startup Capital Assistance	Entrepreneurship Public Opinion Orientation	Entrepreneurship Support Ecosystem	--	--	--	--
Dependent Variable:	0.025*	0.023	0.388***	0.111***	--	--	--	--

Entrepreneurial Intent								
R2	0.775							
F	262.83***							
N	2208							

*P<0.05;**P<0.01;***P<0.001

College students' entrepreneurial intentions are shaped by various factors like personal traits, university environment, family background, and the entrepreneurial climate.^[10] Understanding these connections is vital for supporting student entrepreneurship. Implementing policies like training and financial aid can boost student engagement in entrepreneurship, fostering economic growth and job prospects.

4 Research Conclusions and Policy Recommendations

4.1 Research Conclusions

(1) The current entrepreneurial intentions of university students are moderate. Through the evaluation of interest, individual expectations, inclination towards freelancing, occupational preferences under constraints, and plans across five dimensions, it was found that the overall entrepreneurial intentions are not high^[6]. This could potentially contribute to a relatively lower proportion of autonomous entrepreneurship among Chinese university students.

(2) The entrepreneurial intentions of college students are influenced by multiple factors, including personal characteristics, universities, family, and the entrepreneurial environment. Personal characteristics and the entrepreneurial environment exert significant and stable positive influences, while the impact of universities and family factors is relatively minor and unstable.

4.2 Recommendations to Foster University Students' Entrepreneurial Intentions

To enhance the entrepreneurial intention of university students, it is recommended to implement the following policy measures: Firstly, proactively stimulate the entrepreneurial interests and aspirations of university students, encouraging them to perceive entrepreneurship as an ideal career choice. Secondly, cultivate and develop individual factors conducive to boosting entrepreneurial intention, such as entrepreneurial attitudes and self-efficacy^[7]. Thirdly, expand the avenues and channels of entrepreneurial support, including improving the entrepreneurial ecosystem, strengthening university support systems, and promoting family support.

These policies are expected to guide a greater number of university students towards independent entrepreneurship, fostering higher-quality employment opportunities and contributing to economic development.

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