

Research on the influence of entrepreneurial mentor support behavior on college students' entrepreneurial opportunity identification

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Abstract: Entrepreneurship mentors are important external support for the success of first-time entrepreneurs. As the source of entrepreneurial vitality in China, it is necessary for college students to support and guide their entrepreneurship. Based on this, from the perspective of specific entrepreneurial activities, this paper discusses how entrepreneurial tutor support can help college students identify entrepreneurial opportunities, so as to stimulate college students' entrepreneurial vitality and improve their entrepreneurial success rate. In addition, based on the information processing theory, this study introduced self-esteem as a mediator to build a theoretical model of entrepreneurial mentor support behavior on college students' entrepreneurial opportunity recognition. 140 survey data show that entrepreneurial mentor support behavior has a significant positive impact on college students' entrepreneurial opportunity recognition and self-esteem plays a mediating role between the two. The research results are conducive to the government departments and universities to improve the entrepreneurship tutor system according to the actual situation, and stimulate the entrepreneurial passion of college students.

Keywords: Entrepreneurial mentor support behavior; Self-esteem; Identification of entrepreneurial opportunities.

1. Introduction

With the formation of the "wave" of global entrepreneurship, college students, as the fresh source of vitality and the most promising entrepreneurial group, have become the focus of attention from all walks of life. Although college students have rich knowledge reserves and creativity, they are not involved in the market, lack of practical experience and corresponding entrepreneurial ability, and cannot objectively and comprehensively view the risks and problems in the process of entrepreneurship, resulting in a high failure rate of college students' entrepreneurship, and their entrepreneurial vitality is far lower than that of other groups. To this end, the state and universities have continuously launched various support policies and entrepreneurial support plans to improve the entrepreneurial vitality of college students, and the guidance and help of entrepreneurial mentors is currently recognized as a way to improve the entrepreneurial success rate of first-time entrepreneurs.

As the starting point of entrepreneurial activities, the level of entrepreneurial opportunity identification is the key to affect the entrepreneurial rate of college students. As an important and professional external support for first-time entrepreneurs, entrepreneurial mentors can provide professional and psychological support for entrepreneurs and improve the recognition rate of entrepreneurial opportunities. However, the existing research points out that entrepreneurial mentors can not only help entrepreneurs by sharing entrepreneurial knowledge and experience, providing targeted entrepreneurial advice and guidance, and broadening their social networks, but also help entrepreneurs by changing their cognitive and psychological status. However, there are relatively few studies at home and abroad that regard entrepreneurial mentors as the external entrepreneurial support of entrepreneurs. Most of the existing studies focus on the macro level of the exploration of entrepreneurial

mentoring system, such as the guidance methods, effects and evaluation of entrepreneurial mentors, and less on how entrepreneurial mentors have a specific impact on the entrepreneurial process, that is, how entrepreneurial mentors change the entrepreneurial process by influencing the cognitive and psychological aspects of entrepreneurs. The theory of social information processing points out that individuals adjust their behavior and attitude by analyzing the information obtained in their environment, so as to better adapt to external changes, and the process of individual information processing will also be affected by the outside world. Individual traits are an important bridge to connect the outside world and their behavior. Based on this, this paper introduces self-esteem as an intermediary variable between entrepreneurial mentor's supportive behavior and entrepreneurial opportunity recognition, and discusses how entrepreneurial mentors can improve the success rate of entrepreneurial opportunity recognition by influencing college students' self-esteem.

To sum up, based on the information processing theory, this paper discusses the mechanism of entrepreneurial mentor support behavior on college students' entrepreneurial opportunity recognition and the intermediary role of self-esteem, with a view to enriching the relevant theories of entrepreneurial mentors, and providing reference for the development of entrepreneurial mentoring system and activating college students' entrepreneurial vitality.

2. Theoretical analysis and research hypothesis

(1) entrepreneurial mentor support behavior and entrepreneurial opportunity identification

As the core concept of entrepreneurship research, entrepreneurial opportunity is essentially an information set or resource that has not been discovered and utilized by the public, while entrepreneurial opportunity identification refers to the cognitive process of entrepreneurs using their existing

resources to discover or construct entrepreneurial opportunities, the key of which is the ability of entrepreneurs to collect and process information. The entrepreneurial mentor support behavior refers to the affirmative behavior of the entrepreneurial guidance experts in providing entrepreneurs with professional, emotional and psychological assistance in the process of providing entrepreneurial guidance services. As an important part of the social support system for college entrepreneurs, entrepreneurship mentors can provide professional support for first-time entrepreneurs, help entrepreneurs better collect and process entrepreneurial information, and improve entrepreneurs' entrepreneurial ability through continuous entrepreneurship education. They are important helpers for entrepreneurs to obtain and process entrepreneurial information and capture entrepreneurial opportunities. Therefore, it is reasonable to believe that entrepreneurial mentor support behavior positively affects college students' entrepreneurial opportunity identification.

First of all, as a member of the college students' social network, the career support provided by the entrepreneurial mentor can effectively expand the college students' own entrepreneurial resources and information, thus improving the probability of their successful identification of entrepreneurial opportunities. Entrepreneurship mentors are mostly predecessors with entrepreneurial knowledge or rich experience, and their own resources and experience are lacking for college students who are initially exposed to entrepreneurship, which can lay the foundation for college students to accumulate business information. At the same time, professional guidance and experience of entrepreneurship mentors can also avoid entrepreneurial traps and confusion to a certain extent, help college students analyze market dynamics and grasp entrepreneurial opportunities. In addition, entrepreneurial learning with mentors can also improve the information search ability and entrepreneurial cognitive ability of college students, and further improve the possibility of successfully identifying entrepreneurial opportunities. Secondly, as a teacher and friend in the process of entrepreneurship, the emotional support provided by entrepreneurial mentors can create a supportive environment for entrepreneurs to maintain a high level of self-efficacy and self-confidence in a risky entrepreneurial environment, and the efficiency of entrepreneurial opportunity recognition will also be improved under a positive emotional state. Existing research also shows that entrepreneurship mentors can help entrepreneurs establish entrepreneurial confidence through continuous encouragement and humanistic care, so as to reduce the impact of entrepreneurial risks and uncertainties on college students' entrepreneurship and promote the identification of entrepreneurial opportunities. Based on this, this paper proposes:

H1: entrepreneurial mentor support behavior positively affects the identification of entrepreneurial opportunities for college students

(2) Entrepreneurship mentor support behavior and self-esteem

Self-esteem refers to the individual's evaluation of self-ability and cognition. It is an indispensable and important psychological resource under the complex and changeable entrepreneurial environment and other pressure situations. For college student entrepreneurs with multiple identities, their self-concept and self-esteem level are constantly

changing and developing under the influence of external factors, and show a clear trend of polarization. Students with high self-esteem level are more willing to challenge and have a positive attitude, while those with low self-esteem level are more likely to lose confidence in the face of external challenges and pressures. In addition, previous scholars believed that self-esteem is a cognitive and emotional response based on the individual's own value judgment. Positive self-efficacy perception and external positive evaluation can enhance individual entrepreneurship confidence and self-value perception, and thus improve individual self-esteem level. The psychological and emotional support behavior of entrepreneurial mentors can not only bring psychological support to college students, but also facilitate their processing and processing of positive information. This positive support environment is conducive to improving college students' self-evaluation. Therefore, entrepreneurial mentor support behavior will significantly improve college students' self-esteem.

Specifically, on the one hand, entrepreneurial mentors have rich entrepreneurial knowledge and can rationally treat and analyze entrepreneurial risks. In the process of continuous entrepreneurial knowledge and practice, college students' entrepreneurial skills continue to improve. With the help of entrepreneurial mentors, even in the face of complex and changing entrepreneurial environment, they can also complete certain difficult challenges and information analysis. In this process, the self-efficacy of individual entrepreneurship has been increasing, and the evaluation of self has become more and more positive, thus improving their self-esteem. On the other hand, while teaching entrepreneurial skills and knowledge, entrepreneurial mentors can help college students analyze market development trends in a complex and volatile entrepreneurial environment, clarify their entrepreneurial advantages, and help entrepreneurs better prepare for entrepreneurship by building contacts and collecting resources. This abundance of resources and the growth of entrepreneurial ability will undoubtedly make entrepreneurs full of expectations for the future, and believe that they have the ability to start a business and generate a high level of self-esteem. Based on this, this paper proposes:

H2: entrepreneurial mentor support behavior positively affects college students' self-esteem

(3) Self-esteem and entrepreneurial opportunity identification

Self-esteem is an individual trait. Individuals with different levels of self-esteem often have very different personalities. For example, individuals with higher levels of self-esteem tend to be more optimistic and confident in their daily life. On the contrary, individuals with lower levels of self-esteem tend to have a depressed attitude and are easily swayed by external information [10]. Therefore, college students with high self-esteem have a stronger sense of entrepreneurial self-efficacy than those with low self-esteem, and believe that they can succeed in entrepreneurship. Driven by strong entrepreneurial motivation and entrepreneurial passion, they are more willing to integrate existing resources and information around them to identify entrepreneurial opportunities with commercial value. In addition, people with high self-esteem are better at helping entrepreneurship networks. Through external resources and entrepreneurship guidance, they seek their entrepreneurial confidence, build entrepreneurial opportunities, and promote the identification of innovative

entrepreneurial opportunities. In addition, studies have pointed out that individuals with high self-esteem have more positive information sensitivity to information. In the complex entrepreneurial information, people with low self-esteem are often disturbed by external negative information due to lack of innovation confidence and weak information processing ability, resulting in "entrepreneurship is not suitable for me" and "want to give up the idea of entrepreneurship". Under this negative thinking, it is more difficult to identify and develop entrepreneurial opportunities; People with high self-esteem can focus on positive and useful entrepreneurial information, and identify entrepreneurial opportunities with commercial value through information processing and integration. Based on this, this paper proposes:

H3: Self-esteem positively affects the identification of entrepreneurial opportunities

To sum up, college students' self-esteem has a certain intermediary effect between entrepreneurial mentor support behavior and entrepreneurial identity. Specifically, when feeling the psychological and professional support provided by entrepreneurial mentors, college students improve their entrepreneurial ability through continuous entrepreneurial learning, and expand their social network and entrepreneurial resources with the help of entrepreneurial mentors. This external positive information promotes college students to form positive self-evaluation, and their sense of entrepreneurial self-efficacy continues to improve. In this state, we should constantly explore and integrate entrepreneurial information to improve the efficiency and success rate of entrepreneurial opportunity identification. Based on this, this paper proposes:

H4: Self-esteem plays a mediating role between entrepreneurial mentor support behavior and entrepreneurial opportunity identification

3. Research design

(1) Samples and data

This study adopts the questionnaire survey method. It is distributed to college students who have entrepreneurial competition or entrepreneurial practice experience through the questionnaire star platform. A total of 256 questionnaires are distributed, and 210 questionnaires are valid, with an effective rate of 82.0%. In the effective questionnaire, 42.9% of boys and 57.1% of girls; The group aged 20-25 is the largest, accounting for 66.4% of the total; Among the majors studied, science and engineering accounted for 22.1%, management 35.7%, art 25%, and other 17.1%; 51.4% of college students' family or friends have entrepreneurial experience. The demographic characteristics and basic information of the study sample are shown in Table 1.

(2) Variable measurement

This study is based on the mature scale at home and abroad, and revised according to the research content of this paper. The variables were measured using Likert's 5-level scoring method, with "1-5" representing "completely inconsistent - completely consistent". (1) Support behavior of entrepreneurial mentors: Cronbach's scale, revised by Yang Bin (2018), Cronbach's α is 0.975. (2) Self-esteem: Rosenberg (1965) Self-esteem Scale, Cronbach's α is 0.877. (3) Identification of entrepreneurial opportunities: This study draws on the scale Cronbach's designed by Baron (2004), Cronbach's α is 0.936. (4) In addition, this paper takes college students' gender, age, major and entrepreneurial experience of family or friends as control variables.

Table 1. Basic statistical characteristics of samples (N=210)

Variable	Category	Number of samples	Proportion,
Age	Male	90	42.9%
	Female	120	57.1%
Degree of education	Under 20 years old	60	28.6%
	20-25 years old	139	66.4%
	26-30 years old	9	4.3%
	Over 30 years old	2	0.7%
Major	Junior college	15	7.1%
	Undergraduate	144	68.6%
	Master degree or above	51	24.3%
	Science and engineering	46	22.1%
Entrepreneurship experience of family and friends	Economic management	75	35.7%
	Arts	53	25.0%
	Other	36	17.1%
Variable	Yes	108	51.4%
	No	102	48.6%

4. Data analysis and results

(1) Confirmatory factor analysis

This paper uses AMOS24.0 software to conduct confirmatory factor analysis on entrepreneurial mentor support behavior, self-esteem and entrepreneurial opportunity identification variables. Through fitting, it is found that the fitting effect of the three-factor model, that is, the model in this paper, is significantly better than other models ($\chi^2/df=2.356$; GFI=0.755; TLI=0.903; CFI=0.911; RMSEA=0.096), indicating that the three variables in this study have certain distinctiveness.

(2) Descriptive statistical analysis

The mean value, standard deviation and correlation coefficient of each variable in the descriptive statistical analysis are shown in Table 2. Among them, social support of entrepreneurial mentors is positively correlated with self-esteem ($r=0.252$, $p<0.01$), entrepreneurial opportunity recognition ($r=0.191$, $p<0.05$), and self-esteem is positively correlated with entrepreneurial opportunity recognition ($r=0.418$, $p<0.01$). The pairwise correlation between variables also lays the foundation for the subsequent hypothesis test.

Table 2. Descriptive statistical results and correlation coefficient matrix

variable	M	SD	1	2	3
1.Entrepreneurial mentor support behavior	3.411	0.857	1		
2. Self-esteem	2.969	0.511	0.252**	1	
3.Entrepreneurial opportunity recognition	3.327	0.675	0.191*	0.418**	1

Note: ** $p<0.010$, * $p<0.050$.

(3) Hypothesis test

This study draws on previous studies and uses SPSS24.0

software to conduct multiple linear regression to verify the relationship between various variables. Then the process program and Bootstrap were used to test the mediation hypothesis of self-esteem variables, that is, the independent variable (entrepreneurial mentor support behavior), the intermediary variable (self-esteem), the dependent variable (entrepreneurial opportunity recognition) and the control variable were put into the process at the same time, and the path coefficient results and indirect effect results between the variables were obtained. The results of multiple linear regression are shown in Table 3, and the results of path coefficient and indirect effect analysis are shown in Table 4.

According to Table 3, entrepreneurial mentor support behavior is positively correlated with entrepreneurial

opportunity identification ($\beta = 0.149, p < 0.05$), hypothesis 1 is verified; There is a positive correlation between entrepreneurial mentor support behavior and self-esteem ($\beta = 0.156, p < 0.01$), self-esteem is positively correlated with entrepreneurial opportunity identification ($\beta = 0.259, p < 0.01$), and it can be seen from Table 4 that the indirect effect value of entrepreneurial mentor support behavior on entrepreneurial opportunity identification through entrepreneurial identity is 0.079, and the 95% confidence interval does not contain 0. Therefore, self-esteem plays a significant role between entrepreneurial mentor support behavior and entrepreneurial opportunity identification. Assumptions 2, 3 and 4 are verified.

Table 3. Analysis results of linear regression model

Variable	Self-esteem		Entrepreneurial opportunity recognition			
	Mold1	Mold2	Mold3	Mold4	Mold5	Mold6
Age	-0.026	-0.023	-0.037	-0.034	-0.022	-0.022
Degree of education	0.047	0.063	-0.028	-0.012	-0.054	-0.045
Major	-0.001	-0.022	-0.001	-0.020	0.000	-0.009
Entrepreneurship experience of family and friends	-0.151	-0.144	0.119	0.112	-0.036	0.037
Entrepreneurship mentor support behavior		0.156**		0.149*		0.068
Self-esteem					0.549**	0.519**
R ²	0.025	0.091	0.012	0.046	0.180	0.187
ΔR^2	0.025	0.066	0.012	0.034	0.168	0.175

Note: ** $p < 0.010$, * $p < 0.050$.

Table 4. Test results of path coefficient and intermediary effect

Path	Path coefficient	Standard error	95% confidence interval
1→2	0.150**	0.049	[0.053, 0.2475]
1→3	0.072	0.063	[-0.053, 0.196]
2→3	0.523**	0.105	[0.314, 0.731]
1→2→3	0.079**	0.036	[0.011, 0.155]

Entrepreneurial mentor support behavior is 1; Self-esteem is 2; Entrepreneurial opportunity recognition is 3Note: * $p < 0.010$, * $p < 0.050$.

5. Discussion and conclusion

(1) Research conclusions and contribution suggestions

Based on the information processing theory, this study constructs a model framework of entrepreneurial mentor support behavior on the identification of college students' entrepreneurial opportunities, and verifies the mediating role of self-esteem between the two, and draws the following conclusions: ① entrepreneurial mentor support behavior positively affects the identification of college students' entrepreneurial opportunities. The results show that the psychological support and professional support provided by entrepreneurial tutors are very necessary for the smooth progress of college students' entrepreneurial activities. ② Entrepreneurial mentor support behavior can improve college students' self-esteem. ③ The self-esteem level of college students is positively correlated, and the higher the self-esteem level, the higher the possibility of identifying entrepreneurial opportunities. ④ Self-esteem mediates the relationship between entrepreneurial mentor support behavior and entrepreneurial opportunity identification, that is, entrepreneurial mentor support behavior can stimulate their entrepreneurial passion and promote the efficiency of entrepreneurial opportunity identification by improving self-

esteem.

Theoretical contribution: based on the information processing theory, this study explores how entrepreneurial mentors affect their entrepreneurial opportunity recognition from the perspective of college students' perception, which is an effective expansion of the research on entrepreneurial mentoring system. Entrepreneurship mentors have received much attention since they were put forward. However, the discussion about entrepreneurship mentors in academic circles is more about the evaluation effect and mechanism of the system. Domestic research also focuses on the expansion and summary based on the research of western scholars, and less on how entrepreneurship mentors affect entrepreneurs' cognition and psychology and then affect their behavior. This study is a useful supplement to the empirical study of localization entrepreneurship mentors.

Countermeasures and suggestions: First of all, based on the current situation of the development of entrepreneurship mentors, this study will help colleges and universities adjust the operation of entrepreneurship mentoring system, entrepreneurship education curriculum arrangement and entrepreneurship practice in a timely manner by analyzing the internal mechanism of how entrepreneurship mentoring support behavior can improve the identification of entrepreneurial opportunities for college students, so as to strengthen the role of entrepreneurship mentoring system in promoting the development of innovation and entrepreneurship of college students in China. Secondly, in the process of guidance, entrepreneurship mentors should pay attention to the entrepreneurial confidence and self-esteem level of first-time entrepreneurs, help college students overcome entrepreneurial difficulties and stimulate entrepreneurial vitality from the cognitive level.

(2) Research deficiency and prospect

There are some deficiencies in this study: ①The data in this study are all from the subjective reports of the subjects, so the research conclusions may be affected to some extent.

In the future, the multi-stage method can be used to collect data to reduce the common method deviation. ② The research on entrepreneurship mentoring system still focuses more on the analysis at the macro level. Future research can further explore the analysis at the micro level, such as the research on the relationship between the matching degree of entrepreneurs and entrepreneurship mentors, gender, motivation, etc.

References

- [1] Chen Jian'an, Chen Mingyan. Entrepreneurship tutorial system: frontier analysis and future prospects [J]. Science and Technology Progress and Countermeasures, 2017, 34 (23): 16-24.
- [2] Liu Jianwei, Wu Jianlin, Gu Jibao. Entrepreneurship self-efficacy and opportunity identification: an analysis of the regulatory effect of entrepreneurship education [J]. Science and Technology Management Research, 2018, 38 (12): 210-216.
- [3] Yang Bin. Research on the impact of entrepreneurial mentors' social support on entrepreneurs' psychological resilience [D]. Wuhan University of Technology, 2017.
- [4] Wang Hongfang. Research on the relationship between overall compensation and employees' innovative behavior: the role of organizational self-esteem and work engagement [J]. Operations Research and Management, 2022, 31 (05): 233-239.
- [5] Liu Yiran, Zhang Yuli, Hao Xiling. Structural similarity effect: cognitive mechanism and influencing factors of opportunity recognition [J]. Nankai Management Review, 2020, 23 (05): 194-201.
- [6] Liu Yunfeng, Yao Zhenyu. The influence of tutor's supportive behavior on graduate students' creativity - trust as the interfering variable [J]. Intelligence Journal, 2010, 29 (S1): 6-9.
- [7] Baron R A. Effectual versus predictive logics in entrepreneurial decision making: Differences between experts and novices: Does experience in starting new ventures change the way entrepreneurs think? Perhaps, but for now, 'Caution' is essential [J]. Journal of business venturing, 2009, 24(4): 310-315.
- [8] Liu Yujin. Parental rearing style affects middle school students' academic self-efficacy: the mediating role of self-esteem [J]. Course Teaching Research, 2020 (07): 81-89.
- [9] Wang Honglei, Sun Jianmin. Empowered leadership and employee innovation behavior: the regulatory role of structural formalization [J]. Management Science, 2018, 31 (03): 29-39.
- [10] Cai Huajian, Feng Yi, Yue. Xitong Pan-cultural self-esteem needs: evidence based on Chinese research [J]. Progress in Psychological Science, 2011, 19 (01): 1-8.