

Statistical Analysis of the Relationship between Entrepreneurs' Overseas Work Experience and Entrepreneurship Performance

1st Yuming Chang*, 2nd Meng Yang
cyuming@whut.edu.cn, 1060824486@qq.com

School of Management Wuhan University of Technology Wuhan, China

Abstract—There have been a large number of studies on the relationship between entrepreneurs' individual factors and entrepreneurial performance, including the entrepreneur's gender, age, educational background, etc. However, there are few studies that explore the relationship between entrepreneurs' overseas work experience and entrepreneur performance. This paper uses an empirical regression model to test the influence of entrepreneurs' overseas work experience on entrepreneurial performance. Through regression analysis of the data of 359 Chinese GEM listed companies in 2020, this paper draws the research results: entrepreneurs with overseas work experience have better financial performance and innovation performance. The research conclusions of this paper are conducive to the effective use of overseas experience in startups to improve their entrepreneurial performance.

Keywords-component; overseas work experience; financial performance; innovation performance

1 Introduction

Entrepreneurship can not only promote employment and improve people's livelihood, but also promote the development of the national economy. The State Council issued the "Opinions on Several Policies and Measures for Vigorously Promoting Mass Entrepreneurship and Innovation" in 2015. The report on the 19th National Congress of the Communist Party of China clearly stated that "inspire and protect entrepreneurship and encourage more social entities to devote themselves to innovation and entrepreneurship". The 14th Five-Year Plan also proposes to insist on innovation-driven development and optimize the entrepreneurial ecology. As China's economy enters a new normal, innovation and entrepreneurship are of even greater significance in advancing innovation-driven development strategies, enhancing national innovation and creativity capabilities, and promoting sustainable economic development. However, China's entrepreneurial activities are generally difficult and have a low success rate. According to the 2019/2020 report on the Global Entrepreneurship Observation, China's entrepreneurial backgrounds index ranks fourth in the world, with less than 10% of the country's mature business owners (EBO), and entrepreneurs' entrepreneurial capabilities need to

be improved. In recent years, with the continuous development of China's economy, the phenomenon of overseas staff returning to China to start a business has shown an upward trend. This part of returned entrepreneurs has become an important subject of China's entrepreneurial activities [1].

Under normal circumstances, people think that entrepreneurs with overseas work experience have a broader vision, higher literacy and entrepreneurial skills. This group of entrepreneurs has a unique influence on the performance of entrepreneurial companies [1]. Many domestic and foreign studies have explored the relationship between entrepreneurs' overseas experience and their entrepreneurial performance. As the special human capital of entrepreneurs, overseas work experience will have a differential impact on entrepreneurial performance. Rakesh (1996) believes that the overseas work experience of entrepreneurs deepens the entrepreneur's cognition of corporate management systems, production and operation processes, etc. This cognition has a certain reference effect on entrepreneurs' own entrepreneurial activities [2]. However, some scholars have come to different research conclusions. Zheng (2019) believes that overseas work experience needs to be divided into the technical experience and legal experience. Entrepreneurs with overseas technical backgrounds pay more attention to the high-quality innovation of entrepreneurial enterprises, while entrepreneurs with overseas legal backgrounds will ignore the innovation and R&D of enterprises [3]. Therefore, whether and how the overseas work experience of entrepreneurs affects entrepreneurial performance requires further research and testing.

Based on this, this paper selects data from China's GEM listed companies in 2020 to explore the influence of entrepreneurs' overseas work experience on their entrepreneurial performance.

2 Theoretical basis and research hypothesis

The overseas work of entrepreneurs helps entrepreneurs learn important experiences in the process of growth and development of the enterprise, changes the cognitive structure and value orientation of entrepreneurs, and is conducive to improving enterprise entrepreneurial performance.

Overseas work experience mainly provides entrepreneurs with two aspects of knowledge [4]. First, enterprises export knowledge. This kind of knowledge mainly includes the content of enterprise's innovation research and development, marketing management and so on. Most of the companies in developed overseas countries attach more importance of corporate innovation, and companies will actively take the initiative to innovate. In the process of innovation, companies have introduced high-tech talents and continuously increased R&D investment. In this way, overseas work experience has given entrepreneurs the knowledge about the management process and operation methods of enterprise innovation. This knowledge cultivates entrepreneurs' sense of innovation, which makes entrepreneurs pay more attention to innovation and increase R&D investment in entrepreneurial activities, thereby improving the innovation performance of enterprises [5]. Therefore, entrepreneurs with overseas enterprise-exported knowledge are more likely to obtain higher innovation performance for their entrepreneurial enterprises. Second, the production-oriented knowledge of the enterprise. This kind of knowledge mainly revolves around how to identify and utilize potential business

opportunities to promote the growth and development of enterprises. The overseas work experience of the entrepreneur helps the entrepreneur understand the production and operation process of the enterprise, and enables the entrepreneur to acquire the knowledge of product quality management and cost control. Entrepreneurs with overseas work experience are more sensitive to opportunities and easier to grasp market opportunities, develop new products, and expand into new markets. Therefore, entrepreneurs with production-oriented knowledge of overseas enterprises are more likely to obtain higher financial performance for their entrepreneurial enterprises [2].

Accordingly, this paper proposes hypotheses:

Hypothesis 1: The overseas work experience of entrepreneurs has a positive impact on innovation performance.

Hypothesis 2: Overseas work experience of entrepreneurs has a positive impact on financial performance.

The research framework of this paper is shown in Figure 1.

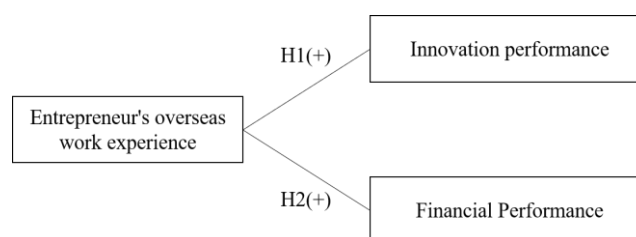


Figure 1 Research framework

3 Research design

3.1 Sample Selection and Data Sources

This paper takes China's GEM listed companies as the research object, and uses the 2020 data of listed companies as the research sample. The data in this paper is mainly obtained from the CSMAR database, and a total of 359 sample companies have been obtained. This paper uses Stata to process and analyze the data.

3.2 Variable Measurement

- Independent variable. Entrepreneur's overseas work experience. This paper assigns 1 to entrepreneurs with overseas work experience, and 0 to entrepreneurs without overseas work experience.
- Dependent variable. Entrepreneurship performance. This paper draws on the research of Zhou [6] and Zhang et al. [7], and uses innovation performance and financial performance to measure entrepreneurial performance. Among them, innovation performance is measured by

the number of patent applications, and financial performance is measured by "profit after tax/total capital".

- Control variables. Drawing on the research of Peng et al. [8], this paper selects the age of the enterprise (Age), the size of the enterprise (Size), and the ownership (Own) of the enterprise as the control variables.

The description of each variable is shown in Table 1.

Table 1 Variable description

Variable	name	symbol	illustrate
Dependent variable	Financial Performance	FP	Profit after tax/total capital
	Innovation performance	IP	Number of patent applications
Independent variable	Entrepreneur's overseas work experience	OWE	Have overseas work experience=1, otherwise=0
Control variable	Company age	Age	Years of establishment of the company
	Company size	Size	The natural logarithm of the company's total assets for the year
	Company ownership	Own	State-owned enterprise=1; private enterprise=2; other enterprise=3

3.3 Empirical Model

In order to test a series of research hypotheses, this paper constructs the following regression empirical models:

$$IP_{i,t} = a_0 + a_1 OWE_{i,t} + a_2 Age_{i,t} + a_3 Size_{i,t} + a_4 Own_{i,t} \quad (1)$$

$$FP_{i,t} = a_0 + a_1 OWE_{i,t} + a_2 Age_{i,t} + a_3 Size_{i,t} + a_4 Own_{i,t} \quad (2)$$

Among them, model (1) is used to test hypothesis 1, and model (2) is used to test hypothesis 2. In regression analysis, if the coefficient is positive, the independent variable positively affects the dependent variable.

4 Research result

4.1 Descriptive Statistical Analysis

The descriptive statistical analysis of the main variables in this paper is shown in Table 2. Entrepreneurs with overseas work experience have high innovation performance ($r=0.137$, $p<0.01$) and financial performance ($r=-0.113$, $p<0.1$). This is partly consistent with the hypothesis of the paper, indicating that the selection of variables is more reasonable.

Table 2 Descriptive statistical analysis

	IP	FP	OWE	Age	Size	Own
IP	1					
FP	-0.069	1				
OWE	0.137***	-0.113*	1			
Age	0.086	0.002	-0.024	1		
Size	0.054	-0.094*	-0.012	0.140***	1	
Own	0.123**	0.110**	0.202***	0.177***	0.209***	1
Min	1	-0.251	0	7	19.883	0
Max	1459	0.496	1	32	27.813	3
Mean	17.462	0.059	0.192	19.582	21.990	1.861
Sd	83.146	0.062	0.395	5.170	1.114	0.581

***, **, * indicate significant at the level of 1%, 5%, and 10%, respectively.

4.2 Regression Analysis

Table 3 shows the effect of entrepreneurs' overseas work experience on innovation performance and financial performance. The results show that the regression coefficients of entrepreneurs' overseas work experience and innovation performance are significantly positive ($\beta=0.113$, $p<0.05$), which shows that overseas work experience of entrepreneurs are conducive to the improvement in entrepreneurial innovation performance. Hypothesis 1 is passed. The regression coefficient of entrepreneurs' overseas work experience and financial performance is significantly negative ($\beta=-0.139$, $p<0.01$), which shows that overseas work experience of entrepreneurs is not conducive to the improvement in entrepreneurial innovation performance. Hypothesis 2 is partially passed.

Table 3 Regression Analysis

Variable	IP (1)	FP (2)
OWE	0.113** (2.13)	-0.139*** (-2.62)
Age	0.102* (1.93)	0.032 (0.60)
Size	0.068 (1.28)	-0.073 (-1.36)
OWN	0.132*** (2.41)	0.128*** (2.33)

***, **, * indicate significant at the level of 1%, 5%, and 10%, respectively.

5 Conclusions

5.1 Analysis conclusion

This article uses 359 entrepreneurial companies as a sample to examine the relationship between entrepreneurs' overseas work experience and innovation performance, and entrepreneurs' overseas work experience and financial performance through regression analysis, and draws the following conclusions. The conclusions of this paper reveal the influence of entrepreneurs' overseas experience of entrepreneurial performance, and provide a theoretical basis of entrepreneurial companies to better carry out entrepreneurial activities. At the same time, this paper divides entrepreneurial performance into innovation performance and financial performance, and discusses the relationship between entrepreneurs' overseas work experience and entrepreneurial performance, which helps to accurately explore the advantages and disadvantages of entrepreneurs' overseas work experience. This has a certain reference effect for start-up companies to introduce overseas talents.

(1) The overseas work experience of entrepreneurs positively affects the innovation performance of entrepreneurial enterprises. This conclusion is consistent with the views of Huang et al. [9]. The overseas work experience of entrepreneurs enables entrepreneurs to learn the R&D and innovation models on advanced enterprises in developed countries, and become more familiar with and understand the crucial links in R&D between innovation. As a result, entrepreneurs have a deeper understanding with R&D innovation to promote the improvement in entrepreneurial performance [10]. Therefore, entrepreneurs with overseas work experience will attach great importance of corporate innovation and increase R&D investment to improve corporate innovation performance during the process of returning home to start a business. This conclusion reveals the relationship between entrepreneurs' overseas work experience and innovation performance, and supplements the existing research content.

(2) The overseas work experience of entrepreneurs negatively affects the financial performance of entrepreneurial companies. This conclusion is partly consistent with the hypothesis, and is different from the usual opinions. Cao et al. [11] believe that the overseas work experience of entrepreneurs helps entrepreneurs gain relevant knowledge about business operations. The rich work experience of entrepreneurs, especially the advanced work experience of overseas developed countries, makes entrepreneurs pays more attention to product management, process

management, quality management, etc. This is conducive to reducing the operating costs of enterprises, increasing corporate profit margins, and enabling start-up companies to show better financial performance. However, we believe that there are several reasons for the conclusions drawn from the data analysis in this article. First, there are different environments at home and abroad. Because domestic and foreign countries have different systems and policies, they will have different impacts on entrepreneurial activities. Foreign entrepreneurial activities are more affected by the market economy, while domestic entrepreneurial activities are more affected by national policies. In China, national policies can determine the fate of enterprises. Secondly, there are differences in culture at home and abroad. There are different corporate cultures at home and abroad. The culture of free individualism abroad may not apply to China. China's entrepreneurial activities maintain a more practical and loyal corporate culture. Finally, resource conversion has certain difficulties. It is difficult for entrepreneurs with overseas work experience to introduce foreign resources into domestic entrepreneurial enterprises. In the process, they may have a negative impact on the entrepreneurial enterprise and endanger the financial performance of the enterprise. This conclusion provides new insights for exploring the relationship between entrepreneurs' overseas work experience and financial performance, expands existing research content, and enriches research perspectives.

5.2 Research Inspiration

(1) Entrepreneurs need to have an international perspective. An international perspective is an important source of advantages for returnees [12]. Overseas work experience provides entrepreneurs with a certain amount of human capital, including the improvement in professional level, the development of international vision, etc. This has a positive effect on the innovation and research and development of entrepreneurial enterprises, and can achieve higher innovation performance.

(2) Entrepreneurs need to have a global perspective. A global perspective means the complexity of the entrepreneurial environment, and companies need to continuously improve their governance to cope with economic globalization. Entrepreneurs should pay attention to the professional level of the enterprise and at the same time pay attention to the differences in domestic and foreign environments to create the higher entrepreneurial performance.

(3) Entrepreneurs need to make reasonable use of overseas work experience. Due to the large differences in entrepreneurial activities at home and abroad, entrepreneurs need to combine the domestic status quo and learn from foreign work experience in a targeted manner to manage and reform entrepreneurial enterprises.

5.3 Limitations and Prospects

This article has certain limitations. The research sample is 2020 data, which is insufficient for the time span. In the future, we will collect panel data with a long time span for research, and we can also discuss a certain industry. Through careful discussion of a certain industry, specific conclusions can be made in a targeted manner. At the same time, exploring the relationship between entrepreneurs' overseas work experience and entrepreneurial performance in accordance with the nature of different corporate ownership has also become a valuable research topic [13], which can be explored in the future.

Acknowledgment.This paper is supported by National innovation and entrepreneurship training program for college students+S202110497060.

References

- [1] L. Yang, M. Duan, J. Liu, and C. Xu, "Overseas experience, R&D investment intensity and corporate innovation performance of senior management teams," *Scientific Research Management*, vol. 6, pp. 9-21, 2018.
- [2] B. Rakesh, "Foreign experience of top management teams and international diversification strategies of US multinational companies," *Strategic Management Journal*, vol. 17, pp. 739-746, November 1996.
- [3] M. Zheng, "Overseas experience, professional background and technological innovation of senior executives," *Forum on Science and Technology in China*, vol. 10, pp. 137-144, 2019.
- [4] D. Hambrick and P. Mason, "Upper echelons: The organization as a reflection of its top managers," *Academy of Management Review*, vol. 2, pp. 193-206, 1984.
- [5] T. Bewaji, "Combining Top Management Team (TMT) with Research and Development Intensity for Patent Performance Measurement," *Management*, vol. 4, pp. 11, 2013.
- [6] W. Zhou, "Regional institutional development, political connections, and entrepreneurial performance in China's transition economy," *Small Bus Econ*, vol. 43, pp. 161-181, 2014.
- [7] B. Zhang, G. Sun, M. Pei, and P. Qi, "Network capability, network structure and entrepreneurial performance: An empirical study based on China's incubation industry," *Nankai Management Review*, vol. 2, pp. 39-50, 2015.
- [8] Z. Peng, and P. He, "The founding team's key human capital, strategic position advantage and entrepreneurial performance," *Management Science*, vol. 3, pp. 24-38, 2014.
- [9] T. Huang, and Y. Ge, "The impact of overseas experience of senior management teams on corporate innovation performance: An empirical study of information technology listed companies," *Technology and Management*, vol. 4, pp. 80-86, 2018.
- [10] Y. Chen, M. Chu, and Q. Li, "Research on the relationship between executive political connections, overseas experience and corporate R&D internationalization performance," *Journal of Zhejiang University of Technology (Social Science Edition)*, vol. 4, pp. 403-409, 2017.
- [11] H. Cao, X. Ding, and S. Cheng, "CEO overseas experience and company performance: based on the perspective of property heterogeneity research," *Friends of Accounting*, vol. 22, pp. 89-95, 2020.
- [12] Q. Liu, C. Zhang, R. Lu, and J. Lu, "Whether the business performance of "returnees" is better: Evidence from Chinese private enterprises," *World Economy*, vol. 12, pp. 70-89, 2013.
- [13] Z. Zhou, C. He, and Y. Han, "The overseas experience of executives and the performance of corporate mergers and acquisitions: Based on the perspective of the cross-cultural integration advantages of "returnees" executives," *Accounting Research*, vol. 8, pp. 64-76, 2020.