

Research on the Impact of the Structural Characteristics of Entrepreneurial Ecosystem on the Financial Risk of Enterprises

Meng-Yuan Gu^{1,a}, Jun-Ping Yang^{2,b,*}, Su-Qing Xiao^{3,c} and Zhao-Yang Dong^{4,d}

¹School of Economics and Management, Zhejiang Sci-Tech University

^a461570614@qq.com, ^b1127401178@qq.com, ^c1801935415@qq.com

*Jun-Ping YANG

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Abstract. At present, China's entrepreneurial activities as an important engine to promote economic growth is driving China's technological innovation and social development at an unprecedented rate. Since high returns are accompanied by high risks, it is of research value to clarify the formation mechanism of financial risks of start-ups with "new defects" for the survival and development of start-ups and even the development of economic society. Entrepreneurial ecosystem is an important external environment for the establishment, development and growth of entrepreneurial enterprises. Research shows that the diversity, competition and cooperation, and network characteristics of entrepreneurial ecosystem can affect the risk transmission mechanism in the system and further affect the financial risk level of entrepreneurial enterprises. This paper takes the structural characteristics of entrepreneurial ecosystem as the integration framework of the external factors influencing the financial risk of entrepreneurial enterprises, analyzes the impact of the structural characteristics of entrepreneurial ecosystem on the financial risk of enterprises, and analyzes the interaction mechanism of each feature of entrepreneurial ecosystem structure based on the theory of entrepreneurial ecosystem.

1. Introduction

The study of financial risk of entrepreneurial enterprises focuses on the impact of internal factors, and analyzes the formation and management of financial risk from the perspectives of enterprises and entrepreneurs. From the perspective of enterprise, it mainly adopts the comprehensive risk management framework of mature enterprise risk management research, and discusses the financial risk points of entrepreneurial enterprises from the aspects of agency relationship, internal control, organizational structure, business structure and industrial chain, etc. (Dong Baobao, 2014). From the perspective of entrepreneurs, their overconfidence, over-optimism, illusion of control and other psychological cognitive characteristics, as well as their age, gender, educational background, employment experience and other social characteristics are explored to explore the motivation of entrepreneurs' financial decisions (Li & Tang, 2010; Baker & Wurgler, 2011), and then analyze the formation of financial risk of entrepreneurial enterprises. In addition, some scholars began to explore the impact of external environment factors such as market characteristics, economic policies and cultural characteristics on financial risks, but the research was scattered and lacked integrity. Based on this, this paper aims to further explore the impact of external environmental factors on the financial risks of start-ups, which is of great significance for further strengthening the risk management of start-ups and promoting the sound development of start-ups.

Entrepreneurial ecosystem is an important external environment for the establishment, development and growth of entrepreneurial enterprises. Studies have shown that entrepreneurial ecosystem has three structural characteristics, namely diversity, competition and cooperation, and network, and affects the operation of internal mechanisms of entrepreneurial ecosystem (Thomas & Autio, 2014). Thus, the structural characteristics of entrepreneurial ecosystem can affect the risk transmission mechanism within the system and thus affect the financial risk level of entrepreneurial enterprises (CAI li, Peng xiuling, Satish Nambisan, 2016).

To sum up, this article will entrepreneurial ecosystem structure characteristics as entrepreneurial enterprise financial risk of the external influence factors of integrated framework, based on the theory of risk management, business risk conduction theory analysis and the theory of ecological system startup ecosystem structure characteristics of the financial risk of enterprise, and based on the theory of business ecosystem analysis of entrepreneurial ecosystem structure the mechanism of interaction between various characteristics.

2. Characteristics of Entrepreneurial Ecosystems

The concept of "entrepreneurial ecosystem" was first proposed by Cohen (2005) to describe the overall framework of regional entrepreneurial activities with MIT as the core (Dunn k., 2005). Subsequently, as the overall framework of entrepreneurial research and the core concept of explaining regional entrepreneurial performance improvement, entrepreneurial ecosystem began to receive extensive attention and gradually formed relevant theories. The theory of entrepreneurial ecosystem points out that the entrepreneurial ecosystem takes the scope of regional entrepreneurial activities as the system boundary, and is composed of entrepreneurial subjects, entrepreneurial activity support subsystem and entrepreneurial environment. They interact with each other to improve the level of entrepreneurship in the region and promote regional economic development on this basis. Entrepreneurship ecosystem in the whole running through the system between various factors are interrelated generates an important impact on the growth and development of the enterprise, considering the influencing factors of entrepreneurial activity and explain environmental factors influence on business enterprise financial risk, should from the perspective of wholeness, considering to avoid a single perspective, ignore the limitations of the interaction of various factors. Relevant studies on the structure of entrepreneurial ecosystem indicate that, based on the multi-dimensional characteristics of entrepreneurial ecosystem, the structure of entrepreneurial ecosystem has three characteristics: diversity, co-opetition/symbiosis, and network (table 1), which describes the structure of entrepreneurial ecosystem from the three dimensions of point, line and surface.

Table 1. Characteristics of entrepreneurial ecosystem structure

Overall system characteristics	Research level	Derived structural characteristics	Scholar (year)
multidimensional	dotted - element	diversity	Thomas & Autio, 2014; Zahra & Nambisan, 2011
	line -association	co-opetition/ symbiosis	Kapoor& Lee, 2013; Zahra & Nambisan, 2011; Spigel, 2017
	surface-Elements and associations	networked	Galateanu & Avasilcai, 2014

For entrepreneurial enterprises, entrepreneurial ecosystem is an important environment for their birth, growth and development. The interaction between entrepreneurial enterprises and the environment within the system (including other entrepreneurial subjects, supporting institutions, systems and cultures) can have an important impact on their financial risks. Among them, the diversity of entrepreneurial ecosystem structure features is the description of entrepreneurial ecosystem structure from the dimension of "point", which reflects the characteristics of various elements in the entrepreneurial ecosystem with a large number and a variety of types. Diversity provides a good foundation for the cooperation and development of various elements, but also makes a large number of different types of risk sources and risk carriers exist in the entrepreneurial ecosystem, thus affecting the financial risks of entrepreneurial enterprises.

Entrepreneurial ecosystem structure characteristics of the competition (co - opetition) copied from ecology theory, from the dimension of line of business ecosystem structure, shows that entrepreneurial ecosystem there are both competition and cooperation between the elements within the relationship rather than a single, highlights the relationship between the elements is complex and

the properties of dynamic change. Based on the theory of risk transmission, the direct or indirect concurrence makes the risk be transmitted between enterprises, and has an impact on the financial risk of the entrepreneurial enterprises.

Entrepreneurial ecosystem structure characteristics network reflects the structure of entrepreneurial ecosystem from the dimension of "surface", which reflects the overall characteristics of entrepreneurial ecosystem as a complex network. Cohen points out that network is the core feature of entrepreneurial ecosystem structure. Entrepreneurial ecosystem structure is a three-dimensional network superposed by multiple layers (individual layer - social network, enterprise layer - corporate sector organization network, system layer - regional network of each enterprise and each institution). The structure is complex and constantly evolves dynamically through the interaction of various elements. The higher the network of entrepreneurial ecosystem, the higher the centrality of each element in the system network, and the easier the transmission and convergence of risks among the nodes of the system network, thus affecting the financial risks of entrepreneurial enterprises.

In addition, entrepreneurial ecosystem theory points out that the diversity and confluence of entrepreneurial ecosystem are the foundation and motivation of network, and the degree of diversity and confluence of system respectively affects the scale of system network and the strength of the connection between system network. Therefore, both of them can further affect the financial risk level of enterprises by influencing the network level of the system. Therefore, this paper constructs a theoretical model that takes the three structural characteristics of entrepreneurial ecosystem as independent variables and the financial risk of entrepreneurial enterprises as dependent variables to analyze and test the relationship between the structural characteristics of entrepreneurial ecosystem and financial risk. On this basis, the internal influence mechanism among various structural characteristics of entrepreneurial ecosystem was explored to further clarify its influence, and a theoretical model with network as the intermediary variable, diversity and competition as the independent variable, and entrepreneurial enterprise financial risk as the dependent variable was constructed.

3. The Direct Impact of the Structural Characteristics of Entrepreneurial Ecosystem on the Financial Risk of Enterprises

3.1. Diversity of Entrepreneurial Ecosystem and Financial Risk of Enterprises

The diversity of entrepreneurial ecosystem describes the system structure from the perspective of the type and quantity of elements within the system. The level of diversity reflects the richness of the type and quantity of elements within the system. On the one hand, various factors make it easier for all kinds of risks to breed in the system and generate a variety of types. The risk transmission theory points out that the increase of risk sources and risk carriers will promote the risk transmission within the system and thus improve the risk level of enterprises in the transmission network. On the other hand, the diverse system environment increases the complexity of the system, and the entrepreneurs' "limited rationality" is difficult to identify and deal with the risks in the environment. In financial activities such as investment and financing, their "overconfidence" will urge enterprises to take more risks, thus improving the financial risk level of enterprises.

Based on this, the following research proposition is proposed: the diversity of entrepreneurial ecosystem has a positive impact on the financial risk of enterprises, and the financial risk faced by enterprises will be significantly increased when the diversity of elements and quantity in the system is relatively high.

3.2. Competition and Cooperation of Entrepreneurial Ecosystem and Enterprise Financial Risk

The concurrence of entrepreneurial ecosystem describes the system structure from the perspective of the relationship of factors within the system. The level of concurrence reflects the closeness and complexity of factors within the system. The theory of risk transmission points out that in a system with high competition and cooperation, factors are highly interdependent, information and resource exchanges are frequent and complex, and risks can be transmitted in the system through various

channels established by enterprise association, thus increasing the uncertainty faced by enterprises. In addition, the risk management theory, points out that entrepreneurs often belong to risk appetite, its risk tends to prompt companies in uncertain environments actively spread by mixed efficient information acquisition system intermediary and continuous flow of resources between enterprises to build their own core competitiveness, actively take risks, and enhance the level of enterprise's financial risk.

Based on this, the following research proposition is put forward: the co-opetition of entrepreneurial ecosystem has a positive impact on the financial risk of enterprises. When the co-opetition relationship among the elements in the system is more complex and close, the level of financial risk of entrepreneurial enterprises will be improved.

3.3. Network Nature of Entrepreneurial Ecosystem and Enterprise Financial Risk

The network nature of entrepreneurial ecosystem describes the system structure from the perspective of the whole system. The level of network nature reflects the number of structure holes in the system and the transmission range of information and resources. Generally speaking, the more complex the network structure is and the more structural holes each element can occupy in the network, the entrepreneurial enterprises will encounter the risks carried by the "distant" subject within the system. For start-up enterprises, risks may provide them with opportunities to improve their entrepreneurial ability, which is attractive to a certain extent and will encourage them to actively take risks and improve their financial risk level. In addition, entrepreneurs often have cognitive biases about their status in the system. Out of overconfidence in their own control ability and environment, entrepreneurs will also make more aggressive investment decisions to improve the financial risk level of enterprises.

Based on this, the following research proposition is put forward: the network nature of entrepreneurial ecosystem has a positive impact on the financial risk of entrepreneurial enterprises. The more complex the network structure of entrepreneurial ecosystem is, the faster and wider the growth and transmission of risk in the system will be, and ultimately the level of financial risk of enterprises will be improved.

4. Analysis of the Multiple Impacts of the Structural Characteristics of Entrepreneurial Ecosystem on the Financial Risk of Enterprises

The theory of entrepreneurial ecosystem points out that the connection of entrepreneurial elements in entrepreneurial ecosystem is the foundation of the network structure of entrepreneurial ecosystem. Based on this, the following research proposition is proposed: diversity and co-opetition of entrepreneurial ecosystem have a positive impact on networkness. In other words, the more diverse and numerous the elements are, the closer the elements are, and the more complex the network structure of entrepreneurial ecosystem is.

As the core element of the structural characteristics of entrepreneurial ecosystem, network is affected by the level of system diversity and competition, and can effectively affect the level of financial risk of enterprises. Therefore, network plays an important role in the influence path of diversity and concurrence on enterprise financial risk, and there may be intermediary roles between them in the process of influencing the operation mechanism of the system and then influencing the micro elements.

In diversity, various and numerous entrepreneurial elements can expand the scale of the system network and increase the complexity of the system network, thus affecting the financial risk level of enterprises. From the perspective of system, the risk transmission ability of diversified system is further improved, so as to enhance the financial risk of entrepreneurial enterprises. From the perspective of entrepreneurial enterprises, the improvement of diversity means the further increase of the uncertainty of information and resources in the system, and at the same time of the expansion of network scale, the risks faced by enterprises also increase correspondingly. Therefore, the diversity of entrepreneurial ecosystem can improve the network nature of entrepreneurial ecosystem and increase the uncertainty faced by entrepreneurial enterprises.

The high level of competition and cooperation promotes the formation of complex network structure and makes the network structure more compact. In the entrepreneurial ecosystem, the relationship between entrepreneurial enterprises and other entrepreneurial subjects is often not a single chain relationship, but a complex network relationship formed by the competition and cooperation of many parties. On the one hand, enterprises have more extensive channels to obtain information and resources, and the effect of risk transmission and transmission is more obvious. On the other hand, the complex and close network structure makes the mutual influence between enterprises deeper. The financial activities of enterprises will be affected by other system elements, and the influence of system risks on enterprise risks will be more significant, which will ultimately improve the financial risk level of entrepreneurial enterprises.

Based on this, the following research proposition is proposed: network plays an intermediary role in the impact of diversity and competition on the financial risk of entrepreneurial enterprises.

5. Research Conclusions and Implications

Through theoretical analysis and empirical test, this paper verifies the influence relationship between the structural characteristics of entrepreneurial ecosystem and the financial risk of enterprises. On this basis, it further explores the internal influence mechanism of the structural characteristics of entrepreneurial ecosystem and further clarifies the formation mechanism of the financial risk of entrepreneurial enterprises. In order to further promote entrepreneurs to seize opportunities and carry out effective risk management to improve their success rate of entrepreneurship, facilitate the construction and development of entrepreneurial ecosystem, and improve regional entrepreneurial performance, this paper puts forward the following management enlightenment and Suggestions.

At the micro level, entrepreneurs and entrepreneurial enterprises should pay attention to the impact of the structural characteristics of entrepreneurial ecosystem on the level of financial risk of enterprises. For entrepreneurial enterprises, appropriate risk level is conducive to obtaining opportunities to improve corporate performance, and effective risk management is of great significance for the growth and development of entrepreneurial enterprises. The understanding of the relationship between the structural characteristics of entrepreneurial ecosystem and its financial risks is conducive to the more reasonable evaluation of enterprise risks by entrepreneurs and enterprises, so as to improve the risk management level of enterprises.

At the macro level, it is of great significance to clarify the mutual influence relationship between the structural characteristics of entrepreneurial ecosystem to build a healthy and orderly entrepreneurial ecosystem. At present, the construction of entrepreneurial ecosystem in China is in the ascendant. How to control the number, type and connection of elements to promote the more effective operation of the system is the focus of the platform entrepreneurial ecosystem builders. In addition, it is more effective to evaluate the entrepreneurial ecosystem by defining the relationship between various features, so as to provide decision-making basis for enterprises to enter and exit the entrepreneurial ecosystem.

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7. References

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