The Influence of Entrepreneurial Bricolage on Growth Performance of New Ventures in Dynamic Environment Based on Ambidextrous Learning

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Abstract

Entrepreneurial bricolage provides a new theoretical perspective for resource- poor firms to improve organizational performance. However, the mechanism of how entrepreneurial bricolage influences the growth performance of new ventures is unclear. Based on the perspective of ambidextrous learning, this paper aims to build an integrated model of entrepreneurial bricolage, ambidextrous learning balance, dynamic environment, and the growth performance of new ventures. Using 193 Chinese companies as a research sample to test our hypothesis, the research results found that entrepreneurial bricolage has a significantly positive impact on the growth performance of new ventures, and ambidextrous learning balance partially mediates this relationship, and a high dynamic environment augments this effect.

Keywords: Growth Performance of New Ventures; Entrepreneurial Bricolage; Ambidextrous Learning Balance; Dynamic Environment

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Introduction

The development of a new business venture is extremely important for the acceleration of scientific and technological success. However, the problem found in the new business ventures is what is called “defect of the new business"–a very shortage of resources. For this reason, the survival rate of new business and sustainable development scenarios is not easy to make the whole people optimistic in the business world. From many surveys, even the United States that the market environment has increasingly grown every year, there will be more than 100,000 new business runs, and in that amount, 23.7% of the new business failed within 2 years; additionally, more than half of the new business ventures had been cut out of the market within 4 years. The entrepreneurial bricolage as a creative integration of resources available in hand is very important for the new investment (Salimath & Jones, 2011; Vanevenhoven et al, 2011). However, from previous studies, there is a controversial argument relating to the influence of entrepreneurial bricolage on the growth performance of new ventures in the dynamic environment. Some studies suggested that a combination of business operations that were not limited to existing resources and practices can enhance the identity of stakeholders, both internally and externally (Mair & Marti, 2009). Therefore, helping a new company to grow rapidly will be an obstacle to the stability of existing relationship structures and to hinder the development of new business. Some researchers have indicated that the relationship between the entrepreneurial bricolage and the company's growth performance is a non-linear, complex relationship (Senyard et al, 2014).

The entrepreneurial bricolage is not limited to limited resources, but also is a powerful way to create new knowledge and improve the learning patterns for both exploration and utilization (A W, Zhao X, Cao Z, 2018). Besides, the most recent organization's knowledge suggested that too many surveys or excessive utilization may have a negative impact on the new enterprise growth performance, and those enterprises need to understand the ambidextrous learning balance to achieve the best growth results (Wang H, Li J, 2008). The ambidextrous learning balance may be the key to explaining the conflict above. This article examines the role of the

ambidextrous learning balance association between the entrepreneurial bricolage and the new entrepreneur growth performance.

Previous studies have indicated that the nature of an internal and external environment is a key factor for the performance of the entrepreneurial bricolage. Garud and Karnoe (2003) said that bricolage is highly effective when the product or system is in a complex environment. Unfortunately, the study has not been empirically tested. However, they have shown a certain extent between the effects of the entrepreneurial bricolage to the growth of a new business. Some researchers claimed to have a further investigation of such scope conditions through an empirical study. Boxenbaum and Rouleau (2011) considered that the largest nature of the new investment is dynamic. This article has brought environmental change as a variable for empirical testing by examining the relationships above. This article tried to explore the mechanisms and conditions of the entrepreneurial bricolage that influence the growth performance of new businesses.

Research objectives

This research aimed to study The Influence of Entrepreneurial Bricolage on the Growth Performance of New Ventures in a Dynamic Environment Based on Ambidextrous Learning.

Literature Review and Hypotheses

The growth of new businesses needs to destroy existing resource restrictions and realize the development of opportunities through the bricolage process. The number of resources and the ability to consolidate resources of entrepreneurs is the key to growth rapidly. However, the grounded theory of resources lacks analysis and enough explanations to create and maintain a competitive advantage in enterprises under resource restrictions. The theory 'entrepreneurial bricolage' provides a unique paradigm of analysis and views for understanding this issue. The main spindle of the theory of entrepreneurial bricolage is to use all the resources in hand to complete

the task, which reflects the behavior of entrepreneurs in responding to new problems.

Hypothesis 1: The entrepreneurial bricolage has a huge positive impact on the new company's growth performance: This article believes that entrepreneurial bricolage is effective in developing new business growth. Firstly, the entrepreneurial bricolage emphasizes the use of creativity in managing resources in hand, giving a unique, clear, and difficult to mimic. Using the same resources may cause the product to come out in the same result as other business rivalries. This can pose an obstacle for organizations to develop, grow, and maintain a competitive advantage. Secondly, the entrepreneurial bricolage helps to create new knowledge to find other properties or to use existing resources, making the same resources valuable, strong, and different from the original ones (Duymedjian & Rüling, 2010).

Also, entrepreneurial bricolage can help companies to draw an idea and violate the limitations of business operations, especially for developing new businesses with no time and enough energy to find and create the right resources. This can help the company to minimize the cost and to promote the development and utilization of new opportunities (Baron R. A. & Ensley, 2006). Therefore, the hypotheses of the present study are the following:

Hypothesis 2: The ambidextrous learning balance influences the growth performance of new ventures: March (1991) suggested that the exploration and development of two different types of learning can affect the business. Therefore, the effective balance between the two which should be carried out is an ambidextrous learning balance. The study pointed out that ambidextrous learning balance can generate advantages of exploration and utilization efficiency and helps improve business efficiency; therefore, ambidextrous learning balance is gradually becoming the focus of current research and has developed into a new paradigm in the research of business field, which has received widespread attention from the academic context (Cao & Gedajlovic & Zhang, 2009). However, no conflict can result in a more efficient balance. That is, the balance between the two is not a normal situation of business learning. Therefore, to achieve an effective balance between

the two effectively, the balance between these two must affect the growth performance of new businesses.

Exploratory learning and cognitive learning often have conflicting goals and will lead to business performance. The essence of the entrepreneurial bricolage is to enhance the effectiveness of the resources in hand through continuous trials and reducing experimental errors. It is to create the necessary standards for an effective balance between the two because the learning continuity will make a greater understanding of entrepreneurs about the properties of the resource and how it is used (Zimmermann & Raisch & Cardinal, 2017). The entrepreneurial bricolage can also provide subjective knowledge about how to manage resources in hand, which can be a standard for entrepreneurs in resource management decisions. In addition, the entrepreneurial bricolage focuses on the integration and utilization of resources in hand, which can reduce the redundant loss of resources, and can also reduce the cost of binary learning for an organization. Finally, the entrepreneurial bricolage also helps to create a learning atmosphere (Mair & Marti, 2009), providing efficient and reasonable resource allocation that can lead to more efficient business performance (Aubry & Lièvre, 2010).

Hypothesis 3: The dynamic environment influences the entrepreneurial bricolage and ambidextrous learning balance: The dynamic environment refers to the rapidness and uncertainty of changes in external factors in the business. In a dynamic environment, managing resources effectively becomes the key to create a competitive advantage and maintain a fast growth rate. At present, there are different perspectives on the impact of environmental changes on the growth of an organization. Azadegan et al. (2013) suggested that environmental changes can have a more positive impact on the long-term value of state enterprises. Chandler and Hanks (1993) believed that environmental changes affected the competitive advantage of a business and explain how environmental changes affected the performance of the entrepreneurial bricolage. In the academic context, there are a few studies about this issue.

The present study believes that, in this highly dynamic environment, new ventures should focus on ambidextrous learning balance. That is to say, the dynamic environment has positive effects on the entrepreneurs and ambidextrous learning balance. Firstly, in the highly dynamic environment, the market needs, and technology changes are relatively large and unpredictable, making the new ventures face non-structural problems; so, exploratory learning should adapt to complex situations. Secondly, in situations where high uncertainty of the entrepreneurial bricolage, allows entrepreneurs to be ready for the situations and help all employees in the organization stay enthusiastic. This can reduce the risk caused by high uncertainty situations and improve the company's growth performance. In a highly dynamic environment, it is very important to maintain ambidextrous learning through an entrepreneurial bricolage as it can maintain and improve the growth performance of new ventures.

Research methodology

This study collected data from Beijing Innovation Centre and the Entrepreneur Information platform. The latter source is established in 2016, having the intention to support new business ventures. At present, the platform has at least 100,000 members who pay a fee for the service. This provided the researchers with a variety of information support for this research. The researchers have contacted the people associated with this platform and requested the basic information of companies, members, and later choose a new starting company with a period of longer than 6 years as the target of the questionnaire.

To confirm the participants' voluntary consent, the researchers contacted people associated with this platform and chief executive officers of each company through WeChat, Electronic mails, and a telephone call to inform them about the purpose of the study. The researchers, then, sent 400 questionnaires to each company of which 229 were collected. There were 36 incomplete questionnaires, meaning that only 193 questioned were used in the data analysis. The standard deviation (SD) analysis did not respond to recycled companies and non-recycled

companies, meaning that there was no significant difference between the two companies. That is, the standard deviation did not affect the business.

The research instrument used in this study was from a leading adult journal, both domestic and overseas. These scales are accurate and highly reliable and are extensively used in the context of developing countries. The growth performance of new business ventures, based on research by Chandler and Hanks (1993), was measured by these four aspects: (1) Total number of employees; (2) The growth rate of the sales; (3) The growth rate of net profit; (4) new product growth rate. The result of the reliability test showed that Cronbach's coefficient alpha of the new business growth is 0.813.

The researchers adopted one of the findings of Senyard et al. (2009) in analyzing the entrepreneurial bricolage, that is "when new ventures faced with new challenges, they tended to use existing business resources. Entrepreneurs took advantage of existing resources to respond to issues or new opportunities. The new ventures succeeded in dealing with new challenges by integrating non-used resources for projects". Cronbach's coefficient alpha of the entrepreneurial bricolage is 0.834.

In analyzing the ambidextrous learning balance, the findings of Zhou and Wu (2010) were used to describe exploration and exploitation learning. The findings used consisted of "learning and developing knowledge and skills in new business areas" and "real-time update related to products for adult". Cronbach's coefficient alpha of the exploration and exploitation learning are 0.842 and 0.795, respectively. The calculation method of Wang Fengbin et al. was used to calculate the ambidextrous learning balance.

The researchers used four scale items of Jansen et al. (2006) to analyze the dynamic environment, consisting of "an external environment in which the company is experiencing severe changes " and "the constantly changing of the external environment" The Cronbach's coefficient alpha for the environmental change is 0.859.

This study examined the age and size of a company; and measured the size of a company from the education level and experience of entrepreneurs. The size of a company is measured by the total number of employees and entrepreneurs' education

level from the level of 1-4. Level 1 referred to undergraduate, 2 referred to a bachelor's degree, 3 referred to a master's degree, and 4 referred to Doctor of Philosophy.

Results

To avoid One- Way ANOVA effectively, Harman's single factor test was conducted in this paper to get the co-variance value of the first factor that no rotation was equal to 17.31%, and after gathering the data of each variable, errors of each variable is between 0.82 and 0.97. The variance inflation factor was between 0.91 to 1.31, which was much lower than the recommended threshold; so, there was no relationship between the multi-level or low variables.

This study used SPSS 21.0 to analyze the standard deviation and the relationship between the variables. As shown in table 1, it can be seen that the business continuity has a positive relationship with the new business growth performance ($R = 0.392$, $p < 0.01$) and Ambidextrous learning balance ($r = 0.157$, $p < 0.01$), and demonstrate a positive relationship between the ambidextrous learning balance and the growth performance of new ventures ($R = 0.145$, $p < 0.01$). This is the evidence for the analysis of the effects of ambidextrous learning balance.

Table 1: Descriptive analysis of variables and correlation matrix

	Mean	S.D.	1	2	3	4	5	6	7
1Age	7.973	6.935							
2Size	14.73	13.851	0.032						
3Edu	2.256	0.532	0.035	0.083					
4Exp	0.365	0.124	0.127*	0.010	-0.025				
5EB	4.436	1.353	0.007	0.084	-0.080	0.093			
6ALB	0.931	0.137	0.075	0.091	-0.091	0.032	0.157***		
7ED	4.083	1.185	0.029	0.060	-0.050	0.029	0.160**	0.136***	
8GP	4.204	1.334	0.051	0.078	-0.014	0.025	0.392***	0.145***	0.391***

In table 2, an analysis of the impact of variables was the following procedure: Firstly, independent variables have a significant impact on the dependent variable.

Secondly, independent variables have a significant impact on the mean value and the median variant also has a significant impact on dependent variables. When the variables are passed into the model, the influence of intermediary variables shows significant, while the results of independent variables are reduced or no longer significant. As seen in table 2, entrepreneurial bricolage has a huge positive impact on the growth performance of new ventures (Type 2, $\beta = 0.407$, $p < 0.001$). Therefore, research hypothesis 1 has already been confirmed on this basis. The ambidextrous learning balance variable is added to the resulting model, showing that the entrepreneurial bricolage still has a huge impact on the growth performance of new businesses. The ambidextrous learning Balance has a significant positive correlation with new business's growth performance (Type 2, $\beta = 0.311$, $p < 0.001$); at the same time, the entrepreneurial bricolage has significantly positive impact on ambidextrous learning balance (type 6, $\beta = 0.260$, $p < 0.001$). In this view, the ambidextrous learning balance poses a positive relationship between the entrepreneurial bricolage and the growth performance of new businesses. Therefore, research hypothesis 2 has been confirmed.

Table 2: The result of variables conversion

	GP				ALB			
	Type1	**Type2**	**Type 3**	**Type 4**	**Type 5**	**Type 6**	**Type 7**	**Type 8**
Age	0.044	0.020	0.004	0.002	0.091^{+}	0.043	0.036	0.041
Size	0.067	0.027	-0.012	-0.004	0.085	0.044	0.028	0.034
Edu	-0.015	0.024	0.067	0.071	0.038	-0.091	-0.086	-0.082
Exp	0.019	0.078	0.077	-0.058	0.020	-0.012	0.027	0.026
EB		0.407***	0.298***	0.017		0.260***	0.213***	0.165***
ALB			0.311***	0.191***				
ED				0.092^{+}			0.170***	0.059
EB*ALB				0.347***				0.227***
R^2	0.018	0.167	0.294	0.349	0.046	0.129	0.241	0.316
ΔR^2	—	0.149	0.276	0.331	—	0.083	0.195	0.270

From type 7 and 8 in examining the impact of environmental changes between the entrepreneurial bricolage and ambidextrous learning balance, it is found that the interaction period of the entrepreneurial bricolage and environmental changes have a significantly positive impact on ambidextrous learning balance (type 8, $\beta = 0.227$, $p < 0.001$). On this basis, all variables are added to the model to determine the impact on the growth performance of new businesses and show that interaction between the entrepreneurial bricolage and the dynamic environment also has a significant impact on the growth performance of a new business. This result supports research hypothesis 3.

Discussion

Does entrepreneurial bricolage affect the growth of a new business? This debate is based on theory. These two theories have created a comprehensive-impact mechanism of the entrepreneurial bricolage and ambidextrous learning balance with new business growth performance in a dynamic environment, and an empirical test was conducted with the data from 193 newly run companies. It can be concluded as follows: the ambidextrous learning balance shows positive influences between the entrepreneurial bricolage and the growth of new ventures, and the positive impact of meta-balance on the growth performance of the business is stronger.

This article is only a partial survey of the effects of entrepreneurial bricolage on the growth performance of new ventures. There are many defects, including limitations on the testing of a causal impact of this research. Although the overall level of structure in analyzing the entrepreneurial bricolage and theoretical resources are very meaningful and the simplicity of the process, future research should explore the entrepreneurial bricolage and some resources, including different businesses and the overall performance of the entrepreneurial bricolage. This article aimed to examine the impact of a dynamic environment. In the future, it is also necessary to

complete the gap by selecting the entrepreneurial bricolage, including the appropriate conditions and scope of research.

Recommendation

The conclusion of this study is crucial for the new strategy implementation of the entrepreneurial bricolage and the creation of ambidextrous learning capability in economic change and improvement of developing countries:

First, destroying limited resources through entrepreneurial bricolage is an important strategy for developing new business innovations. Generally, new ventures are often faced with resource limitations. For new entrepreneurs, using resources as much as possible to get rid of problems and creatively reorganize is a low-cost and effective strategy to perform under the current situation. Second, the use of the entrepreneurial bricolage should focus on internal and external training, which creates the ability to learn a key to ambidextrous learning balance. An entrepreneur using the strategy ' entrepreneurial bricolage' should pay attention to opportunity expansion, together with knowledge accumulation and utilization. The new ventures must not only pay attention to professional technical knowledge but also relevant knowledge, such as market opportunity. This gives an effective balance of ambidextrous learning capacity. Last, in a highly dynamic environment, it is important to focus on exploration learning to seek new opportunities. However, the research conclusion of this paper showed that, in a highly dynamic environment, it is important to emphasize learning and utilization.

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