

New Created Enterprise Value Network Embeddedness, Strategic Positioning and Enterprise Growth Performance

Huabai BU

Hengyang Normal University, China

Abstract

The study found that: the new created enterprise value network structure embedding and relationships embedded have significant direct impact on entrepreneurial performance, but the impact mechanisms is different; the one of mediating variables of the structure embedded and the entrepreneurial performance is Relations embedded. Strategic positioning and structure embedded in the impact of entrepreneurial performance have significant interaction effects, the interaction effect of strategic positioning and relations embedded in the entrepreneurial performance was not significant. The new study findings not only effectively reveal the value of new enterprise embedded and entrepreneurial performance “relationship between the black-box”, and richen partly the existing value network theory, performance theory, and corporate strategic positioning theory, but also provide methodological guidance and experience for the management practices of our nation's strategic emerging smart logistics enterprises.

Keywords: value network embedded, strategic positioning, entrepreneurial performance.

Introduction

Along with the revolution of network technology and intensified global competition, the creation of enterprise value and sharing ways have fundamentally changed, any individual enterprise, even the global fortune 100 cannot entirely rely on its own resources and capacities for the whole value chain activities, enterprises must corporate each other to form an enterprise value formation and distribution network in which resources can flew and exchange constantly, the strategic positioning and performance of those enterprises embedded in this value network will be deeply affected. After searching relevant literature, we found that most of them are focused on the studying of the relationship between embeddedness and performance, and the relationship between strategic positioning and performance. However, literature on exploring the relationship between embeddedness, strategic positioning and performance are insufficient, and the conclusion of some relevant research is controversial. This paper is from the perspective based on the new created enterprise value network embeddedness and strategic positioning to build a new concept model of entrepreneurial performance, and explore the value of new enterprise embedded, and strategic positioning entrepreneurial performance “relationship between the black-box ” through empirical investigation. Our research chosen the emerging intelligent logistics business as research

sample. Due to accelerating the development of strategic emerging industry is the major strategy deploy made by the Central Committee of China's Communist Party and the State Council, also is an major strategic choice for many developed countries to seize the commanding heights of the future economic development after the international financial crisis, which is directly related to the future of the Chinese nation and the nation's long-term competitiveness. Though, it is an important question for how to develop effectively for Chinese newly strategic emerging enterprises, empirical study and guidance theories are insufficient, and share different views. Therefore to reveal the relationship between new created enterprise value network embedded , strategic positioning and entrepreneurial performance not only has a good theoretical and practical significance, but also is of great urgency.

Research Hypothesis and Model

The conception of embeddedness is first put forward by Polanyi (1944), he believes that the economic development of human society is embedded in the sophisticated network of economic and non-economic system and is deeply affect by them. Later, American Whiteman Cooper (2011) and many scholars have developed the theory of embeddedness. At present, scholars are concerning the conception of embeddedness, and more and more scholars are doing theoretical and empirical research of embeddedness in economics, start-ups, Internet and organization etc.fields, such as literature. Now, the theory of embeddedness has become a core theory in the study of the economic sociology, and also an important tool to study the social network.

The positioning theory stems from Jack Trout and Al Ries's researches on advertisement operation in 1970s. Now the positioning theory has already gone beyond the field of advertisement, also has developed rapidly in management science, sociology and other areas. The enterprise strategic positioning theory can dates back to the early 1980s, now it has developed into three kinds of typical bifurcation theory as Internal and external matching type, from the outside to the inside and from the inside to the outside type. The most influential strategic positioning theories are Michael Porter's strategic positioning theory based on the analysis of industrial competition and Gary Hamel's strategic positioning theory based on the cultivation of core competence as well as Jin Changwei's strategic positioning theory based on customer value.

The new created enterprise value network structure embedding has significant direct impact on entrepreneurial performance

Enterprise network embeddedness is an important factor to explain the changing of enterprise performance (Gulati, 2009). S.X.Zeng, X.M.Xie, C.M.Tam have investigated in China's 137 small and medium-sized manufacturing enterprises and found that abundant external resources can significantly improve enterprise performance for those enterprises embedded in network. From the perspective of global business network, F. Sarvan, E. Durmus found structural embeddedness has positive effect on enterprise performance. The studies of Zaheer and Bell

also confirmed that different network locations of enterprise fit can affect enterprise performance.

Value net is a typical enterprise network from the economic entity, which was first put forward by slywotzky and Morrison (2000) in the book *The Profit Zone*. In the year of 2001, Prabakar Kathandaraman and David T. Wilson, analyzed the reciprocal network relationship of value creation, distribution and exchange between competitors, complementary, suppliers and distributors. Kathand Aramanp, Wilson T studied the value network from the view of competition and strategy, believed that value network enterprises have more competitive advantages. Bovet, D and others studied the value network from the perspective of business model and customer; they think that value network can create more profits for net enterprises. These views have analyzed the effect between enterprise network and enterprise performance from the point of value relationship.

There are two meanings of enterprise value network fit. One is the individual specific enterprise network embedded value microcosmic from the microcosmic, the other one is value network collectively embedded into industry net. Our research will explore the new created enterprise value network fit from the limited micro level. Thus we proposed following hypotheses and will test them:

- H₁: the value network fits has significant positive effect to entrepreneurial performance;
- H_{1a}: structural fit has significant positive effect to entrepreneurial performance;
- H_{1b}: relational fit has significant positive effect to entrepreneurial performance;
- H_{1c}: structural fit and relational fit have significant positive effect to entrepreneurial performance.

The Strategic Positioning and New Created Enterprise Value Network Structure Embedding Have Interactive Effect to Entrepreneurial Performance.

Strategic positioning direct effect to entrepreneurial performance has been tested by my researchers. For instance, Higgadike (2010) found that if the entrepreneurs in strategic positioning require enterprise to embedded into a wide range of enterprise network, and then the enterprises can gain better entrepreneurial performance. Dess & Davis put forward twenty one driving factors that mainly affect enterprise strategy, confirmed that enterprises with three types of the new created enterprise value network embeddeness which was put forward by Baudo do exist, and found that various performance indicators differentiated significantly in three types of strategies, those enterprises with no clear strategic positioning have poor performance. Teece D J, Pisano G has studied the interactive relationship between dynamic capability and strategic orientation within the organization; he believes that both dynamic capability and strategic positioning will affect enterprises continuous performance.

Hkansson (2009) thinks that after enterprises embedded into network they can acquire ability to improve their net location and ability to deal with a single network relationship. The

implementing of these two abilities can change enterprises position in the industry, thus force them to adjust their strategies to adapt to resources characteristics in new network. Ritter (2011) thinks that enterprises can regulate their network embedded behavior through continuous strategic adjustment, which help enterprise to control, use and develop their own external network relations. Thus, affecting their position in network, forming the competitive advantages and promoting enterprises performance. Uzzi B (2010) and others have studied the relationship between network embeddedness and competitive ability. From that literature, we can learn that the strategic positioning and new created enterprise value network embeddedness have close mutual relation. Also some Chinese scholars think that enterprises can gain competitive advantages through seeking and using embedded network resources. And as we know that different embedded network position and the quality and quantity of the resources they can gained are different, which will inevitably affect enterprise strategic performance and entrepreneurial performance. So, logically, network embeddedness, strategic positioning and entrepreneurial performance have close relations. It is even so for enterprise value network for which have closer relationship. Thus we proposed following hypotheses and will test them:

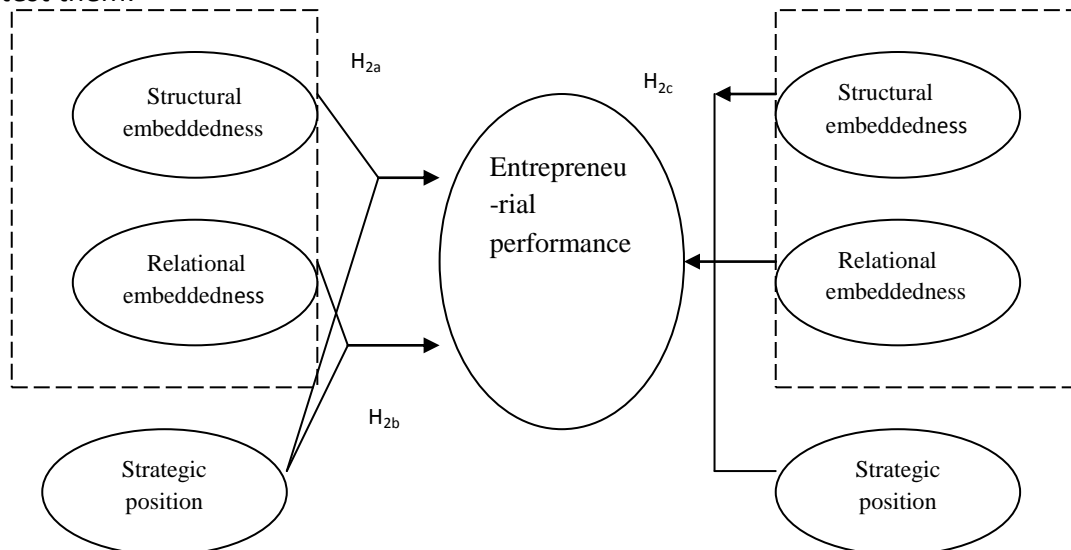


Figure1 conceptual model of interactive effects of embeddedness and strategic position to entrepreneurial performance

H₂: strategic positioning and new created enterprise value network embeddedness have interactive effects to the entrepreneurial performance;

H_{2a}: enterprise strategic positioning and new created enterprise value network structural embeddedness have interactive effects to the entrepreneurial performance;

H_{2b}: enterprise strategic positioning and new created enterprise value network relational embeddedness have interactive effects to the entrepreneurial performance;

H_{2c}: enterprise strategic positioning and new created enterprise value network structural embeddedness and relational embeddedness have interactive effects to the entrepreneurial performance.

Mediating Effect of the Enterprise Value Network Relation Embeddedness to the Structural Embeddedness and Entrepreneurial Performance

Polanyi (1944) and Granovetter (1985) divided the ways of network embedding into relational and structural embeddedness. Relational embeddedness is economic actor's credit, trust and information-sharing interaction relations based on mutual expectations. While structural embeddedness is economic groups connected with each other with the third party as nodes and formed a system for characterizing the netlike association structure. The business organization within economic groups not only has bilateral relations, but also has multilateral relations with third party. So in the enterprise value network, the effect of structural embeddedness to entrepreneurial performance may be affected by the intermediary role of the relational embeddedness. Relevant studies also support this view. For instance, Chung, Singh & Lee (2011) think that when information are asymmetrical, enterprises are inclining to cooperate with their former partners to make full use of their previous work experience to reduce selecting cost, which means new created enterprises will first choose those enterprises they have once partnership when selecting embedded objects (Gulati, 2005). Similarly, many empirical studies have confirmed that the familiarity and trusty between enterprises plays a promoting role to the formation of new partnership, also is important to maintain the existed partnership (Chung, Singh & Lee, 2010 etc.). In addition, Hagedoom (2010) found that the interaction of different levels has important effects to the formation of new partnership. Thus we have proposed the following hypothesis and will test it:

H₃: enterprise value network relational embeddedness has mediating effects on the relation between structural and entrepreneurial performance.

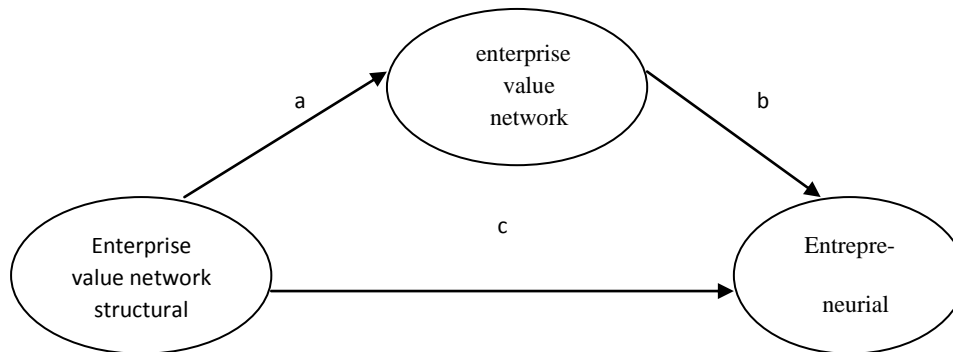


Figure 2 conceptual models of enterprise value network relational embeddedness mediating effects to the relation between structural and entrepreneurial performance.

Research design

The Collection of Sample and Data

This time we have released 500 questionnaires to 125 intelligent logistics enterprises and collected 262 one. 12 of those 262 questionnaires were removed due to the incomplete of the information, so 450 questionnaires are valid. The total rate of recovery is 92.4%, and the total effective rate is 97.4%. Table 1 shows the results of the questionnaires.

Table1 sample characteristics

type	Sample number	Percentage	type	Sample number	Percentage	type	Sample number	Percentage
Business age C ₁			Policy support C ₄			entrepreneurial performanceY		
1-3year	48	38.4 %	strong	45	36%	Annual business income		
4-6year	62	49.6 %	moderate	70	47%	no more than 3million	46	36.8%
More than 6year	15	12%	weak	20	28%	3-9million	54	43.2%
total	125	100%	total	125	100 %	More than 9million	25	20%
On-the-job number C ₂			embedd edness			total	125	100%
No more 50	58	46.4 %	Structural embedd ednessX ₁	55	44%	Market growth rate		
50-100	42	33.6 %	Relation al embedd ednessX ₂	40	32%	Large	44	35.2%
100-150	15	12%	unclear	30	24%	moderate	66	52.8%
More than150	10	8%	total	125	100 %	small	15	12%
Total	125	100%	Strategy			total	125	100%

			position X ₃					
System of owners hipC ₃			Differen ti -ation	35	28%	Industry driving rate		
Private	60	48%	Cost leading	40	32%	large	44	35.2%
collectiv e	40	32%	Focus on one point	45	36%	moderate	66	52.8%
mixed	25	20%	unclear	25	20%	small	15	12%
total	125	100%	total	125	100 %	total	125	100%

(Note: statistics is the proportion of various types of enterprises in the whole enterprises)

Scale Design

From the existing literature we can learn that Polanyi (1944) and Granovetter (1985) thought network relational embeddedness can be measured by variables as intensity and continuity of the relation as well as the direction of the relation, and the network structural embeddedness can be measured by variables of the enterprise networks system structure. This view has been generally recognized. Besides, Uzzi (2011) and others confirmed that network embeddedness can be measured by three dimensions as mutual trust between enterprises, information sharing and jointly solve the problem of operation. We divided the value network embeddedness into two dimensions as structural embeddedness and relational embeddedness.

Khandwalla (2011) has investigated 103 Canadian listed companies and proposed organizational strategy process dimension and its measurement methods. Those who later study strategic positioning and dimension use many of his opinions and measurement methods as reference. Covin&Slevin(1989,1991)proposed entrepreneurial dimension and its subsets of variables to measure enterprise strategic through three aspects as companies innovation degree, decision-making risk preference and initiative inclination. Lumpkin&Dess (2007) found that entrepreneurial orientation is an independent strategic management dimension after his empirical research. The division of strategic positioning dimension in our research is mainly from the view of Baudot's strategic positioning, that is the strategic positioning based on types of production, customer demands and contact ways. However, considering the characteristics of strategic emerging intelligent logistics enterprises, we also incorporated core competence and customer value innovation which were proposed by Hamel and Jin Changwei into the strategic positioning dimension.

Based on Delaney (2011) and others' researches, we selected nine dimensions to measure entrepreneurial performance, these dimensions are the quality of products and services, the

level of developing new products, financial performance, market growth performance, customers satisfaction, the situation of attracting talents, staff morale status, potential growth performance and industry driving performance. Our research used Likert' 7 level measure method to measure above questions.

Research Method

We used AMOS6.0 to verify the authenticity of the relationship between variables in our research. Our task group first tested the direct effect of strategic positioning and new business value net structural embeddedness, relational embeddedness to entrepreneurial performance, and then tested the interaction effects of strategic positioning and new business value net structural embeddedness, relational embeddedness to entrepreneurial performance, and last tested the mediating effect of new created enterprise value network to the relation between structural embeddedness and entrepreneurial performance.

Independent variables, dependent variables and control variables. Our study of independent variable is seted as structural embedding, relational embeddedness and strategic orientation, use X_1 、 X_2 、 X_3 to represent them respectively. The dependent variable is seted as entrepreneurial performance as Y. Control variable is seted as the age of enterprise, enterprise scale, the forms of ownership of enterprises and the strength of government policy supporting, use C_1 、 C_2 、 C_3 、 C_4 to represent them respectively.

The testing model of direct effect and interaction effect. According to the proposed hypotheses in the paper, we have designed nine regression models to test the corresponding hypotheses of direct effect hypotheses. In order to test the H1a hypothesis, we designed model ① And in order to test the H_{2a} hypothesis we designed model ② and ③ In the model ① we only added control variables as benchmark model to test the new business value net structural embeddedness to the entrepreneurial performance effect; in the model ② and ③ we added strategy position X_3 and cross terms $\overline{X_1} \times \overline{X_3}$ of structural embeddedness and strategy position, as following are the specific expression of the equations:

$$Y = \beta_0 + \beta_1 C_1 + \beta_2 C_2 + \beta_3 C_3 + \beta_4 C_4 + \beta_5 X_1 + \varepsilon \quad \text{①}$$

$$Y = \beta_0 + \beta_1 C_1 + \beta_2 C_2 + \beta_3 C_3 + \beta_4 C_4 + \beta_5 X_1 + \varepsilon \quad \text{②}$$

$$Y = \beta_0 + \beta_1 C_1 + \beta_2 C_2 + \beta_3 C_3 + \beta_4 C_4 + \beta_5 X_1 + \beta_6 X_2 + \beta_7 \overline{X_1} \times \overline{X_3} + \varepsilon \quad \text{③}$$

Similarly, we designed model ④ to test the H1b hypothesis, model ⑤ ⑥ to test the H_{2b} hypothesis, model ⑦ to test H1c hypothesis, model ⑧ ⑨ to test H2c hypothesis.

$$Y = \beta_0 + \beta_1 C_1 + \beta_2 C_2 + \beta_3 C_3 + \beta_4 C_4 + \beta_5 X_2 + \varepsilon \quad \text{④}$$

$$Y = \beta_0 + \beta_1 C_1 + \beta_2 C_2 + \beta_3 C_3 + \beta_4 C_4 + \beta_5 X_2 + \beta_6 X_3 + \varepsilon \quad \text{⑤}$$

$$Y = \beta_0 + \beta_1 C_1 + \beta_2 C_2 + \beta_3 C_3 + \beta_4 C_4 + \beta_5 X_1 + \beta_6 X_2 + \beta_7 \overline{X_2} \times \overline{X_3} + \varepsilon \quad \text{⑥}$$

$$Y = \beta_0 + \beta_1 C_1 + \beta_2 C_2 + \beta_3 C_3 + \beta_4 C_4 + \beta_5 X_1 + \beta_6 X_2 + \varepsilon \quad \text{⑦}$$

$$Y = \beta_0 + \beta_1 C_1 + \beta_2 C_2 + \beta_3 C_3 + \beta_4 C_4 + \beta_5 X_1 + \beta_6 X_2 + \beta_7 X_3 + \varepsilon \quad \text{⑧}$$

$$Y = \beta_0 + \beta_1 C_1 + \beta_2 C_2 + \beta_3 C_3 + \beta_4 C_4 + \beta_5 X_1 + \beta_6 X_2 + \beta_7 \overline{X_1} \times \overline{X_3} + \beta_8 \overline{X_2} \times \overline{X_3} + \varepsilon \quad \text{⑨}$$

The testing model of mediating effect

According to the proposed hypothesis in the paper, we have designed three regression models to test the corresponding hypotheses of mediating effect hypotheses.

$$Y = \beta_0 + \beta_1 \bar{C}_1 + \beta_2 \bar{C}_2 + \beta_3 \bar{C}_3 + \beta_4 \bar{C}_4 + c \bar{X}_1 + e$$

$$\bar{X}_2 = \beta_0 + \beta_1 \bar{C}_1 + \beta_2 \bar{C}_2 + \beta_3 \bar{C}_3 + \beta_4 \bar{C}_4 + a \bar{X}_1 + e$$

$$\bar{Y} = \beta_0 + \beta_1 \bar{C}_1 + \beta_2 \bar{C}_2 + \beta_3 \bar{C}_3 + \beta_4 \bar{C}_4 + c' \bar{X}_1 + b \bar{X}_2 + e$$

$\bar{Y}, \bar{C}_1, \bar{C}_2, \bar{C}_3, \bar{C}_4, \bar{X}_1, \bar{X}_2, \bar{X}_3$ are standard values what we have obtained after using Z fraction method to calculate them, their mean value are all zero.

Empirical study of the model

Scale Reliability, Validity and Factor Analysis

As a further test of the reliability and validity of our study, we need to do reliability analysis and factor analysis to statistics data of items measuring within the index variables, so as to fundamentally ensure the reliability and validity of our study to reach a high level. By using SPSS software to measure and calculate α coefficient and Item-Total Correlation of each questionnaire. Table 2 shows analyzing results of four variables in the questionnaire.

Table 2 analysis of the questionnaire's reliability

variable indicator of investigation	Measure ment item number	Coefficie nt α	Item-Total Correlation		
			Maximu m value	Minimu m value	Averag e value
X ₁	5	.941	.853	.811	.832
X ₂	5	.893	.768	.762	.765
X ₃	11	.885	.635	.603	.619
Y	12	.879	.931	.807	.869

Analyzing the data in Table 2, we found the α coefficient value of four survey index are all greater than 0.70, the smallest one is 0.879, and the maximum one is 0.941. And the Item-Total Correlation of four survey index is all above 0.35, the mean is not less than 0.55. The data of these statistical parameters shows the overall reliability of our study's measure is in high level.

Factor Analysis

The testing methods we adopted in our study are KMO statistic and the test of Bartlett's ball. Table3 shows the specific testing data. From table 3 we can learn that the values of KMO are all above 0.7, the smallest one is 0.936, and the maximum one is 0.854. Which indicates the difference of the degree of correlation between structural embeddedness, relational

embeddedness, strategic orientation and entrepreneurial performance. The obtained data is suitable for factor analysis .

Table 3 KMO and the test of Bartlett’s ball

survey index	KMO	the test of Bartley ball	significance level
X ₁	.932	3.139E3	0.000
X ₂	.886	2.882E3	0.000
X ₃	.854	1.723E3	0.000
Y	.929	3.814E3	0.000

The testing result of Bartlett’s ball shows the significance probability of all index are all 0.000, ball's hypothesis is rejected. Which confirms the correlation between index variables is indeed existed. Research data shows the goodness of fit (GFI), normal goodness of fit (NFI), adjusted goodness-of-fit (AGFI), comparative fit index (CFI), and root mean square error of approximation (RMSEA) all achieved acceptable levels or high level above.

Table 4 shows the descriptive statistics analysis of variable mean value (Mean), standard deviation (S.D.) and relevant coefficient. From table 4, we can learn that among variables there is existing significant correlation.

Tabel4 descriptive statistics and correlation

variables	Mean	S.D.	1	2	3	4
X ₁	4.29	.45	1			
X ₂	4.65	.60	.237 ^{***}	1		
X ₃	3.81	.82	.138 ^{***}	.236 ^{***}	1	
Y	4.15	.78	.315 ^{***}	.121 ^{***}	.125 ^{***}	1

Note:*p < 0.1, **p < 0.05, ***p < 0.01means significantly bellow the level of 10%, 5% and 1% respectively two-tailed) .

Testing Result of Hypotheses

According to the study objectives, the task group set entrepreneurial performance as dependent variable and do regression analysis to the relationship between three variables. Table 5 shows the testing results of hypotheses.

The Testing of Direct Effect and the Interaction Effect

Table 5 the testing results of hypotheses of direct effect and the interaction effect

variab les	Y								
	X ₁ testing			X ₂ testing			X ₁ , X ₂ testing		
	Model 1	Model 2	Mode l 3	Mode l 4	Mode l 5	Model 6	Model 7	Model 8	Model 9
C ₁	0.258 **	0.275 ***	0.263 ***	0.236 ***	0.243 ***	0.221 ***	0.245 ***	0.219 ***	0.260 ***
C ₂	0.126 ***	0.124 **	0.128 **	0.119 ***	0.122 ***	0.118 ***	0.116 ***	0.119 ***	0.115 ***
C ₃	0.137 ***	0.139 ***	0.128 ***	0.130 ***	0.131 ***	0.133 ***	0.139 ***	0.134 ***	0.132 ***
C ₄	0.219 ***	0.200 ***	0.221 ***	0.217 ***	0.212 ***	0.214 ***	0.211 ***	0.215 ***	0.209 ***
X ₁	0.247 ***	0.185 ***	0.192 ***				0.047	0.032	0.028
X ₂				0.475 ***	0.583 ***	0.692 ***	0.451 ***	0.663 ***	0.612 ***
X ₃		0.213 ***	0.218 ***		- 0.269 ***	-0.193		- 0.251 ***	0.180
X ₁ *X ₃			- 0.139 **						- 0.129 **
X ₂ *X ₃						-0.140			-0.065
ΔR ²		0.039	0.012		0.025	0.004		0.023	0.011
Adj-R ²	0.179	0.218	0.240	0.387	0.335	0.317	0.352	0.322	0.373
F	14.41 ***	14.25 ***	12.91 ***	41.09 ***	33.25 ***	28.17 ***	25.89 ***	23.76 ***	17.92 ***

Note: *p < 0.1, **p < 0.05, ***p < 0.01 means significantly bellow the level of 10%, 5% and 1% respectively two-tailed) .

We tested the direct action of control variables as enterprise scale and enterprise age to the structural embeddedness, relational embeddedness and entrepreneurial performance, and also tested the interaction effect of strategic position, structural embeddedness and relational embeddedness to the entrepreneurial performance. Table 3 shows the specific results.

Strategy position, structural embeddedness and entrepreneurial performance. From the model 1 of Table 5, we can learn that structural embeddedness has significant explanatory abilities to the entrepreneurial performance ($\beta_5=0.247$, $p<0.01$), hypothesis H1a has gotten significant support by data. Model 2 shows the structural embeddedness and strategy position have explanatory abilities to the entrepreneurial performance ($\beta_5=0.185$, $p<0.01$; $\beta_5=0.213$, $p<0.01$).

Model 3 shows strategy position and structural embeddedness have significant interaction effect to the entrepreneurial performance ($\beta_5 = -0.139$, $p < 0.05$; $\Delta R_2 = 0.012$, $p < 0.05$), hypothesis H_{2a} is supported by it.

Strategic position, relational embeddedness and entrepreneurial performance. From the model 4 of Table 5, we can learn that relational embeddedness has significant explanatory abilities to the entrepreneurial performance ($\beta_5 = 0.475$, $p < 0.01$), the explanatory ability is stronger than structural embeddedness, and hypothesis H_{1b} has gotten significant support by data. Model 5 shows that relational embeddedness and strategic position have significant explanatory abilities to the entrepreneurial performance ($\beta_5 = 0.583$, $p < 0.01$; $\beta_4 = -0.269$, $p < 0.01$). When adding strategic position to the regression model 4, the explanatory ability of relational embeddedness to entrepreneurial performance becomes stronger, but the strategic position shows negative explanation ability. Model 6 indicates that the effect of strategic position and relational embeddedness to the entrepreneurial performance have no interacting effects ($\beta_6 = -0.193$, $p > 0.1$; $\Delta R_2 = 0.004$, $p > 0.1$). hypothesis H_{2b} got no support.

Strategic position, structural embeddedness, relational embeddedness and entrepreneurial performance. From the model 7 of Table 5, we can learn that when considering the impact of structural embeddedness, relational embeddedness to the entrepreneurial performance, only relational embeddedness has significant explanatory abilities to the entrepreneurial performance ($\beta_6 = 0.451$, $p < 0.01$), while structural embeddedness has no significant explanatory abilities to the entrepreneurial performance ($\beta_5 = 0.047$, $p > 0.1$), hypothesis H_{1c} got no support. Model 8 shows that when adding variable of strategic position to the model 7, the explanatory ability of relational embeddedness to entrepreneurial performance becomes stronger ($\beta_6 = 0.663$, $p < 0.01$), but the structural embeddedness still shows no significant explanation ability ($\beta_5 = 0.032$, $p > 0.1$), and the strategic position still shows negative explanation ability to the entrepreneurial performance ($\beta_7 = -0.251$, $p < 0.01$). Model 8 shows that strategic position only with structural embeddedness have interacting effects to the entrepreneurial performance ($\beta_8 = -0.129$, $p < 0.05$; $\Delta R_2 = 0.015$, $p < 0.05$). While strategic position does not have interacting effects to the entrepreneurial performance with relational embeddedness ($\beta_9 = -0.065$, $p > 0.1$), H_{2c} got part of support.

The Testing of Mediating Effect

We set business age, business scale, forms of business ownership and government policy support as control variables to test whether the relational embeddedness is the mediating variable of structural embeddedness that affect entrepreneurial performance. The table 6 shows the specific testing results. In the process of testing, all variables used value after centered Z to calculate, the mean value is zero.

Table 6 the testing result of mediating effect hypotheses

variables	The effect of X ₁ on entrepreneurial performance	The effect of X ₂ on entrepreneurial performance	The effect of X ₁ and X ₂ on entrepreneurial performance
	Model 10	Model 11	Model 12
C ₁	0.265***	-0.213***	0.252***
C ₂	0.123***	-0.127***	0.137***
C ₃	0.126**	-0.129**	0.119**
C ₄	0.217***	-0.201***	0.219***
X ₁	0.111***	-0.109***	0.113***
X ₂	0.249***	0.498***	0.051
X ₃			0.461***
Adj-R ²	0.179	0.191	0.548
F	14.42***	13.16***	25.89***

Note: *p < 0.1, **p < 0.05, ***p < 0.01 means significantly below the level of 10%, 5% and 1% respectively two-tailed).

From model 10 we can learn that, the relation between structural embeddedness and entrepreneurial performance is significant (c=0.249, p<0.01), which indicates we can test mediating variables. Model 11 shows that the relation between structural embeddedness and relational embeddedness is significant (a=0.498, p<0.01). And model 12 shows when the relational embeddedness and structural embeddedness work as independent variable at the same time, the relation between structural embeddedness and entrepreneurial performance becomes insignificant (c' = 0.051, p>0.1), while the relation between relational embeddedness and entrepreneurial performance becomes significant (b=0.461, p<0.01). We can get following conclusion based on the testing results of three regression models of the mediating effect: the relational embeddedness is the completely mediating effect of the structural embeddedness that affect entrepreneurial performance, that is the structural embeddedness is completely through relational embeddedness to affect entrepreneurial performance. Hypothesis 3 got support.

Conclusion and suggestion

Research shows when considering the influence of structural embeddedness or relational embeddedness on entrepreneurial performance separately, they both show significant direct effect. Empirical researches find that enterprises obtain more markedly entrepreneurial performance than those enterprises with no clear value network fit no matter based on network structural embeddedness or based on business relation embeddedness. So, along with the revolution of network technology and intensified global competition, enterprises must

choose an embeddedness which is suit for their own development model according to the objective circumstances of the value network which they are in.

In order to ensure the new created enterprises have effective embedding and correct strategic orientation, enterprises need to take countermeasures in at least three aspects. First, the new created enterprises should pay attention to the impact of the network structure location to the business strategic positioning. By continuously optimizing the structure of the external network, enterprises can make more suitable competitive strategies for their continuous entrepreneurial. However, due to the interference between structural embedding and strategic positioning, enterprise should not overemphasize the improving of the structural embedding position, but to keep uniformity with their strategic position. Second, enterprises should make efforts to promote their relational embeddedness. The difference between enterprise performance is largely due to the differentiation of their relation with other enterprises. Only the enterprises are in good network position, can enterprises accomplish their goals efficiently. That is because the relational embeddedness is the mediating variable to the relation of structural embeddedness and entrepreneurial performance, only through relational embeddedness can structural embeddedness affect entrepreneurial performance. If enterprise relational embedding has bottleneck problems, even the best network position cannot fully play their relation resources. And entrepreneurial performance will affect by it negatively. Third, the realization of enterprise embedded value creation need network to effectively provide their resources. After structural embeddedness and relational embeddedness have forming complementary relationship, new created enterprises can continuously optimize and improve their to acquire network resources and their learning ability as well as their status in network, and finally improve entrepreneurial performance.

Acknowledgement

The research of paper is supported by National Social Science Fund (12BGL005); Education Ministry Humanities and Social Sciences Fund :“Embedding, the consequences of strategic positioning and growth-----based on intelligent network of logistics companies” (12YJA630004) ; Hunan Province Social Science Planning Fund (11YBB055) and Hunan Province “12th Five-Year “Regional Economics Key Disciplines Platform Fund, and those who involved in the study.

References

- Achrol RS, Kotler P. (2009). Marketing In the Network Economy. *Journal of Mark*, 63 (3) :146– 63.
- Bell, G. G. Clusters, (2010). *Networks and Firm Innovativeness. Strategic Management Journal*, 26 (3) : 45—51.
- Bovet, D, and Marha, J. (2009).From supply chain to value net . *Journal of Business Strategy*, 21(4):24-28.
- Dess Gregory G. , Davis Peter S. (2004). Porter’s (1980) Generic Strategies as Determinant.

- Journal of Academy Of Management, 27 (9): 467—488.
- Dess Gregory G. Davis Peter S. Porter's (1980) Generic Strategies as Determinants of Strategic Group Membership and Organizational Performance. Journal of Academy of Management, 27(9): 467 -488.
- Eisenhardt KM, Martin JA. (2011). Dynamic Capabilities: What are They? Strategic Group Membership and Organizational Performance. Journal of Academy of Management , 34 (8) : 05– 21.
- F.Sarvan, E.Durmus, et al. (2011). Network based determinants of innovation performance in yacht building clusters. Procedia Social and Behavioral Sciences, 24(6):34-45.
- Kathand Aramanp, Wilson T. (2011). The future of competition: value-creating networks . Industrialization, 30 (5) : 379-389.
- S.X.Zeng, X.M.Xie, C.M.Tam. (2010). Relationship between cooperation networks and innovation performance of SMEs .Tech novation, 30 (12):125-32.
- Teece D J, Pisano G, Shuen A. (2011). Dynamic Capabilities and Strategic Management. Journal of Strategic Management, 18 (7): 509-533.