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RESEARCH ARTICLE

INFLUENCE OF ENTREPRENEURIAL STRUCTURAL HOLE IN THE GROWTH OF SMES IN YUNNAN, CHINA

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ABSTRACT

The purpose of this study is to analyze the relationships among entrepreneurial structure hole, competitiveness of SMEs, and the growth of SMEs. SMEs are the fundamental force of the development of China. However, it is difficult for SMEs to draw advantages from the social and economic structure of China, today. Therefore, the entrepreneurial social resource is the main support for the growth of their SMEs. Structure hole in a social network is the theory for studying how to select and utilize valuable different social resources for helping the growth of the enterprise. There is a significant correlation between structure holes of entrepreneurs and the growth of SMEs. The findings from this study found a significant correlation between the richness of structure holes of entrepreneurs and the growth of SMEs. The study also found significant correlations between the diversity of structure holes of entrepreneurs and the growth of SMEs. Moreover, the results found a significant correlation between structure hole of entrepreneurs and SMEs' competitiveness, a significant correlation between the richness of structure hole of entrepreneurs and SMEs' competitiveness in sudden difficulties, and a significant correlation between the diversity of structure hole of entrepreneurs and SMEs' competitiveness in industry policy changes. Finally, the findings revealed there is a significant correlation between competitiveness and growth of SMEs.

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INTRODUCTION

In 2018, China has more than 40 million small and medium-sized enterprises (SMEs) of which 97.3 percent are small and micro businesses. SMEs contributed 60 percent of China's GDP, 50 percent of tax revenue, and 80 percent of urban employment. In addition, there are more than 65 percent of China's invention patents, 75 percent of enterprise technological innovation, and 80 percent of new product development are supported by the SMEs (Chinabgao, 2018). Therefore, we can say that SMEs are the fundamental force of China's economic developmenttoday. However, most of SMEs are difficult to draw advantages from the resources of talent, capital,and technology.Itrestricts these SMEs to survive and growth significantly in the fierce market competition. In order to overcome these difficulties, most of SMEs utilize changes from the process of inlaying and integrating of external relations to dynamically adjust their position in the social network for grasping more advantages from position and resource in their social network. As a result, entrepreneurs and their social network relationships are playing more and more important roles in the growth and development of SMEs

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Enterprise is not an isolated unit, it cannot exist without connection with other organizations or individuals, and thus, an entrepreneur is the core person of his or her enterprise.Entrepreneur takes the reasonability of the links between internal and external information and available resources to enterprise. In the growth process of SMEs, its social capacity and social capital are largely determined by its entrepreneur and the social network who relied on. The location of entrepreneurial structure hole and the structure of entrepreneurs' social network are main contributors of developing social resource advantages, innovating management practices, and excavating deep value of SMEs. Because entrepreneurs own some particular information, they could occupy a unique position in their social network. In initial or growth period of SMEs, entrepreneurs could earn more benefits from their social network, which are advantageous to promote the company's competitive advantages, to create SMEs' value, and to benefit the distribution in the network. Moreover, entrepreneurs as the contactor between the internal and external of their companies, their decision-making will affect the choice of strategic behavior, the ability of risk control, and the growth of SMEs. Consequently, it has significant meaning and value for researching the effect of entrepreneurial structure holes, such

as how it increases entrepreneurs' competitiveness of dealing with risks, and how it helps the growth of SMEs. Previous studies of network location and firm growth rarely focus on entrepreneurs' social network. They are mainly focused on other aspects of abilities, individual attributes and leadership skills of entrepreneurs. In addition, previous researches about enterprise's growth, they mostly emphasized on indicators of sales, profit, value, and finance. There islittleresearch about the relationships among company growth, the position of entrepreneurs in social network, and the situation of structural holes' possession. The social network relationship that entrepreneurs embedded is the key point for SMEs to select business strategies based on their own conditions and external environment, and is the core area for entrepreneurs to seek more advantages that are competitive and growth opportunities for their SMEs.

Problem Statement: The influencing factors of the growth of SMEs have become more and more complex with the development of socio-economy. Most of SMEs in China are private or family businesses and they have been rooted in a special cultural background, which emphasizing cooperation and relationship. Therefore, the social network of entrepreneurs becomes more prominent in the interaction among SMEs. There are many concepts from different aspects in the study of Chinese social relationship, such as "relational ontology" (Liang, 2011), "the pattern of difference sequence in relationship" (Fei, 2005), "relationship orientation" (He, Cheng, & Zhao, 2004) based on "fundamental interpersonal relationship orientation" (Schutz, 1958), and "Confucian relationalism" (Huang, 2006), all of them directly or indirectly support that the operation and management process of enterprise are inseparable from the informal systems and social relationship, and their communication and connection behaviors cannot without using the social network. In the book "the trust game of Chinese", Luoand Ye (2007) has also pointed out, Chinese management has its own peculiarity, it is formed by the connecting process between the internal and external network of organizations, it helps SMEs to overcome some difficulties that cannot be solved by a formal system or relationship, like the pressure or crisis from capital, personnel, technology, and market. Therefore, largely, the growth and development of Chinese SMEs have been promoted by the application of relationships. However, in the past, scholars mainly studied and identified the roles of entrepreneurs from perspectives of traditional trading theories and entrepreneurs themselves. So that, there is still a wide blank research space about: the roles and functions of entrepreneurs in the social network environment; how the situation of entrepreneurial structural hole influences the growth of SMEs; and how entrepreneurs promote the development of SMEs by optimizing their personal social network. Based on these research gaps, this study investigates the influence and effect of the entrepreneurial structure hole on the competitiveness and growth of the SMEs based on the theory of structural hole (Burt, 2004).

Research Objectives: To determine the relationships among entrepreneurial social network and social network, between entrepreneurial structure holes and entrepreneurial social network, between entrepreneurial structure holes and the growth of SMEs, between entrepreneurial structure holes and the competitiveness of SMEs, between the competitiveness of SMEs and the growth of SMEs, are very necessary for the main purpose of this study.

- To determine the effectiveness of the richness and the diversity of entrepreneurs' structural hole on the growth of SMEs.
- To determine the effectiveness of entrepreneurs' structural hole in the competitiveness of sudden difficulties and industry policy changes of SMEs.
- To determine the effectiveness of the competitiveness and the growth of SMEs.

Scope of Study

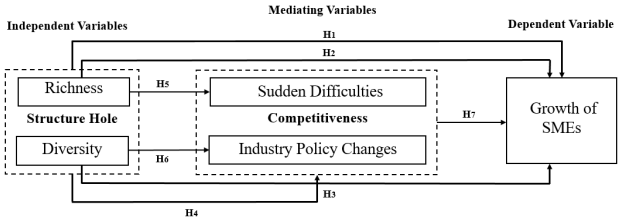
The Number Richness and the Diversity of Structure Hole: In this study, the measure dimension of the entrepreneur's structure hole focuses on two facets: the number richness and the diversity. On the one hand, changes in the number of entrepreneur's structure holes will bring changes in the amount of information. Kahler (2015) noted that the more structure holes that an entrepreneur has, the more accesses he or she can have for getting more heterogeneous information, as a result, whois more likely to accurately capture the potential information from the market.

By the number of entrepreneurial structural holes increases, the number of information sources will increase, the more new-information will available, and the number of non-redundant information will increase. Moreover, De-Carolis and Saparito (2006) stated that the more entrepreneurial structure holes there are means the wider range and the greater quantity of knowledge in the social network. The change in the type of entrepreneurial structure holes could make the change in the diversity of information. Burt (1997) has explained it that the more heterogeneous network could have more diverse and non-redundant information that can be collected and selected by entrepreneurs depending on the type of their structure holes.

Competitiveness in Sudden Difficulties and Industrial Policy Changes: To select the abilities to deal with sudden difficulties and industrial policy changes as two measuring dimensions of competitiveness of SMEs are mainly because of the market environment of China. Due to the social economy of China is in a stage of rapid development and transformation; it makes the external environment of SMEs with high uncertainty, which could make enterprises easily fall into business difficulties. Therefore, to deal with the sudden difficulties well is one of the most important competitive advantages for SMEs to survive and grow. For SMEs, industrial policy changing means more business opportunities, but at the same time, it also implies higher business risks.

Growth of SMEs: According to many studies about the measurement of enterprises' performance, the measurement of SMEs growth include financial and non-financial aspects. Indicators in the financial part mainly include sales, asset growth and financing ability. The measuring method of SMEs' growth in this study refers to the study of Himand Li (2005), Chandler,and Hanks (1994). The main indicators include financing, fund security, sales revenue, profitability, technology innovation ability, market share and growth rate, and the degree of external relations and coordination.

Conceptual Framework



Source: Designed by author

Figure 1.1. Logical relations among the research hypotheses

Table 4.1 Validity and Reliability Test Result

Factors	KMO	Sig	Alpha
Structure Hole	.985	.000	.983
Richness	.968	.000	.956
Diversity	.972	.000	.978
Competitiveness	.872	.000	.949
Policy Changing	.764	.000	.929
Sudden Difficulties	.773	.000	.905
Growth of SMEs	.957	.000	.968
All Scale Factor (33 Items)	.990	.000	.990

Sig <0.05

Research Hypothesis

H_1: There is a significant correlation between structure holes of entrepreneurs and the growth of SMEs.
H_2: There is a significant correlation between the richness of structure holes of entrepreneurs and the growth of SMEs.
H_3: There is a significant correlation between the diversity of structure holes of entrepreneurs and the growth of SMEs.
H_4: There is a significant correlation between structure hole of entrepreneurs and SMEs' competitiveness.
H_5: There is a significant correlation between the richness of structure hole of entrepreneurs and SMEs' competitiveness in sudden difficulties.
H_6: There is a significant correlation between the diversity of structure hole of entrepreneurs and SMEs' competitiveness in industry policy changes.
H_7: There is a significant correlation between competitiveness and growth of SMEs

Literature Review

Theories of Structure Hole: Burt (1992) pointed out the social structure of competition arena as the key factor to influence the rate of return on investment. However, homogeneous and reduplicative networks cannot lead to a social capital increase, andit cannot be considered the social capital as a function of brokerage opportunity in a social network. The theory of structure hole was formed based on three empirical studies including the research of job-hunting (Grannovetter, 1973), the research of network exchange theory (Cook, & Emerson, 1978) and the research of structural autonomy and marginal benefit of manufacturers (Burt, 1980). The structure hole can be described as the phenomenon that one or some individuals in the social network have a direct connection, indirect connection, or disconnection with other individuals in the social network. As shown in figure 2.1, the network has four participants in A, B, C, D, of which there are no links among B, C, and D, but they are associated with A respectively.

Thus, an occupied the central position in the network, the other three participants must pass A to connect each other, so A occupied three structural holes of BC, BD,and CD, as a result, an obtain competitive advantages. Obviously, the structural hole is a chasm among the non-redundant contacts; it is a buffer, just like an insulator in a circuit. Because of structure holes, the contacts on both sides of the hole can bring cumulative rather than overlapping network benefits to the structure hole occupier. This includes information benefit and controlling benefit. The information benefit is realized mainly by access, timing, and referral.

The controlling benefit refers to the fact that a third party can bridge between the two parties and decide which one should be taken into consideration first. Information is undoubtedly the essence of controlling benefit. This is similar to Simmel's idea of TertiusGaudens. As Burt (2001) said, thoughts and behaviors of in-group members are more homogeneous than out-group members are, so people across groups are more familiar with alternative thoughts and behaviors to gain more choices and opportunities. The advantage of such thoughts and opportunities is the mechanism of brokerage becoming to social capital. At present, when scholars in different fields use social network analysis to study network structure, the measurement of network structure is mainly divided into three levels, which are single enterprise, enterprise cluster,and the completely social network. In the first level, scholars study a single enterprise in the form of network nodes. The centrality of network location is often selected as the measurement index of the competitiveness and the growth of an enterprise. In the second level, the link relations among industries or organizations within one industry are the core research content. Scholars study the positions of enterprise clusters or industries in the network and take network span, structure hole, and network heterogeneity as the test indexes for enterprises to acquire knowledge resources and improve their competitiveness. The third level research extends further to the overall social network.

This is a more macroscopic perspective, which usually takes network density and network scale as the measurement indexes of the social network structure and the development of a society. This research focuses on the inference of entrepreneurial structure holes in the growth of the enterprise. Researching the mechanism of connections among enterprises is for entrepreneurs to find and occupy more benefit structure holes in the network. If an enterprise in the position of a network bridge, it can not only have access to more information resources, which are not easily accessible by other network members, but also can obtain more heterogeneous social resources. At the same time, it can control the flow direction of information, obtain information benefits, and control benefits.

Theories of Enterprise Competitiveness: World Economic Forum (WEF) (1985) in the report on competitiveness states that enterprise competitiveness refers to the ability and opportunity of enterprises to design, produce and sell goods or services in their home environments with a price and quality advantages over their domestic and foreign competitors, both now and in the future. The enterprise competitiveness affected by the environment, price and quality that are the key factors of enterprise competitiveness. Enterprise competitiveness is both a kind of ability and an opportunity.

Table 4.2 Coefficients of Correlation and Regression between Variables

Variables Column I	Person Correlation Coefficient	Adjusted R^2	Sig.	Standardized Coefficients Beta	Variables Column II	Hypotheses Test Result
SH	.946	.894	.000***	.946	G	H_1 Accepted
SH	.925	.855	.000***	.925	C	H_4 Accepted
C	.931	.866	.000***	.931	G	H_7Accepted
R	.882	.778	.000***	.882	CS	H_5 Accepted
D	.899	.808	.000***	.899	CP	H_6 Accepted
R	.921	.847	.000***	.921	G	H_2 Accepted
D	.950	.902	.000***	.950	G	H_3Accepted

*sig<0.05, **sig <0.01, ***sig=.000

According to the perspective of WEF and IMD (International Institute of Management and Development) (1990), enterprise competitiveness as a comprehensive concept, it comes from internal efficiency and depends on the external environment of the domestic industry. Then, in 1994, WEF defined enterprise competitiveness as "a company produces more wealth evenly than other competitors in the world market. (WEF, 1994). Furthermore, the commission of “President’s Commission on Industrial Competitiveness” was appointed by President Reagan of America (1985) defined enterprise competitiveness as: “the ability of enterprises to provide good products and services in the international market under free and good market conditions, at the same time improve the living standards of their country’s people. It also defined enterprise competitiveness from the results of enterprise operation with characteristics of welfare economics. However, Spence and Hazard (1988) argued that enterprise competitiveness refers to the ability of a country's enterprises to trade in the international market.

The author pointed it out that the trade flow, the technology development and management, industrial policies, domestic management policies, and monopolistic competition all have a profound impact on the enterprise competitiveness. Porter (1985) deemed that the enterprise competitiveness attributed or equated to the competitive advantage of enterprises. The author believes that the competitive advantage of enterprise ultimately comes from the value that the enterprise is willing to create for its customers beyond the cost. Also, the value is the price the customer is willing to pay, and the excess value is generated by offering the same benefit with a lower price than competitors, or by offering the unique benefit to make up for the higher price. There are two basic forms of enterprise competitive advantages: lower cost and novelty. Visibly, Porter understands and defines enterprise competitiveness mainly from the perspective of competitiveness or competitive advantages in the market performance of an enterprise. It can also be the competitiveness from profit margins. Similar to porter's definition, it emphasizes the market performance of an enterprise's competitiveness: cost, quality, market share, and profitability. Fujimoto (2018) attributed enterprise competitiveness to enterprise competence, and it can be investigated from three aspects: the static ability, the improving ability, and the evolving ability. It highlights the dynamic or historical evolution of enterprise competitiveness.
Therefore, based on the purpose of this research, the competitiveness of dealing with sudden difficulties and coping with industry policy changes can be considered as the representative competitiveness of SMEs. To select these two factors is based on the theories of endogenous and exogenous enterprise competitiveness, at the same time; their performances in the structure hole of enterprise’s network are also one of the main sources for increasing SMEs' competitiveness in the both aspects of endogenous and exogenous.

Theories of the Growth of SME: In this study, the researcher summarized some relative and representational theories based on the difference of research perspectives. Theories of firm’s growth can be nearly synthesized into two aspects: the exogenous growth and the endogenous growth. The exogenous growth theories focus on studying the inference of the external environment on the growth of enterprise and emphasizes the external environment factors, such as the trading market, economic system, industry policy, etc. However, these theories have certain limitations; they ignore the internal resources, such as knowledge, technology, and resources, which also promote the growth of enterprises greatly. The endogenous growth theories consider the knowledge and the capabilities of an enterprise as the root cause of enterprise growth. However, in the context of economic globalization, external factors also play an important role in enterprise growth.

In the exogenous growth theories, there are three main different views, the first view emphasizes on the benefits of economies of scale based on the division of labor. The representative theories including Smith (1776) pointed out that the growth of the enterprise is positively correlated with the degree of division of labor. The reason for the existence of the enterprise is to pursue the benefits of economies of scale and obtain a higher output at lower cost by the division of labor. Stigler (1975) explained the relationship between the internal division of labor and enterprise growth, especially in the early stage of industrial formation, when the market size is small, the enterprise can expand its scale by internal division of labor and more professional services or products providing. Coase (1937) studied the relationship between enterprises and the market: institutional changes lead to the reduction of production costs and transaction costs, which in turn determine the growth of enterprises. Williamson (1985) believes that the growth of enterprise is manifested as the expansion of the vertical boundary of the enterprise, and the author gave the conception of "effective boundary" from the perspective the core technology of enterprise. The third view is about theories of industrial competition, and the representational theories including Porter (1980) who analyzed the competitive strategy of industry and pointed out that the theory of industrial analysis of competitive strategy: under the given industrial structure, the growth of an enterprise is determined by the attraction of the industry in the market, and the position and advantages of the enterprise in the industry. Aguilar (1967) discusses the power matrix of ETPS (economic, technical, political, and social). Fahey, Narayanan, Morrison, Renfro, Boucher, Mecca and Porter included variations of the taxonomy classifications in a variety of orders: PEST (political, economic, socio-cultural, and technological),

PESTLE (adding legal and environmental factors), STEEPLE (adding ethics and demographic factors), DESTEP (adding demographic and ecological factors), etc. All of these analysis tools only focus on the inference of the external social environment on the growth of enterprises. In the endogenous growth theories, there are two main different views, the first view emphasizes the resources of the enterprise's growth, and the representational theories include: Penrose (1997) claimed that the theoretical analysis framework of "enterprise resource, enterprise capability, enterprise growth", the growth of an enterprise mainly depends on the ability to make use that is more effective the existing resources. The resource status of an enterprise is the foundation of the enterprise's capability, which determines the speed and the way of enterprise's growth. Wernerfelt (1984) and Collis and Montgomery (1995) stated that the advantages of strategic competitive are determined by the resource situation of an enterprise, the power of the enterprise's growth comes from the rational allocation, full exploitation and effective utilization of internal resources. The second view focuses on the core capability of an enterprise, and the representational theories include Prahalad and Hamel (1990) and Teece, Pisano, and Shuen (1997) they believe that the source of enterprise's growth is the internal core competence; enterprises need to allocate, develop and protect these resources.

Relationships among Entrepreneurial Structure Hole, Enterprises Competitiveness, and the Growth of SMEs: Coleman (1990) noted that the dense network could generate cohesion, which can relatively make the high trust among network members, and the network emphasizes the common behavioral norms and concerted actions, which are conducive to the information sharing of network members and the common defense of risks. But with Burt (1992) believe that although the network with intensive relationship could let its members are closely connected with each other, the sharing of the information in this network could make its members all have the same or similar information, which causes the lack of information diversity and the redundancy among the members. As a result, the value of this network is reduced. Based on this understanding, Burt announced if there is no connected relationship among some members of the network, there is no information-sharing channel, and there should be a structure hole among them. Because of that, the information exists in the structure hole is likely to heterogeneous and non-redundant, which ultimately can bring the structure hole owner to have this network information diversity and competitive advantages. Although the study of Coleman(1990) is about the performance of enterprises is basing on the co-operation among members of a network, Burt (1992) hold the opinion that the structure hole can bring more exclusive information to the structure hole occupants, which, finally, can enhance the competitiveness and performance of the enterprise. McEvily, Zaheer and Bridgingties (1999) believe that an enterprise occupying the structure hole can have access to different market information and potential risks so that they can timely adjust their development strategies for adapting to the new environment. At the same time, the enterprise also can acquire knowledge that is more non-redundant and diversified resources to promote the performance. If the enterprise has occupied the intermediary position of the network, it will have more opportunities to control the speed and the frequency of its innovation in order to hold the competitive position. Gulati, Nohria, and Zaheer (2000) studies the relationship between the position in a network and the innovation performance of an enterprise from the perspective of strategic management. The author believes that the position of an enterprise in the network and the different types of enterprises associated with it will affect the ability of the enterprise to get knowledge and occupy a more beneficial position in the network.

The authors also proved that the different knowledge and resources, which are hard to imitate and copy, brought by structure holes of an enterprise in the network. It can help the enterprise to obtain more competitive advantages, and noted that there is a significant correlation between the performance of an enterprise and abilities of the controlling the external network, the rapid response to the changes of market, the grasping information network, and the innovation. Tsai (2001) concluded that a large enterprise's business division at the center position of the internal network has more opportunities to access new technology and new knowledge of other divisions; as a result, it can improve the performance and the ability of innovation better than others can. Based on this result, the author proved that there is a significant correlation between the position of the network and the abilities of information collecting and the performance of innovation. Zaheer and Bell (2005) believe that once an enterprise occupies an advantageous network position, it can have a favorable external development environment. Through the replication and reconstruction of its internal resources, the enterprise can improve its performance. By the researching of relationship between structure holes and performance of enterprises, the authors give a result that both the innovation ability and the network structure of enterprise can improve the performance of that enterprise; the more structural holes the enterprise's network has, the better the enterprise can make use of its internal resources.

Hargadon and Sutton (1997) believe that if an actor occupied the intermediary position of the network, it could not only obtain new information from other actors in the network, but also has more opportunities to capture a large amount of diversified and non-redundant information by approaching different information flows, so as to improve its competitiveness. Rycroft and Kash (1999) emphasize that a network as the characteristic of enterprise environment, its formation, structure, governance, evolution, and other aspects will influence the development and the competitive situation of the enterprise. The authors also highlighted that the position of the network is an important influence factor for the enterprise to gain competitive advantages. Zhou and Li (2005) pointed out that knowledge obtainment cannot be completed by an individual enterprise, but needs to be completed by the enterprise's external relations with intermediaries, suppliers, customers, and even competitors. In this process, the network not only plays the cradle role, but also plays the key channel role. In order to constantly expand the scope of knowledge resources and enhance this competitiveness, enterprises might extend more and closer connections with appropriate network relationships. Zhang and Li (2005) deem that the structural holes there are, the more different attributes of the network members they have. As a result, the more heterogeneous resources and information the network members can obtain. Network members can quickly obtain information and trends that are beneficial or threatening to them from the network, to have insight into the potential motives of trading partners and competitors effectively.

Xie and Han (2005) based on the analyzing about relationship between the position in the network and the competitive behavior of enterprises, and summarized that if an enterprise occupied the central position of a high-density network, it holds the dominant power of network and has the leading competitive advantages, which help it to maintain the subordinate relationship with other enterprises who cannot take the central place in the network. In conclusion, all the literature has reviewed in this study has confirmed that the information control advantage of the entrepreneurial structure hole has great effect on the enterprise's knowledge acquisition, innovation opportunity, and business performance. In order to give full play to the capability of an enterprise, it should timely adapt to changes in the internal and external environment, effectively coordinate and re-allocate the competitive resources, in which the entrepreneurial structural hole plays a very role for the enterprise to gain the competitive advantage continually and realize the growth sustainably. Therefore, studying the structure hole of entrepreneurs in the network has great significance for the growing practice of SMEs in China.

RESEARCH METHODOLOGY

Research Design: This is a quantitative research that aims at discovering ideas, explore and explain additional information about the roles of structure hole in Yunnan Province, China. The researcher used survey questionnaire to collect data from 509 entrepreneurs or top managers of SMEs from different industries in Yunnan province, China.The researchers employed One-Way ANOVA and multiple regressionsto test the correlations of variables and to testresearch hypotheses.

Population and Sample: The population size for this research are entrepreneurs or top managers of SMEs within different industries. There is no specific data shows the number of SME in Yunnan province, China based on reliable statistical sources;it could because of the number still growing quickly and massively. Therefore, the population can be considered as unknown, the sample size for the study is derived from Cochran's formula (1977). Assuming that a 95 percent confidence interval, the error level is 0.05. The appropriate sample size is calculated using the Cochran's formula, which is shown below:

$$n = \frac{p(1-p)z^2}{E^2}$$

E is the desired level of precision.
p is the (estimated) proportion of the population which has the attribute in question.

Z-value is found in a Z table.

The size of the sample is 400 samples.

Division Standard of Chinese Enterprise: The Ministry of Industry and Information Technology, the National Bureau of Statistics, the National Development and Reform Commission, and the Ministry of Finance jointly issued the "Notification on the issuance of guidelines for the classification of SMEs" (Joint enterprise of ministry of industry and information technology (2011) no. 300),which is based on "the classification of national economy industries" (GB/ t4754-2017) and the actual situation of statistical work (National Bureau of Statistics, 2017). According to the Notification, Chinese enterprises could be classified into four types: large, medium, small and micro. These measures apply to legal person enterprises or units in various organizational forms established according to law within the territory of the People's Republic of China.

Data Collecting Method: The semi-structured survey questionnaire was used for data gathering from SMEs' entrepreneurs or managers in China using purposive sampling. A pilot test was conducted on potential respondents whom not included in the sample groups. Upon completion of the pilot study, a final study of the respondents was conducted. The questionnaire has five parts including Part 1. The basic information of SMEs and its entrepreneur or top managers. Part 2. Questions related to entrepreneurial structure hole. The relevant questionnaire items refer to researches of Carroll & Teo (1996), Seibert, Krimer, and Linden (2001), and Anderson (2002).Part 3. Questions related to the competitiveness of SMEs, and the relevant questionnaire items refer to Yao & Xi (2008). Part 4. Questions related to the growth of SMEs, and the relevant questionnaire items refer to Fu and Su (2005), Lei (2012), and Miller and Friesen (1983). Part 5. Suggestions from respondents. It is an open-ended question. Of these, Part 2 to Part 4 are scaled questions following the 5 scale of Likert's scale concept, mark 1 to 5 means strongly disagree to strongly agree. (Likert, 1932). The questions' reliability test is employed Cronbach alpha (Cronbach, 1951). In addition, the index of item-objective congruence (IOC) valued at 0.97 which is recognized high level of acceptable.

Research Findings and Analysis

Descriptive Analysis Results

Since this study only focus on small and medium enterprises, all data from 38 large size enterprises of 509 samples had been deleted, as a result, the total valuable sample number is 471. The findings from this research illustrated that majority of the respondents were male 54.6 percentage, and female 45.4 percentage. The rate of female and male are not nearly balanced that could be caused by the survey target population is entrepreneurs group of SMEs. In addition, there are around 88.4 percentage of respondents are high-level managers and have more than one year working experience in their enterprise.

Regression Sample Validity and Reliability Test

The validity analysis of this research is based on factor analysis. KMO and Bartlett's sphere test is adopted to examine whether samples are suitable for factor analysis, to estimate whether the different measurement items under the same variable can reflect the characteristics of the measured variable more accurately. If the value of KMO is closer to 1, the more common factors between variables there are, and it is more suitable for the factor analysis. If the value of Bartlett's Sphericity Test is less than 0.5, it means the samples are not suitable for the factor analysis. In the common criteria, the value of KMO should bigger than 0.6. Therefore, we employed KMO and Bartlett's sphere test to examine the validity of the samples. The reliability test is a measurement method used to check whether the data from the questionnaire survey has the consistency or not, which usually employ

Cronbach's Alpha to test the consistency coefficient. In general, the value of Cronbach's Alpha above 0.7 indicates that the scale has high reliability. According to Table 4.1, the results revealed relationships between all factors of structure hole, competitiveness, and the Growth of SMEs atsignificant 0.05 level.

Correlation, Discriminant Validity and Regression Analysis: As the premise of regression and correlation analysis were used to preliminarily judge whether the interaction and influence between variables exist and whether the hypothesis is valid. Pearson correlation analysis is employed in this study to analyze the correlation coefficient. At the same time, if the validity of each variable itself is greater than the correlation between other variables, it is called the variable has discriminant validity. It can prove the variable has high validity and reliability. According to the coefficients of Person Correlation in Table 4.2, there are high degrees of correlation between the variables, which, therefore, accepted the hypotheses of this research. The regression analysis employed to further test the directions of correlations of Hypotheses.

The results of the regression analysis mainly reflect the standardized coefficients Beta of independent variables on dependent variables, the significance test value of the regression coefficient, multiple determination coefficient R^2, and overall determination coefficient Adj.R^2. Table 4.2 shows the results of the two-tailed test between variables are all less than 0.01, which means they correlate each other at the significance level of one percent. From the Pearson correlation coefficient, all values of the correlation coefficient are greater than 0.8, which indicates that there are high degrees of correlations between these three variables. In addition, to compare with the validity of each variable from table 4.1, we can find that the KMO values of SH, R, D, and G are greater than the values of correlation between itself and the other variables, thus they can be considered as it has discriminant validity. However, competitiveness lack of discriminant validity could be explained as it is the mediating variable, the measurement range of it has overlaps with the independent variable (structure hole) and the dependent variable (growth of SMEs). Therefore, based on the results, the hypotheses 1 to 7 can be proved. Moreover, the all variables have entered into the regression analysis at the level of significance 0.01, which means the error rate remains at the level of one percentage. The all of Adj.R^2 coefficients in Table 4.2 have presented there are high percentage of explanation from Variables Column I to Variables Column II. The standardized coefficients Beta here indicate there are significant positive correlations between Variables Column I to Variables Column II. As a result, the H_1 to H_7 was accepted with positive correlations.

RESULTS AND DISCUSSION

The frequencies of sample distribution shows there is 93 percent of total 509 respondents. According to the classification standard of SMEs of China, there are 38 respondents have been deleted by the measurements of operating revenue and the number of employees, thus the total reliable respondents is 471 that reached the criteria of Cochran's formula. In the part of validity and reliability test, all scale factors and variables have been tested by KMO and Cronbach's Alpha, which gave the results, proved that all factors and variables in this research have high validity and reliability. In the part of correlation and discriminant validity analysis, Pearson Correlation results clarified that all hypotheses (H_1 to H_7) in this research can be proved with high degree correlations between each variable. To compare the KMO value of each variable with the value of Pearson between other variables, the results show that all variables in this research have discriminant validity each of themselves. In the part of regression analysis, the results from linear regression expatiated every hypothesis has a significant positive correlation between independent variables and dependent variables, between the independent variable and mediating variables; between mediating variables and independent variable.

Research Implication

Theoretical Contribution: This paper discusses the new mission and value of SMEs' entrepreneurs from the perspective of the structural hole, it reveals the intrinsic value of entrepreneurial structural hole, and provides a new perspective for the future research. By analyzing the relationship between the entrepreneurial structure hole and the social network, this study gives a valuable theoretical perspective on the relationship between entrepreneurial social network and the growth of enterprises. Moreover, based on the study of the outcomes of the entrepreneurial network and the balanced distribution of network benefits brought by the reconstruction of the relationship chain, it provides a theoretical reference for the entrepreneurs in how to choose, shape and optimize their social networks and structural holes. In addition, by analyzing the measurement dimensions of the entrepreneurial structure hole, the enterprise competitiveness, the growth performance variables, and the mediating role of SMEs' competitiveness, this study presents a new perspective compared with previous studies, that to reasonably optimize, eliminate, and reconstruct social relationship network of entrepreneurs of SMEs based on the current operating situation of enterprises could help them to explore and identify new potential opportunities, coordinate internal and external relations of enterprises, and establish the trust and reputation of enterprises.

Application Value of Management Practice: In daily social communication, entrepreneurs should focus on expanding the scope of their social circle and network, and devote their time and energy to establishing connections with individuals and social groups at all levels and fields, including governments, media, and financial institutions. Entrepreneurs of SMEs should constantly look for structural holes in social activities, dig unique resources, and create innovation opportunities for enterprises by participating in non-market activities among external stakeholders. Entrepreneurs should also focus on selecting the "primary contacts" who are most important to them in their relationships and use them to gain access to a wider range of information among groups. This approach could improve the efficiency of relationship connection and maintain a balance among connections, which could be differentiation, decentralization, and cluster. Moreover, in order to identify clearlythe relationship that can really bring innovation opportunities, entrepreneurs of SMEs should consciously sort out connections with different levels in the relationship network at ordinary times. If the entrepreneurial structural hole is in an active position, he or she can use the

existing structure hole to seize the innovation opportunities, otherwise, if it takes a passive position, as the number of structure hole is not enough or very lack, the entrepreneurs also should actively "create" innovation opportunities for their enterprises. Furthermore, in order to effectively manage personal network relationships and timely adjust and reposition the status of structure holes, entrepreneurs need to unite their behaviors of building a personal relationship with the growing needs of enterprises. Entrepreneurial structure hole is a dynamic process of change. The dynamic change is accompanied by the growth, management, optimization and reconstruction of the structure hole, which are also an important function of entrepreneurs of SMEs in relationship management. The entrepreneur could meet the different needs of competitiveness and development of the enterprise by the dynamic adjustment of structural holes with different characteristic forms, diversity, and heterogeneity. On the one hand, SMEs need to get rid of their own existence of various business difficulties, must proceed from the individual entrepreneur, who should have good performance on management innovation, enterprise management strategy, satisfying customer needs, winning in the competitive market, and obtaining sustainable profits. On the other hands, when entrepreneurs faced with the current situation of limited time and energy, limited management practice, and the effect of weakening from competitors, they should flexibly use the occupied structural hole in the relationship network to explore better and richer network benefits for their enterprises. In the process of construction and maintenance of individual relationship network, entrepreneurs of SMEs need to pay more attention to searching structure holes in the network structure of different groups. Entrepreneurs should play a role as a “relationship bridge builder” in different industries or fields in the market when they consolidate the various relationship chains, which could make previously unrelated groups form connectional unit, make them become the intermediary of resource and information flow, which could combine internal and external heterogeneous information and interests for their SMEs. The entrepreneurs should also initiatively enhance the connections strength, the relevance, and the heterogeneity of the related networks, and enable differentiated network members to communicate and interact each other more closely and smoothly, which could help the entrepreneurs to reinforce the advantages of obtaining and controlling information sources, so as to improve the level of management innovation and decision-making for their SMEs. At the same time, the entrepreneurs should pay attention to prevent the disadvantageous situation that informal organizations and closed networks could disintegrate their structure hole. There are many ways, such as optimizing, eliminating, and reconstructing their redundancy relationship, which the entrepreneurs could adapt to expand the diversity of their relationship network, explore and identify new potential opportunities, coordinate internal and external related parties, and rebuild the trust and the reputation in the market. Thus, the information advantage of the structure hole could be used to obtain the efficient investment return and diversified social resources for helping the growth of the SMEs.

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