



**Organizational Resources, Dynamic Capabilities and Strategic
Performance: An Analysis of the Real Estate Appraisal Industry
in Guangdong, China**

Peng Lin

Thesis submitted as partial requirement for the conferral of the degree of
Doctor of Management

Supervisor:

Prof. Maria Gabriela Matias Silva, Assistant Professor, ISCTE University
Institute of Lisbon

Co-supervisor:

Prof. Ma Yongkai, Professor, University of Electronic Science and Technology
of China, School of Management and Economics

August, 2018



Instituto Universitário de Lisboa

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Jury:

President: Professor Maria João Cortinhal, Assistant Professor, ISCTE-IUL

Professor Xiao Wen, Associate Professor, UESTC, China

Professor Li Ping, Professor, UESTC, China

Professor Nuno Cardeal, Assistant Professor, Universidade Católica Portuguesa

Professor Gabriela Silva, Assistant Professor, ISCTE-IUL

August, 2018

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Full name _____ Peng Lin _____
Course _____ Doctor of Management _____
Student number _____ 201216 _____
Email address _____
Personal email address _____ gzpl1969@163.com _____
Telephone number _____ +86 13711103493 _____

ISCTE-IUL, 31/8/2018

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 peng Lin.

Abstract

With the deepening of market economy, China's real estate appraisal industry is growing from strength to strength. It is characterized by having a small scale, low profits, and weak competition, even though growth differences are becoming increasingly noticeable among companies. Currently, there is a significant shortage of empirical research about what is happening in this transition phase concerning this industry. Therefore, it is important to conduct studies that would help companies to develop business practices that allow them to succeed in the market economy.

In this context, this thesis investigates the key factors that facilitate the performance of the organization from the resource-based view, aiming at explaining the interplay between organizational resources, dynamic capabilities, and strategic performance. Based on the existing Chinese and foreign literatures, a conceptual model is developed, and four hypotheses are proposed, for analyzing the influence of organizational resources (entrepreneur traits, TMT characteristics, and network relationships) and dynamic capabilities on the strategic performance of enterprises.

This research is conducted with middle-level and senior managers of the real estate appraisal industry, in Guangdong province, China. A structured questionnaire is designed and 274 valid responses are gathered. Data analysis employs the variance-based structural equation model (known as partial least squares-based SEM, PLS-SEM). Results confirm that network relationships and dynamic capabilities have a direct positive effect on strategic performance; entrepreneurial traits, TMT characteristics, and network relationships have a positive impact on strategic performance through the mediating role of dynamic capabilities, which contributes to academia by expanding research into strategic performance in China.

Keywords: organizational resources; dynamic capabilities; strategic performance; real estate appraisal companies China

JEL: M10; L10

Resumo

Com o desenvolvimento da economia de mercado, a indústria de avaliação imobiliária chinesa está a crescer e a ficar cada vez mais forte. Caracteriza-se pela pequena escala, baixos lucros e fraca competitividade, muito embora os diferenciais de crescimento estejam a tornar-se mais visíveis entre as empresas. Atualmente existe uma grande escassez de estudos empíricos sobre o que está a acontecer nesta indústria nesta fase de transição. Portanto, é importante realizar estudos que ajudem as empresas a desenvolver práticas de negócios que lhes permitam ser bem sucedidas na economia de mercado.

Neste contexto, esta tese investiga os fatores-chave que facilitam o desempenho da organização a partir da perspetiva baseada nos recursos, com o intuito de explicar a interação entre recursos organizacionais, capacidades dinâmicas e desempenho estratégico. Com base na literatura, um modelo conceptual é desenvolvido e quatro hipóteses são propostas para analisar a influência dos recursos organizacionais (traços de empreendedorismo, características dos gestores de topo e relações em rede) e as capacidades dinâmicas no desempenho estratégico das empresas.

Esta pesquisa é realizada com gestores intermédios e de topo da indústria de avaliação imobiliária, na província de Guangdong, China. Um questionário estruturado é criado e 274 respostas válidas são recolhidas. A análise dos dados emprega o modelo de equações estruturais baseado na variância (conhecido como os SEM baseado nos mínimos quadrados parciais, PLS-SEM - partial least squares - structural equation model). Os resultados confirmam que as relações em rede e as capacidades dinâmicas têm um efeito positivo direto sobre o desempenho estratégico; os traços de empreendedorismo, as características dos gestores de topo e as relações em rede têm um impacto positivo no desempenho estratégico através da mediação das capacidades dinâmicas. Este trabalho contribui para o estado da arte através do alargamento da investigação em desempenho estratégico na China.

Palavras-chave: recursos organizacionais; capacidades dinâmicas; desempenho estratégico; indústria de avaliação imobiliária, China

JEL: M10; L10

摘要

随着市场发展的深化，中国评估行业市场在日益壮大，行业企业竞争力与发展状况的差异也日益显现。在此背景下，本研究以行业企业竞争战略的影响因素为主线，从研究企业组织资源、动态能力对企业战略绩效的影响关系出发，对广东省房地产评估企业发展战略的影响因素进行了系统研究。

通过对比、分析广东省房地产评估企业的经营发展状况，本文首先提出了两个重点研究的问题：一是针对行业企业面临的经营发展困惑，通过文献阅读与分析，从理论上梳理影响房地产中介尤其是评估企业竞争战略的重要因素；二通过实证分析，研究这些因素对房地产评估企业战略绩效的影响关系。为此，参考现有国内外文献，选择了企业组织资源、动态能力和战略绩效为研究变量，分析企业组织资源与动态能力对企业战略绩效的影响关系。采用现有文献的成熟量表编制调查问卷，期间为了提高研究的严谨性，打乱了原有量表的题项顺序。通过问卷调查收集到 270 多份有效问卷进行统计分析。

通过对问卷数据进行实证分析，发现企业组织资源与动态能力和战略绩效之间，除企业家特质、高管团队与战略绩效之间正相关关系不支持外，其他变量之间都存在正相关关系。在企业家特质、高管团队特征与网络关系对战略绩效的影响关系中，动态能力具有显著的中介作用。随后通过文献分析结合企业实践对研究结果进行了讨论，并对本研究的理论与实践贡献，研究创新做了归纳与总结。

关键词：组织资源；动态能力；战略绩效；中国房地产评估公司

JEL： M10; L10

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Chapter 1: Introduction

1.1 Research Background

1.1.1 The Status-quo of China's real estate industry

The real estate industry, in China, has begun to develop since 1978 when the Reform and Open Up policy was implemented. In the past 40 years, the industry has gradually evolved from pilot projects to one of the most significant economic pillars of the country. The following are different development phases:

(1) Pilot phase (1979-1989). Third Plenary Session of the 11th Central Committee of the Chinese Communist Party in 1979 marked the start of the reform of housing system. In 1982, 4 pilot cities including Beihai and Changzhou opened the housing market to urban citizens. In 1987, Shenzhen auctioned and listed the use right of a state-owned land for the first time. Within this phase, the authority introduced series of laws and regulations regarding the using and trading of houses. This phase witnessed the change of people's mindset regarding real estate and the formation of the industry.

(2) Launching phase (1990-1998). In 1990, the State Council published *Temporary Regulation Regarding Subleasing and Transfer of Using Right of Land*, setting out the nationwide development of real estate industry. During this phase, China's economy transformed from planned economy to market-oriented economy. Being unfamiliar with the new economic system, the government, enterprises, and individuals advanced with caution. Due to the then unfavorable global economic environment, the new-born real estate industry in China faced with continuous shakes and experienced a process where overheating (i.e., excessive and disordered investment), unfinished buildings, and negative growth happened consecutively.

(3) Nurturing the market (1999 – 2003). In 1998, the State Council announced that the housing allocation would be replaced by the monetization of housing distribution. By the end of 1999, the welfare-oriented public housing distribution was terminated across the country. This policy set the real estate industry into the period where the market functions as the resource allocator. The industry has seen a rapid development during this phase. Between 1999 and 2002, the average growth rate of the industry reached 20% in 4 consecutive years.

In 2003, the total investment in the industry topped 1 trillion RMB (Geng, 2010). However, a dominant number of customers kept the wait-and-see mindset regarding trading houses based on market's needs. Therefore, the prices of new houses and second-hand houses were moderate without signs of overheating.

(4) Rapid development phase (2004 – 2008). The first economic census by National Bureau of Statistics (NBS) took place in 2004 followed by the second one in 2008. During these 4 years, the real estate industry has expanded rapidly. By the end of 2008, the total number of real estate companies in China was 214397, an increase of 85384 compared with 2004. The average annual growth rate is 13.5%. In the meantime, the supply of houses climbed gradually. In 2008, the total construction area of commercial housing was 28.29651 billion square meters, the total constructed area was 664.136 million square meters, the total sold area was 658.695 million square meters, and the area sold via agencies struck at 200.294 million square meters. The growth rate for these 4 figures are 17.7%, 6.0%, 9.8%, and 23.3% respectively. According to statistics, there was a trend of overheating seen in the industry. Facing with the pressure, the government has carried out various policies to curb the overheating. However, due to the financial crises of the U.S., it was not until 2008 when the trend was tamed temporarily. The beginning of 2008 witnessed the real estate industry to wither. The trade volume dropped in tier 1 cities. Tier 1 cities refer to metropolis important in terms of politics, economy and other social activities. They also play the leading role and radiation effects. Natures and features of these cities are mainly reflected in the city development level, comprehensive economic strength, radiating ability, talent attraction ability, communication ability, competition ability, innovation ability, and the ability to access traffic. Tier 1 cities play a leading and dominant function of radiation in the production, service, finance, innovation, commercial circulation and many other fields. Major tier-1 cities in China generally refer to Beijing, Shanghai, Guangzhou and Shenzhen. In June 2008, the sluggishness spread to most of the cities across the country. According to the statistics released by the authority, the sold area between January and November was 446 million m², a drop by 19% compared with 2007. It was the very first negative growth in trade volume in 10 years. As a result, a wave of bankruptcy has rooted up various real estate companies and agencies, including Zhongtian Real Estate, Chang He Real Estate, and Chuanghui Brokerage Company.

(5) Control and fluctuation phase (2009 – 2014). Due to the financial crisis outburst in the U.S., in 2008, the Chinese government increased the investment by 4 trillion RMB. Also, the

central government tightened the macro-control which contributed to the fluctuation and complexity of the real estate industry. Between 2009 and 2014, recoveries, overheat, and macro-control appeared alternately, contributing to a larger scale of fluctuation. Table 1-1 demonstrates the fluctuation seen in the real estate industry between 2009 and 2014:

Table 1-1 Analysis of China's control policies of real estate market (2008 – 2014)

Time of policy	Content of policy	Effects of policy
2008	Expand the preferential loan interest rate to 0.7 times of benchmark interest rate.	It largely released the rigid demand. Capital from industries and stock market flushed to the real estate industry, contributing to its recovery.
2009	Increase the down payment to 30% and above, with the interest rate no less than 1.1 times of benchmark interest rate.	It decreased speculative purchases and curbed the excessively rapid increase in housing prices in some hotspot cities. However, the records of lands' price were frequently topped, resulting in a continuous increase of housing price.
2010	Further increase the down payment on the second house to 40%.	The housing price went up before falling down, reaching an average increase rate of 9.99%. In 70 medium and large cities, the housing price's increase rate of the newly built commercial housing reached 13.67%, with a peak (17.3%) seen in April. It dropped to 8.5% at the end of the year.
2011	8 policies including the restrictions on purchasing, pricing, and applying for loans.	Across the country, investment and the construction slumped rapidly from a high level, resulting in a new record of sold houses and sale volumes. In cities where such policies were implemented, the trading volume dropped. Moreover, the price index of 100 key cities has seen a consecutive drop in three months.
2012	Increase down payment of the second house to 60%. Central Bank lowered the deposit reserve ratio for two times.	Compared with the previous year, the total sold area has seen an increase of 1.8%, showing that the growth rate of this year dropped by 2.6% compared with 2011. Between January to November of 2012, the national investment in real estate industry reached 6.4772 trillion RMB, an increase of 16.7% compared with 2011.
2013	New 5 Policies were put forward. According to the policies, the house owner shall pay 20% of the price as personal income tax once the house is sold.	In 2013, the commercial housing market was generally stable with a significant increase in construction, sale, inventory, and trade volumes. Prices rocketed in some hotspot cities, whereas a few cities saw shrink of market and drop of trade volumes.
2014	Gradually lift the limitation on purchasing and adjust the criteria for pre-sale purchases.	Although the policy did not boost the trade volume in tier 1 cities, places where such limitation was lifted saw signs of recovery during the golden weeks.

It is evident from the chart that fluctuations appeared during the period and such control did not have any impact in some areas. It means that polices issued by the government with the intention to control and adjust the real estate industry could not play their role that they

should otherwise play. The intension for these policies from the government was different from their real functions in the real estate market and sometimes the real functions were totally the opposite of the intension, thus causing not optimized allocation of resources in real estate market. At the same time, as the most important pillar industry in China, the real estate industry gained unprecedented attention from the government. Malfunction of control and adjust policies in the real estate industry will undermine the control and adjust capabilities of the government on this industry, therefore fueling volatilities in this industry. Then government will issue various control and adjust policies in a more frequent manner to control volatilities in the real estate industry. That is the exact reason of issuing a series of stimulus policies in the real estate industry in 2008. However, 2009 witnessed an overheated real estate industry and the government issued another series of cooling-down policies in the form of increasing strict home purchase quota policy from 2009 to 2013. Be plagued by the purchase restriction, real estate market shrunk greatly in the autumn and winter of 2013 and this urged the government to promote the development of the real estate industry once again. Then to contain the sliding situation of real estate market, the government loosened its restriction on control and adjustment accordingly from the end of 2014 to early 2015.

(6) Overheat and change of control policies phase (2015 – now).

In 2015, the government made efforts to promote consumption and to conduct destocking. Easing policies from both demand and supply side were also carried out aiming to lead price and quantity to recover steadily and to improve the environment for real estate industry as shown in table 1-2. The central government has cut interest rate and reserve ratio lowered down payment proportion and exempted tax to reduce the cost of purchasing houses. Local governments adopt flexible adjustments namely cutting taxes, adding financial subsidiaries, lifting limitations on purchasing to stimulate consumption. Governments regulated the amount and structure of land supply to optimize the environment for the market. With the favorable policy, the demand was boosted, contributing to an overall recovery, especially in tier 1 and hotspot cities where the prices climbed rapidly. Hotspot cities are tier-1 and tier 2 cities that have over-rapid growth in real estate in certain periods, such as Beijing, Shanghai, Guangzhou, Shenzhen, Xiamen, Hefei, Nanjing, Suzhou, Wuxi, Hangzhou, Tianjin, Fuzhou, Wuhan, Zhengzhou, Jinan and Chengdu. Tier-2 cities include capital cities in central and eastern China, coastal cities that are pioneers in opening up and cities with advanced economy. However, results in tier 3 and 4 cities showed otherwise they still face high inventory pressure. Some cities were deficient on the momentum of destocking. Tier-3

cities are middle-and-large-sized cities with strategic meanings, advanced economy and relatively large economic size and Tier-4 cities are small-sized cities ordinary

Table 1-2 Analysis on China's real estate regulation policies

Policy issuing time	Policies	Market changes after the policy
2015	Land should be "available and limited". Individuals who are intended to transfer housing that are owned for more than two years are exempt from business tax. Down payment ratio of the second housing was reduced to 40% of the total payment.	The policy continued to be supportive and the central bank also had a continuous reduction on interest rates, thus the national property market had a clear recovery featuring rising trading volume.
2016	The purchase of non-ordinary housing, the second or more housing, and commercial investment property was taxed at a rate of 4%.	The policy was greatly tightened. The number of second-hand housing transactions in many key cities begun to decline. This became the starting point of a new cooling cycle in the Chinese real estate market.
2017	Policy regulation and control tended to be diversified even in one city and adhere to the positioning of "Houses are meant to live in, not to be speculated".	The real estate policies should adhere to the basic tone that "Houses are meant to live in, not to be speculated." and groups of cities transformed from traditional demand-side restriction to the supply-side restriction through limited purchase of houses, limited loans, limited sales and tightened land auction. Supply-side structure continued to be optimized and results of the regulation are gradually salient.

economic development, ordinary transportation infrastructure and population less than a million. Inventories even expanded in a few small and medium cities. In 2016, the total area of sold commercial housing was 1.57 billion m², an increase of 22.5% (shrank 1.8 percent points) compared with 2015. The sales volume reached 1.18 trillion RMB, a growth of 34.8% (shrank 2.7 percent point) than the previous year. Although the total area of sold houses and sales volumes reached a record high in the historical period, the growth rate continued to shrink [3]. At the end of 2016, President Xi emphasized “Houses are meant to live in, not to be speculated”. Such remarks corrected some misunderstandings regarding real estate industry, contributing to a sound and healthy development.

At present, real estate industry plays a unique role in China’s economy. Firstly such uniqueness is embodied in its significance. After 40 years of development, the real estate industry has become the most vital pillar industry. According to the statistics released by Savills in August of 2016, the estimated value of the industry is 3 times more than it in 2015 (6.7 trillion RMB), striking at 270 trillion RMB. Based on the NBS’s findings, the total sold area of commercial houses was 1.57349 billion square meters, a significant increase of 22.5% compared with 2015. Total sales volume of this year reached 11.7627 trillion RMB, a rise of 34.8% compared with 2015. Regarding the national economy, a preliminary calculation showed that the GDP of the country in 2016 was 74.4127 trillion RMB with 6.5% of which taken up by the real estate industry. Secondly, China’s real estate industry shows a distinctive regional feature that metropolitan cities are overpopulated. The cities which have the highest housing prices are Beijing, Shanghai, Guangzhou, and Shenzhen. The total market value of the 4 cities’ real estate industry can be used to buy more than half of the U.S. market. According to related data, the total market value of those 4 cities in February of 2017 was estimated to be 130 trillion RMB. In the same period, the total estimated market value of real estate industry of the U.S. was 200 trillion RMB. What’s more, for the 4 cities above mentioned, the total population has reached 73.37 million, showing a distinctive aggregation effect. However, the real estate industry in the middle and west China is far from optimistic – the price has always been at the medium-low side, and the inventory pressure is notable. Third, the real estate industry of China has, to a certain degree, held China’s economy from developing and imposed enormous impact in decision making for China’s government. *“China’s Regulations Regarding Development And Operation Of Urban Real Estate”* stipulates that a real estate developer can invest in the market provided that he/she will provide 20% of the total investment, the rest of the investment can be channeled through

banks. Most of the buyers would apply for mortgage loans, and such practice tied bank industry and real estate industry together, imposing a great risk to the financial system. In order to keep a balanced and stable economy, China's government must keep the financial sector out of systematic risk. In practice, the local government very often has to take a rather passive manner and to only cure the problematic area so as to avoid triggering an earthquake in the market and to achieve a soft-landing. Since the end of 2016, the government has adopted a fundamentally new control method (a set of innovative methods) to safeguard the stable development of real estate industry and to win some time to prepare it for soft-landing. The following are some specific methods: setting a higher bar for trading; freeze some trading volume – limitation on buying or selling some new and second-hand houses at certain times and conditions, freeze both the house and the capital for trading, so as to mitigate the fluctuations.

To summarize, in recent years, the central government has proposed to establish long-term mechanism for real estate regulation and to grasp the basic tone of real estate development and policy (Ba, 2017). With continuous development of economy, China's real estate industry develops rapidly, and the real estate market is becoming increasingly calm after the initial glory (Chang, 2017). Real estate, as a basic and leading pillar industry for the national economy, plays a great role in promoting the development of national economy and advancing society (Zhang, 2010). Under the new normal economic situation, Cao and Ren (2015) point out that the real estate investment should be coordinated with the national economy, that the industrial investment structure should be optimized and the balance between supply and demand should be controlled, and that environmental pollution caused by the real estate industry should be controlled and environmental protection should be strengthened. Only in this way, can China's real estate industry strive for further improvement.

1.1.2 Overview of China's real estate appraiser industry

According to *Industrial Classification For National Economic Activities* (GB/T4754-2002), the real estate industry falls in the 3rd industry which includes the following areas. (1) Development and operation of real estate. To be specific, it covers several activities: construction of infrastructure, construction of houses, assignment of projects, and selling or leasing commercial houses. (2) Estate management: the estate management company should abide by the contract and carry out professional maintenance and management. In the meantime, such companies also shoulder the responsibility of the

management of the environment and public orders. (3) Real estate brokerage companies that carry out consulting, appraiser, and broker activities. (4) Other relevant activities including the registration of ownership. As a part of real estate intermediary industry, real estate appraisal industry has grown from strength to strength and has been applied broadly as China deepens its reform and opening up and as the real estate industry surges. As improvement and market segmentation of the real estate industry, people have growing demands on information, knowledge, professional service, providing great business opportunities for the real estate appraisal industry as well as great space to grow.

In China, the appraiser industry was driven by the momentum of real estate industry. It came into being slightly after the formation of real estate as well as real estate brokerage industry. The basic development process is as follows: China began to run pilot reform of the industry from 1979. After the very first area was auctioned in Shenzhen, brokerage agencies from Hong Kong made their debut in mainland China, China implemented the certificate policy in real estate appraisal in 1988. 5 years later, the certified qualification system was introduced. Under this policy, all real estate appraisal practitioners must pass examinations to hold a certificate; otherwise they cannot start their business in the real estate appraisal industry. In the same year, the country adopted a model which combined exam and practice, and a total of 140 people were awarded the qualification. In 1995, the Ministry of Housing and Urban-Rural Development of the People's Republic of China (MOHURD) joined hands with the Ministry of Personnel in conducting the very first nationwide exam for qualification of appraisers. By the year 2013, the number of tier 1 appraiser companies reached 220. The total number of companies which participate in the market was 5540, with over 250,000 employees involved. Among all the employees, there were 40,000 certified appraisers (3,2000 were registered). The policy-making and legislation in this domain also followed the footprint of real estate industry. In August of 1994, then MOHURD founded the Academy of Appraisers of China's Real Estate Industry. In July of 1994, China published "*City Immoveable Administration Law*" which clearly stated the role of appraisers in real estate industry, thereby setting it as a practicing requirement by the form of law. In 2002, then MOHURD cooperated with real estate appraiser companies and built the archive system of credit record of the appraisers, which set out the industry and the appraisers to be monitored across the industry. In July of 2004, the Academy of China's Real Estate Appraisers altered its name to the Academy of Appraisers and Realtors of China's Real Estate Industry, combining two independent organizations into one management system. In August of 2004, the Central

Government and the Hong Kong Special Administrative Region Government signed an agreement to achieve mutual recognition of real estate appraisers. The first batch of qualified appraisers included 97 Hong Kong surveyors and 111 mainland real estate appraisers. In October of 2006, China's real estate appraisers officially joined the International Federation of Surveyors. This array of activities has promoted the healthy development of China's real estate appraisers and the industry and it also contributed to the continuously improved social influence of real estate appraisers.

From the perspective of real estate appraiser companies and appraisers, the industry has experienced the following phases:

(1) 1993 – 1995: the pilot phase. During this period, the government has recognized the importance of real estate appraisal business through legislation. However, given the fact that the examination and appraisal have only been carried out once respectively, the number of qualified appraisers was merely a few hundred. Among those appraisers, most of them worked in government, public businesses, or SOEs. Their tasks were not market-based as they only helped the transformation from planned economy to market-oriented economy by appraising the real estate assets of government or the employer body.

(2) 1996 – 2000: unhooking from the government, public businesses, and SOEs. In this phase, the government began to gradually put the abovementioned appraisers on the market, unhooking them from their old employer bodies, encouraging them to become independent legal entities.

(3) 2000 – 2005: early stage of marketization with unitary business forms. During the 5 years, in spite of some isolated cases, most of the appraisal companies across the country have become market participants. They are self-reliant in profitability and management. However, given the lack of enough experience, most of the companies were advancing cautiously without adequate approaches or clients at hands. Therefore, the scale of the industry was quite limited, so was the impact.

(4) 2006 – now: the age of competition and polarization. In this period companies have finished the marketization. They are taking the initiatives to compete, leading to a polarized situation where many small-medium sized ones were forced to leave. With the expansion of the market, resources have become more condensed. Under such situation, some leading companies started to gain more competitiveness and have achieved Initial Public Offerings (IPO). Also, the forms of business have become more diverse. In recent years, the

development of Internet, IT, big data and other technologies have accelerated the division of the industry. A minority of companies with strengths and resources has climbed to a higher rank whereas a large number of small and medium companies are losing their edges. Such trend is still quite noticeable. Additionally, owing to the globalization and informatization, the appraiser business has seen unprecedented challenges and opportunities.

Challenges facing the real estate appraisal business mainly include: (1) business penetration, acquisition and integration from the real estate agency and brokerage companies which also belong to the real estate industry; (2) penetration, acquisitions and integration from the assets appraisal companies; (3) encroachment on land business appraisal business from land appraisal companies; (4) penetration and competition from external Internet companies crossing border to real estate appraisal industry and they carry real estate intermediary and appraisal business with improved efficiency due to the assistance by science and technology, Internet and automation, imposing a huge impact on the industry; (5) external big data companies carry out big data-based intermediary business and large batch appraisal business supported by big data ; (6) the reduction of entry thresholds into the real estate appraisal industry leads to capital intervention from the external, which intensified the overall competition in the industry.

Opportunities facing the real estate appraisal industry include:

(1) In 2016 China supreme legislature body passed the "Assets Appraisal Law", strengthened the legal status of all assets appraisal including real estate appraisal at the legal level, and supported and protected appraisal of all types of assets in transaction in the market economy especially the state-owned assets with huge total volume.

(2) Since 2012 when this administration has been in the office, especially from 2016, the government has greatly strengthened proposal and practice of helping SOEs to become stronger, and the numerical of SOE merger and reorganization has been increased. At the same time, the government actively promotes the merger and reorganization between SOEs and private enterprises, and implements the mixed ownership economy. The mixed ownership economy refers to the economic form where property rights belong to different owners. From the macro level, the mixed ownership economy refers to an ownership structure in a country or region, with both public economy such as state-owned and collective ownership, and non-public economy like individual, private, foreign ownership and joint ventures and cooperative economy with stated-owned or collective compositions. From the micro level,

mixed ownership economy refers to joint venture enterprises founded by the investment subjects with different natures. The premise of mergers and reorganization of these enterprises is that they must be appraised, which brings a huge market with incremental business for the asset appraisal industry.

(3) The Asset Appraisal Law greatly reduces the entry threshold and costs for the integration of all types of asset appraisal business, allowing the real estate appraisal companies to enter into overall assets appraisal business and intangible appraisal business of intellectual property, patents and trademarks at low costs in enterprise assets, and make it possible to enter into machinery and equipment appraisal business.

(4) According to the new regulations from China's highest administrative body, some adjustments have been made in some main asset appraisal qualifications. Appraisal qualifications in asset appraisal business, real estate appraiser qualification, land appraiser qualifications, mining right appraiser qualification and second-hand vehicle appraiser qualifications used to be admittance qualification, which means that institutions and companies must have corresponding qualifications and meet compulsory criteria or they could not start their business in the above-mentioned fields. However, according to the State Council's new regulations, asset appraiser qualification and second-hand vehicle appraiser qualification have been transformed from admittance qualification to level exam qualification. This means that as long as individuals can be recognized by the clients they can carry out business in terms of assets and second-hand appraisal, it is not imperative for them to obtain a qualification in this industry. The State Council has cancelled two profession qualifications, land appraiser qualifications and mining right appraiser qualification, and only listed real estate appraisal as one of admittance professional qualifications.

(5). Now the Chinese central government is promoting "Belt and Road" initiative as one of China's national strategies, which provides an international platform for qualification mutual recognition between Chines and international real estate appraisal and for the development of China's real estate industry. The "Belt and Road" initiative refers to the Silk Road Economic Belt and twenty-first Century maritime Silk Road. As a national strategy proposed by China and promoted by top leaders, "Belt and Road" initiative imposes far-reaching strategic significance on China's modernization and China's leading role in the international community. In line with common needs of countries along the initiative, the strategic concept of the "Belt and Road" initiative provides new opportunities for these

countries to complement each other and open up and develop themselves, becoming a new platform for international cooperation. Under the framework of equality and cultural identity, the “Belt and Road” initiative involves cooperation from the level of national strategy, embodying peace, communication, understanding, inclusiveness, cooperation and win-win spirit. After the opening up of “Belt and Road” Initiative economic zones, the number of contracting projects exceeded 3000. In 2015, Chinese enterprises made direct investment in 49 countries along the “Belt and Road” initiative and the investment volume increased by 18.2% year on year. In 2015, China undertook service-outsourcing contracts from countries along the “Belt and Road” initiative, valuing amount \$17.83 billion and amount of money involved in execution was \$12.15 billion, up by 42.6% and 23.45% respectively. At the end of June 2016, the number of two-way China-EU Express totaled 1881, with 502 inbound trains and import and export trade volume at \$17 billion. Since June 2016, China-EU Express has started to wear a uniform of deep blue and eye-catching containers. The red and black logo takes a running train and flying silk as its shape, becoming the best endorsement and symbol of the flourishing Silk Road Economic Belt. Meanwhile China’s Real Estate Appraiser Association has signed agreements of mutual qualification with major real estate appraisal associations in the UK and USA. China’s Real Estate Appraiser Association has signed an agreement with Royal Institution of Chartered Surveyors that any qualified individuals can apply for the British surveyor qualification in China. There are similar agreements with Hong Kong surveyor association and the United States Real Estate Appraisal Association, laying a foundation for Chinese real estate appraisal companies to go out.

(6) High technologies such as the Internet, large data, mobile Internet, GPS have brought challenges to the industry as well as opportunities. These high-tech industries cross border into the real estate intermediary and appraisal industries earlier than the time when real estate intermediary and appraisal companies used the Internet, big data and mobile Internet technology to carry out intermediary and appraisal businesses. These external cross-border enterprises bring a certain impact on the real estate industry but since the large data, Internet, mobile Internet are mere technological tools, and external companies are not familiar with businesses in real estate intermediary and appraisal industry, it is difficult for technology companies to form core competitiveness in the real estate industry. Meanwhile, cross-border business operations also promote the development of the real estate intermediary and appraisal companies, allowing traditional companies to realize the importance of big data, the Internet and other tools for the development of the industry. Some capable real estate

intermediary and appraisal companies have begun to cultivate strategic performance with big data and Internet technologies.

1.2 Research motivations

Wang (2009) believes that the structure of China's real estate industry is imbalanced and China's house prices are too high. Bian (2017) argues that real estate speculation is a serious problem from the perspective of social development. However, Huang (2016) points out that due to the heterogeneity of real estate goods, it is not easy to have systematic risks in the large real estate market. In view of that, China's real estate market seems to have a low risk of nationwide collapsing, but there still existing risks of local real estate market collapsing, secondary risks caused by "land finance" and risks of excessive leverage in the real estate market. In addition, Li (2017) believes that, in spite of a booming real estate industry and rapid development of real estate intermediary industry in the past 10 years, there are still many non-standard issues in the real estate intermediary market in the tier three cities compared with that in the tier 1 cities.

Under the market economy system, the foundation for the development and growth of the real estate industry are the prosperity and development of the real estate market. Support and cooperation from the real estate intermediary industry, including real estate appraisal industry, are imperatives to promote and protect a healthy and stable development of the real estate market. *The People's Republic of China Urban Real Estate Management Law* clearly stipulates that the real estate intermediary service institutions include real estate consulting agencies, real estate appraisal agencies, and real estate brokerage agencies. The role of the real estate intermediary industry in the real estate industry mainly includes: first to make a bridge among main transaction subjects; second to regulate behaviors of transaction subjects, to safeguard legitimate rights and interests of both parties, and to maintain the normal trading order; third to improve transaction efficiency and to reduce transaction costs. In addition, in China, the real estate appraisal also plays the role of promoting enterprise property rights to prevent the loss of state-owned assets.

Based on the above analysis, ensuring and promoting the healthy development of real estate intermediary industry, including real estate appraisal industry, is of great significance. It is the basis for the healthy and stable development of China's real estate industry. However, it was not until early 1990s that China started to establish market economy, and the real estate

intermediary industry after 1995. Therefore, most companies have been unsure about how to adapt to the requirements of market economy, and how to grow their companies from strength to strength. In the current market, these companies are still unsure about how to manage and develop themselves and how to explore their operations and management systems. The most developed enterprises are not fully aware of why they develop more smoothly. Those with some development path are even more uncertain about the way ahead, totally dependent on the external environment. Advantageous conditions in one year bring some development in next year, but in the following year they may be forced to cut the number of employees. It is fair to say that they worry about their survival all the time, thus leaving no effort for considering how to have a sustainable develop. The remaining small and medium sized real estate appraisal enterprises are in the plight of bankruptcy at any time. To sum up, the features of the whole industry are small scale, low profits, and weak competitiveness.

A sound development in the real estate appraisal industry does not simple mean to develop the entire real estate industry at all costs. It is crucial that such development plays a key role in preventing financial crisis and safeguarding the stable development for the financial industry. For example, the subprime mortgage crisis caused in USA, in 2008, shown that the competitiveness and strategy study for building, securing and promoting a good development for the real estate appraisal enterprises is of vital theoretical significance. More in detail, what study methods and theoretical models are more useful to study competitiveness and strategy of the real estate appraisal enterprises? Is it better to apply a quantitative research design to all the cases? Is it better to apply a qualitative research design to certain kind of enterprises? What theory and model are available to study enterprise strategic management and competitiveness?

Of course, there are huge differences between China and Western countries regarding the mechanisms and styles for developing businesses in the real estate appraisal industry. These differences are revealed by external and internal factors, such as the developing path and framework of the industry, the outer atmosphere faced by the enterprises, the social humanity background, mode of enterprise, and labor resources management (Wang, 2009). However, there is a significant shortage of empirical research about what is happening in this transition phase concerning the real estate field in China, and how domestic companies are transforming challenges into opportunities and develop business practices that allow them to succeed in the market economy. Therefore, it is in the interests of both academics and practitioners to search

for the business practices and models that promote and protect a healthy and stable development of the real estate industry.

The main motivation of this study is, therefore, to assist Chinese companies in the real estate intermediary industry to improve their competence. The author intends to promote a comprehensive understanding about how domestic companies can use their strengths to deal with the external challenges, improve their competitiveness, and acquire a sustainable development in the market economy.

1.3 Research objectives

According to the above-mentioned research motivations, the main objective of this thesis is to suggest a strategic development model that may assist the real estate intermediary industry to improve its competitive management.

The specific research objectives are:

- To identify the main internal resources that affect organizational performance under conditions of uncertainty and change;
- To identify important mechanisms with which executives create, extend and change the internal reality of the organization;
- To construct a strategic development model that explore internal resources and mechanisms for enhancing organizational performance;
- To test whether the strategic development model is suitable for real estate intermediary companies.

1.4 Research methodology

The research process initiates with a systematic review of the real estate industry, in China, from the Reform and Open Up policy in 1978 until the present days. An exhaustive literature search about strategic management is also carried out to ensure a comprehensive understanding of the subject area. On the basis of the knowledge acquired, relevant ideas are highlighted and important internal resources and mechanisms are identified. The conceptual models and hypotheses are proposed.

Afterwards, the empirical part starts with the construction of a structured questionnaire

that reflects the constructs included in the conceptual model. Data is gathered and analyzed. The analysis uses a partial least square structural equation modeling (PLS-SEM) with SmartPLS 3 to test the conceptual model. Findings from the quantitative study allow testing the hypotheses.

1.5 Structure of the thesis

This chapter gives an idea of the research background. Research motivations and objectives are identified. An outline of the research process is also provided to guide the reader throughout this study.

The next chapter summarizes the journey traced by the real estate industry in China, which includes the composition and scope of the real estate industry, existing problems and major factors influencing China's real estate industry.

Chapter three provides a review of main concepts, theories and models related to competitive strategy based on two perspectives: the key resources and dynamic capabilities.

Chapter four presents the conceptual model and hypotheses to be tested in the empirical part of the thesis.

Chapter five describes the research design used in this study, which includes the research strategy, the operationalization of the structured questionnaire, data collection and analysis strategies. Information about the sample is also provided.

Chapter six reports the empirical results, including the measurement model and the structural model.

Chapter seven discusses the results in depth, by making a link with the literature. Finally, chapter eight draws the main conclusions. The limitations of the study, contributions of the study, and suggestions for further research are also presented.

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Chapter 2: Development of China's Real Estate Intermediary Industry

2.1 Concept of China's real estate intermediary

The theory of intermediary has been developed rapidly during the 1980s to 1990s. Yavas (1991) thinks that the intermediary can be divided into "market maker" and "brokerage". The market maker purchases benefit through bid-ask spread in buying low and selling high of products, or sells after simple processing. The "brokerage" normally refers to those who earn commissions as benefit by assisting traders to complete their trading, but do not shift goods or services, neither earn spread from goods or services. The real estate intermediary theoretically belongs to the aspect of "brokerage" according to analysis of features and natures above.

According to regulations of the *Urban Real Estate Management Law of Chinese People's Republic of China* and the *Service Management Regulation for Urban Real Estate Intermediary*, the real estate intermediary service is an umbrella term for activities of consulting, price valuation and agent of the real estate. Scholars have not yet come to a conclusion for defining and describing the concept of the real estate intermediary. Deng (1994) thinks that brokerage is an activity that bridges parties involved in the trade, finds sellers for buyers and buyers for sellers, so as to reach a successful deal. He thinks that the real estate brokerage is mainly about the intermediary service in the trade, which is the concept in the narrow aspect. Wang (2001) thinks that the real estate brokerage activity is not only intermediary but also agency and brokerage. The real estate brokers refer to institutions or individuals who have been approved by the government and approval authority to undertake real estate brokerage activities, and the estate brokerage industry refers to the industry that works with special requirements of expertise skills on brokerage activities in the designated field under the management of the certain departments and administrative management". Li (2015) thinks that the real estate brokerage refers to the market economic activity which provides services to promote the deal of real estate in an exchange of commissions as income. He thinks that the brokerage includes services of intermediary, agency and information consulting. Li and Cai (1994) argue that the estate brokerage mainly covers the intermediary activities in the estate deals, such as finishing deals or providing investment and management consulting to the buyers or sellers under entrusting. Chen (2007) argue that the real estate

brokerage is an economic activity which earns commissions by providing intermediary, agency and related consulting services to one or both parties in a real estate deal.

The reason for different understandings and definitions of the real estate brokerage is that in a relatively developed estate market mechanism, the estate brokerage covers the whole procedure of the real estate deals for first-hand and second-hand properties with complicated overlapped and extending of businesses where different subjects would study and analyze the real estate brokerage from different angles and aspects, which results different understandings and judgments to it. Regarding the scope of this thesis, the expression real estate intermediary involves the development of the intermediary corporations in China's real estate industry.

The development of China's real estate intermediary industry until now has basically matched the definition in the "*Urban Real Estate Management Law of Chinese People's Republic of China*" and the "*Service Management Regulation for Urban Real Estate Intermediary*". Enterprises focusing on estate consulting business mainly include estate investment and consulting companies and estate planning companies; the majority of entities in estate valuation are mainly estate and land evaluation companies; the real estate brokerage based enterprises basically cover estate intermediary, estate agency and estate brokerage companies. Currently different real estate intermediary companies share an interconnecting and interacting relationship with each other and meanwhile they are showing an interpenetrating and cross-fields development trend. According to the factors above, the actual research is based on the concepts showed in the "*Urban Real Estate Management Law of Chinese People's Republic of China*" and the "*Service Management Regulation for Urban Real Estate Intermediary*".

2.2 Development of China's real estate intermediary enterprises

The development of China's real estate industry began in 1980s when China initiated the reform and opening up strategy. The reform of real estate industry in early 1980s started from ordinary housing reform that shifted the real estate from the model of pure government planning and assignment to allowing personnel to purchase and reconstruct. The first trail for state-owned land mechanism reform was put in Shenzhen in 1987 where the first state-owned land was auctioned for real estate construction, hence giving birth to the real estate industry. The very beginning of real estate industry development has begun in Shenzhen and Guangdong Province and then spread to the entire country. The development has hence driven

the real estate consulting, agency and planning businesses to grow.

The first branch of real estate appraisers was approved by MOHURD in 1993, because tax administration and price appraising were needed in the real estate transaction. Two years later, the recognition and registration of Chinese Real Estate Appraiser Qualification was then presented by MOHURD and Ministry of Human Resources and Social Security, which sparked the growth for China's real estate appraisal industry. China's real estate industry and China's real estate intermediary industry have been developed for over thirty years.

China's real estate intermediary enterprises mainly fall into real estate appraising companies and real estate brokerage companies. Other companies like the professional property planning companies and consulting companies are in small market scale and dense industry aggregation. Major real estate appraising companies, broker companies and even the property construction companies are to some extent involved in property planning and consulting services, so the main bodies that structured the current real estate intermediary industry are the real estate appraising and brokerage companies.

2.3 The China's real estate intermediary industry

Determined by the definition of real estate intermediary as well as the specific policy climate and national conditions in China, the real estate intermediary industry here is normally composed of investment and consulting, planning, agency and valuation companies. Cooperation, compatibility as well as competition are key characteristics of the industry. Some enterprises stick both for the path of an expertise development while the other part go for a diversified development path; some undertake only one business category among the many estate intermediary businesses, while others embrace two, three or even all of the businesses to form a enterprises group.

Different enterprises of China's real estate intermediary industry have different core business. There is normally no authorized publication from governments about the real estate corporations ranking but related ranking are from statistic and consulting institutions. The writer chooses frontrunners in the TOP30 companies of the real estate planning agency industry 2016, a standard data provided by China Index Academy, to analyze and list their businesses scope. Meanwhile the author chooses the "Performance Data for National Class A Estate Valuation Institutions 2016" provided by China Real Estate Appraisers, related research

reports from the blue paper book of China real estate as well as other rankings to analyze the estate intermediary industry. Through a comprehensive analysis of different business scope in segment industries, it can be summarized that some segments of the industry adopt a diversified development path. In this regard, the author sort companies in this industry into two major categories to conduct the analysis: real estate consultation, planning and agent companies and real estate and land valuation companies. The business scope of a diversified enterprise is classified according to the type of business as shown in table 2-1.

Table 2-1 The analysis of business scope of real estate appraisal enterprise

Corporation Category	Name and Amount of the Surveyed Corporations	Summary of the Corporation Business Ranges	Whether the Corporation Business Covers other Type of Corporation or Business
Estate consulting, planning and agency companies	Shenzhen World union, E-House China, Hopefluent Properties, Tospur China, Batic5i5j, Newlandsh China, New Visual Angle and Kinvo, (8 leading companies in the industry)	(1)Full estate consulting and planning (including early planning for residence, product planning, marketing planning and; (2) 8 other estate planning; (3) 8 companies in every kinds of full estate marketing agency and brokerage;(4) 1 in project feasibility analysis;(5) 3 in property management;(6) 2 in construction modification;(7) 2 in estate land valuation;(8) one Estate e-commerce(web advertise and; (9) 4 in; new house, second-hand house and home furnishing marketing platform);(10) 3 in estate big data and info platform;(11) 2 in asset investment and management;(12) 1 in internet e-commerce research and investment;(13) 2 in retirement estate consulting, operating and management;(14) 1 in other cross-fields business;(15) 2 in estate financial mortgage and investment service; and (16) 1 in overseas estate investment, consulting and agency	2 out of the 8 companies have set the estate land valuation service
Estate land valuation corporation	Shenzhen World Appraisal, HIFO, Beijing Ren Da Real Estate Appraisal; Shenzhen Pengxin, Shenzhen	(1) 6 in estate land valuation and consulting service;(2) 5 in full planning and consulting of estate project investment;(3) 4 in urban demolition, resettle and renew services;(4) 5 in asset assessment service;(5) 1 in investment & finance consulting and	1 out of the 6 companies is involved in the estate agency and another 1 out of the rest belongs to the branch of a estate investment

<p>Touchstone, and Shenzhen Great Strategy Real Estate Appraisal & Consulting Co., Ltd., (6 industry leading companies)</p>	<p>management service;(6) 4 in estate consulting stock big data service; (7) 2 in full risk corporation control and management service of mortgage and loan;(8) 1 in land planning;(9) 3 in project consulting;(10) 2 in land registering and agency service;(11) 2 in mining right assessment; (12) 2 in project costs service;(13) 1 in estate agency service;(14) 1 in other cross-fields service;</p>
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2.3.1 The industrial statue of China's real estate industry

By the end of year 2016, there were 56,037 people in China who have obtained the real estate appraiser certificate (including 347 approved during the year 1993-1994 and 196 mutual recognized in year 2004 and 2011), but only 51,177 people have registered and practiced. On the other hand more than 5,600 real estate appraising institutes were set in the same period, which includes 485 class 1 institutes (newly added 72 in 2016), over 1,500 class 2 institutes, over 2,900 class 3 institutes (including the tentative class III), and over 700 class I branch institutes. Class 1 institutions need to meet the following requirements: first registered capital is more than 1 million yuan, with full-time real estate brokers or real estate brokers assisting in the management and finance contribution. Second there are more than 5 full-time real estate brokers who have obtained the "Real Estate Broker Qualification Certificate" and have been registered, and 5 or more persons who have obtained the qualifications for brokerage practitioners, and 10 or more who have obtained the "Real Estate Broker Qualification Certificate" and registered as full-time real estate broker assistant managers. Third value of real estate of annual operating, agency transaction is more than 10 million yuan, Fourth fixed office space is more than 300 square meters with computers and networks, and it should have more than two branches. Fifth they should be engaged in real estate brokerage for more than three years. As for Class 2 and Class 3 institutions, requirements are relatively lower. The average revenue for national class I real estate appraising institutes was 17,64 million Yuan in 2015. In 2016, it was 17,21 million Yuan, which reflects a slight decrease of revenues in comparison with the previous year, but the industry aggregation improved. Organizations with revenue exceeded 100 million Yuan increased from 5 to 8 in period 2015-2016. Organizations with gross revenue ranked top 10 grew their incomes from 1.17 billion Yuan to 1.3 billion Yuan between 2015 and 2016, up by

21.5%. Figure 2-1 shows the amount and changing situation of average revenue of the class I real estate appraisal organizations nation-wide.

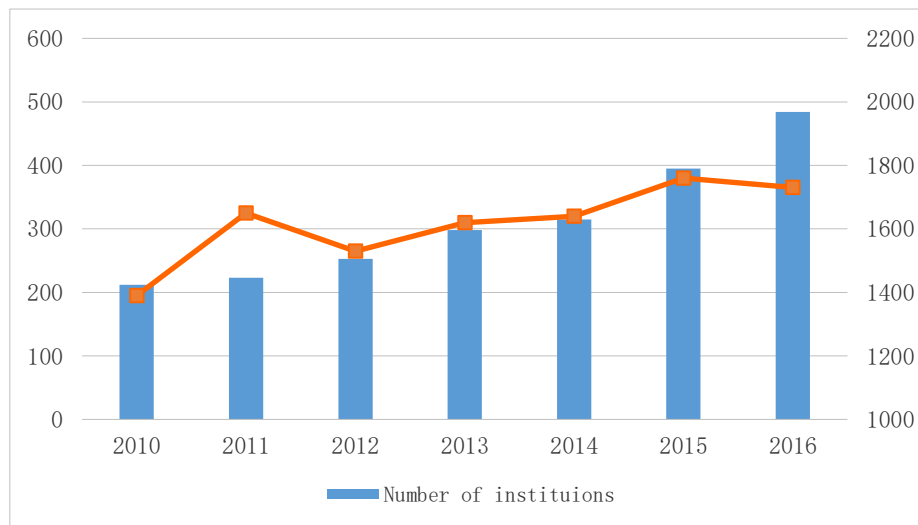


Figure 2-1 2010-2016 amount and average annual revenue for class I organizations

Source: Shang, Dong, Wang, and Li (2017)

Wang and Wang indicate in *Development Statue for 2016 Real Estate Appraisal Industry and 2017 Outlook* that: great growth have been made in varies appraisal businesses among national class I real estate appraisal organizations, represented mainly by house expropriation appraising, real estate judicial authentication appraising and property consulting. According to statistics, the average business volumes created by class I organizations in 2016 were: 2,270 property mortgage appraising programs, increased by 30.12% compared with that in the previous year; 189 property transfer appraising programs, increased by 95.74% compared with that in the previous year; 67 property judicial authentication appraising programs, increased by 116.68% compared with that in the previous year; 49 property consulting programs, increased by 239.37% compared with that in the previous year; and 88 house expropriation appraising programs, increased by 437.17% compared with that in the previous year. The changing can be found below in Figure 2-2 to 2-6.

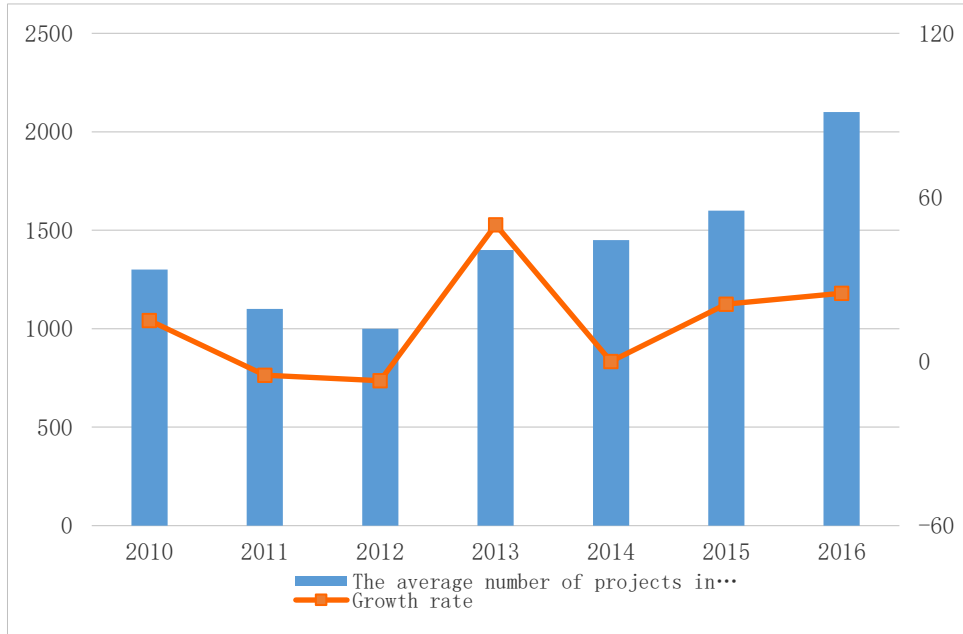


Figure 2-2 Changing situation for business volume of class I organizations' property mortgage appraising during 2010-2016

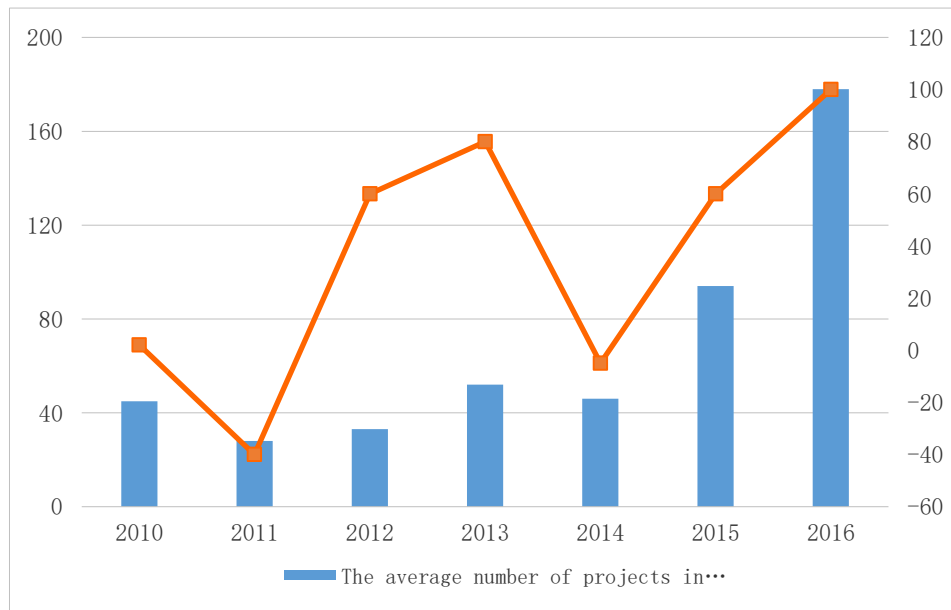


Figure 2-3 Changing situation for business volume of class I organizations' property transfer appraising during 2010-2016

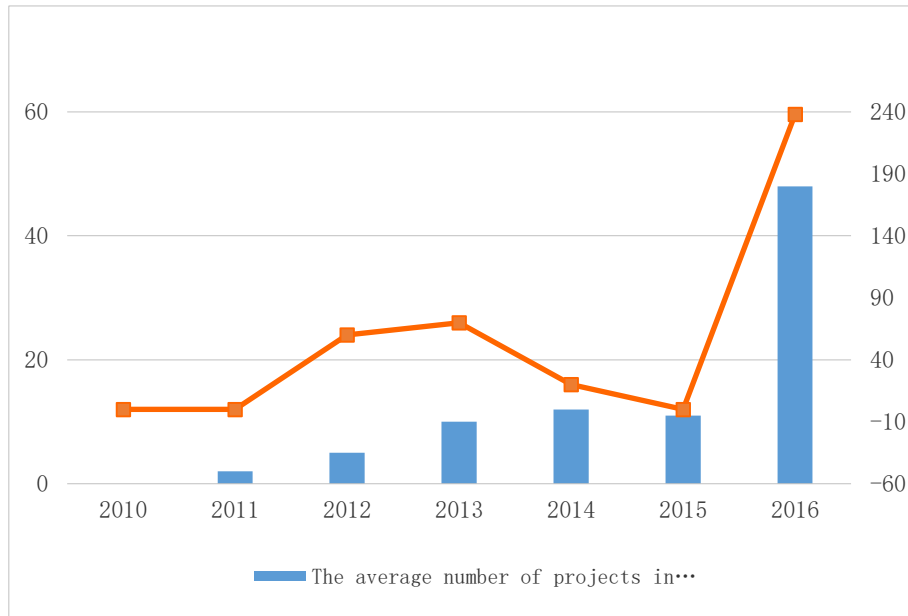


Figure 2-4 Changing situation for business volume of class I organizations' property consulting during 2010-2016

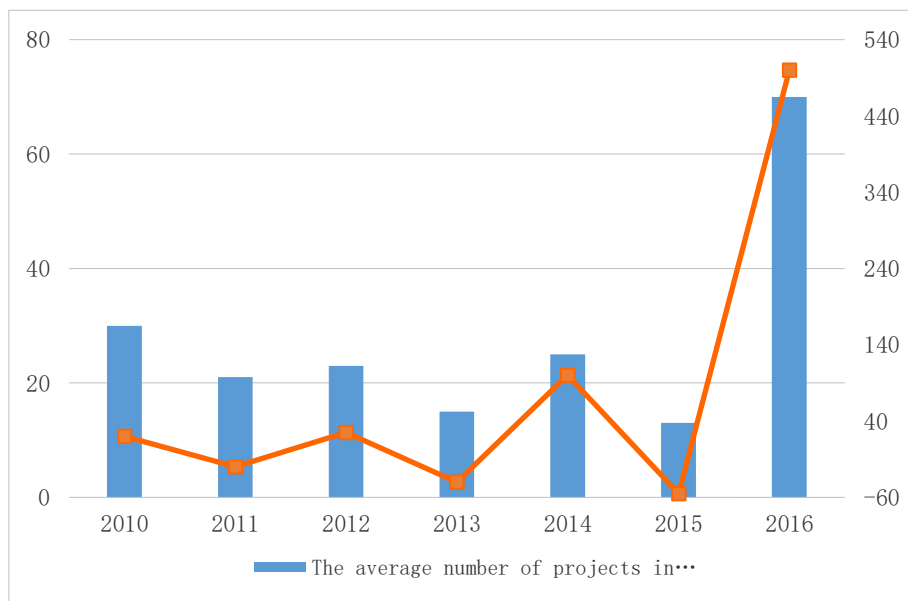


Figure 2-5 Changing situation for business volume of class I organizations' property expropriation appraising during 2010-2016

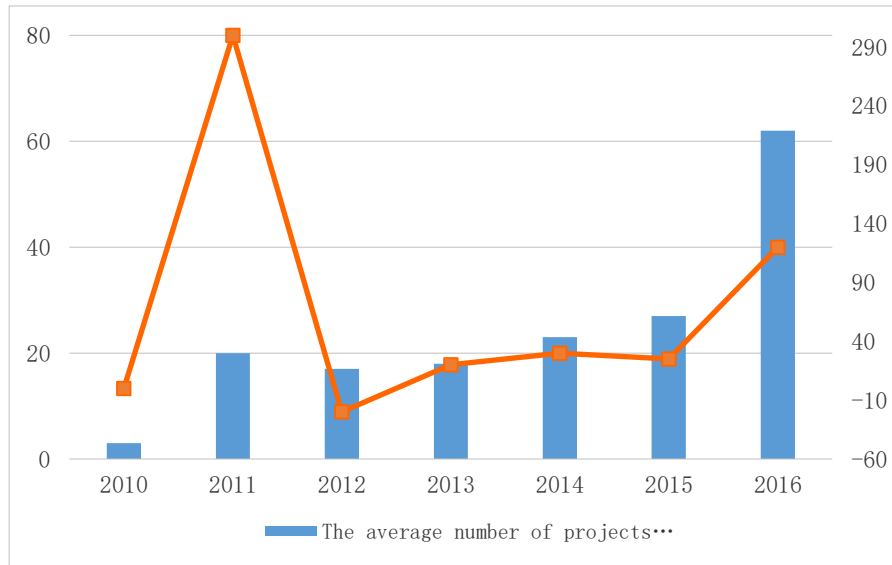


Figure 2-6 Changing situation for business volume of class I organizations' property judicial authentication appraising during 2010-2016

According to Chai's *Progress and Future of the Diversified China's Real Estate Appraisal Businesses*, the data about business modes of the current China's real estate appraisal organizations have showed business layout of China's real estate appraisal organizations as below:

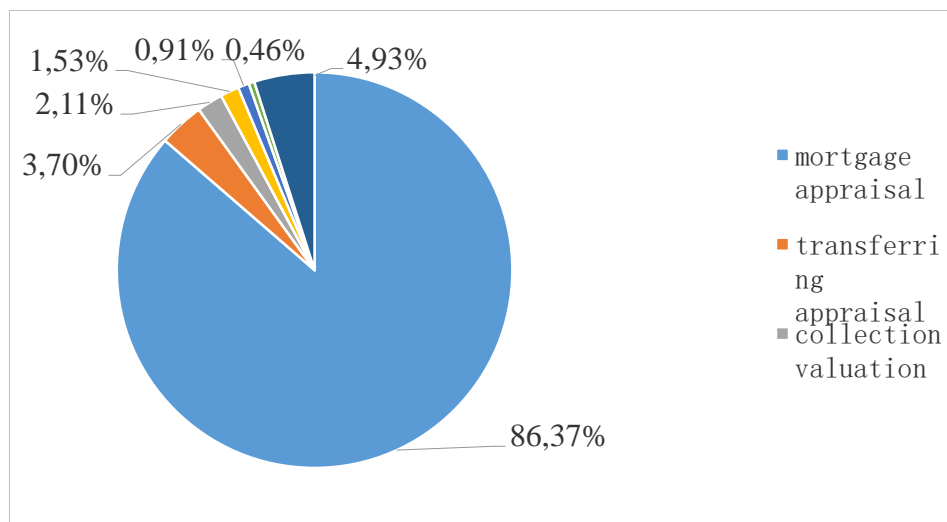


Figure 2-7 Proportion of program amounts for different class I real estate appraisal organization businesses in 2014

Source: Chai (2015)

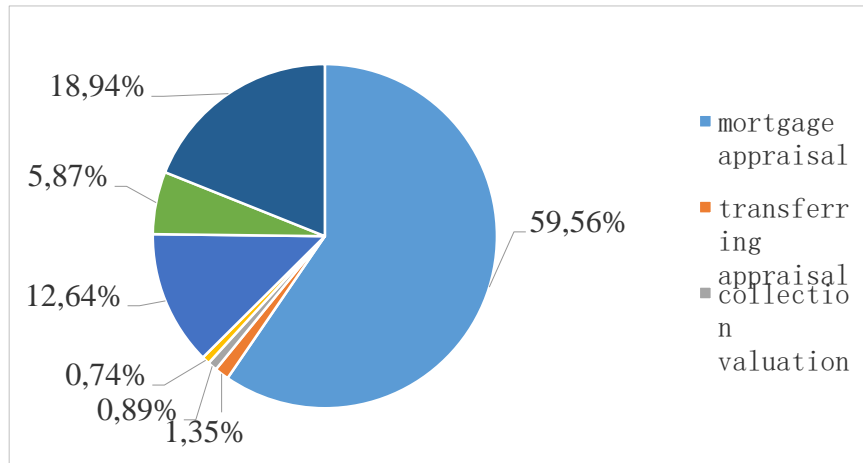


Figure 2-8 Proportion of values for different class I real estate appraisal organization businesses in 2014
Source: Chai (2015)

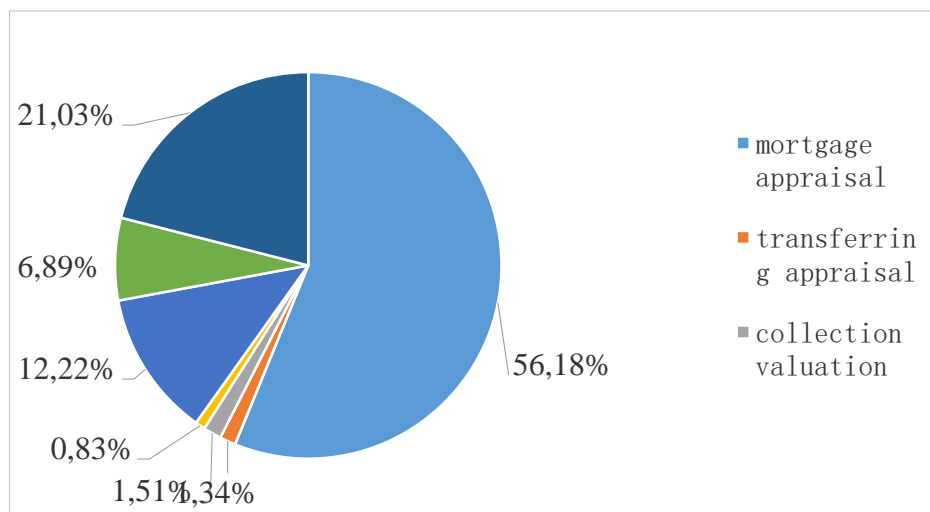


Figure 2-9 Proportion of floor areas for different class I real estate appraisal organization businesses in 2014
Source: Chai (2015)

Until now, the development statuses for real estate appraisal and intermediary organizations are:

(1) The total amount of real estate appraisal organizations has increased and industrial competence intensified. The number of industry businesses has also increased from less than 3,000 in 2012 to 5,600 in 2016;

(2) Segments in real estate appraisal industry have increased and new organizations have emerged in each segment, but the property appraisal organizations above designated size have won more and more market shares. Top 10 organizations have also acquired more proportion

of the total market volume, thus pressure has troubled the class III and tentative class III appraisal organizations' perform. Rules in the *Law of Assets Evaluation* published at the end of year 2016 has introduced extra pressure on appraisers in the class III and tentative class III appraisal organizations, so that they have felt hard to reach the legal requirement. It means that these appraisal organizations have little choice but to withdraw, merge and recapitalize with other companies. Companies with strong competence could reach the legal requirement of the minimum amount of appraisers but this would surge human resources costs in short term and add more pressure;

(3) By getting benefits from the development of Internet, big data and other science and technologies, enterprises with science and expertise competence have gradually grown stronger, while enterprises that could not adapt to such changes became sluggish and could be knocked out at every moment. However, enterprises in the industry are normally in small size, then whether to add more scientific input can be a dilemma. Adding more scientific input would cause more pressure and risk to the short-term costs, but the medium-and-long-term competence would be strengthened if succeed; adding no more scientific input could prevent enterprises from surges in short-term costs but weaken the medium and long term competence;

(4) Pressure from outer competitive climate has increased. According to the *Law of Assets Evaluation* 2016, the legal person may not be performed by property appraisers. This situation is different from the requirements listed in the *Office Procedure of Real Estate Appraisal Organization*, which states that real estate appraisal organization shall only be fund by nature person and the legal person or executive partner shall perform responsibility as appraiser. Laws have not limited that funders should have the property appraiser certification after the enacting of *Law of Assets Evaluation*, which has lowered the market entry thresholds for enterprises and capitals intended to enter the property appraisal industry. According to the *Asset Evaluation Act*, the entry threshold between the original asset appraisal institutions and the real estate appraisal institutions is lowering, which facilitates the infiltration of related enterprises, intensifies competition and threaten survival of the fittest. In addition, through strategic performance associated with Internet and big data, it will be easier for high-technology enterprises to enter into the real estate appraisal industry, which will also intensify the competition;

(5) Because of monotonous business scope of traditional property appraisal, traditional

companies are mainly limited to such small size. Meanwhile, the periodical rules of the real estate industry also restrict enterprises from developing. Wang Bo (2015) thinks that a big fluctuation happens every five to seven years in the global housing market. If a company focuses on the traditional housing market, it would waver between earning and losing money and expend all their accumulation after one fluctuation thus losing the opportunity to enlarge their production.

(6) The quality and skill level of the practitioners vary so sharply that their comprehensive quality need to be improved. According to the survey on the educational background of the real estate appraisal practitioners made by the Real Estate Institute of Tsinghua University, among 30 more appraisal organizations from 5 cities (including Beijing, Tianjin, Shanghai, Xi'an and Chongqing), the proportion of college degree has occupied 28% of the total amounts, while the bachelors were accounting for 53% and 19% for degrees above bachelor. However, there is a gap between the overall quality and actual experiences of many practitioners and requirements in this industry, which has held the appraisal results from a higher social recognition.

2.3.2 The human structure of China's real estate agent industry

China's real estate agent industry is composed majorly of real estate sale, intermediary, agent and brokerage enterprises. The ones with industry strategic performance are usually those providing property consulting and planning business in the meantime. Unlike Europeans and Americans, China's intermediary and agent businesses usually focus more on the former one. The real estate agent institutes in Europe and US normally pay more attention to the one-sided agent and *carte blanche*, but in China the agent business is considered as an extra business. The difference between intermediary and agent business is that the intermediary provides solely mediator rather than safeguarding the interests of buyer or seller intentionally. The agent business however usually needs to secure the interests of clients.

The real estate broker industry in China started almost simultaneously with the real estate industry. The gross volume and size of the industry currently becomes increasing large that the total property commissions in the real estate broker industry in 2016 exceeded 220 billion Yuan. Enterprises like Homelink, Centaline, Worldunion and EJU have enjoyed the real estate commissions over 10 billion Yuan respectively. But the top real estate broker organizations would undoubtedly break such annual commission record as due to their

diversified development strategy.

According to China Real Estate Appraiser Association, by the end of 2015 there were 54,033 certificated real estate brokers around the country, 30,725 brokers out of which were registered; by the end of 2016 there were 57,413 certificated real estate brokers, in which 31,233 brokers were registered. Beijing and Shanghai enjoyed the largest number of real estate brokers.

However, because of the mechanism and policies in the industry, those data may not reflect the overall situation of China's real estate broker industry. Different from US and European countries, the real estate broker industry in China currently belongs to the labor-intensive industry due to the gigantic volume of China's real estate market, so it has become one of the solutions to provide large amounts of jobs. To secure jobs supply, mechanism and polices toward real estate brokers and agent enterprises management are relatively free and the industry is easy to enter. Meanwhile, due to the test standard and the admission criteria for each province is determined by the local department. Basically one who has simple trainings can pass the test and thus obtain the property broker certificate. What is worse is that a great number of unlicensed medium-and-small-sized real estate broker institutes and people all around the nation are doing the actual business in the industry. Normally as long as there is no serious violation against the law, their unlawful practices will be ignored by managing departments in the government.

This is why according to the statistic by the end of 2016 showed that there were only around 50,000 certificated real estate brokers but in reality there should be over 2 million personnel doing the property broker business in China. Taking Homelink as an example, there were close to 150,000 employees in Homelink in 2016 who have earned over 20 billion Yuan commissions and occupied 10% of the market shares nationwide. It was also showed that there were practitioners of low quality in spite of gradually developing industry. A sampling survey made by Tops Tech and Management College of Zhejiang University on nearly 10,000 brokers in the industry from 29 cities showed the following information: 67% of the brokers in this survey were male; some of the broker institutes were composed basically by men. 82.3% of the brokers were below 30 years old; unmarried proportion was relatively high, accounting for 62.8%; 87.2% of the brokers have degrees of junior college, high school/vocational school or below. According to the report, only 14% of the brokers worked no more than 8 hours daily. 36% of the brokers worked for over 10 hours daily, and 1% out of whom (over one thousand)

worked for 16 hours, basically from getting up to going to bed. 87.4% of the brokers had less than one day of rest per week.

2.3.3 Main problems in China's real estate intermediary industry

The industry has closed relationship with the institutions of the society, economy, law and culture as well as the human environment.

From the aspect of business organization, Li (2003) thinks that there is a long-term ambiguous relationship between governments and intermediary organizations in the real estate market, resulting a series of problems in internal management, external restrictions and management, which need to be regulated. The main problems are reflected in the following aspects: lack of entrenched laws and regulations; striking imbalance to the development among organizations; inadequate qualities of the industry practitioners; immature market with low quality and standard services, poor awareness of the market entities in utilizing the intermediary services; insufficient organizational functions and efforts to the self-discipline real estate intermediary industry.

From the angle of information management, Han (2003) indicates that the major problems for real estate intermediary industry are: extremely imbalance to the information-based development; hardware weighs more than software; inadequate information-based development to the linking industries; limited service standard caused by insufficient utilizing of the intelligence resources; the needed informationization for the administrative government organizations.

Jiao (2005) thinks that the salient conflict between a rapid expansion of real estate intermediary market and the lagging behind development of management institution was the key factor that greatly restricted the industry's growth. He points out that the laws and regulations to real estate intermediary and its supervision, management and taxation need further development. For instance: the range and profundity of current laws and rules are far behind the actual needs; there are ambiguous governmental administrative functions and invalid or unsuccessful regulating due to the multi-departments management; the self-discipline function of the trade association of real estate intermediary industry fail to play its role.

Xiong (2005) indicates the immanent problem of the unregulated market in the intermediary market, points out the phenomenon of the mix of high and low quality

intermediary organizations, low quality agent practitioners, unregulated operations and arbitrary charging behaviors; market filled with phony information and dishonesty. He describes that the lack of honesty is caused by the intelligence asymmetry, and provides suggestions to the solution of the above problem.

Dai (2007) has studied the unregulated real estate intermediary industry from the micro and macro aspects. From the micro aspect, the intelligence asymmetry beforehand would lead the consumers to the adverse selection, hence cause the market shrinking; the intelligence asymmetry afterward would cause moral risk which the agents were more likely to gain interests by damaging their clients' interests and without taking any consequences. For instance, intelligence asymmetry in commodity housing trade would cause transaction disputes. On the other hand, the sketchy regulations might result security risk to the trading fund. From the macro aspect the problems lie in an imperfect supervision and management mechanism as well as the laws and rules; and the un-standardized operating of the real estate intermediary enterprises. Dong (2017) explains that the insufficient trading information in real estate market has given rooms to lie to the property owners and clients; unlicensed operation is not new in the real estate intermediary industry, which increases legal and moral risks; phony housing resources information overflow, clients are often been conned and interests been damaged.

As to the core issue studied in the essay—the real estate appraisal industry, Zhu (2015) summarized the major problems existing in the real estate appraisal enterprises:

(1) The appraising business pattern is monotonous and the comprehensive qualities of the appraisal institutes are in need. 58% out of the medium-and-small-sized property appraisal institutes are monotonous in their business pattern, normally focusing on real estate mortgage appraising, governmental dismantlement appraising, arbitrary appraising and assets verification. Businesses in large-and-medium-sized institutes vary but most of which pay overemphasis on mortgage, arbitrary appraising and assets verification;

(2) Low-quality of many appraisal institutes who know only the interests under noses, but forgot to see the future;

(3) Cutthroat competition and unfair competition. 25% of the participants highlighted that cutthroat competitions have been made during the past year for capturing businesses. 47% of them met cutthroat competitions. 77% of respondents said that their institutes have compromised to the clients and especially to the financial institutes, to obtain businesses;

(4) Lack of a developed employee training mechanism, resulting in a huge talents loss. According to the survey, new employees were more likely and in short frequent to resign, a small numbers of employees would resign within a year, and new employees would leave within 1-3 year of working if they didn't find a long-term career plan been made by the employer;

(5) Outdated appraising techniques and random appraisal results. Most of the medium-and-small-sized appraisal and intermediary institutes have still practiced appraising manually.

(6) The rewards and penalties mechanism are simple, imperfect and poor in implementation. 50% of the interviewees indicated that the appraisal and intermediary institutes have solely established a simple PAS, violations made by some appraisers were only punished with penalty or internal criticism.

(7) Unregulated managing mechanism and simple organizational structures, most of the medium and small size appraisal institutes were in a linear management mode.

Regarding the development of real estate industry, Zhang (2017) has improved and deepened the problems in the real estate appraisal and intermediary industry as follows:

(1) Incomplete and lagging behind laws, regulations and industrial rules, like the *Real Estate Appraising Specification*, which was amended only twice, in a time span of over ten years;

(2) Administrative interventions have outweighed the market demands. Interests between supply and demand are less than cohesive.

(3) Incomplete competition mechanism has resulted in a cutthroat competition among institutes, leading the market to poor service quality, cost reduction and loosened the appraiser skills requirement;

(4) The real estate appraising market was vulnerable to the real estate market and policies. The market fluctuation is sometimes turbulent, causing the enterprises to waver between the earning and losing – this situation introduces extra difficulties to accumulate profits to extend businesses;

(5) Rat race between the upstream and downstream of the industry (property agents, professional survey institutes, etc.);

(6) Fuzzy internal mechanism of the appraisal institutes.

2.3.4 Final words about China's real estate intermediary industry

Major events for real estate appraisal industry in recent years are as follows:

(1) The National Development and Reform Commission published the *Announcement on Decontrol Partial Services Price* on December 1st, 2014 to cancel the charging standard in the real estate appraising and land appraising, and replace the original government guided price with the market regulated price. This means the prices for appraising properties, land and assets are no longer controlled by governments but by appraisal institutes and their clients.

(2) The new national real estate appraising standard, *Real Estate Appraising Specification*, published on April 8th, 2015, came into force on December 1st, 2015, called off the old version (GB/T 50291-1999). New appraising methods have added to the new version, as well as detailed appraising principles, procedures, means, results, reports, professional ethics, etc.. Thus, appraisal practitioners need to work under higher and more elaborated requests.

(3) The *Guideline to the REITs Properties Appraising (Trail)*, released by China Association of Real Estate Appraisers and Agents in September 2015, aims to help and guide the appraisal institutes and appraisers with appraising business, as well as to lay a foundation for appraising institutes to explore the high-end real estate appraising field.

(4) The *Law of Chinese People's Republic of China on Assets Appraising*, approved by the Standing Committee of National People's Congress on July 2nd, 2016, officially came to force in December 1st, 2016. The Law has played a core role in the development of China's assets appraising industry and is crucial in governing each assets appraising activity, safeguarding the legitimate rights and interests of the involved parties and the society, as well as promoting a healthy development for the entire assets appraising industry.

(5) The *Announcement on Implement the Law of Assets Appraising and Regulate the Real Estate Appraising Industry*, released by MOHURD on December 6th, 2016, has announced that the institution of qualified approval was replaced with the on-record management toward the real estate appraisal organizations; the articles 15, 27 and 28 of the Law of Assets Appraising shall be met to set up a real estate appraisal institute; the classification method for the appraisal institutes remains; the current class III and tentative class III institutes whose qualification have expired may not be put on file and practice the property appraising business unless they reach the requirements of the Law of Assets Appraising; the admission mechanism of vocational qualification administration shall stay for property appraisal

personnel, the administrative organizations and methods remain unchanged, no property appraising activity shall be made by one who obtained the real estate appraiser certificate unless he/she finished the registration procedure.

2.4 Characteristics of China's real estate intermediary industry

Real estate intermediary industry includes real estate consulting, real estate brokerage and real estate evaluation. The three components all belong to the real estate intermediary industry. From the perspective of business scope and service objects, the three are interrelated and interrelated. Therefore, the analysis of the characteristics of China's real estate intermediary industry is mainly from the holistic perspective of real estate intermediary industry.

Lv (2004) points out some characteristics of the real estate intermediary industry: (1) the real estate intermediary industry is to provide customers with physical strength, intelligence and information services rather than providing physical products; (2) services provided by the real estate intermediary has the indirect characteristics in real estate operation and management activities, namely consulting and planning, brokerage, agency and other services; (3) the real estate intermediary activities have the characteristics of non continuity and liquidity. These services are normally not long-termed and fixed. Once completed, the contract relationship is terminated immediately. Based on these characteristics, Cheng (2007) points out that intermediary services provided by real estate intermediary enterprises are paid, which means that the real estate intermediary industry has the characteristic of paid service.

Chen (2013) summarizes the characteristics of the real estate intermediary industry into three major characteristics: (1) the emerging and development of the real estate intermediary industry is based on information asymmetry of real estates; (2) internal requirement of providing real estate intermediary services is good occupation ethics of employers. Integrity services, correct service attitude and perfect service management mechanisms are an important factor for the development of enterprises; (3) the development of the real estate intermediary industry must rely on the high-level professionals, and talents of high quality are pillars for the development of real estate intermediary industry.

Lai (2008) points out that the real estate intermediary industry should also have independence. In a variety of real estate intermediary activities, it is required that real estate intermediary agencies should maintain the independence. The economic and legal attributes

require that agencies should not be affected by or interfered by the transaction subject, the entrusting party or other relevant parties during practices and agencies should complete the entrusted task independently and objectively. Similarly, Yang (2000) proposes that intermediary service companies need to uphold objectivity and impartiality in their practices in addition to the independence characteristics. Namely intermediaries adhere to prudent and responsible principle, bearing the corresponding economic and legal responsibilities for all their economic behaviors, and treating all types of customers equally without imposing any bias on them.

From the analysis of the legal characteristics of the real estate intermediary industry, Liang (2006) points out that the real estate intermediary industry practitioners have the specific character, which means that practitioners in this industry need to be granted corresponding qualification certificates designated by the state so as to engage in the business. Practitioners engaged in real estate intermediary services need to be confirmed by law and they must be professionals with specific qualifications. Not anyone can engage in real estate intermediary service activities or provide real estate intermediary services.

Yue (2005) argues that in addition to characteristics of paid service, independence, non-continuity, fluidity and intermediary service, real estate intermediary service has characteristics of credibility and professionalism. The real estate intermediary service is related to entrusting major properties of enterprises, families and individuals. It involves a bulk of transactions and strong social responsibilities. Integrity decides service quality and effectiveness. The credibility of real estate intermediary services is directly related not only to market efficiency and transaction risk, but also to social cost and social risk. Credibility in the real estate intermediary industry plays a more important role than in other industries. The professionalism characteristic is decided by characteristics of the real estate intermediary service industry that is a typical skill and intelligence service. Thus only professional personnel have the ability to provide the corresponding services; otherwise, it is difficult to ensure level and quality of service provided.

Fan, Wang, and Li (2015) have used indexes including the number of real estate intermediary enterprises, the number of employers, average scale of enterprises, the nature of the enterprise, incomes of the main business to analyze the spatial pattern of the real estate intermediary industry in various provinces (municipalities and autonomous regions) in 2008. They obtained the following conclusions:

(1) The spatial layout of China's real estate intermediary industry is of T structure and real estate intermediary development level is high in eastern China while low in western China and gradually decrease from east to west. In terms of the number of real estate intermediary enterprises and the number of employers in real estate intermediary agencies, they many distribute in the provinces along the Yangtze River, which shows that the development of China's real estate intermediary industry and regional economic development have spatial coupling.

(2) The real estate intermediary enterprises are small in scale, and the private enterprises account for a large proportion. In 2008, the number of real estate intermediary enterprises in China is 33.9 thousand and the size of enterprises is small, averagely 11 people.

(3) The development level of real estate intermediary industry is high in eastern China yet low in western china. Incomes of major business of the real estate intermediary agents are the highest in eastern coastal cities demonstrated by Beijing, Shanghai and Shenzhen while lowest in northwest China.

(4) Business types of real estate intermediary agents are of great differences in various regions. Numbers of housing sales and rental contracts are also gradually decreasing from the east to the west. In addition, the authors point out that the main object of the research is the real estate broker agent. However, the relationship between real estate consulting and real estate appraisal enterprises is also related to spatial layout. The main reason is that there is a relation between economic development level and population in different regions of China.

Based on the above analysis and the research results, characteristics of China's real estate intermediary industry can be summarized as follow:

(1) Service characteristic. The real estate intermediary industry is a typical tertiary industry and a typical service industry. It does not provide physical goods and it mainly relies on professional's knowledge, skills and intelligence to provide consulting, agency, planning, investment analysis, price evaluation and other services to clients. The main incomes are from service commissions.

(2) Contractual characteristic. Real estate intermediary activities have the characteristics of non-continuity and liquidity. Different from the entity enterprises that mainly provide standardized or non - standardized products for customers thus enjoying the characteristics of product continuity and liquidity, the real estate intermediary enterprise offers virtual products services relied on skill and intelligence. The two sides fully communicate on commissioned

matters prior to the signing of the contract; on the basis of the intermediary contract, intermediary agents provide corresponding service to clients. After the fulfilling of the contract, the two sides terminate the contractual relationship. Other trustees have no relationship with the previous entrustment thus enjoying non-continuity and liquidity. A specific contract serves as the foundation of a transaction service. This relationship is not long-termed or fixed. Once the service is completed, the contractual relationship will be terminated.

(3) Informatization characteristic. The existence and development of real estate intermediary industry are based on information technologies. Precisely because of asymmetric information, the two sides of the real estate transaction have asymmetric transaction information so the one party cannot find the other party efficiently at low cost. Therefore, it is necessary for real estate intermediaries to provide intermediary and agency services.

(4) High credibility is required. Real estate intermediary service providers are in a relatively advantageous position in the amount of information they possesses, professional skills compared with the entrusting party. If intermediary service providers use this advantage to obtain improper benefits, they will damage interests of their entrusting party more or less, contrary to the basic requirements of the market economy. In order to promote the healthy and orderly development of the real estate intermediary industry, it is a necessary requirement for real estate intermediary enterprises to maintain high credibility in their practices.

(5) The service is paid. Real estate intermediary enterprises do not produce physical products, yet they provide advisory services to obtain incomes mainly in the form of commissions. Therefore, the real estate intermediary service has the characteristic of paid service.

(6) Independence and impartiality. The services provided by the real estate intermediary enterprises must be objective and fair, and cannot be partial to any related party. Otherwise, the services they provide will lose value. Therefore, in the process of transaction, real estate intermediary enterprises must maintain absolute independence and abide by the association avoidance system so as to deliver objective and impartial service.

(7) Professionalism. In order to guarantee the quality and quantity of the service of real estate intermediary enterprises, the professionals who provide the service must have high level of professional knowledge and skills. Real estate intermediary industry provides investment consultation, transaction agency, planning, evaluation and other services, all of

which require high level of specialization and skills. Not everyone has such skills and specialization. Professionalism is mainly reflected in two aspects: first, people engaged in real estate intermediary services should have corresponding professional qualifications and certificates; secondly, professional segmentation is inevitable with the increasing demand of professionalism requirements.

(8) It is closely related to the level of regional economic development. Fan et al. (2015) demonstrate that the spatial layout of real estate intermediary enterprises is closely related to the level of regional economic development. In developed areas, the real estate intermediary industry develops smoothly with scaled market, yet in underdeveloped areas it is the opposite.

In addition to the characteristics summarized above, according to years of experience in real estate industry, the author thinks that the real estate intermediary industry also has the following characteristics.

(9) It is greatly influenced by the state policies. The ability of the real estate industry against policy risks is very weak. No matter how strong the competitiveness of the company is in this industry, once it fails to adapt to the changing policies, it will soon face risks of loss even bankruptcy. Taking the real estate appraisal industry as an example, Chinese real estate appraisal industry started in 1993 initially as a subordinate department of government property management body, providing price evaluation for real estate transactions and ensuring proper transaction tax. At that time the real estate appraisal industry was a government department and there was no competition or any form of appraisal companies. Following the deepening of the market economy system in China, the demand for real estate appraisal was increasing in the economic market. The government put forward that real estate appraisal department should carry out company-oriented transformation. The competition mechanism and survival of the fittest principle have not been achieved until the completion of the company-oriented transformation. Around 2000, Ministry of Land and Resources of the People's Republic of China launched the land appraiser professional qualification. The land appraisals in real estate appraisal must be evaluated and reported by land appraisers, resulting in a large decrease in real estate appraisers' business volume. In order to meet the requirements of development, real estate appraisal enterprises have recruited land appraisers, causing cost increase in these companies. In 2016, the State Council standardized practicing qualifications in all professions, and abolished the qualification of land appraisers as a result the land appraisal companies that had been established before were faced bankruptcy risks. In

addition, in 2016 China issued the Law of Asset Evaluation, requiring that companies engaged in this industry should have asset appraisers who can practice in at least 8 different categories. The number for level three real estate appraisal companies used to be 3. As a result many small-sized real estate or land assessment agencies faced bankruptcy.

(10) The requirement for science and technology becomes increasingly higher. The foundation of traditional real estate agencies is transaction information from both sides of a large number of transactions and these agencies obtain profits easily out of information they access to when the transaction information is not shared. Therefore, traditional transactions mainly rely on manual operation. However, with the development of Internet technology and artificial intelligence, big data technology, the costs of information accessing continue to decrease and the process become increasing easy. Many high-tech companies extend their business from their original sectors to the real estate intermediary business with their endowments of Internet technology and big data technology, causing ferocious competition and great pressure to traditional real estate enterprises. In order to compete and develop vigorously it is imperative to hone technology capacity of an enterprise.

2.5 Main factors affecting the development of China's real estate intermediary industry

2.5.1 The classification of real estate intermediary industry

All the countries in the world divide various industries into three categories: the primary industry, the secondary industry and the tertiary industry. In spite of different categories, the real estate industry basically belongs to the tertiary industry, namely the service industry. According to the Classification of China's National Economy (GB/T 4754 - 2011), the real estate industry belongs to the tertiary industry, namely the service industry. The real estate intermediary industry is a composition of the real estate industry. From a broader perspective, the real estate intermediary industry belongs to the service industry.

The tertiary industry is classified into the producer service industry and the life service industry according to the service objectives, namely to whom these services are provided. Producer service industry offers services around the production of goods, mainly involving research and development and other technical services, logistic, warehousing and postal courier services, information services, financial services, energy saving and environmental

protection services, productive leasing services, business services, human resources management and training services, wholesale brokerage services, production support services.

The life service industry offers service activities to meet the final consumption demand of the residents. The range and classification of life service industry includes twelve fields: residents and family services, health services, pension services, tourism and entertainment services, sports services, cultural services, retail and online sales services for residents, residents travel services, accommodation and catering services, education and training services, residential services, other life service etc..

A great number of real estate appraisal companies have expanded their business scope to asset assessment service. Therefore, the real estate appraisal industry can be included in the life service industry and is also related to the producer service industry. It shares some characteristics and influencing factors with the producer service industry and the life service industry. Therefore, in the analysis of factors influencing the development of this industry, it mainly refers to the factors that influence the development of service industries, including life service industry and producer service industry.

This thesis takes the real estate appraisal industry in the real estate industry as the research object. Therefore, to identify the factors that influence the real estate appraisal industry, the two types of service industries need to be taken into consideration. It means that, in the process of research, the author mainly studies and draws lessons from two service industries and takes them as research objects. What is also in need is to distinguish them from factors influencing the development of the primary and secondary industries.

This section resorts to a holistic view to study factors influencing the service industry, and then analyzes and discusses these factors from the views of producer services, knowledge intensive service industry and enterprise service industry in order to explore factors influencing the development of the real estate industry as a whole.

2.5.2 Environmental factors influencing the development of service industry from holistic perspective

Many research literatures show that there are many factors influencing the development of service industry. Many scholars have studied and discussed factors influencing the development of service industry from the perspective of economic demand, economic supply, social related factors, spatial and regional factors and overall comprehensive factors. Among

them, many researches proved that spatial region has important influence on the development of service industry, on the basis of which many scholars study factors influencing a specific area or city, demonstrating that the external environment can impose great influences on the development of the service industry. This conclusion is in line with Potter's factors influencing enterprise competitiveness in the next chapters. It shows that we need to pay attention to this factor when establishing strategies for enterprise competitiveness. Particularly Chinese and foreign scholars have done many researches on the factors affecting the development of service industry.

(1) Summarization of factors influencing the development of foreign service industry: from a macro perspective, Clark (1940) points out that with the increase of per capita income, consumers need more services thus promoting the development of service industry. Subsequently, in-depth studies of Kuznets (1971) and Chenna et al. (1996) further proved that the increase of per capita income promotes the development of service industry. Daniels, O'Connor, and Hutton (1991) study various types of urban services in the United States, pointing out that the effect of population aggregation is related to the development of service industry, and concluded that urbanization has a positive effect on the service industry. Miura, Araki, Haraguchi, Arai, and Umenai (1997) proved that urbanization promotes the development of service industry from the perspective that urbanization increases the cheap labor force in the city.

Mcrae's (1989) research points out that the development of the service industry is uneven in different regions. The large scale of cities is conducive to the development of service industry, especially the producer services. Grubel and Walker (1989) propose that large areas of the city are conducive to the survival and development of a professional service industry. Markusen (1989) shows that the scale effect has a significant impact on the development of service industry through mathematical models. Illeris (1993) think that the growth and development of the service industry are more dependent on the economic development and economic capacity of the urban area. The development of the local economy has a relatively weak impact on the local service industry. Mulder (2002) considers that urbanization, expansion of the government role, per capita income, income distribution, changes in the participation of the population and the labor force, and changes in the intermediate demand of service industry all affect the development of service industry. A great number of domestic and foreign researchers have pointed out that the service industry is

influenced by urban space. One of its theoretical bases is the agglomeration theory proposed by Perroux (1970) that a group of highly united industries that are organized around the leading industrial sectors not only grow rapidly, but also drive the growth of other sectors in the economy by multiplier effect. He also points out that the spatial distribution of service industry is not evenly distributed with the geographical location, but with characteristics of different regions in the city. Normally the agglomeration effect of the service industry is stronger than that of manufacturing industry and service industry agglomerate for exchange opportunities and cooperation, complementarity and maturity and abundance of the labor market.

(2) Summarization of factors influencing the development of domestic service industry: through the analysis of the data of relevant provinces, Li (2004) points out that the coordinated development of urbanization and economic growth can promote the development of regional services. Chen (2007) think that economic development level, urbanization level, industrialization level, producer service industry and life service industry are main factors that influence the development of the service industry. Xiao and Qin's (2010) research point out that knowledge and information are the important factors that promote the development of service industry. Fan (2010) proposes that along with the development of science and technology, the advanced human resources required by the service industry is a vital factor that identify the development of service industry. Zhang and Ma (2012) find that the development of the service industry and the level of economic development can promote service industry in both developed and backward; and urbanization level, industrialization level, market level and consumer income have profound impacts on the development of service industry.

The research from many domestic scholars also shows that there are obvious regional differences in the development of service industry. Hu and Wei's (2006) research reflects that the China's service industry is distributed in the pattern of the coastal developed area as the center and western underdeveloped areas as the periphery. Ran and Zhang (2011) propose that the development level of service industry has obvious regional differences. Meanwhile, there is a significant correlation between the development level of service industry and urbanization, economic structure and average salary. According to You (2006), the level of economic development, market space configuration and the resource endowment of service industry have significant impacts on the development of service industry. Gu (2008) believes that the development of industrialization has a squeezing effect on the development of service

industry, but the effect will be weakened as the industrial level in this region increases. Wei (2014) think that the development inertia of service industry, the level of economic development and the degree of industrial agglomeration play significant roles in promoting the development of service industry. The degree of industrial agglomeration has the greatest impact on the development of service industry. Wang (2016) points out that the most important factor influencing the development of China's service industry is urbanization process, followed by the input of service sectors, the internal structure of services, the degree of industrialization and the degree of open up in the service industry.

Zha (2007) argues that the level of economic development, the degree of labor division and the average level of urbanization affect the development of service industry. Among the three factors, the level of economic development has the largest influence, followed by the degree of labor division and the level of urbanization. It shows that the service industry is closely related to the level of urban economic development. Wei (2015) concludes that factors including industrialization level, human resource investment, government intervention, urbanization level, economic development level and opening up level have different effects on the development of service industry. Zhang and Tan's (2011) research demonstrates that the development level of service industry in China is different in different regions: strong and advanced in eastern China while weak and sluggish in western China, namely a gradient distribution pattern from east to west. The research also reflects that there is significant positive correlation between the level of service industry and the level of economic development, while a negative correlation between the level of service industry and government intervention. Human capital, average salaries of urban workers, urbanization rate and urban residents income are key divers for fueling the service industry. Foreign direct investment only imposes significant effects on the service industry in the eastern China and fixed asset investment only imposes significant effects on the service industry in the western China.

2.5.3 Exploring intrinsic factors influencing the industry development from niche Industries of the service industry

The real estate intermediary industry belongs to the service industry. According to the classification standard of China's State Statistical Bureau, it belongs to the life service industry. However, the real estate appraisal industry is related to the asset valuation industry that belongs to the producer services. Therefore, the real estate appraisal industry mainly

belongs to the life service industry but with some characteristics of the producer services. From another point of view, the real estate intermediary industry, especially the real estate consultation, real estate planning and real estate appraisal industry, has the typical characteristics of knowledge-intensive business services, thus belonging to knowledge-intensive business services. Therefore, in order to study the intrinsic factors that influence the real estate intermediary industry, we need to further study factors that influence the development of producer services, life services and knowledge-intensive business services in addition to studying factors that influence the development of the whole service industry. Since producer services, life services and knowledge-intensive business services are niche industries included in the service industry, factors that influence the service industry also affect the development of these three industries. In the following research, the author mainly analyzes the environmental factors that influence all these industries.

(1) Factors influencing the development of knowledge-intensive business service

As a branch of the service industry, knowledge-intensive business service (KIBS) is developed with the explosion of knowledge resources together with technology-intensive business service and capital-intensive business service. As an important branch of modern service industry, it is still in the developing stage. Its in-depth research and theoretical analysis are far from enough. Researches on its characteristics, nature and influencing factors are still in its infancy. There is still no unified definition of KIBS in academia. Miles et al. (1995) think that KIBS refers to the enterprises and organization that provide professional knowledge services for their customers highly dependent on their industry expertise and know-hows. Muller and Zenker (2001) argue that KIBS refers to the organization and enterprise that rely on intensive knowledge to generate high value-added services and then provide services for their customers, belonging to the "advisory" organization. According to the Organization for Economic Cooperation and Development, KIBS industries are service industries with high density of technology and human capital high technology and human capital as well as high added value. Wei, Tao, and Wang (2007) argue that the legal and economic consulting industry and management consulting industry belong to KIBS and the real estate intermediary industry belongs to the consulting industry. Therefore, the real estate intermediary industry belongs to the KIBS.

At present, there are not many literatures about factors influencing KIBS. The researches on KIBS mainly focus on knowledge management, knowledge creation, industrial

agglomeration and spatial agglomeration from an empirical perspective. Shi and Zhu (2016) point out that regional environment has positive impacts on the development of KIBS on the basis of Chinese and foreign literatures; external founding and technology introduction from the external environment have become increasingly significant in improving the development level of KIBS; investment in fixed assets, human capital, especially high-quality talents promotes the development of KIBS. There are sufficient studies about the KIBS agglomeration effects and many scholars have proved that the agglomeration effects of KIBS from different angles. Keeble (2001) believes that spatial agglomeration and industrial agglomeration help enterprises obtain new professional knowledge and market knowledge, and improve their competitiveness. Pinch and Henry (1999) argue that industrial agglomeration and spatial agglomeration are conducive to the acquisition of localization, relatively immobile tacit knowledge and spillover knowledge.

Many empirical studies further prove that there exists agglomeration effect in KIBS. Bayers' (1993) research proves that 90% of producer services in the USA are distributed in metropolitans. Gibe's (1993) studies point out that the producer service industry in Germany mainly exists in several metropolitans. Illeris (1995) found that more than 70% of the producer service industry is concentrated in capital cities through the study of the industrial distribution of the producer services industry in Nordic countries. Generally speaking, factors influencing KIBS are similar to those influencing the service industry, which includes urbanization level, economic development level, government influence and regional space. However, the meaning and characteristics of KIBS decide that resources, capability and agglomeration of knowledge and innovation play important roles in influencing the development of KIBS, specifically which are human resources, informatization level, industry agglomeration and regional agglomeration effect etc..

(2) Factors affecting the development of the producer service industry and the life service industry

Since the appraisal industry including the real-estate appraisal industry belongs to the producer service industry, it is necessary to study factors influencing the development of producer services in order to depict a whole picture of the real estate appraisal industry. In addition, the real estate intermediary industry belongs to the life service industry according to the classification standard of China National Bureau of statistics. Therefore we also need to study the factors affecting the development of the life service industry.

First the development of the manufacturing sector is the foundation to promote the development of producer services industry. Without developed manufacturing industry, producer services industry could not prosper. Stigler (1951) points out that the scale of manufacturing industry is the factor affecting the development of producer services. Martinelli (1991) believes that manufacturing and producer services are complementary to and interact with each other. Second well-developed supporting facilities in the neighborhood have important impacts on the development of producer services. Miozzo and Soete (2001) point out that convenient information and communication technologies facilitate service activities and enable the development of service industry. Third, sufficient external market demands are strong guarantees for the development of the service industry. Geo believes that the biggest market for the producer services is consumers' final demands.

Fourth, the professional and high quality human capital is an essential element to promote the development of the producer services industry. Illeris (1996) believes that high quality human capital investment is a necessary condition for developing productive service industry. Li (2008) also believes that the producer services industry has a high standard for talents and human capital of high quality serves as a guarantee of its development. Fifth, the level of economic development affects the development of producer services. Aslesen and Isaksen (2007) think that the level of economic development and the development of producer services are complementary to each other and they affect and promote each other. Hu and Huang's (2009) empirical research shows that there is a long-term stable relationship between the development of producer services and economic growth and the relationship is of two-way Grainger causality. Sixth, many researches have also demonstrated that the development of producer services industry features industrial agglomeration and spatial agglomeration. Eberts and Randal's (1990) studies show that producer services often gathers in the metropolis groups from the perspective of space. valterDi Giacinto and Giacinto Micucci's (2009) research prove that the producer services industry has the agglomeration effect. Han and Zhang's (2008) empirical research show that the level of labor division based on specialization, efficiency and the structure of non-state-owned property rights play significant roles in promoting the development of producer services in China.

The life service industry is mainly consumer-oriented and provides services, so the factors influencing the life service industry are similar to factors impacting the service industry. However consumers' living standards, income levels, consumer spatial agglomeration can impose prominent influences on the life service industry. Some scholars

have also conducted relevant research on this issue. For example, Jiang (2014) studies laws of spatial distribution and spatial agglomeration of the living service industry. Li and Li (2014) have studied the distribution pattern of life service and points out that the spatial distribution of life service industry is influenced by the distribution pattern of individual consumer, and the life service enjoys prominent comparative advantages in cities with large population and high income.

Finally, for the factors that influence the development of China's real estate intermediary industry, Fan et al. (2015) point out that the spatial layout of China's real estate intermediary industry is of T structure. Their articles point out that the feature of real estate intermediary development level is high in eastern China while low in western China. Incomes of primary business of the real estate intermediary agents are the highest in eastern coastal cities demonstrated by Beijing, Shanghai and Shenzhen while lowest in northwest China. Business types of real estate intermediary agents are of great differences in various regions. Numbers of housing sales and rental contracts are also gradually decreasing from the east to the west. As for influence factors to the development of the real estate industry, the level of urbanization, residential land and the added value of real estate industry are the strongest three drivers of the local real estate industry while correlations to the permanent resident population at the end of the year, employers and urban population density are relatively low.

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Chapter 3: Literature Review

Researches about strategic management theory have been studied for nearly 50 years since the 1960s. Numerous thoughts were promoted, but explorations toward the original problem of the strategic performance have always being the logic center to those thoughts. In other word, the competitive strategy theory has played a major role along the development of the strategic management theory. There may be various theoretic reviews about the competitive strategy theory on the time and school basis, but seeing from the contents studied in this article and based on the understanding of the original problem of strategic performance, this study will comb its development stream into three parts: the competitive strategy theory based on external environment, the competitive strategy theory based on key resources, and the competitive strategy theory based on dynamic capabilities.

3.1 Review of the competitive strategic management theory based on the key resources

Key resources have set their feet on the stage of the study of competitive strategy theory since the 1960s. But not until the end of 1980s to the early 1990s did the resource-based view (RBV) gradually become a main stream of the strategic management field. Scholars have turned their eyes from the external environment to the internal key resources. RBV argues that the fundamental reason why there is a gap of company growth performance is from the internal resource factors of the corporation rather than the external environment. To deeply understand the source of company performance gap based on resources, this section will firstly review the RBV and indicate the content and characteristic of the value of key resources; secondly, it will sum up the key resource types based on the existing literatures; lastly, the section will analyze the connection between key resources and the company growth performance.

3.1.1 RBV review

3.1.1.1 Traditional resource-based view

Wernerfelt (1984) fully elaborates the resource-based view for the first time in 1984, and

analyzed the relationship between resource and the profitability in the form of resource potential barrier. He indicates that the first-move advantage is an attractive resource that could help firms to earn a place in the market competition. Barney (1991) develops this idea. He thinks that the major sources to the company performance gaps are due to the resource differences. Strategic performance could be earned by corporation through improvement of the resource quality and resource output efficacy. From the aspect of rents, Peteraf (1993) then describes the impact of the resource to the corporation growth gap, and put forward four conditions that the strategic performance recourse have to meet: (1) The enterprise can obtain funds through the heterogeneity of resources; (2) The enterprise can access to high quality resources at lower rent costs by relying on pre competition restrictions; (3) The rents are kept within the enterprise by the incomplete liquidity of the resource; (4) These rents can be protected with time limitation. Collis and Montgomery (1995) point out in the book *Competing on Resources: Strategy in the 1990s* that a firm is integrated with three elements, namely the physical assets, invisible assets and capabilities. The assets and capabilities determine the firm's efficacy and performance and are the key factor that impacting the firm growth.

The traditional RBV believes that the success to the corporation operating is originated by its resource structure. The internal resources are inhomogeneous among different firms which could create differentiated products or services. The resources would be connected with high performance when they become the source of the super-normal profit. Through acquisition and utilizing of key resources, a firm can easily gain the strategic performance which will conversely cause the corporation growth gap (Wernerfelt, 1984; Barney, 1986).

3.1.1.2 Relation-view: the extension of traditional resource based view

Previous paragraphs analyze traditional resource view. However, the strategic researchers have made the theoretical extension to the traditional resources-based view since the end of 20th century as the interaction and interpenetration between organization and its external environment became increasingly notable: The most typical example among those researches is the relationship-view. Such view has provided new thoughts to the growth performance gap of the firms.

Dyer and Singh (1998) are representatives of the relationship-view and they have found a special relationship between inputs and the performance, referring to it as a positive correlation, when they compared the performance gap between the automobile manufacturing

enterprises of US and Japan. The corporation strategic performance depended not only on the internal resources, but also the external network which embedded into the social networks and hard to be imitated by the competitors. Davie (2006) integrates the relationship-view to the RBV and noted that the network was a key resource to the corporation, such that the relationship resource could be used to explain the growth performance gap of the firms. By using the theories of transaction cost and organizational learning, the relationship-view has extended the theoretic framework of the traditional RBV, by analyzing the value creating processes and highlighting the common interests' formation mechanism among organizations. The relationship-view could be a better tool to explain how to obtain strategic performance through network resources among the affiliated firms.

Research contributions of scholars to the key resource study can be seen in Table 3-1.

3.1.2 Resources and capabilities as the foundation of the competitive strategy

3.1.2.1 The definition of key resources

Resources are the cells of the resource view. According to Wernerfelt (1984), the corporation resources refer to anything that brings advantage or disadvantage to the corporation, namely the assets (visible and invisible) semi-permanently attached to the corporation. Barney (1986) enriches the concept of resource. He thinks a firm's resources should include assets, abilities, organizational processes, corporation attribute, intelligence and knowledge that could help corporation to make and implement strategy and improve the efficacy. He classified the concept in 1991 into three categories: material capital resources, human capital resources and organizational capital resources. He further stressed that not all the resources could become the strategic resource, and only those bring sustainable strategic performance to the corporation could be called the strategic resources. Grant (1991) indicates that resources were the elements devotion during the production process, by organizing these elements to teamwork the corporation could develop organizational abilities and eventually win the strategic performance. Amit and Shoemaker (1991) define resources and capabilities and thinks the corporation resources were the stocks of available elements held or controlled by the corporation. Capabilities refer to tasks and activities that rely on materials, human labors, technologies and other resources to accomplish. Later on, Teece (1997) summarizes the major distinctions between resources and capabilities that resources were independent, simple and relatively static while capabilities were collective, complicate and dynamic.

Table 3-1 Main theoretic contributions to RBV

Author	Contributions
Wernerfelt (1984)	Firm's key resources measure its industrial strategic performance. By reasonable developing and utilizing key resources, the firm could form the "resource potential barrier" to obtain super-normal profit
Barney (1991)	Four attribute of firm's competitive quality resource: valuable, rare, costly to imitate and unchangeable
Rumelt (1991)	Rare resources are the barrier to stop competitors to imitate
Peteraf (1993)	Promotion of the concept of heterogeneous resource, and elaboration of conditions to maintain the strategic performance
Dyar, Singh (1998)	The relationship view is suggested for the first time.
Gulati (1999)	It is put forward the concept of network resource, which lives in the business network
Barney (2001)	5 field works study the resource relationship application: human resources management, finance, entrepreneurship, marketing and international business
Alvarez, Busenitz (2001)	The RBV is combined into entrepreneurship study, by extending the boundary of RBV to the cognitive abilities of individual entrepreneur, stressing the major role of the entrepreneur resources in discovering and identifying of firm's opportunities
Helfat, Peteraf (2003)	It is promoted the dynamic resource concept by means of the life cycle theory, emphasizing the dynamic resource-view and effectiveness of RBV integration
Lavie (2003)	It is addressed the CPRs concept, which combined the social network theory and RBV
Simon,Hill (2007)	The RBV theory is materialized, the resources management processes are analyzed and how firms create business values through resource management are explained
Lin & Wu (2014)	Non irreplaceable resources have an insignificant mediating effect
Kumari S (2017)	Human capital resources and organizational capital resources have led to the development of innovation strategy. The ability to innovate is based on strengthening the practice and process of the company.

Source: Gou (2010)

Based on the concept of resources put forward by Amit and Shoemaker (1991) and the research objectives of this dissertation, the author puts forward that key resources are the stock of available elements owned or controlled by enterprises, including resource elements and the skills formed by interaction of these elements. In general, resources are the input elements in the enterprise process, which constitute the basis of economic rent and strategic performance, and they are the input elements that enterprises own or control. Effective strategic planning requires organizations to understand the forces that shape the strategic situation through the collective efforts and explanatory strength of the organization's internal representatives. Specifically, the organization is examined as a stimulus sensation unit that perceives external environmental stimuli, cultural openness, and team functional diversity. These factors are modeled as determinants of organizational perception, which consist of communication, interpretation, and analysis dimensions. Neill (2007) argues that effective strategic planning requires effective environmentally stimulating and culturally open teams to better tap the team's potential and create a good customer base. The value of internal diversity can help to better perceive and respond to the environment.

3.1.2.2 The connotation and value characteristics of the key resources

The core idea of key resource view shows that the source of performance difference among enterprises comes from the key resources they own. The key resources can create economic value for the enterprise and enterprises with key resources can quickly establish the strategic performance. Because of the imperfectly imitable nature of these key resources, the access to key advantages can be maintained for a long time (Hoopes, Madsen, & Walker, 2003). Amit and Schoemaker (1993) affirm that key resources (or strategic assets) are resources that can bring sustained strategic performance and high profit sources for enterprises. In general, the key resources of the enterprise determine the long-term performance difference.

Key resources characteristics are described by many scholars and the summary is listed in Table 3-2.

Although the scholars' elaborations about key resources are different, there are many similarities in fundamental analysis. From the academic influence, it is generally accepted the characteristics of key resources proposed by Barney (1991). Barney believes that resources that can produce performance differences must have the following four features (VRIN):

- (1) Valuable feature. With the help of SWOT analytical framework, resources can be

valuable when they can help companies seize opportunities, resist or avoid threats in the changing external environment.

Table 3-2 Characteristics of key resources

Author	Characteristics of key resources
Barney (1991)	Valuable, rare, imperfectly imitable and non-substitutable
Grant (1991)	Persistent, transparent, transferable, and non replicable
Amit and Schoemaker (1993)	Complement, rare, low transactional, imperfectly imitable, limited replaceable, occupied, persistent, and matching of strategic industrial elements
Peteraf (1993)	Heterogeneity, incomplete liquidity, compliance limitation to pre competition
Collis and Montgomery (1995)	Imperfectly imitable, persistent, occupant, irreplaceable, leading in competition

(2) Rare feature. Whether the resource is rare depends on how much it supplies, not the size of the demand. Enterprises that control valuable and rare resources can gain strategic performance.

(3) Imperfectly imitable feature. The valuable and rare natures of resources are necessary conditions for the differences in company performance, but they are not sufficient conditions. If one intends to continue performance difference, resources must be imperfectly to imitate. In fact, there are two meanings: firstly those resources cannot be imitated by other enterprises at all; secondly these resources can be imitated by other enterprises but the costs are extremely high. Scholars have also summarized three reasons why resources are imperfectly imitable (Rumelt, 1987; Dierickx & Cool, 1989; Reed & DeFillippi, 1990). First it is the historical dependence. The specific historical conditions that produce the resources will not reoccur. Second it is the causal ambiguity. The relationship between resources and company performances is complicated. Third it is the social complexity. It is difficult to grasp and shape intangible assets of the enterprise in practice so they are difficult to imitate.

(4) Non-substitutable feature. Some of the key resources do not have accordingly strategic alternatives. The non-substitutable nature of resources is different from its imperfectly imitable nature because the former one does not require competitors to acquire the same characteristics resources that produce strategic performance of successful enterprises. Imperfectly Imitable and non-substitutable natures not only pay attention to resources themselves, but also pay attention to competitors' barriers to imitate and replace.

According to the physical form of resources, the resources can be divided into tangible

and intangible resources (Itami & Roehl, 1987; Hall, 1992). The tangible resources are material including the physical assets of the enterprises and the financial assets. Although tangible resources have a certain level of scarcity, they can be easily imitated and replaced because they can be bought and sold in the open market. Therefore it can be seen that tangible resources cannot be the key resources explaining long-term differences of enterprise performance.

The intangible resources can bring a relatively continuous strategic performance to the enterprise. The intangible resources include the staff's tacit knowledge, skills and experiences, the effectiveness of the work team and so on. It is difficult to observe intangible resources since their formation and accumulation are characterized by ambiguity of cause and effect, social complexity and unique historical conditions (Reed & Defillippi, 1990). Therefore the intangible resources can better explain the long-term differences of company performance than tangible resources (Hall, 1992; Hill et al., 2001; Barney, 2001).

3.1.3 Elements of key resources

The previous section has analyzed the real source of intangible resources that affect the company growth performance. This section will introduce the elements of intangible resources because the organization is a complex resource aggregation. Scholars need to divide the elements of intangible resources according to their own researches. Among them the most influential one is Hall's (1992) research who proposes a framework for identifying and classifying intangible resources as shown in Table 3-3.

Table 3-3 Classifications of intangible resources

Types of intangible resources	Constituent elements
Intangible resources depending on people	Tacit knowledge of employees; talent of entrepreneurs; corporation reputation; Network (relationship with suppliers and distributor)
Intangible resources independent from people	Database; contract; business secret; intellectual property; patent; trademark

Source: Hall (1992)

As can be seen from Table 3-3, intangible resources can be divided into two categories: "intangible resources dependent on people" and "intangible resources independent from people". Since then, different scholars have carried out theoretical development and empirical

researches on the theory of Hall (1992, 1993). Edvinsson (1997) believes that intangible resources should include tacit knowledge in the enterprise, management experience of top managers, technology, customer relations and professional skills. Fernandez, Montes and Vazquez (2000) divide intangible resources into human capital, organizational capital, technical capital and relation capital. Carmeli (2004) has extracted 22 intangible resource types, including organizational strategy, industry relations, R&D level, intellectual property rights, organizational reputation, product reputation and other resources. Based on the empirical research of Spanish manufacturing enterprises, Lopez (2003) argues that intangible resources include corporation reputation, product reputation, human capital and organizational culture.

Although the above-mentioned scholars have classified intangible resources from different angles, there are still some limitations. For example, they do not classify constituting factors. For the purpose of the actual research, this dissertation generalizes key resources, namely the intangible resources at a high level, and sort them into five basic types: the entrepreneur element, top management team, reputation resource, technical resource and network relationship resource.

3.1.3.1 The elements of entrepreneurs

Based on the empirical study of 307 enterprises in the American construction and timber industry, Baum (2001) concludes that entrepreneurs' unique endowments and entrepreneurial achievement motivation directly affect company growth. Alvarez and Busenitz (2001) think that the entrepreneurs' skills in perceiving, discovering and seeking market opportunities and in coordinating knowledge resources can bring heterogeneity output to enterprises. Lofsten and Lindelof (2003) think the idea and motivation of the founders or managers are major influences in the enterprise' profitability. Barringer (2005) and other scholars compare the 50 rapidly growing enterprises and 50 slowly growing enterprises and the results show that the founder's characteristics are the primary factors that influence the growth speed of the enterprise. They believe that the important role of founders' characteristics can be reflected in three aspects: first, the founders have permanent effects on enterprises, such as enterprise culture and enterprise behavior; second, investors often assess the enterprise to consider the potential of the enterprise through its founder characteristics; third, variables of individual differences are keys of growth speed of the enterprise.

Combing China's reality, Chinese scholars point out that entrepreneurs are the key

resources that decide the differences of company growth performance. Wei and Chen (2003) conduct a questionnaire survey on SMEs in Hangzhou, Taizhou, Huzhou and other places in Zhejiang Province, and empirically analyze the correlation between entrepreneurial human capital and corporation performance. Chen (2003) starts from the empirical analysis of enterprises in Zhejiang Province and puts forward that, as an important scarce resource, entrepreneurs are the main reason why there are differences in local economic development and institutional transformation performance from the meso level. Zhu (2004) puts forward the "entrepreneur standard view" of growth. This theory argues that the enterprise is the contractual organization taking the entrepreneur as the central contract person. Therefore, the ability and talents of the entrepreneur determine the size of the enterprise and the strength of its competitive ability.

3.1.3.2 Top management team (TMT)

Penrose (1959) believes that the management team is an important part of human resources. They amass experiences in organizational learning, improve the accumulation rate of enterprise resources, and then create new production opportunities and boost the growth of enterprises. Hambrick and Mason (1984) believe that the top management team is the key resource that affects the development speed of the enterprise. According to them, the development of enterprises is the concerted efforts of a group of people, thus putting forward the famous Upper Echelons theory which states that interaction between top level members are of scarcity and social complexity and are hard to replicate. However, some scholars believe that the top management team should not be a source of sustainable strategic performance (Wright, 1985), because all members can be replaced.

3.1.3.3 Reputation resource

As an important intangible resource for enterprises, the reputation resource is also the focus of the scholars in the field of strategic management (Dollinger, 1997). The reputation resource mainly includes trademarks, enterprise brands and enterprise images. A good reputation is developed for a long time in the hearts of the general public, showing the recognition from consumers. First, reputation is of value and can help companies attract funds in the capital market (Rao, 1994; Forbrum, 1997). Corporation reputation can also prevent competitors from entering into the market and reducing the possibility of retaliatory response from other competitors (Porter, 1985). Secondly, reputation is also scarce and imperfectly imitable. This advantage can be demonstrated in three aspects: first, corporation reputation is

the result of social legitimacy (Rao, 1994); second, the reputation is scarce and imperfectly imitable since it is long-established with imperfectly imitable historical contexts (Barney, 1991); third, it is difficult to imitate reputation since the reputation will evolve with complex and unique relations between the company and many of its stakeholders.

3.1.3.4 Technical resource

Hitt (1995) puts forward that technical resources of enterprises include: intellectual property, patents and related technology knowledge, know-how, technical secrets and process flow. Scholars generally believe that the high value technical resource is the key to the success for an enterprise (Levin, 1994; Fernandez, 2000). Enterprises enjoying advantage of technological resources have more opportunities in selecting market space and improving value chain. At the same time, enterprises with patents can also enjoy monopoly rents that other companies cannot enjoy thus earning high profits. At the same time, enterprises with technical resources can also prevent their competitors from replication (Hill, 1992). Technical resources in all forms have unique characteristics and social complexity so it is difficult for competitors to master these technical resources in a short time (Williamson, 1985; Kotha, 2002). The scarcity of technical resources comes from its complexity since enterprises need great amount of time cost and development cost to obtain intellectual property rights.

3.1.3.5 Network relationships

Hall (1992) proposes that the relationship between the enterprise and the external network is an intangible resource that depends on people. This network relationship is people-to-people and company-to-company interaction. In addition, the network relationship is more like valuable information knowledge and unique resources for companies to perceive and implement their corporation strategies (Barney, 1991) and it can reflect the enterprise profits and growth performance level.

From 1980s to 1990s, scholars put forward that network relationship is the key resource that influences company performance (Jarillo, 1988; Morgan & Hunt, 1994; Saxenian, 1996). Barney (1991) points out that the characteristics of the network relationship can be understood from two aspects. On the one hand the establishment of a network relationship among organizations allows them to access to more information knowledge than a single enterprise. On the other hand establishing relationships with enterprises rich in resources and good in reputation helps enterprises to obtain scarce and imitable resources. Dyer and Singh's (1998) book points out that the specific connection between enterprises is the key resource

causing differences in company growth performance. Gulati (2000) and others point out that the network relationship, where the enterprise is in, can help this enterprise obtain all the necessary resources from the environment. Meanwhile, the Chinese scholar Huo (2006) also believes that the survival of an enterprise is inseparable from its network relationship. Establishing good relations with internal and external stakeholders can help businesses to cultivate abilities of accessing resources and selling products as well as to improve their adaptability.

3.1.4 The relationship between the key resources of and company growth performance

In the previous three sections, this dissertation conducts a literature review of resource concept, the definition of key resource and value characteristics of key resource,. This section will review the main research about "key resources – company growth performance" relationship from theoretical analysis and empirical research.

3.1.4.1 Theoretical analysis of the relationship between key resources and company growth performance

Warnerfelt (1984) believes that the key resources influence company growth performance through the mechanism of Resource Position Barriers. Resource Position Barriers mean that enterprises that take the lead in holding resources can maintain their performance differences with other enterprises and affect the costs and benefits of later owners. Therefore, the combination of Resource Position Barriers and enterprises' production and operation activities can be transformed into Market Entry Barriers. Rumelt (1984) starts from the angle of rent possession, and points out that enterprises can obtain sustained growth by occupying scarce resources and other isolating mechanism preventing imitation. Dierickx and Cool (1989) further point out the barriers formed by the key resources can help enterprises to achieve high performance. They also present five resource replication barriers: time compression diseconomies, industrial agglomeration effect, the interrelation of capital deposit, the degeneration of capital and the unknown causes and effects.

3.1.4.2 Empirical studies on the relationship between key resources and company growth performance

Since 1990s, scholars have basically confirmed that key resources have positive impacts on company growth performance. Crook (2008) conducts a meta analysis of 125 documents

published in the top academic journals, which includes data from more than 29000 enterprises. The results show that on average the correlation coefficient between strategic resources and enterprise performance is 0.26. This means that strategic resources impose positive effects on company performance. Through the research method of meta analysis, Crook fills the blanks in the resource research and has a clearer understanding about how specific resource element affect company performances as well as various strengths of these impacts. Considering that China is in the key period of economic transformation, the current dominant industry is traditional manufacturing industry. The above scholars mainly discuss the importance of resources to corporation growth performance but what specific resources can impose influences on corporation growth has not been explained.

Since “geographical concentration” and “localized network” are two prominent features in the cluster environment (Shi, 1992; Porter 1998), in the cluster environment, it is inevitable that key resources of the enterprise have different influence degrees on their growth performance. The following is a literature review of effects of key resource elements on growth performance in differences clustered enterprises. Through studying different cases, it can be found that key elements decide clustered enterprises’ success or failure. And from the perspective of key resource factors of enterprises, the differences of growth performance of cluster enterprises are explained as shown in Table 3.4.

Table 3-4 outlines the literature about key resources and cluster company growth performance. First, scholars give priorities to characteristics of entrepreneurs and behaviors of senior managers in the discussion of how key resources identify the enterprise success or failure. Secondly, in cluster company environment, the network relationship is the key resource factor deciding the success or failure of a company. Finally, the scholars have concluded the importance of company reputation resource to the performance differences of traditional manufacturing enterprises through theoretical and case studies.

3.1.4.3 A Review of the relationship between key resources and company growth performance

Through the literature review above, the conclusion of the positive correlation between key resources and company growth performance has been drawn from both theoretical analysis and empirical research. However, the existing literature lacks a comprehensive system of theoretical exposition, and empirical experiences have some shortcomings as follows:

Table 3-4 Literature research on the difference between key resources and the growth performance of clustered enterprises

Author (year)	Sample data	Key resource of (success or failure)	Research method
Wu (1999)	TCL group	Leadership with new philosophy and a dynamic operating mechanism	Single case study
He (1999)	Shanshan Group	Enterprisers' superior consciousness, mutual beneficial and win-win partnership, perfect financial supervision mechanism	Single case study
He (1999)	Delixi Group	Human resource mechanism of valuing talents; training system; technological innovation; entrepreneur resources	Single case study
Li (2002)	A professional town in the Pearl River Delta, Guangdong	Enterprise network resources	Surveys and literature research
Chen (2003)	Private enterprises in Wenzhou	Brand resources	Multi case study
Zheng (2003)	Wanxiang Group	Entrepreneurial natural instincts, enterprise division of labor and network of functions	Single case study
Wu (2005)	Clustered enterprises in Zhejiang	Local network features	Empirical research
Lv and Zhu (2005)	Traditional industrial clustered enterprises in Zhejiang	Innovation, learning ability and management quality of enterprises	Theoretical analysis
Wang (2006)	Clustered enterprise in textile industry in Shaoxing	Social network	Multi case study
Wu and Han (2006)	Clustered enterprise in standard parts industry in HebeiYongnian county	Entrepreneurial experience, social activity circle and the characteristics of knowledge structure	Empirical analysis, sample survey and multiple regression analysis
Zhang and Chen (2006)	Clustered enterprises in general sense	Corporation reputation, technical resources	Theoretical and normative analysis

First of all, some key resources that affect the company growth performance have not yet reached a unified classification. For example, some scholars emphasize entrepreneurial resources, some emphasize the network of enterprise relations, and some emphasize technological innovation. However, Fleisher and Bensoussan (2003) believe that the source of an enterprise's strategic performance should be multifactorial and cannot be explained by a monotonous and single resource type. Therefore, most of the available empirical studies are an one-sided research view, they just study the impact of a single resource type on company growth performance while ignore the impact of the whole resource system on the company growth performance.

Secondly, most empirical studies limit themselves to post inspection research methods such as theoretical deduction and case analysis (Geng, 2005). As a matter of fact, there are many resource elements that affect the growth performance of enterprises. Therefore, it is necessary to conduct research that study cluster enterprises to induct and refine out of many resource elements through exploratory research method. Identifying key resources that affect the company growth performance will impose practical significance in guiding company growth.

Finally, there are few studies about the analysis on the differences in performance around the industrial cluster environment. According to the system view, there are many factors that affect company growth performance. Therefore, it is necessary to consider other important types of enterprise resources when analyzing the source of the company growth performance.

This thesis explores the relationship between differences of core resource and corporate growth performance through a comparative analysis on corporate competitiveness strategies. And from the differences of specific resource elements, the company's competitive strategy is analyzed and the study will discover the key types of resources that different companies use to determine their competitiveness. These practices can be used as policy recommendations to better help other companies grow efficiently. Liu (2008) uses structural formula model to research on the effects of value-added service for venture capital on corporation growth performances and results show that value-added service for venture capital is importance factors influencing corporation growth performances. Dou and Wang (2012) take optoelectronic industry cluster in Xi'an as an example and research on the effects of network structure and knowledge resource access on corporation growth performance, whose results reflect that the access of both implicit and explicit knowledge fully plays the intermediary role

when talking about the effects of centrality and bonding strength on corporation growth performances. Wang (2011) argues that venture capitals added value services involving in internal management impose positive effects on financial performances and relationship resources can exert positive effect on both business operation and finance performances.

3.2 Summary of competitiveness strategic management theory based on dynamic capabilities

Enhancing one's dynamic capabilities in complex and changeable environment has become the key to obtain and maintain strategic performance. This section will sort out the literature on dynamic capabilities, and discuss dynamic capabilities from the aspects of its theoretical origin, connotation, dimension, measurement method and influence.

3.2.1 The theoretical origin of dynamic capabilities

Since 1990s, how to maintain a long-term strategic performance in a fast changing environment has become the focal point for many scholars. In the field of strategic management, the traditional view of resources is not enough to explain how a specific enterprise can gain strategic performance in many markets. The concept of dynamic capability is gradually emerging and developing in this regard. Teece and Pisano (1994) first propose the concept of dynamic capability, and define it as the ability to integrate and reconstruct resources. Subsequently, Teece (1997) has further defined the dynamic capabilities into a more detailed one. Teece (1997) believes that dynamic capability is the ability to integrate, build and reconstruct internal and external capabilities to cope with rapidly changing environment, and regards dynamic capabilities as the expansion of enterprise key resource view. There are limited explanations in the Resource-Based View of what are source of strategic performance of an enterprise. The Resource-Based View can only explain how companies rely on heterogeneous resources to gain the strategic performance in the static environment, but it cannot explain how to maintain long-term strategic performance in the rapidly changing environment (Eisenhardt & Martin, 2000). The concept of dynamic capabilities proposed by Teece (1997) has made up for this blank in the Resource-Based View since it proposes how to maintain continuous strategic performance in changing environment. (Katkalo, Pitelis, & Teece, 2010). After that, Eisenhardt and Martin (2000) expand the application scope of dynamic capabilities, pointing out that dynamic capabilities play an

important role not only in changing environments, but also impose effects on enterprises' strategic performance in static environment.

3.2.2 Definition of dynamic capabilities

Although many mathematicians agree that the dynamic capability is an expansion of resource based view, there is no consensus on the definition of dynamic capabilities. There are mainly two perspectives defining dynamic capabilities.

Based on the perspective of ability, some researchers, mainly Teece and others, define dynamic capabilities from the perspective of modifying, integrating, and reconstructing resource capabilities. This definition is recognized by Winter (2003), and he further defines the dynamic capabilities as an advanced capability that can extend, modify, and create conventional capabilities. Dynamic capabilities determine the speed of changing conventional abilities (Winter, 2003; Teece, 2012), which can help enterprises to better evolve their regular capabilities (Helfat & Peteraf, 2003). Zahra, Sapienza and Davidsson (2006) define dynamic capabilities as key decision-makers' capability to redeploy resources and routine within this enterprise according to their expectations. Helfat, Finkelstin, and Mitchell (2007) define dynamic capabilities as the ability of the organization to create, expand, and modify the resource based on its purpose. On this basis, Teece (2007) expands the definition of dynamic capabilities and divided into three dimensions: (1) to perceive and identify opportunities and threats; (2) to seize the opportunity; (3) to reset the intangible assets of the enterprise when it is needed through strengthening, binding and protecting to maintain the strategic performance.

On the other hand, Eisenhardt and Martin (2000) think that dynamic capability is an ability based on the perspective of process and it encounters the problem of being abstract and word redundancy. As a result, they define dynamic capabilities as a specific, identifiable strategic or organizational process. Specifically, the dynamic capability is the process that enterprises use resources, especially integrating, reconstructing, acquiring and releasing resources, so as to match or even create market changes. Zollo and Winter (2002) define dynamic capabilities as a collective and stable mode after learning. Organizations can systematically form or modify their operation routines to achieve higher efficiency through this mode.

From the above discussion, it is found that the main differences in the definition of

dynamic capabilities exist in the definition of dynamic capabilities from the perspective of ability or from the perspective of process and convention. This dissertation believes that the main role of dynamic capability in the process of enterprise operation is to change the basic resources and the conventional ability within an enterprise. Enterprises can restructure and transform basic resources through acquisitions to access new opportunities (Karim & Mitchell, 2000). Similarly, by reconstructing the business unit of the enterprise, the enterprise can adapt to the changing environment through resource recombination (Karim, 2006). Dynamic capabilities have different forms and functions, but it is the advanced ability high for enterprises to update, integrate, and reconstruct resources in different contexts.

This thesis will analyze abilities of enterprises to adapt to the environment and allocate resources in the strategic model of enterprise competitiveness. Based on the abilities, this thesis will further explore high capabilities of enterprises to upgrade, integrate and reconstruct resources and from the perspective of dynamic ability, explain the difference of enterprise growth performance, so as to better guide the development of the enterprise.

3.2.3 Dimension dividing dynamic capabilities

At present, there is no consensus on the dimension of how divide dynamic capabilities in academia. However, generally speaking, dynamic capabilities include integration and reconstruction capabilities (Teece, 1997; Lin & Wu, 2014). Eisenhardt and Martin (2000) define dynamic capabilities from the perspective of process. It points out that dynamic capabilities include resource integration, resource reconstruction, resource acquisition and resource release. Wang and Ahmed (2007) point out that dynamic capabilities should contain three parts: the ability to absorb, adapt and innovate. On this basis, Wang, Senaratne and Rafiq (2015) simplify the dynamic capabilities, which are only divided into absorptive capacity and transformation ability. Protogerou, Caloghirou and Lioukas (2011) believe that dynamic capabilities include three dimensions of coordinating, learning and strategic competitive response. Some scholars also add cognitive dimension to the dimension of dynamic capabilities (Teece, 2007; Wilden & Gudergan, 2015). They have stressed that in the face of a rapidly changing global environment, only the timely response to opportunities and threats can maintain a strategic performance. Therefore, the perception of opportunities and threats, and the grasp of opportunity are two important dimensions of dynamic capabilities. Barreto (2010) integrates this idea and further divides the dynamic capabilities into four dimensions: opportunities and threats perceiving, decisions making in a timely manner,

market oriented decisions making, and resource foundation changing.

Generally speaking, capabilities of integration and reconstruction are relatively mature in terms of dynamic capability dimensions, but whether dynamic capabilities contain the cognitive dimension is still controversial. This dissertation argues that the dynamic capability should focus on resources integration and reconstruction, and the cognition capability should be regarded as a foundation for the development of dynamic capabilities.

3.2.4 Influence of dynamic capabilities

Grindley and Teece (1997) put forward that the original intention of dynamic capability is only a supplement to the resource-based view, and shows that dynamic capability in changing environment has become a new tool for enterprises to maintain long-term strategic performance. However, it has been a controversial issue whether dynamic capabilities have a positive impact on performance and whether these effects are direct or indirect. In this dissertation, the relationship between dynamic capability and performance is summarized and some main views and relevant empirical research results are presented.

Some scholars believe that dynamic capabilities do not directly affect performance, but only indirectly affect performance (Eisenharet & Martin, 2000; Zott, 2003; Zahra, 2006). They note that dynamic ability is only a necessary condition for gaining a strategic performance, not a sufficient condition. Dynamic capabilities cannot directly create strategic performance, but reconfigure the enterprise resources and practices to indirectly influence the strategic performance of the enterprise. Stadler, Helfat and Verona (2013) analyzed the second-hand data of American enterprises and found that dynamic capabilities have positive effects on resource acquisition and resource development. Wilden and Gudergan (2015) conduct a questionnaire survey of 228 large Australian enterprises, and found that dynamic capabilities can positively affect the performance of enterprises by influencing their marketing and technological capabilities. Pavlou and Sawy (2011) use the method of questionnaire survey to show that dynamic capabilities can affect the performance of new product development through operational capability.

These scholars explain how dynamic capabilities influence enterprises indirectly. However, some scholars believe that there is a direct link between dynamic ability and enterprise performance and strategic performance. In a rapidly changing environment, dynamic capability is the cornerstone of the strategic performance of the enterprise (Teece,

2007). Peteraf, Stefano and Verona (2013) point out that the differences in experiences, competitive environment, added value and time will enable enterprises to get strategic performance through dynamic capabilities. The existing research mainly explores the impact of dynamic capability on enterprise performance from two aspects, the financial performance and innovation performance, as shown in Table 3.5.

Dynamic capabilities can create new resource combinations that are difficult to imitate (Griffith & Harvey, 2006), which is regarded as the source of extra returns (Makadok, 2001), bringing super optimal performance to enterprises (Zollo & Winter, 2002). Dynamic capabilities represent only a high ability to change the convention and resource portfolio. In the current empirical researches, existing research results show that dynamic capabilities can directly impact corporation financial performance and strategic performance (Rindova & Kotha, 2001; Lin & Wu, 2014; Wang, 2014; Li & Lin, 2014). Dynamic capabilities enable enterprises to create, expand, modify, integrate and reconstruct enterprise resources (Teece, 1997; Zollo & Winter, 2002), thereby allowing enterprises to change and innovate timely to response changes of customers, markets and technologies (Lisboa, 2011), such as entering into new markets, developing new products etc.

Although dynamic capabilities are important for strategic performance, the advancement of dynamic capabilities to promote corporate performance remains to be studied. Since dynamic capabilities depend on the collective learning and coordination efforts of the members of the organization, and the social atmosphere of the organization forms patterns of attitudes, behaviors, and interpersonal relationships among the members in the organization, which may be the driving force of dynamic capabilities. Stav and Lance (2006) believe that the atmosphere of trust within the organization facilitates the adaptability and coordination among members, thereby improving abilities of communication, exploration and reconfiguration within the company, thereby boosting the strategic performance of the company. Through the data of 209 Israel samples, the hypothesis proposed by Stav and Lance (2006) are well supported, and this study found that the trust atmosphere within the company has a direct impact on the strategic performance of the company. Their research understands the antecedents of dynamic capabilities by emphasizing the importance of organizational climate for trust as a social support for dynamic capabilities and strategic performance.

Wang (2017) thinks that dynamic capabilities and social relations play a complete mediating role in corporation relations, and in any environment, dynamic capabilities have

Table 3-5 Empirical researches on the direct impact of dynamic capability on company performance

Author (year)	Sample data	Research method	Dynamic capabilities	Result variable	Major conclusions
Rindova & Kotha (2001)	Yahoo and Excite	Case study	Different dynamic capabilities at each stage	Strategic performance	Adaptability is the key factor for Yahoo and Excite to succeed in a high competitive environment.
Li & Liu (2014)	217 Chinese enterprises	Questionnaire	Strategic understanding ability, timely decision-making capacity and strategic transformation capacity	Strategic performance	Dynamic capabilities help enterprises gain strategic performance.
Schilke (2014)	Vertical data from 279 enterprises in chemical, mechanical and automobile manufacturing	Questionnaire	Strategic alliance management capacity and new product development capacity	Competitive advantage (strategic performance, financial performance)	Capabilities of managing strategic alliance and developing new products have positive effects on the strategic performance.
Drnevich & Kriauciunas (2011)	Vertical data from 192 business processes in 48 Chilean Enterprises	Questionnaire	Single dimensional concept	Corporation financial performance and business performance	Dynamic capabilities have positive impacts on corporation financial performance and business performance.
Wang (2014)	113 high tech SMEs in the UK	Questionnaire	Absorptive capacity and transformation capacity	Financial performance	Dynamic capabilities have positive impacts on enterprise financial performance.
Lin & Wu (2014)	157 enterprises in Taiwan	Questionnaire	Integrating, learning and refactoring capabilities	Financial performance	Dynamic capabilities have positive impacts on enterprise financial performance.
Zott (2003)	—	Simulation	Time point, cost and learning of resource reconfiguration	Financial performance	Time point, cost and learning of resource reconfiguration impose effects on financial performance.
Ettlie & Pavlou (2006)	72 American auto companies	Questionnaire	Dynamic capability of new product development	Innovation performance	New product development capability has positive impacts on the success rate and

Jantunen (2012)	4 Publishing enterprises in northern Europe	Case study	Opportunities perception and grasping and reconfiguration capability	Innovation performance	commercialization of new products. The differences in dynamic capabilities in each dimension cause various innovation performances in the same industry.
Makkonen (2014)	452 enterprises in the shipping, media and food processing industry in Finland	Questionnaire and case study	Regenerative and renewal capacities	Innovation performance	It is found that dynamic capabilities can increase the proportion of sales of new products.

greater impact on corporation performance than social relations. Scholars mainly focus on the direct impact of dynamic capabilities on performance, but a few pay attentions to its mechanism. Scholars generally believe that dynamic capabilities have a positive impact on corporate performance and strategic performance. Some scholars believe that the dynamic capability is one of the keys to finding strategic performance. However, there is still debate about the definition and role of dynamic capabilities in strategic management. In the context of emerging economies such as China, Li and Liu (2014) define dynamic capabilities as the ability of companies to solve problems systematically, to perceive opportunities and threats, timely make decisions to implement strategic decisions and changes, and to explore the relationship between dynamic capabilities and strategic performance. Empirical research from 217 companies in China shows that it is environmental dynamics, rather than regulators, that is the driver of the strategic performance for enterprises.

Fainshmidt and Frazier (2016) have studied the impact of Organizational Climate for Trust on dynamic capabilities. Based on analysis of the impact of Organizational Climate for Trust on corporate sensing capability, seizing capability, and reconfiguration capability, Fainshmidt and Frazier (2016) have studied the impact process of dynamic capabilities and their final impact on the strategic performance of enterprises. Through theoretical research and empirical analysis based on sample data of 209 Israeli companies, it is believed that the social atmosphere within the organization can promote dynamic capabilities. In addition, the empirical analysis also demonstrates that the Organizational Climate for Trust has a certain positive impact on enterprises' sensing capability, seizing capability, reconfiguration capability and strategic performance. At the same time, Organizational Climate for Trust can also follow a path through sensing capability, seizing capability, reconfiguration capability in turn, and ultimately affect the strategic performance of the enterprise.

Chapter 4: Conceptual Model and Hypotheses

4.1 Organizational resources and strategic performance of enterprises

With the large-scale and high-speed development of China's real estate industry, real estate appraisal companies are also facing some development opportunities, but also face this increasingly fierce industry competition. The key resources within the enterprise, as well as the human resources such as professional and technical personnel, the economic payment ability required for business expansion, and the ability of perceiving environmental changes and responding quickly will have a corresponding impact on the business performance of the enterprise. Hamel and Prahalad (1990) publish a thesis in the Harvard Business Review in 1990, *The Core Competitiveness of the Company*, which describes the concept of the core competitiveness of a company as “it is unique to a company, descriptive or unspeakable, a holistic ability to integrate skills, abilities, and expertise” (preface). This ability is unique and hard to imitate, thus bringing greater value to customers and better business performance to the business. Zhou et al. (2009) proposes that the core competitiveness of real estate appraisal enterprises is mainly composed of resource elements, capability elements, operational and integration capabilities, and customer value. Information, human resources, customers, corporate culture, and brand constitute resource elements; market insight, technology innovation, and management level constitute capacity elements. Integration capabilities include the integration of resources and capabilities, talent and material, internal and external resources. Finally the company's continuous innovation, matching of internal resources, capabilities and external environment, providing more efficient, high-quality funding appraisal reports and other quality services while reducing operating costs will add more value to customers and bring better business performance to the company. As a knowledge-intensive industry, real estate appraisal companies pay more attention to the content of professional knowledge. Therefore, Liao (2004) believes that the core competitiveness of such enterprises should emphasize the ability of enterprises to form a set of market adaptability, market occupation and sustainable development in the process of long-term business development. It is a unique and comprehensive strategic performance. Companies need to make customers willing to pay higher prices by providing high-tech appraisal services. Such business ideas can not only bring brand benefits to the company itself,

but also promote the sound development of the entire industry.

Real estate enterprises in China are mostly private enterprises and have two things in common: (1) the founder of the enterprises is the main decision maker and (2) the strategic decisions of the enterprise and the external network relations mainly depend on the decision maker. The so-called TMT only has the right of offering suggestion and carrying out the strategy. The real estate intermediary enterprises in China are knowledge-intensive enterprises, most of which are small private enterprises. Most of their senior management teams are also core employees, and human resources are important resources of enterprises.

According to opinions in section 3.1.3 and 3.1.4, there are many key resources that affect corporate strategic performance. However, due to the late start of China's real estate appraisal enterprises, which should be a knowledge-intensive industry, entrepreneurial characteristics and network relationships are very vital in China, and product homogeneity is serious. Among various key resources, due to the short history of enterprises, it is difficult for enterprises to form a brand effect. In addition, due to the high homogenization of products, it is difficult to reflect technological advantages and specialties in enterprise competition. In view of this, the research on key resources is based on entrepreneurial characteristics, TMT characteristics and network relationships.

Rooted in the concept of resources, Sigal and Arie (2007) study the impact of human capital contributions to performance of small business in the tourism services industry. They use a comprehensive dynamic model to test the performance of small businesses. Surveys from 305 small tourism companies show that entrepreneurial human capital, especially management skills, is the greatest factor affecting performance. This study illustrates the uniqueness of starting up small business, which is also defined as a "life-making enterprise".

Gou (2016) refers in her research that both the leading enterprises and the small and medium-sized enterprises that develop slowly in the cluster, emphasize the important influence of entrepreneurial traits on the development speed of enterprises. The entrepreneur is the soul of an enterprise. The success of an enterprise is because of its entrepreneur; the failure of it is also because of the entrepreneur. At the beginning, the entrepreneur determined the orientation of the enterprise and led a group of people to start a business, which is the entrepreneur's contribution to the enterprise at the starting point. When the enterprise develops to a certain extent, the entrepreneur's management ideas and market discovers can help the enterprise to develop further. To a certain extent, the development of enterprises in

many industries in China cannot be separated from the management ability of entrepreneurs.

TMT is the execution team in the company. It is responsible for the organization and coordination within the company and has great decision-making and control over the business management (Finkelstein & Hambrick, 1996). The company's senior management personnel belong to the most valuable human resources of the company and play the liaison role in the company management. Compared with the boss and the shareholders, they are the specific performers of decisions and important participants in decision-making processes. Team processes are an important factor influencing TMT performance. The individual performance of leaders is transformed into part of team performance through team processes; especially in situations where companies need to adapt quickly to dynamic business conditions (Stephen et al., 2001). In a quantitative study, Li (2008) shows that team communication and team consensus have a direct positive impact on performance results (team performance and firm performance). When the enterprise development faces challenges, the TMT members may unite to deal with it. Based on this, the better senior managers understand and grasp about the company's major decisions, the more effective communication and coordination will be between senior managers. At the same time, senior managers play the role of controlling and leading subordinates to implement the enterprise decisions and, in turn, achieve the management objectives. Therefore, the effective execution of daily work activities by ordinary employees depends to great extent on the quality of senior management.

TMT members come from the top of the enterprise and belong to the strategic development and execution level of the enterprise. They are responsible for the organization and coordination of the entire enterprise and have great decision-making and control over the business management (Li, 2008). Liu (2012) analyzes the relationship between TMT and enterprise performance based on relevant research, and proposes that the senior management team is the main body of enterprise strategic decision-making, and plays an irreplaceable and decisive role in the strategic choice of the enterprise, the future development direction and market positioning, corporate culture building and organizational structure. It is an important indicator of whether a company is growing, competitive, and able to achieve or maintain good business performance in the future. Liu (2012) further builds a conceptual model of TMT behavioral dynamics and corporate performance, and proposes five research hypotheses about the relationship between TMT cohesion, TMT conflict, TMT effectiveness and shared strategic cognition and firm performance. Empirical analysis demonstrates that cohesion,

conflicts, effectiveness, and shared strategic awareness in the TMT can significantly and positively impact business performance.

At home and abroad, the impact of TMT on corporate performance is mainly studied from the aspects of age, education level and tenure of TMT. In terms of age, Tihanyi, Ellstrand, and Daily (2000) conclude that the higher the average age of executive teams, the more conservative corporate strategies would be developed, and it would be easy to miss market opportunities. Huang, Yang, and Zhang (2011) conclude that there is a significant positive correlation between the age heterogeneity and firm performance. Liu and Ren (2015) believe that the age heterogeneity of SME executive team has a positive effect on corporate performance, so the company should regard age heterogeneity as a consideration for building a senior management team. In terms of tenure of TMT, Lee and Park (2010) have found that the greater the difference in the tenure of TMT members, the more willing they are to introduce new products, and thus becoming the leader in the industry. Wang and Li (2007) conclude that the long average tenure of the executive team can improve corporate performance. In terms of education level, Ai et al. (2012) find that the higher the average education degree of the TMT members, the higher the ability to operate, and thus the performance of the company will be better. The empirical results of Huang et al. (2010) also show that the education level of TMT members is significantly beneficial to the growth of the company. In addition, Wang (2013) has found that the heterogeneity of the executive team's functional background will reduce corporate performance, particularly significantly reduce short-term performance and innovation performance. Ndofor, Sirmon, and He (2015) have found that the heterogeneity of executive team characteristics has a positive effect on resource integration activities, and the team can obtain information from various aspects to improve corporate performance.

Regarding the organizational resources, the social network is something very important in business, special when business in the Chinese context are investigated. First, from the perspective of Chinese social culture, China is a society of Confucian culture, a society that pays attention to human relations (Kong & Chen, 2011). Under the influence of Confucian culture, Chinese people attach great importance to various relationships not only at an individual level, but also at organizational level, which has greatly affected China's business environment (Wu et al., 2014). Most business development is inseparable from a wide network of social relationships. Yue and Yao (2016) propose that the enterprise network is to

acquire knowledge resources through the use of physical capital and human capital, and to use social capital (the relationship with suppliers, customers and governments) to obtain operational resources, and ultimately achieve the purpose of affecting performance. A reasonable and legitimate matter may be impossible to be done due to the lack of relationship. Similarly, some things that are not reasonable at all can be successful done as long as people have resources and social network. Second, China is still in the stage of transition from a planned economy to a market economy. Legal rules and legal awareness are still in a very early stage of development, in China. Legal awareness is not strong, legal rules and policies are not perfect, and legal systems are replaced by human practices, habitus and customs. All of these have led to the emergence of rights-seeking in society, and there are different levels of rights-seeking in China from government agencies to business organizations. The government will not avoid rent seeking, in the process of economy-control, so it spurs the corruption of public power executors (Qi & Cao, 2002). The root of corruption is mainly caused by power rent-seeking (Yu, 2005). The existence of power rent-seeking and rent is caused by the government's mandatory power on micro-intervention system. For real estate agencies, many of the business comes from the commission of government agencies. Sometimes, whether or not real estate agencies can obtain the commissioned business does not depend on the capabilities and level of the service provider, but on the private Guanxi with the leaders with control of the business. Therefore, the right to seek rent will inevitably lead that companies with Guanxi resources are more likely to obtain commission business, thereby improving their strategic performance. In the business environment where power rent-seeking and interpersonal relationships exist, network relationship has become a key resource for enterprise organizations.

Dhanasai and Parkhe (2006) propose that the stability of corporate network relations not only helps to strengthen the relationship between members in this network, but also helps enterprises to acquire technological innovation knowledge and thus improve corporate performance. Lee et al. (2010) conclude that network relationship is not only a way to obtain resources, but also contributes to the realization of the intrinsic ability value of enterprises. In China, Zheng, and Dang (2012) propose that enterprise network relationship is the basic path to obtain entrepreneurial resources, and resource acquisition is an important path for social networks to affect corporate performance. Lai, Ding, and Cheng (2013) conclude that network relationships play a regulatory role in the relationship between enterprise product, technology, brand upgrading and enterprise performance, which means that the enhancement of corporate

network relationship can increase the impact of corporate upgrading behavior on corporate performance. Yang and Xia (2016) also believe that the growth performance of enterprises is related to the network relationship and the resources acquired by the enterprise.

Following the above thoughts, the author proposes:

H1a: Entrepreneur traits are positively related to strategic performance.

H1b: The characteristics of senior management are positively related to strategic performance.

H1c: Network relationships are positively related to strategic performance.

4.2 Organizational resources and dynamic capabilities of enterprises

As an emerging economy, China not only shares many common grounds with other economies, but also has its own uniqueness. Li and Liu's (2014) research indicates, for example, that the competitive behaviors of enterprises are characterized by functional disorder in China because of the condition of insufficient market and legal support. Therefore, some scholars suggest that Western theories may not suite a society with totally different social and economic conditions (Lin & Germain, 2003).

Adner and Helfat (2003) conclude that human resources, social capital, and management are three potential factors that influence dynamic capabilities. Gen and Zhang (2010) empirically analyze the logical relationship between entrepreneurial social capital and organizational dynamic capabilities in small private technology enterprises. The results show that entrepreneurs' commercial social capital and technological social capital will promote the technical dynamic capabilities of the organization. Social capital has no significant impact on the dynamic capabilities of organizational technology. Zhang and Liu (2007) point out that organizational culture is the basis for building organizational dynamic capabilities. On the one hand, organizational culture is conducive to promoting the coordination and integration of organizational processes, and on the other hand, organizational culture can promote reconstruction. Xu et al. (2008) takes high-tech enterprises as the research object and found that organizational learning can positively influence organizational dynamic capabilities, and dynamic capabilities can directly affect the strategic performance of enterprises. Schilke (2014) conducts a questionnaire survey of 279 companies. The data analysis shows that dynamic capabilities can provide strategic performance for enterprises; but the external

environment of enterprises can influence the role of dynamic capabilities.

Meng, Liu, and Chai (2016) point out that entrepreneurial traits have a positive impact on enterprise technological innovation. When entrepreneurs are willing to invest more resources to innovate, technological innovation will become more prominent. Ma et al. (2010) have pointed out that entrepreneurial traits have a positive correlation with the formation of dynamic capabilities, but different factors of entrepreneurial traits have different effects on the formation of dynamic capabilities. Han (2009) proves that entrepreneurial traits have a significant, positive and direct impact on the core competence of enterprises. Qiu and Yu (2012) have pointed out that entrepreneurial traits leverage its function on dynamic capabilities via the chain of "entrepreneur traits - organizational improvisation - dynamic capabilities", which puts forward an important thinking on opening the "black box" of the generation of dynamic capabilities. Zhao and Liu (2016) point out that in the composition dimension of entrepreneurial traits, the spirit of innovation has a significant positive impact on the stability of the implementation and the efficiency of the implementation of the new strategy. Jiao and Cui (2007) have found that the correct decision making of entrepreneurs is related to whether dynamic capabilities of enterprises is triggered or not, and it plays the boosting role in activating dynamic capacities. Doving, and Gooderham believe that entrepreneurial traits are dominant in the generation system of dynamic capabilities.

However, in the real estate appraisal industry in China, the implementation and execution of the enterprises decisions need to pass through the senior executives (Wang et al., 2015). It means that the activities of integrating and reconfiguring the organizational resources to seize the opportunities is hardly performed either by the founders or by ordinary employees. Hence, it is very important for enterprises to have a top management team with characteristics that enhance them to successfully execute decisions. As a matter of fact, without the implementation and execution of the enterprises decision, enterprise cannot improve its competitiveness, even its survival can be a problem. To put it in another way, besides the founder of the enterprise, TMT is the most important human resource in the enterprise.

Hambrick and Mason (1984) propose the "high-level echelon view", marking the beginning of the research on TMT (2000). Jessup (1990) has mentioned that the team should have a common goal, and the members depend on each other and promise to achieve the goal. For the relationship between TMT members and dynamic capabilities, Zhang (2018) points

out that information diversity and shared visions among TMT members have a significant role in regulating the impact of dynamic capabilities on corporate performance. Cao and Zhang (2013) argue that the management experience shared by TMT members will bring positive impacts on resource acquisition and the integration capabilities. Liu and Tian (2014) have pointed out that the process of information sharing, joint decision-making and mutual coordination help to improve the high-level dynamic capabilities of enterprises.

Furthermore, the social capital has unique characteristics in China's real estate appraisal industry since China's real estate appraisal originated from serving the government. Therefore, it is natural for companies to have various social and business networks with customers, and there are many studies on the relationship between network and dynamic capabilities.

According to empirical studies of 270 valid samples, You, Liu, and Zhang (2016) proves that business relationships have a significant positive impact on dynamic capabilities, and there is an inverted U-type relationship between political and dynamic capabilities. Ding, Liu, Li and Wang (2015) take the XHF Company as an example, and aim to analyze the formation mechanism of entrepreneurial social capital on dynamic capabilities. The results show that entrepreneurial social capital has a positive causal relationship with corporate dynamic capabilities. Blyler and Coff (2003) argue that social capital is the core of dynamic capabilities. Adner and Helfat (2003) have comprehensively examined various resource elements and considered that dynamic capabilities can be influenced by three potential factors: human resources, social capital, and executive cognition.

On the basis of summarizing previous studies, Helfat (2007) proposes that dynamic capabilities are mainly reflected in the ability to purposefully create, expand and update their resource reserves. Teece and Augier (2009) also point out that the dynamic capability is a kind of operation management ability that reshapes and configures the resources owned by the enterprise to change the business environment, so as to reconstruct the implementation path and way of the enterprise to achieve strategic performance. Eisenhardt and Martin (2000) define dynamic capabilities from a process perspective and point out that dynamic capabilities include resource integration capabilities, resource reconfiguration capabilities, resource acquisition and resource release capabilities. The enterprise with richer network relationships will be stronger than other similar enterprises in terms of resource acquisition ability. In other words, if competitive enterprises have the same level of resource integration, reconstruction and release capabilities, but different levels of network relationships, the enterprise with

richer network relationships will be stronger in terms of resource acquisition ability than other enterprises; and, such situation will lead the former company to acquire, develop and maintain stronger dynamic capabilities. Second, if enterprises cannot access to related sources. Then it will be impossible for them to integrate, reconfigure and release resources. The resource integration, reconstruction and release capabilities cannot be discussed if the enterprise cannot get the resources needed. Third, dynamic capabilities are also expressed as the ability to perceive and identify opportunities. Enterprises with rich network relationships have far more opportunities to obtain valuable information than other companies. With these information, companies can perceive information and identify opportunities so their possibility of choosing and judging opportunities will be greater compared with companies that grasp few information. Fourth, enterprises that rely on network relations to develop tend to reserve relatively strong capital flows earlier, and the growth and development of any enterprise is inseparable from the support of funds and materials. Enterprises developed through network relationship resources normally accumulate better resources required for development, which leads to the development of enterprises better than other enterprises. Here the development also includes smooth development of their dynamic capabilities. It proves that network relationships are positively related to dynamic capabilities. Therefore, according with these authors, the evidence seems to suggest that network relationships are positively related to dynamic capabilities.

Following the above thoughts, the author proposes:

H2a: Entrepreneur traits are positively related to dynamic capabilities.

H2b: The characteristics of senior management are positively related to dynamic capabilities.

H2c: Network relationships are positively related to dynamic capabilities.

4.3 Dynamic capabilities and strategic performance of enterprises

Dynamic capability theory is one of the most important theories to study the competitiveness of enterprises. The influence of dynamic capabilities on corporate strategic performance often has multiple paths. One is that dynamic capability directly affects strategic performance, and the other is other variables affects strategic performance via dynamic capability as a mediator.

Anand (2001) argues that dynamic alliance capabilities enable companies to choose

more credible partners and make their relationships more effective, so that new knowledge can be gained to improve their performance. Teece et al. (1997) points out that dynamic capabilities can update a company's competitiveness and thus its performance, especially in a dynamic market environment. Rindova and Taylor (2002) believe that in a changing environment, dynamic capabilities play a fundamental role in improving management skills to identify and exploit development opportunities. Lee and Rho (2002) suggest that companies' ability to identify and exploit opportunities to respond to environmental changes is a source of strategic performance. Lazonick and Prencipe (2005) have examined Rolls-Royce's dynamic capacity development process in 40 years and propose that the organizational process is the essence to generate innovation dynamic capability and strategic performance; strategy control and financing behaviors are as a strategic control and financing behavior are the necessary conditions to acquire and maintain its dynamic capabilities. Innovation depends on organizational learning, and organizational learning depends on organizational integration. These views pool the academic community's understanding of the value of dynamic capabilities in creating and maintaining strategic performance. However, Eisenhardt and Martin (2000) have shown that having dynamic capabilities does not necessarily lead to superior corporate performance, and dynamic capabilities are only necessary and not sufficient conditions for sustained strategic performance. Zahra, Sapienza, and Davidsson (2006) argue that the impact of dynamic capabilities on organizational performance is through the substantive capability, namely "enterprises know what to do" and organizational knowledge "what enterprises know". Kale and Singh (2007) use the data of American companies from the perspective of the function of the alliance to verify the mechanism of dynamic capabilities in the alliance function and alliance success, and analyze the dynamic competence and alliance performance against the context of enterprise alliance.

Schilke (2014) conducts a questionnaire survey of 279 companies. The results of data analysis show that dynamic capabilities can give enterprises a strategic performance; but the external environment of the enterprise can influence the role of dynamic capabilities. In China, many experts have studied the direct and indirect effects of dynamic capabilities on corporate strategic performance. Cao and Zhao's (2008) study have shown that different dynamic capabilities have different degrees of impact on different aspects of performance. Dynamic external coordination capability can exerts most prominent impacts on all aspects of firm performance in all dimensions. Ma, Song, and Ge (2015) have pointed out that there is a positive correlation between dynamic capabilities and corporate strategic performance when

there are no adjustment factors. Dong, Ge, and Wang's (2011) research suggests that companies with strong dynamic capabilities will gain relatively easy access to strategic performance and its maintenance as dynamic capabilities can enhance the allocation of existing resources and enable rapid response to quickly meet market demand.

Therefore, following the above thoughts, the author proposes:

H3: Dynamic capabilities are positively related to strategic performance.

4.4 Dynamic capabilities as mediator between organizational resources and strategic performance of enterprises

From planned housing to real estate marketization, to the constantly updated regulation and control policies, China's real estate market is in a rapidly changing business environment. Correspondingly, China's real estate appraisal companies are closely following the transformation of the real estate market in China.

Zhou et al. (2009) uses the SWOT analysis framework to comprehensively evaluate the industry environment of real estate appraisal companies in China from the perspective of competitive strategy. Under the influence of the China's monetary easing policy in the past 10 years, the real estate industry has developed rapidly. The significant advantage facing real estate appraisal enterprises is the increase of the overall business demand in the industry. The government and the society have paid increasing attention to real estate appraisal and consultation, which causes diversification of investment entities in the industry, therefore resulting in rapid and boosted development of the industry. Song and Song (2012) believe that with the introduction of property tax, industrial transferring has changed in the industry environment, such as when companies go global. Similarly, regarding the transformation of corporate development strategies, real estate appraisal companies will have new development opportunities. Many domestic real estate companies have rapidly expanded into a comprehensive real estate consulting service field and have become compound real estate agencies.

Compared with the rapid growth of the real estate industry, real estate appraisal companies still face some development bottlenecks and shortcomings. The first is the lack of comprehensive talents capable of professional services. This has become an important constraint to the development of real estate management and valuation related industries. Lao (2017) believes that currently domestic higher education institutions have some drawbacks in the training professionals in real estate and related industries. The educational materials are

outdated, and teaching methods pay overdue emphasis on theories, which causes a lack of practical abilities and the quality of graduates cannot meet employment requirements of the industry.

Secondly, the degree of informatization of operation management is low, and the sharing mechanism of knowledge and capabilities is not well established. The services provided by enterprises in this industry are homogenous, mainly relying on knowledge and experience accumulation of appraisers or consultants who undertakes projects. If there is no support from information technologies, there are always some defects in the accumulation of professional knowledge and information sharing, which will affect the overall service efficiency and quality of the enterprise.

In addition, the entire industry is facing increasingly fierce competition and a crisis of trust caused by non-standard operations. Specific reasons include insufficient normativeness of services and industry supervision, the mismatch between personal skills and professional ethics of practitioners, and homogenization of business, service content and form.

Despite these drawbacks, under the premise of similar organizational resources, there are some other factors that cause significant strategic performance differences among enterprises, making them to develop in different scales and speeds. Therefore, following Eisenhardt and Martin's (2000) suggestion, there should be some factors that may have a moderator or mediator role in the relationship between organizational resources and corporate strategic performance.

Teece (1997) proposes that it is important to restructure and rearrange organizational resources to remain competitive. In the Fainshmidt and Frazier's (2017) and Wilden and Gudergan's (2013) studies, the dynamic capabilities of enterprises include sensing capability, seizing capability, and reconfiguration capability and the reconfiguration capability is the ability to restructure and rearrange organizational resources. Eisenhardt's (2000) study suggests that promoting an internal organizational reform is one of the main roles of dynamic capabilities. Dynamic capabilities focus on the perception and response to the environment, emphasizing timely adjustments, including reconfiguring resources and changing current operational management styles. For example, changes to the production process to optimize products or services, thereby forming scale business.

Chinese scholars (Liu & Liu, 2013; Hu, 2013), based on relevant foreign research, combine the characteristics of the domestic business environment, study the relationship

between dynamic capabilities and corporate innovation performance. Wu and Chen (2014) have found that as for the influence relationship among domestic manufacturing exports, foreign direct investment and innovation performance, the opportunity sensing capability and opportunity utilization ability in dynamic capabilities have a significant intermediary role.

Du, Tian, and Jiang (2009) have found that in the process that network relationship influences corporate performance, dynamic capabilities show a mediating effect. Chen (2011) has discovered that the dynamic capabilities play an intermediary role by studying network relationships of private enterprises in Zhejiang province, and environmental uncertainty plays a regulatory role. Wu (2007) has studied the relationship between entrepreneurial resources and new corporate performance, and verified the significant mediating role of dynamic capabilities in this relationship. Chen's (2013) empirical analysis proves that dynamic capabilities play a partial intermediary role between entrepreneurial spirit and dynamic competence. Elisenhardt and Martin (2000) start from resource-based view, focus on dynamic capabilities and argue that dynamic capabilities are considered to be a specific set of identifiable processes. Although dynamic capabilities are specific in detail and depend on paths when they appear, they have significant commonality among companies.

Therefore, following the above thoughts, the author proposes:

H4a: Dynamic capabilities mediate the positive relationship between entrepreneur traits and strategic performance.

H4b: Dynamic capabilities mediate the positive relationship between characteristics of senior management and strategic performance.

H4c: Dynamic capabilities mediate the positive relationship between network relationships and strategic performance.

4.5 Hypotheses and conceptual model

According to previous parts, hypotheses and conceptual model are shown as table 4-1; the conceptual model is summarized in Figure 4-1.

4.6 Chapter conclusion

This chapter mainly presents the relationship between the key organizational resources,

Table 4-1 Hypotheses of this study

Relation between	Relations among variations	Corresponding hypothesis
Entrepreneurial traits and strategic performance	Entrepreneur traits are positively related to strategic performance.	H1a
TMT characteristics and strategic performance	The characteristics of senior management are positively related to strategic performance.	H1b
Network relationships and strategic performance	Network relationships are positively related to strategic performance.	H1c
Entrepreneurial traits and dynamic capabilities	Entrepreneur traits are positively related to dynamic capabilities.	H2a
TMT characteristics and dynamic capabilities	The characteristics of senior management are positively related to dynamic capabilities.	H2b
Network relationships and dynamic capabilities	Network relationships are positively related to dynamic capabilities.	H2c
Dynamic capabilities and strategic performance	Dynamic capabilities are positively related to strategic performance.	H3
Dynamic capabilities, entrepreneurial traits and strategy performance	Dynamic capabilities mediate the positive relationship between entrepreneur traits and strategic performance.	H4a
Dynamic capabilities, TMT characteristics and strategy performance	Dynamic capabilities mediate the positive relationship between characteristics of senior management and strategic performance.	H4b
Dynamic capabilities, network relationship and strategy performance	Dynamic capabilities mediate the positive relationship between network relationship and strategic performance.	H4c

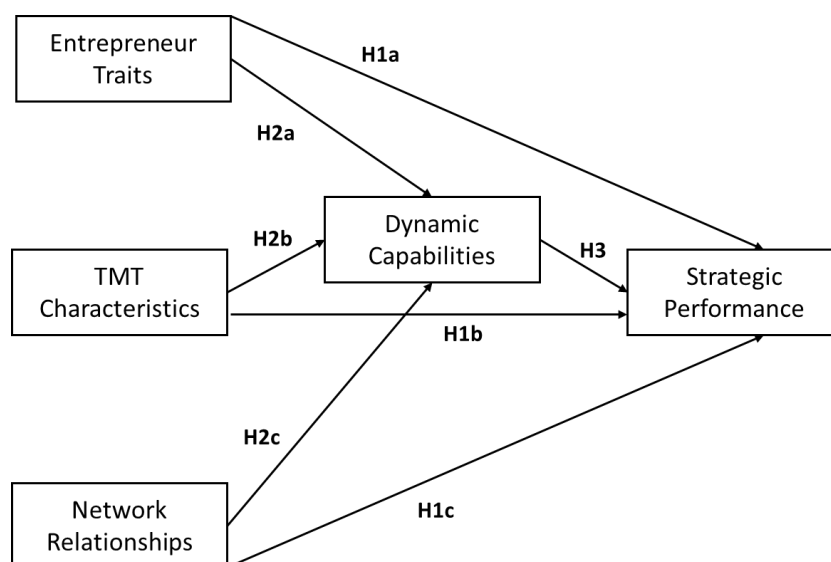


Figure 4-1 The conceptual model

dynamic capabilities and strategic performance, and proposes relevant hypotheses and conceptual models. There are mainly several aspects:

- (1) The impact of corporate resources on strategic performance, including entrepreneurial traits, TMT characteristics, and network relationships.
- (2) The impact of corporate resources of enterprises on dynamic capabilities.
- (3) The impact of dynamic capabilities on strategic performance.
- (4) The mediating role of dynamic capabilities in the relationship between corporate resources and strategic performance.

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Chapter 5: Methodology

5.1 Questionnaire survey

Questionnaire survey is the most commonly used method in quantitative research of management (Xie, 2008). Its advantages are reflected in several aspects (Robson, 2002): First, the questionnaire is a practical way to gather data, because it is easily understood by both the respondent and the researcher. Second, it allows the researcher to gather a large amount of data from many people in a short period of time with low cost. Third, the responses are easily and quickly analyzed, on intuitive software packages. Fourth, the questionnaire keeps the anonymity of respondents, demands short time to be filled in, and do not interfere with the respondent's working or personal life. Fifth, it transcends individual differences and identify patterns and trends which can be linked to social structures, communities, or contexts. The questionnaires of this study mainly focus on the key resources and dynamic capabilities that affect the competitiveness of real estate enterprises and their mechanisms. The questionnaires are required to provide the effective data for the research content. Factor analysis, correlation analysis, T-test, structural model reliability and validity test have been carried out to conduct statistic analysis on empirical results.

The questionnaire has also some weaknesses (Robson, 2002): First, it is designed based on the researcher's knowledge, beliefs and values and, therefore, directly leads the respondent to a predesigned perspective. Second, it limits the amount of information that can be collected about the informants' profile and often requires the participant to provide short and concise answers. Third, the questionnaire restricts the personal contact between the researcher and the participant and has a high rate of incomplete entries. Fourth, respondents may understand the same question in different ways and answer based on their own judgment and interpretation. Fifth, the questionnaire is subject of manipulation from the respondent and there is no way to tell how truthful a response is being.

The questionnaire of this study mainly focuses on the organizational resources and dynamic capabilities that affect the competitiveness of real estate enterprises. The questionnaire is required to provide the effective data for testing the conceptual model.

5.2 Data generation

The working methods and attendance systems of real estate intermediary enterprises have industry specificity, which is the working place and time of employees are determined by the projects. Therefore, the questionnaire survey faces several problems: First, the research hardly meets most respondents. They can only communicate remotely by telephone or email. Second, respondents are restricted by their working hours so it is difficult to get feedback quickly. To solve this issue, this survey uses remote teleconferences to conduct pre-investigation publicity and mobilization; then, to create a WeChat version of the survey based on smartphone terminals, a web-based questionnaire, and a paper- and-pencil questionnaire. Then the research conducts a prize question and answer in these three ways. In order to ensure the quality of the questionnaire, the investigator has done a lot of issues related to the quality of the questionnaire before, during and after the investigation to ensure the validity of the questionnaire. In the process of investigation, regardless of whether the mobile terminal method or the paper method is adopted, the senior executives of the surveyed enterprises are entrusted to conduct supervision.

5.3 Sampling

This study was conducted in companies in the real estate intermediary industry, in Guangdong province, in China. It includes mainly real estate appraisal enterprises and some other real estate intermediary companies.

Data was collected from owners, top executives, and other full-time employees in the organization. Overall, 532 individuals were invited by email, SMS, or phone call to take part in a web-based questionnaire or paper-and-pencil questionnaire survey. A total of 415 individuals started completing the questionnaire (see Appendix) (response rate = 78.0%). The final sample (N=274) does not include those respondents who a) did not respond to any of the items of the core study variables; or b) were working in very small companies (enterprises with less than 5 employees).

All participants were male, with an average job seniority of 5.53 years (SD = 4.31) and average experience of 7.49 years (SD = 5.42) in the real estate industry. 13.9 % of participants were owners, 48.6% occupied managerial positions, and 51.4% occupied other positions in the company.

On average, participant companies have existed for 20 years. They have between 7 and 400 employees, with a mean of 76.0 employees per company (SD = 63.4). 94.5% of the enterprises are POEs.

5.4 Questionnaire

The questionnaire includes four sections. Three refer to core study variables (organizational resources, dynamic capabilities and corporate strategic performance) and one section about socio-demographic and professional information. Based on a systematic review of relevant literature, the author selected mature scales published in Western and Chinese literature. Some minor adjustments were done on the mature scales to meet the actual needs.

All scales were measured on a six-point Likert-type scale, from 1 (strongly disagree) to 6 (strongly agree) to encourage respondents to be positioned in either side of the scale, as Chinese respondents tend to take a middle position in any evaluation process (Trigo, 2003). Furthermore, all participants were informed that their responses are confidential and anonymous.

5.4.1 Key resources of the enterprise

To measure the key organizational resources, it was applied Gou's (2010) instrument, which consists of three constructs: entrepreneurial traits, TMT characteristics, and network relationship. The construct entrepreneurial traits include three dimensions: initiative, innovation, and risk-taking, as follows:

Table 5-1 Entrepreneurial traits

Level	No.	Indicators
Initiative	ET1	Be proactive to collect market information from different channels.
	ET2	Be proactive to identify business opportunities that your enterprise can use.
	ET3	Be proactive to seek solutions when the internal development of your enterprise encounters problems.
	ET4	Be proactive to perceive changes of the external environment.
Innovation	ET5	Continuously put forward new ideas when exploring the market.
	ET6	Continuously produce new business ideals when facing changes of the external environment.
	ET7	Continuously innovate ways of managing your enterprise.

	ET8	Put forward new thinking about the operation model of your enterprise.
Risk-taking	ET9	Courageous to take risks caused by new business through judgment of the situation.
	ET10	Be willing to take risks of expanding the team through judgment of the situation.
	ET11	Be willing to take risks of expanding business scale through judgment of the situation.
	ET12	Be willing to take risks of exploring new market through judgment of the situation.

TMT characteristics are mainly used to analyze the characteristics and performance of the board of directors, senior managers, and other top executives. Two dimensions of ideal consistency and behavioural interaction were selected.

Table 5-2 TMT characteristics

Level	No.	Indicators
idea consistency	TMT1	TMT members' business objectives are consistent.
	TMT2	TMT members have the same value orientation.
	TMT3	TMT members have the same business philosophy.
	TMT4	The TMT team is very cohesive.
behavior interaction	TMT5	When the company's development is facing challenges, TMT members can unite to address them.
	TMT6	Members of TMT have frequent communications.
	TMT7	During the communication and consultation, TMT members can fully express their opinions.
	TMT8	TMT members brainstorm to formulate development strategies together.

The construct network relationship also includes two dimensions: relationship scope and relationship strength.

Table 5-3 Network relationships

Level	No.	Indicators
relationship scope	NR1	The company has a wide range of customer relationships.
	NR2	The company has established extensive cooperative relations with many financial institutions such as banks and fund companies.
	NR3	The company has established extensive contacts with many local government departments.
	NR4	Enterprises have extensive contacts with many social organizations, firms, and consulting organizations.
relationship	NR5	The company maintains long-term and stable business

strength		relationships with major customers.
	NR6	The company maintains a good relationship with the local government.
	NR7	The company maintains regular visits with major customers.
	NR8	The company maintains frequent contacts with local industry associations and affiliates.

5.4.2 Dynamic capabilities of the enterprises

Dynamic capabilities were assessed by a scale originally developed by Wilden's et al. (2013) and later applied in Fainshmidt and Frazier's (2017) study. It includes three dimensions: sensing capability, seizing capability, and reconfiguration capability.

Table 5-4 Dynamic capabilities

Level	No.	Indicators
sensing capability	DC1	In my organization, people participate in professional association activities.
	DC2	We use established processes to identify: (1) target market segments, (2) changing customer needs, and (3) customer innovation.
	DC3	We observe best practices in our sector.
	DC4	We gather economic information on our operations and operational environment.
seizing capability	DC5	We invest in finding solutions for our customers.
	DC6	We adopt the best practices in our sector.
	DC7	We respond to defects pointed out by employees.
	DC8	We change our practices when customer feedback gives us a reason to change.
reconfiguration capability	DC9	We constantly and substantially renew the ways of achieving our targets and objectives.
	DC10	We frequently change our marketing method or strategy.
	DC11	We constantly implement new kinds of management methods.
	DC12	We substantially renew business processes.

5.4.3 Strategic performance of the enterprise

The author measured strategic performance using 3 items taken from Schilke's (2014) instrument and six items from Li and Liu's (2014) original scale.

Table 5-5 Strategic performances

Level	No.	Indicators
Strategic performance	SP1	We have higher profit growth rates than other competitors.
	SP2	We have higher revenue growth rates compared to other competitors.
	SP3	We have lower operating costs compared to other competitors.
	SP4	We have higher quality products and services than other competitors.
	SP5	We have a growing market share compared to other competitors.
	SP6	Compared with other competitors, we have more profitable old customers.
	SP7	Compared with other competitors, we have more profitable new customers.
	SP8	We have gained strategic advantages over our competitors.
	SP9	Overall, we are more successful than our major competitors.

5.4.4 Socio-demographic and professional information

The questionnaire also gathered information about the participant and the organization. Regarding the participant, it was collected the following information: education, job position, industry tenure, and company tenure. Information about the organization included company age, region where it runs business, area of core business, number of employees, and ownership structure.

5.5 Statistical analysis

The research analyzed the questionnaire responses to test the proposed research model by employing the partial least squares-based SEM (PLS-SEM).

Researchers applying SEM can choose between a covariance-based SEM (CB-SEM) or a variance-based SEM, known as partial least squares-based SEM (PLS-SEM) (Hair et al., 2012). Each approach has different assumptions and aims. CB-SEM involves a maximum likelihood procedure whose goal is to minimize the difference between the observed and estimated covariance matrices, without focusing on explaining variance. PLS-SEM, on the other hand, focuses on maximizing the explained variance of the endogenous constructs. CB-SEM is often suggested for confirmatory studies where the theory is strong, whereas

PLS-SEM is more suitable for exploratory studies in finding evaluating causal relations (Hair et al., 2012).

The PLS-SEM was the most appropriate method to estimate the measurement and structural model for five reasons. First, the focus of the study is as explanatory as predictive of the variance in the main measurement constructs (e.g., entrepreneur traits and TMT characteristics (Hair et al., 2012). Second, the relationship between organizational resources, dynamic capabilities and strategic performance is believed to be in an earlier stage of theory development and thus creates the opportunity to explore such phenomenon. Third, the research model is complex according to the type of relationships (direct and mediation) within the hypotheses and the level of dimensionality (Hair et al., 2012). Fourth, PLS-SEM has greater statistical power than common maximum-likelihood CB-SEM methods (Reinartz et al., 2009) under conditions of non-normality (Tenenhaus et al., 2005) and small sample size (Henseler et al., 2009). In this study, the sample is not very large ($n = 274$) and the measurement constructs entrepreneur traits and TMT characteristics do not follow the normal distribution. Fifth, PLS-SEM is a well-established variance-based SEM technique in the strategic management literature (Bauer & Matzler, 2014).

This study used SmartPLS 3 (Ringle et al., 2015) for the PLS analysis. Data analysis proceeded into two steps: measurement model and structural model (Hair et al., 2012). The research then applies both the bootstrapping re-sampling algorithm to estimate the significant levels of weights and path coefficients and the blindfolded procedure to assess prediction validity (Hair et al., 2012).

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Chapter 6: Data Analysis and Results

6.1 Measurement model

This research firstly assesses the measurement model by means of the outer loadings. As expected, almost all indicators have outer loadings greater than the recommend threshold of 0.7 on the five reflective measurement models: they vary from 0.71 (ET7) to 0.88 (SP9) and are statistically significant ($p < 0.001$). ET7 means Continuously innovate ways of managing your enterprise and SP9 means overall, we are more successful than our major competitors. Only seven indicators had small outer loadings and were deleted from the original model: four indicators for the entrepreneur traits (ET1, ET6, ET8, and ET9), two indicators for the dynamic capabilities (DC6 and DC11). DC11 means one indicator for strategic performance (SP3). A subsequent analysis in which the above measurement items were omitted demonstrated that dropping these indicators did not have any impact on the pattern of effects for all hypothesized relationships. Table 6-1 presents the specific results.

Furthermore, to accomplish the assessment of the measurement model for reflective constructs, this study also analyzes the quality criteria of the latent variables. The tests relating to internal consistency reliability show that Cronbach's alpha (α) and composite reliability (CR) scores are above the proposed cut-off value of 0.70 (Field, 2009; Bagozzi & Yi, 1988). These results indicate that the models are internally reliable. For convergent validity, the average variance extracted (AVE) values are greater than 0.5 for all the measurement constructs (see Table 6-1). These results indicate satisfactory convergent validity. To assess discriminant validity, the traditional Fornell-Larcker criterion establishes that the square root of the variances between the constructs and their measures (AVEs) should be greater than the inter-correlations scores (Fornell & Larcker, 1981). In this study, the constructs entrepreneur traits and TMT characteristics seem not to be sufficiently different (inter-correlation = 0.79 > $\sqrt{\text{AVE}} = 0.77$; see Table 6-2). However, knowing that the Fornell-Larcker criterion performs poorly when indicator loadings of the investigated measurement constructs differ only slightly, Henseler et al. (2015) propose the heterotrait-monotrait (HTMT) criterion in variance-based structural equation modelling. Following Henseler's et al. (2015) suggestion, it was employed the HTMT criterion. In addition, the bootstrapping procedure with 5000 resamples (Hair et al., 2017) was used to calculate the percentile bootstrap 95% confidence interval (Chin, 2010) and test whether the

measurement constructs are empirically distinct. If the confidence intervals do not contain the value one, then the measurement constructs differ from each other. The HTMT matrix values are all below a maximum threshold of 0.90 and the HTMT bootstrapping analysis of the upper confidence intervals (97.5%) indicate values below one (see Table 6-3). These results indicate adequate discriminant validity within the data.

Table 6-1 Reliability and validity for the complete data

Constructs	Indicators	Outer loadings	α	CR	AVE
Entrepreneur traits	ET2	0,784	0,90	0,92	0,59
	ET3	0,743			
	ET4	0,786			
	ET5	0,810			
	ET7	0,726			
	ET10	0,753			
	ET11	0,786			
	ET12	0,731			
TMT characteristics	TMT1	0,790	0,93	0,94	0,67
	TMT2	0,840			
	TMT3	0,843			
	TMT4	0,808			
	TMT5	0,786			
	TMT6	0,801			
	TMT7	0,854			
	TMT8	0,843			
Network relationships	NR1	0,795	0,92	0,94	0,64
	NR2	0,815			
	NR3	0,777			
	NR4	0,835			
	NR5	0,813			
	NR6	0,821			
	NR7	0,804			
	NR8	0,750			
Dynamic capabilities	DC1	0,733	0,94	0,95	0,64
	DC2	0,787			
	DC3	0,770			
	DC4	0,827			
	DC5	0,838			
	DC7	0,786			
	DC8	0,807			

	DC9	0,825			
	DC10	0,789			
	DC12	0,806			
Strategic performance	CA1	0,842	0,93	0,95	0,68
	CA2	0,809			
	CA4	0,792			
	CA5	0,849			
	CA6	0,762			
	CA7	0,847			
	CA8	0,806			
	CA9	0,887			

Table 6-2 Discriminant validity assessment. fornell-larcker criterion

	Entrepreneur traits	TMT characteristics	Network relationships	Dynamic Capabilities	Strategic Performance
Entrepreneur traits	0,77				
TMT characteristics	0,79	0,82			
Network relationships	0,69	0,66	0,80		
Dynamic Capabilities	0,76	0,77	0,77	0,80	
Strategic Performance	0,62	0,60	0,67	0,78	0,83

Notes: Diagonal elements (bold) are the square root of the variance shared between the constructs and their measures (AVE). For discriminant validity, diagonal elements should be larger than off-diagonal elements. Off-diagonal elements are the correlations among constructs.

Table 6-3 Discriminant validity assessment. heterotrait-monotrait ratio (HTMT)

	Entrepreneur traits	TMT characteristics	Network relationships	Dynamic Capabilities	Strategic Performance
Entrepreneur traits					
TMT characteristics	0,86				
Network relationships	0,76	0,71			
Dynamic Capabilities	0,83	0,82	0,83		
Strategic Performance	0,67	0,64	0,71	0,83	

6.2 Structural model

Having confirmed that the measurement constructs are reliable and valid, the next step consists on the assessment of the structural model by investigating the model's explanatory

ability – i.e., whether the proposed research model properly explains the relationship between organizational resources (entrepreneurial traits, TMT characteristics, network relationships) and strategic performance. To evaluate the proposed research model, this research employs the following criteria: coefficient of determination (R^2) estimates, f^2 values, standardized path coefficients (β), and standardized root square residuals (SRMR) (Henseler et al., 2014). Additionally, the blindfolding procedure indicates the Stone-Geisser Q^2 value, which assesses the predictive capacity of the model. Both the bootstrapping procedure with replacement (5000 resamples) (Hair et al., 2107) and the percentile bootstrap 95% confidence interval (Chin, 2010; Wood, 2005) show the statistical significance of the path coefficients. Finally, following Lacobucci et al. (2007), this study also uses the variance accounts for values (VAF) for testing the mediation effects. Figure 6-1 presents the results of the PLS estimation.

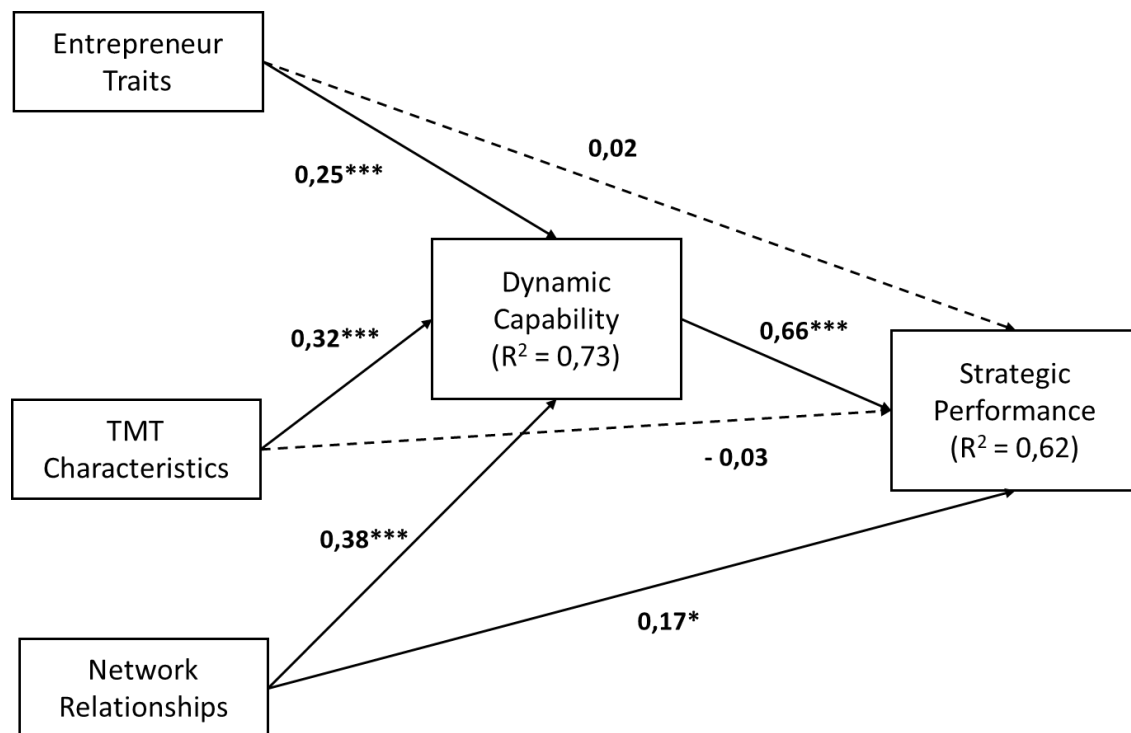


Figure 6-1 Results of the PLS estimation

Regarding the overall explanatory power, the proposed three organizational resources explain 73% (R^2) of variance of dynamic capabilities; and the model explains 62% (R^2) of variance of strategic performance (see Figure 6-1). Both R^2 values indicate substantial prediction power for the proposed research model (Segarra-Moliner & Moliner-Tena, 2016). Additionally, the calculation of Cohen's f^2 values further allows the evaluation of the relative impact of an exogenous variable on an endogenous construct (Cohen, 1988; Henseler et al.

2009). Values of 0.02, 0.15, and 0.35 indicate a weak, medium, or large effect size. Table 6-4 shows that the precursor of dynamic capabilities is network relationships ($f^2 = 0.26$) followed by TMT characteristics ($f^2 = 0.13$) and entrepreneur traits ($f^2 = 0.07$). Network relationships and dynamic capabilities have a weak and large influence in explaining the strategic performance ($f^2 = 0.03$; $f^2 = 0.31$, respectively).

Table 6-4 Effect size analysis

Hypothesized relationship	f^2 value	Effect size
Entrepreneur traits --> Strategic performance (H1a)	0,00	No
TMT characteristics --> Strategic performance (H1b)	0,00	No
Network relationships --> Strategic performance (H1c)	0,03	Weak
Entrepreneur traits --> Dynamic capabilities (H2a)	0,07	Weak-medium
TMT characteristics --> Dynamic capabilities (H2b)	0,13	Medium
Network relationships --> Dynamic capabilities (H2c)	0,26	Medium-large
Dynamic capabilities --> Strategic performance (H3)	0,31	Large

Similarly, the blindfolding procedure, which uses an omission distance of 5 and cross-validated redundancy approach, produces the Stone-Geisser Q^2 values (Hair et al., 2017). For PLS_SEM models, a Q^2 value larger than zero in the cross-validated redundancy report indicates predictive relevance (Henseler et al., 2009). Since all Q^2 values are considerably above zero, all endogenous constructs show adequate predictive abilities (see Table 6-5).

6.2.1 Direct effects

The beta coefficients and their significant level are also individual measures of the explanatory power of the structural model. In this study, this analysis is complemented with the bootstrap confidence intervals. Confidence intervals are less liable to misunderstanding than the p-value, and also provide information about the effect size, which the p-value does not (Wood, 2005). Table 6-5 shows that almost all proposed paths are statistically significant at the 5% significant level.

Concerning Hypotheses 1a – c, the data supports the assumption that network relationships (H1c; $\beta = 0.17$, $p < 0.05$) has a positive impact on strategic performance. However, the paths from the entrepreneur traits to strategic performance (H1a; $\beta = 0.02$, $p > 0.05$) and from TMT characteristics to strategic performance (H1b; $\beta = -0.03$, $p > 0.05$) are

not significant. Concerning Hypotheses H2a – c, the analysis reveals that entrepreneur traits (H2a; $\beta = 0.25$, $p < 0.001$), TMT characteristics (H2b; $\beta = 0.32$, $p < 0.001$), and network relationship (H2c; $\beta = 0.38$, $p < 0.001$) have a positive influence on dynamic capabilities. Hypothesis 3, which proposes that dynamic capabilities has a positive impact on strategic performance, is also supported (H3; $\beta = 0.66$, $p < 0.001$). These results are also reiterated by the confidence intervals (lower and upper) at the 95% confidence level. Therefore, the empirical results support hypotheses H1c, H2a, H2b, H2c, and H3, whereas the results do not support hypotheses H1a and H1b.

Table 6-5 Direct effects of the structural model

Structural Path	Hypotheses		Path coefficient	t-Value (bootstrap)	Percentile 95% confidence interval
	Number	Sign			
Entrepreneur traits --> Dynamic capabilities	H2a	+	0,25***	4,01	[0,12 - 0,37]
TMT characteristics --> Dynamic capabilities	H2b	+	0,32***	4,50	[0,19 - 0,47]
Network relationship --> Dynamic capabilities	H2c	+	0,38***	6,47	[0,26 - 0,49]
Entrepreneur traits --> Strategic performance	H1a	+	0,02	0,28	[-0,11 - 0,17]
TMT characteristics --> Strategic performance	H1b	+	-0,03	0,42	[-0,17 - 0,11]
Network relationship --> Strategic performance	H1c	+	0,17*	2,46	[0,02 - 0,29]
Dynamic capabilities --> Strategic performance	H3	+	0,66***	8,52	[0,51 - 0,81]

SRMR composite model = 0,054

R^2 (Dynamic capabilities) = 0.727; Q^2 (Dynamic capabilities) = 0.403

R^2 (Strategic performance) = 0.62; Q^2 (Strategic performance) = 0.368

Note: If a confidence interval for an estimated path coefficient does not include the value zero, then the null hypothesis ($H_0: \beta = 0$) is rejected.

Bootstrap 95% confidence intervals bias corrected (based on $n = 5000$ subsamples).

* $p < 0,05$; ** $p < 0,01$; *** $p < 0,001$ (based on $t(4999)$, two tailed test); $t(0,05; 4999) = 1,96$; $t(0,01; 4999) = 2,58$; and $t(0,001; 4999) = 3,29$.

SRMR = Standardized root mean square residuals; R^2 = Determination coefficient; Threshold for R^2 value ≤ 0.25 (weak), between 0.25 and 0.66 (moderate), and ≥ 0.66 (substantial). Threshold for Q^2 value > 0 indicate predictive relevance.

6.2.2 Indirect effects

The study further includes mediation effects of dynamic capabilities in the links between:

entrepreneur traits and strategic performance, TMT characteristics and strategic performance, and network relationships and strategic performance. Again, to test the significance of the indirect effect, information about the p-value is complemented with percentile bootstrap at 95% confidence intervals (Wood, 2005) (see Table 6-6). In the cases where the direct effects are not significant, the results confirm that dynamic capabilities full mediates the relationship between the exogenous and endogenous constructs: entrepreneur traits and strategic performance (H4a; $\beta = 0.16$, $p < 0.001$) and TMT characteristics and strategic performance (H4b; $\beta = 0.21$, $p < 0.001$) (Zhao et al., 2010). Table 6-6 also reports a partial mediation of dynamic capabilities in the relation between network relationships and strategic performance, because the direct (H1c; $\beta = 0.17$, $p < 0.05$) and the indirect effects (H4c; $\beta = 0.25$, $p < 0.001$) are both significant (Baron and Kenny, 1986). Further, this research calculates the variance accounted for (VAF) index (Hair et al., 2017), which determines how much the mediator construct absorbs of the total effect. When the VAF has an outcome between 20% and 80%, it reveals the existence of a partial mediation. In the studied case, the size of the indirect effect in relation to the total effect is 60.42%, which confirms the expectation of partial mediation. Therefore, the empirical results support hypotheses H4a, H4b, and H4c.

Table 6-6 Indirect effects of the structural model

Structural Path	Hypotheses		Path coefficient	t-Value (bootstrap)	Percentile 95% confidence intervals	VAF
	Number	Sign				
Entrepreneur traits --> Strategic performance	H4a	+	0,16***	3,63	[0,08 - 0,25]	
TMT characteristics --> Strategic performance	H4b	+	0,21***	3,96	[0,12 - 0,33]	
Network relationship --> Strategic performance	H4c	+	0,25***	4,95	[0,16 - 0,36]	60,24%

Note: If a confidence interval for an estimated path coefficient does not include the value zero, then the null hypothesis ($H_0: \beta = 0$) is rejected.

Bootstrap 95% confidence intervals bias corrected (based on $n = 5000$ subsamples).

* $p < 0,05$; ** $p < 0,01$; *** $p < 0,001$ (based on $t(4999)$, two tailed test); $t(0,05; 4999) = 1,96$; $t(0,01; 4999) = 2,58$; and $t(0,001; 4999) = 3,29$.

6.2.3 Model fit

Finally, this research also calculates the overall model fit by examining the standardized root mean square residuals (SRMR) as the root mean square discrepancy between the observed correlations and the model-implied correlations (Hu & Bentler, 1999). Following

Henseler et al. (2014), this study refers to the standardized root mean square residuals (SRMR) as an index for model validation. In the studied case, the model shows a good fit with the data (SRMR = 0.05) with SRMR being within the relevant limit (values < 0.08 suggest good fit; Henseler et al., 2014) (see Table 6-5).

Chapter 7: Discussions

The author conducted empirical analysis and obtained corresponding conclusions. Considering that the researcher is the shareholder of a real estate appraisal enterprise and one of first practitioners in China's real estate appraisal industry, considering the essence of a DBA project, the author will discuss and interpret the findings from a perspective different from traditional academic research.

Researchers in traditional research institutions often do not have long-term experience and practice in senior management of an enterprise. Therefore, when they explain research findings, they are more likely to use archive data and second-hand document. However, the author believes that his own experience may be useful to interpret the research results. Hence, the discussion of the findings will be done by using different information sources:

1. his own experience and lessons learnt in the real estate appraisal industry;
2. the perspective of other senior executives with whom he has conducted informal conversations throughout this journey;
3. available studies on the literature; and,
4. reports published by the Chinese government official organisms.

7.1 Main conclusions of empirical analysis

The results of the research study can be seen in Table 7-1.

7.2 Analysis of the research results

7.2.1 Organizational resources (entrepreneurial traits, TMT characteristics, and network relationships) and the strategic performance of enterprises

The research shows that network relationships, but not entrepreneurial traits and TMT characteristics, affect positively the strategic performance of the enterprises. So, hypothesis H1c is supported but hypotheses H1a and H1b are not supported by data.

Table 7-1 Main conclusions about the hypotheses

No.	Hypothesis	Result
H1a	Entrepreneur traits are positively related to strategic performance.	Not support
H1b	The characteristics of senior management are positively related to strategic performance.	Not support
H1c	Network relationships are positively related to strategic performance.	Support
H2a	Entrepreneur traits are positively related to dynamic capabilities.	Support
H2b	The characteristics of senior management are positively related to dynamic capabilities.	Support
H2c	Network relationships are positively related to dynamic capabilities.	Support
H3	Dynamic capabilities are positively related to strategic performance.	Support
H4a	Dynamic capabilities mediate the positive relationship between entrepreneur traits and strategic performance such that this relationship is stronger for companies with high dynamic capabilities than for companies with low dynamic capabilities.	Support
H4b	Dynamic capabilities mediate the positive relationship between characteristics of senior management and strategic performance such that this relationship is stronger for companies with high dynamic capabilities than for companies with low dynamic capabilities.	Support
H4c	Dynamic capabilities mediate the positive relationship between network relationships and strategic performance such that this relationship is stronger for companies with high dynamic capabilities than for companies with low dynamic capabilities.	Support

Firstly, since the foundation of Chinese culture is Confucian culture, the core of Confucian culture is the human relation. China has always been a society that emphasizes Guanxi, and its roles and interests have extremely delicate connections. The Guanxi not only constitutes the business environment outside the enterprise, but also the unique resources within the enterprise, so Guanxi will inevitably affect the business habits, strategic planning and decision-making system (Qiao & Jin, 2009). Guanxi in Chinese context usually emphasizes informal relations, which is different from the contract-based formal relationship in most cases. Informal relations include the political relationship between the firm and the government and the business relationship between the firm and the partner (Peng & Luo, 2000). This type of relationship is also known as “Managerial Ties”. Political relationship refers to the social relationship established between the management of the company and the heads of government, administrative bodies and industry associations at home. The contract-based business relationship refers to the relationships between the enterprise management and domestic enterprise customers, suppliers at all levels, competitors in the same industry and social relations established by managers. Luo and Peng (2000) point out that individuals or business organizations can ensure strategic performance by establishing a network of relationships. Wellman, Chen, and Dong (2002) also believe that conducting business practices based on relational networks can reduce transaction costs and uncertainty and obtain useful resources.

Even though China is now changing from a planned economic system to a market economic system, social relations are key resources that facilitate collective action and help individuals, organizations or social groups to achieve their own interests (Lin, 2001). In the literature, a common term to designate social relations and its inherent resources is social capital. Social capital has been studied to explain several managerial phenomena, such as managerial performance (Moran, 2005), business growth (Stam, Arzlanian, & Elfring, 2014), supply chain relations (McGrath & Sparks, 2005), and strategic alliances (Koka & Prescott, 2002). Hence, the research findings that support the positive link between network relationships and strategic performance are corroborated by the literature.

Secondly, knowing that the Chinese real estate appraisal industry started in the mid-1990s and has only grown for about 20 years, it is not surprised that Confucian culture has a strong influence in the way that people run businesses. The advantages and disadvantages of the early and actual competitiveness of China's real estate appraisal institutions have been determined by the network relationship (Peng, 2013). Until now, in the industry ranking of the China Association of Real Estate Appraisers, most of the first-tier enterprises used to be government agencies, and among these companies, the biggest factors that affect strategic performance is network relationships. In these cases, the founders of these companies are often not professionals in the real estate appraisal industry. However, they have rich network relationships. So, as long as early appraisal companies have strong network relationships, they often show higher strategic performance. Consequently, the founder's traits, whether they are conservative, risky or innovative, would poorly influence strategic performance. Therefore, in the real estate appraisal industry in China, network relationships, but not entrepreneur traits, are positively related to strategic performance.

Thirdly, with the deepened development of the appraisal industry, the competitiveness of enterprises is becoming increasingly stronger and advantages of brand have been formed. Consequently, enterprises that used to have similar competitiveness features have become more and more differentiated (website of China Association of Real Estate Appraisers). Those enterprises, in which the founder has retired while professional managers have been hired to take charge of the daily management of the enterprise, have made a twofold investment: the social network introduced by the new managers and business brand. Other early-founded enterprises continue to simply rely on the founder's way of running business, but their competition is weakening: they lack brand advantage and do not have financial funds to

attract professional managers. So, again, it is the network relationships and its extension associated with aggressive marketing posture that dictates the success of the organizations.

Fourthly, the real estate industry is characterised by a tremendous mobility of ordinary employees, middle managers and senior executives (Ying, 2012). On one side, the investment in training new employees is very small; on the other side, it is easy to replace current employees since performing the appraisal tasks does not require special knowledge or skills. In addition, due to the short development time of China's real estate appraisal industry, there is not a significant diversification of enterprises, resulting in serious homogenization of expertise and skills across enterprises. These two reasons seem to support the idea that TMT characteristics do not directly influence the performance of the organizations.

7.2.2 Organizational resources (entrepreneurial traits, TMT characteristics, and network relationships) and dynamic capabilities

This study has shown that entrepreneurial traits, TMT characteristics, and network relationships have a positive impact on the dynamic capabilities of the firm. Therefore, the assumptions H2a, H2b, and H2c are supported.

First of all, entrepreneurial traits include an open mindset, courage, risk-taking, and innovation (Chen & Zhang, 2006). Chen et al. (2017) points out that entrepreneurs who are more creative will seek and exchange new knowledge and technologies in a wider range; entrepreneurs with more prominent cooperative traits tend to cooperate with more organizations to acquire new ideas and technologies; entrepreneurs with high risk-taking spirits are willing to act alone in spite of R&D uncertainties. Therefore, these entrepreneurs have higher entrepreneurial traits.

In this case, if entrepreneurs can identify and perceive internal and external environmental changes, normally there is no motivation or courage to take risks. Non risk-taking entrepreneurs often hesitate when encountering opportunities or pay inappropriately too much attention to the costs of seizing opportunities. Decisions cannot often be decisively implemented, and opportunities are lost. On the contrary, entrepreneurs with high entrepreneurial traits tend to be more adventurous and innovative. They are prone to actively perceive, integrate and reconstruct resources. Accordingly, they more easily acknowledge and enhance the adaptation to internal and external environments, which in turn bring stronger dynamic capabilities to the company than those with low entrepreneurial traits

(Tang & Zhang, 2015).

Secondly, great TMT traits refers to cohesion and good communication; members can brainstorm together and participate in strategy formulation; when the enterprise face development challenges, the senior management team can keep good communication to tackle them (Wang, 2016). When companies have the opportunity to hire managers with rich experience in corporate management, the senior management team is the second most important actor after the shareholders and founders of the enterprise. It means that shareholders and founders mainly grasp the development goals and direction of the enterprise, while the implementation is undertaken by the senior management. However, many real estate appraisal organizations cannot hire competent managers. Wang, Senaratne, and Rafiq (2015) argue that the TMT plays a decisive role in the formulation and implementation of the company's strategy, especially in strategy implementation. On one side, founders may have no time; on the other side, ordinary employees may lack the skills and competences to do it. Therefore, for enterprises, the higher the TMT characteristics, the stronger the execution and implementation ability of enterprises, and the ability to truly integrate and reconstruct resources, so as to seize opportunities and promote enterprise development. With all those, TMT characteristics are positively related to dynamic capabilities.

Thirdly, knowing that dynamic capabilities are the ability to adapt to internal and external environments (Tang & Zhang, 2015), enterprises that have rich social networks seem to be naturally stronger to navigate in a complex and ever-changing environment than those companies with similar conditions in terms of entrepreneur traits and TMT characteristics but less network relationships (Zhu et al., 2010). Furthermore, dynamic capabilities are also expressed as the ability to perceive and identify opportunities. Enterprises with rich network relationships can have far more opportunities to obtain valuable information than other companies with low network relationships, so the former companies would have stronger ability to perceive and identify opportunities (Xiong, 2016).

Fourthly, some scholars argue that certain organizational resources are valued over others, and can help or hinder the ability to sensing, seizing and reconfiguring resources. In this study, the findings indicate that network relationships have a stronger and positive influence on dynamic capabilities than both entrepreneur traits and TMT characteristics. Based on empirical studies of 270 valid samples, You et al. (2016) find that business relationships have a significant positive impact on dynamic capabilities, and there is an inverted U-type

relationship between political and dynamic capabilities. Ding et al. (2015) take XHF as an example and their research proves that entrepreneurs' social capital has positive causal relationship with enterprise dynamics. Yang and Yuan (2008) have pointed out that entrepreneurs can mobilize resources embedded in their social network, such as information, capital, technology, policy support and so forth, through ways of integration, update, and configuration to accumulate and enhance dynamic capabilities of the enterprise. Therefore, enterprises that develop through network relationship resources may have better foundation to improve their dynamic capabilities than companies that rely on entrepreneur traits or TMT characteristics.

7.2.3 Dynamic capabilities and strategic performance

This research shows that dynamic capabilities have a positive impact on the strategic performance of the company, thus supporting hypothesis H3.

Dynamic capabilities are the ability to enhance oneself in a complex and ever-changing environment, that is, the ability to adapt to internal and external environments. Dynamic capabilities include sensing, seizing and reconfiguration capabilities (Bao & Long, 2015). If an enterprise has weak capabilities – i.e., it cannot sense, seize, and reconfigure resources –, it is expected that this enterprise will not perform well.

With the emergency of modern technologies, the environment is becoming increasingly complex and the competition is becoming increasingly fierce. More and more many enterprises feel that they have been unable to adapt to the high-speed market. To obtain a sustainable strategic performance and ensure corporate performance, companies are always looking for new ways. According with Niu (2014), dynamic capabilities are a source of sustainable strategic performance and contribute to the improvement of corporate performance.

Dynamic capability is an inevitable way for enterprises to gain strategic performance in a strong competitive environment. It is an ability that enterprises generate in a dynamic environment to respond to dynamic and changing environments. Because dynamic capabilities contain tacit knowledge, they have inherent ambiguity. Building dynamic capabilities is closely related to the development of the organization, so it also has paths. In addition, dynamic capabilities are made up of multiple capabilities that interact and embed into organizational processes, demonstrating the company's unique values and organizational

culture (Zeng & Lan, 2009). Therefore, dynamic capabilities are an important source of sustained strategic performance and high-level performance due to their complexity, continuity, specificity, difficulty in copying and imitation (Liu, 2013).

7.2.4 Mediating role of dynamic capabilities between organizational resources and strategic performance

This study has shown that entrepreneurial traits, TMT characteristics, and network relationships have a positive impact on corporate strategic performance through the mediating role of dynamic capabilities. Therefore, hypothesis H4a, H4b, and H4c are supported.

First, findings show that dynamic capabilities full mediate the relationship between entrepreneurial traits and strategic performance, and between senior management characteristics and strategic performance. A possible explanation for these results is associated with resource integration and reorganization, and Teece et al. (1997) first propose the concept of dynamic capabilities in 1997. He defines dynamic capabilities as the ability of enterprises to integrate, build, and reconstruct internal and external capabilities to adapt to rapidly changing environments. If the organizational resources of two entrepreneurs are similar, but one of the companies has weaker dynamic capabilities than another, the former company has more difficulties to effectively identify and grasping opportunities, integrate and reconfigure resources to achieve greater profits. Further, if entrepreneurs are not able to integrate and use resources efficiently, the corporate development would be hindered. No matter how strong entrepreneur's traits are, founders and stakeholders must also pay attention to the development and improvement of the dynamic capabilities of enterprises. Otherwise, the competitiveness of enterprises will be affected (Wei & Jiao, 2007). Similarly, if enterprises have good dynamic capabilities, it indicates that enterprises have resource integration capabilities, resource reconfiguration capabilities, and resource acquisition and releasing capabilities (Hai, 2012). In this way, these enterprises can integrate and reconstruct the senior management resources to make the best use of them, so as to bring out the potential of senior management, promote the strategic performance and strategic performance of the enterprise.

Secondly, the study further reveals that dynamic capabilities partially mediates the relationship between network relationships and strategic performance. On one side, network relationships and dynamic capabilities can both affect strategic performance; on the other side, network relationships are able to influence the dynamic capabilities, which in turn are able to

influence the strategic performance. Therefore, enterprises with strong network relationships and strong dynamic capabilities seem to be able to improve their strategic performance.

To sum up, dynamic capabilities are a key factor to improve the strategic performance of enterprises. Dynamic capabilities serve as a mediating bridge to enable entrepreneurial traits, TMT characteristics, and network relationships to indirectly influence strategic performance (Zhang, 2014). Regarding the organizational resources, network relations can also directly affect the strategic performance of enterprises. No matter established in an early stage or in a relatively late stage, enterprises always pay attention to the building of network relations (Ying, 2010). On the literature, Li (2012) also found that the key to improve the strategic performance of enterprises in China is to enhance network relationships and dynamic capabilities, and the direct influence of entrepreneurial traits and TMT characteristics are not obvious on the strategic performance.

Therefore, in Chinese real estate appraisal enterprises, if enterprises intend to improve the strategic performance, the priority would be to pay attention to its network relationship resources and dynamic capabilities. Enterprises need to invest great resources to strengthen network relationship and dynamic capabilities. Although entrepreneurial traits and executive team characteristics are very important, they may not be the first priority, and this is an issue that needs to be paid attention to when assessing resource allocation of enterprise management.

However, given that the market is becoming more sophisticated and competitive, it is expected that the influence of network relationships on strategic performance would become gradually weaker. As a matter of fact, with the deepened development of the market mechanism, factors such as corporate-based brand and corporate reputation will have greater impacts on the strategic performance of enterprises (Otubanjo, 2018; Brønn & Brønn 2015; Fainshmidt & Frazier, 2017). In addition, in China, the asset appraisal industry is highly connected with the government and a large proportion of the business comes from the government. Some enterprises deliberately maintain good relations with the government, but only few of them are still able to maintain the portfolio of state-owned assets. Nowadays, the direct governmental people responsible for this kind of business are increasingly entrusting the business to companies with a good corporate reputation but an ordinary relationship rather than to companies with which they have the best relationship but are still unknown in the market (senior executive of GC Company, a real estate enterprise in Guangdong).

Chapter 8: Conclusions and Suggestions

8.1 Research process and main conclusions

This study searches the key factors that facilitate or hinder the performance of the organization from the perspective of resource-based view, aiming at explaining the interplay between organizational resources, dynamic capabilities, and strategic performance. Based on the existing Chinese and foreign literatures, a conceptual model is developed for analyzing the influence of organizational resources and dynamic capabilities on the strategic performance of enterprises. The conceptual model includes five constructs, operationalized by 49 indicators.

This research is conducted with middle-level and senior managers of the real estate appraisal industry, in Guangdong province, in the Mainland China. 274 valid responses are collected and analyzed. The software SmartPLS 3 is employed to estimate the structural model and to test the hypotheses. The results are as follows:

1. network relationships, but not entrepreneurial traits and TMT characteristics, affect positively the strategic performance of enterprises;
2. entrepreneurial traits, TMT characteristics, and network relationships have a positive impact on the dynamic capabilities of the enterprise;
3. dynamic capabilities have a positive impact on the strategic performance of the company;
4. entrepreneurial traits, TMT characteristics, and network relationships have a positive impact on corporate strategic performance through the mediating role of dynamic capabilities.

8.2 Theoretical contributions and practical enlightenments

This thesis explores the fundamental factors that may cause relevant differences regarding the competition among real estate appraisal companies in Guangdong Province, in China. It adopts the resource-based view to investigate the influence of organizational resources and dynamic capabilities of real estate appraisal companies on their strategic performance. The theoretical contributions and practical enlightenments are recapped below:

8.2.1 Theoretical contributions

(1) This study deepens and extends resource-based theory through combining resource-based theories and specific background of the real estate appraisal industry to identify key organizational resources that may affect the corporation growth performance of real estate appraisal companies.

Resource-based theories have always been an important theory for analyzing performance differences among enterprises, but the existing resource-based theories have not reached a consensus on the identification of key resource that affect corporate performances. In addition, the existing literature on resource-based theories rarely (or even does not) relate the external environment with the organizational resources analyzed in this research (Priem & Butler, 2013). Therefore, to a certain extent, this research makes up for the deficiencies of the existing research, by deepening and expanding the basic resource theory. In doing it, this study provides practitioners with an action guidance to conduct a systematical empirical study on the organizational resources.

(2) This study enriches and deepens related researches on the theory of dynamic capabilities.

Based on a comprehensive and systematic review of relevant literature, this thesis describes the characteristics of real estate appraisal enterprises, in China, and deeply explores three major components of dynamic capabilities: the role of sensing, seizing and reconfiguring capabilities in corporate performance. This study also empirically tests the mediation effect of dynamic capabilities in the relationship between organizational resources and corporate performance of real estate appraisal industry. It can be said that the related research on dynamic capability theory has been deepened to some extent.

(3) This study reveals a basic link between organizational resources and the competitiveness of enterprises in the real estate appraisal industry.

Taking real estate appraisal companies in Guangdong as the research object, this thesis attempts to open the “black box” that contains the mechanism of key resources factors of real estate appraisal companies affecting the competitiveness of enterprises, and conducts empirical research on the influence of organizational resources on strategic performance. The research only confirms the positive and direct link between network relationships and strategic performance of real estate appraisal companies. The empirical results support some of the theoretical hypotheses and reveal how the network relationships affect the competition among real estate appraisal companies.

(4) This research integrates two main theories of enterprise competitiveness to conduct the research on competitiveness of the real estate appraisal industry, and innovatively reveal that the dynamic capabilities in the real estate appraisal industry in China has a significant mediating role between organizational resources and corporate performance.

At present, the mainstream theories of strategic competitiveness include external environmental theory, core resource theory, and dynamic capabilities theory. In most cases, researchers use one of the theories to study corporate competitiveness. The author innovatively combines elements of the core resource with the dynamic capability theory to study the strategic performance, which is also an innovated approach to study the Chinese real estate appraisal industry. Moreover, it clearly reveals that the dynamic capabilities of the real estate appraisal industry in China have a clear mediating role between core organizational resources and strategic performance.

8.2.2 Implications for practice

The present research has implications for practitioners of real estate appraisal industry in Guangdong province, as follows:

(1) This study helps real estate appraisal companies understand the role of entrepreneurial traits on organizational performance.

Scholars emphasize the important role that entrepreneurs play in improving the competitiveness of real estate appraisal enterprises. The empirical results show that entrepreneurial traits do not directly influence the strategic performance. However, entrepreneurial traits can influence corporate strategic performance through dynamic capabilities. Therefore, entrepreneurs need to deliberately improve entrepreneurial traits to affect dynamic capabilities and, in turn, improve their strategic performance through dynamic capabilities.

(2) This study helps real estate appraisal companies understand the role of TMT characteristics on organizational performance.

The research results show that in the real estate appraisal industry, TMT characteristics will not directly enhance the strategic performance, but can do so through the mediating role of dynamic capabilities. Therefore, the real estate appraisal industry should pay attention to the construction of a top management team based on the following three aspects: (i) In terms of consistency of ideas, executive managers should be able to integrate the business objectives

with corporate values and business goals, and enhance cohesion and sense of belonging of team members, thereby stimulating the participation of every member in the various activities of the company. (ii) In terms of knowledge heterogeneity, TMT members should have the professional skills that allow them to meet the needs of the position and to develop the medium and long-term strategy of the company. Senior managers who lack competence can be trained through multi-channel and multi-form methods to improve their professional skills and knowledge level. (iii) Regarding the behavioral interaction, the company should have an atmosphere of openness, allowing team members to freely express their opinions, and regularly organize formal or informal communication activities to enhance mutual understanding and trust among team members.

(3) This study helps real estate appraisal companies understand the role of network relationships on organizational performance.

The empirical analysis of this thesis shows that the network relationships have a direct impact on the strategic performance of real estate appraisal companies. At the same time, network relationships can influence the strategic performance through the mediating role of dynamic capabilities. Therefore, China's real estate appraisal enterprises still need to pay attention to the maintenance and construction of network relations, because it is a core organizational resource to ensure the development of enterprises.

(4) Real estate appraisal enterprises can improve the overall level of strategic capabilities through three aspects: sensing capabilities, seizing capabilities, and reconfiguration capabilities.

This research shows that dynamic capabilities can directly promote corporate strategic performance. In addition, it also mediates the influence of entrepreneurial traits, executive teams characteristics and network relationships on the strategic performance. Therefore it is of great significance to invest in dynamic capacities to enhance competitiveness of enterprises.

Real estate appraisal enterprises can improve the overall level of strategic capabilities from three levels, sensing, seizing and reconfiguring, and maintain the company's sustained growth. On the one hand, real estate appraisal enterprises should recognize the advantages and disadvantages of enterprise development according to the characteristics of the internal and external environment, especially the characteristics of the industrial cluster environment, and combine their own resource capabilities, determine the boundary of enterprise

development, as well as unique business model and competitive position. On the other hand, real estate appraisal companies need to strategically integrate resources that are owned or controlled (such as finance, human resource, customers, technology management processes, factories, etc.) to ensure that the entire enterprise can make rapid changes and respond effectively to the changing market demand.

8.3 Research limitations

Although this thesis has certain theoretical contributions and practical implications, it is inevitable that this study has some limitations, as follows:

(1) The actual research study is conducted in Guangdong Province and the selection of respondents did not follow a random sampling process. Thus, the results cannot be generalized to the real estate appraisal industry in Guangdong and, thus, in China as well.

(2) The questionnaire was a self-administrative questionnaire and some bias could exist in respondents' answers – situation that may affect the results of the study.

(3) Even though this research was conducted in one industry, the real estate appraisal industry, the estimation of the structural model does not include control variables, such as the number of employees, the amount of assets, the number of years of operation of the company, the development stage of the company. It means that results could be different if some control variables are introduced in the model.

(4) Regarding the instruments used to measure each construct, not every indicator was used to estimate the conceptual model. Such situation may also influence the results.

(5) Due to limited time and competition between enterprises, it was not possible to carry out a longitudinal study to investigate how organizational resources affect the competitiveness of enterprises. Depending on the different levels of organizational development and expansion, different resources may have different impacts on performance, directly or through dynamic capabilities. Therefore, this research is not able to provide insights about the relative importance of specific resources on different development and growth stages of real estate appraisal enterprises.

8.4 Future developments

While the author fully realize the limitations and deficiencies of this study, it is also appropriate to identify plausible future research in the following directions:

(1) This study only selects real estate appraisal companies in Guangdong province to conduct the empirical research. Therefore, a way to enrich the actual study is to develop a study that extends the research to real estate appraisal companies in other regions in China. In doing it, the major conclusions would meet the needs of China's real estate appraisal companies regarding the role of key resources of China's real estate appraisal companies in their growth performance.

(2) Although the organizational resources explored in this thesis—entrepreneurial traits, TMT characteristics, and network relationships—are at the individual, collective, and inter-organizational levels respectively, they are generally owned or controlled by the organization. According to the view of complex theory, these resources must have certain mutual relations and influences. In recent years, many scholars have also studied the interaction between these types of key resource factors. For example, Arendt (2005) has studied the influence of the interaction between the CEO and the senior management team on strategic decision-making. Therefore, in a future research, it is necessary to comprehensively consider the interactions between entrepreneurial traits, TMT characteristics, and network relations.

(3) In the real estate intermediary industry, there are five big competitive companies in the world. They have a common characteristic, that is the diversification business. In China, strong real estate appraisal companies are also trying to explore a diversified development path. Limited to subjective and objective factors, corporate diversification is not included in this study, but there are different opinions on whether diversification can improve or reduce corporate performance. The choice of two strategies, diversification or specialization, often has a great impact on the development of corporate competitiveness. Therefore, it would be worthwhile to conduct a study to understand whether organization resources would affect in different ways diversification or specialization strategies.

(4) Regarding the conceptual model presented here, it would be interesting to analyze whether there are moderating effects on the constructs. Moderators such as the number of employees, the amount of assets, the number of years of operation of the company, the

development stage of the company could be introduced in the model to determine whether moderators influence the effects of organizational resources on strategic performance.

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Appendix

Questionnaire about “Development Strategy of Real Estate Intermediary Enterprises in Guangdong”

Dear Sir/Madam:

This questionnaire is a project carried out by ISCTE University Institute of Lisbon (Portugal) and University of Electronic Science and Technology (China). It aims to investigate development strategies of real estate intermediary enterprises in Guangdong Province, to provide theoretical guidance and policy suggestions for the sustainable and stable development of the real estate industry in Guangdong Province. This questionnaire is only for research use and the content does not cover business secrets of your enterprise. We promise to abide by the ethics of investigation, and your answers will be completely confidential and anonymous. I would like to ask you to take out your precious time and answer the questions according to the practical and actual situation of your enterprise.

Thank you very much for your cooperation and hope that you will succeed in your business and great and stable progress will be made in your enterprise!

I Description of your enterprise

Please tick or circle the answer that suits your enterprise the most. To do so, use the following scale to answer each statement:

- 1. Strongly disagree 2. Disagree 3. Somewhat disagree 4. Somewhat agree**
5. Agree 6. Strongly agree

- (1) Listed below are descriptive statements about the founder or decision maker of the enterprise.

If you are the founder (decision-maker) of the enterprise, I would like you to provide your self-evaluation based on the current situation of your enterprise. Otherwise, I would like you to think about the founder (decision maker) of your enterprise and indicate to what extent he (she) would be characterized by the following behaviors.

ET1	Be proactive to collect market information from different channels.	1	2	3	4	5	6
ET2	Continuously produce new business ideals when facing changes of the external environment.	1	2	3	4	5	6
ET3	Courageous to take risks caused by new business via judgment of the situation.	1	2	3	4	5	6
ET4	Be proactive to identify business opportunities that your enterprise can use.	1	2	3	4	5	6
ET5	Continuously innovate ways of managing your enterprise.	1	2	3	4	5	6
ET6	Be willing to take risks of expanding the team through judgment of the situation.	1	2	3	4	5	6
ET7	Be proactive to seek solutions when the internal development of your enterprise encounters problems.	1	2	3	4	5	6
ET8	Put forward new thinking about the operation model of your enterprise.	1	2	3	4	5	6
ET9	Be willing to take risks of expanding business scale through judgment of the situation.						
ET10	Be proactive to perceive changes of the external environment.	1	2	3	4	5	6
ET11	Continuously put forward new ideas when exploring the market.	1	2	3	4	5	6
ET12	Be willing to take risks of exploring new market through judgment of the situation.						

(2) Listed below are descriptive statements about the TMT characteristics — Characteristics and manifestations of decision makers, board of directors and senior managers.

Please indicate by checking the appropriate box the degree of agreement with the following statements.

TMT1	TMT members' business objectives are consistent.	1	2	3	4	5	6
TMT2	TMT members have the same value orientation.	1	2	3	4	5	6
TMT3	When the company's development is facing challenges, TMT members can unite to address them.	1	2	3	4	5	6
TMT4	TMT members have the same business philosophy.	1	2	3	4	5	6
TMT5	Members of TMT have frequent communications.	1	2	3	4	5	6
TMT6	During the communication and consultation, TMT members can fully express their opinions.	1	2	3	4	5	6
TMT7	The TMT team is very cohesive.	1	2	3	4	5	6
TMT8	TMT members brainstorm to formulate development strategies together.	1	2	3	4	5	6

(3) Listed below are descriptive statements about the external relations of the enterprise.

Please indicate by checking the appropriate box the degree of agreement with the following statements.

NR1	The company has a wide range of customer relationships	1	2	3	4	5	6
NR2	The company maintains long-term and stable business relationships with major customers.	1	2	3	4	5	6
NR3	The company has established extensive cooperative relations with many financial institutions such as banks and fund companies.	1	2	3	4	5	6
NR4	The company maintains a good relationship with the local government.	1	2	3	4	5	6
NR5	The company has established extensive contacts with many local government departments.	1	2	3	4	5	6
NR6	The company maintains regular visits with major customers.	1	2	3	4	5	6
NR7	Enterprises have extensive contacts with many social organizations, firms, and consulting organizations.	1	2	3	4	5	6
NR8	The company maintains frequent contacts with local industry associations and affiliates.	1	2	3	4	5	6

(4) Listed below are descriptive statements about the enterprise. For each statement, I would like you to indicate the degree of agreement with the behavior described.

DC1	In my organization, people participate in professional activities related to their business.	1	2	3	4	5	6
DC2	We invest in finding solutions for our customers.	1	2	3	4	5	6
DC3	We constantly implement new kinds of management methods.	1	2	3	4	5	6
DC4	We use established processes to identify: (1) target market segments, (2) changing customer needs, and (3) customer innovation.	1	2	3	4	5	6
DC5	We adopt the best practices in our sector.	1	2	3	4	5	6
DC6	We frequently change our marketing method or strategy.	1	2	3	4	5	6
DC7	We observe best practices of providing service to clients in our sector.	1	2	3	4	5	6
DC8	We respond to defects pointed out by employees.	1	2	3	4	5	6
DC9	We substantially renew business processes of operation and business.	1	2	3	4	5	6
DC10	We gather economic information on our operations and operational environment	1	2	3	4	5	6
DC11	We change our practices when customer feedback gives us a reason to change.	1	2	3	4	5	6
DC12	We constantly and substantially renew the ways of achieving our targets and objectives.	1	2	3	4	5	6

(5) Listed below are descriptive statements about the enterprise. For each statement, I would like you to indicate the degree of agreement with the following statements.

CA1	We have higher profit growth rates than other competitors.	1	2	3	4	5	6
CA2	We have higher revenue growth rates compared to other competitors.	1	2	3	4	5	6
CA3	We have lower operating costs compared to other competitors.	1	2	3	4	5	6
CA4	We have higher quality products and services than other competitors.	1	2	3	4	5	6
CA5	We have a growing market share compared to other competitors.	1	2	3	4	5	6
CA6	Compared with other competitors, we have more profitable old customers.	1	2	3	4	5	6
CA7	Compared with other competitors, we have more profitable new customers.	1	2	3	4	5	6
CA8	We have gained strategic advantages over our competitors.	1	2	3	4	5	6
CA9	Overall, we are more successful than our major competitors.	1	2	3	4	5	6

II. Basic Information about Your Enterprise

EI1. The company age (in years) since it was founded: _____

One year ago will be recorded as 1 and two years ago will be recorded as 2 etc..

EI11 is record of the specific number.

EI2. The location of your enterprise: Province City District

EI3. Industry of Main Business: _____

EI4. Number of current employees (end of 2017): _____

Near 100 employees will be recorded as 1 and near 200 employees will be recorded as 2 etc..

EI41 is record of the specific number.

EI5. Scale (Asset): Total assets: _____; Net Assets: _____

Near 1 million yuan will be recorded as a and near 301 million yuan will be recorded as 301 etc..

EI52 is record of the specific number.

EI6. Ownership: 1.state-owned enterprise (or state-holding enterprise) 2.private enterprise 3.foreign-funded enterprise 4.collective enterprise 5.Others (Please note:_____)

III Your personal information

PI1. Are you one of the owners of the enterprise (large stock holder or partner):

1Yes, 2No

PI2. Industry tenure (in years): _____

One year ago will be recorded as 1 and two years ago will be recorded as 2 etc..

PI21 is record of the specific number.

PI3. Education: 1below technical junior school 2technical senior school 3 bachelor
 4 master 5 PHD

——If you are **not owner** of the enterprise, please fill in the following blanks.

PI4. Company tenure (in years): _____

One year ago will be recorded as 1 and two years ago will be recorded as 2 etc..

PI41 is record of the specific number.

PI5. Job position: 1General manager 2Associate general manager 3Middle level
manager 4 basic employees or others

——**This is the end of this questionnaire. Thank you very much for you engagement and support.**——

If you are interested in our research, you can leave your contact ways and opinions here and we will send you our research results.