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Transformation of Chinese Local Government Investment and Financing Platform Enterprises Towards the Integration of Industry and Finance

ZENG Jian

Doctor of Management

Supervisors:
PhD Nelson Ramalho, Associate Professor,
ISCTE University Institute of Lisbon

PhD WANG Jincheng, Professor, Tianjin Foreign Studies University;
PhD DU Yifei, Professor, University of Electronic Science and Technology of China

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ZENG Jian

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Abstract

County-level regions, which account for over 90% of land yet contribute only 24.4% of GDP, are China's priority and main challenge to achieve coordinated and sustainable development. The government investment and financing platform enterprises (platform enterprises) in these regions are key to the local economy. Based on the social network theory as well as the studies of inter-organizational trust and relationship value, this thesis puts forward a theoretical framework to reveal the value capture mechanism of county-level platform enterprises through the integration of industry and finance.

This study adopted social network analysis and multi-case study design with the platform enterprises in ZLJ District as cases. The social network analysis revealed that the evolution of the commercial network properties of the platform enterprises provided a foundation for their relationship value capture: (1) the network centrality of the structural properties underwent the evolution from centralization to modularization, and the degree of network openness went through the evolution from being closed to being open; (2) the tie strength of the relational properties experienced a process of change from the dominance of strong ties to the coexistence of strong and weak ties, and the directness of connections changed from the dominance of direct connections to the coexistence of direct and indirect connections. The results of the multi-case comparative analysis indicated that: (1) both structural trust and social trust can facilitate value capture for enterprises. Structural trust contributes more to value appropriation than to value creation, while social trust contributes more to value creation than to value appropriation; (2) structural trust and social trust jointly facilitate greater relationship value capture for enterprises.

By shedding light on the value capture process and factor influencing mechanism, this thesis contributes to the research on the solutions to resource scarcity and model innovation for county-level platform enterprises.

Keywords: County-level government investment and financing platform enterprises, Social network, Inter-organizational trust, Relationship value capture

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Resumo

As regiões a nível de Distrito da China, que ocupam mais de 90% da área territorial do país mas representam apenas 24,4% da economia nacional, são prioritárias para a realização do desenvolvimento coordenado e sustentável. As empresas-plataforma de investimento e financiamento a nível de governo distrital desempenham um papel importante no desenvolvimento económico local. Este trabalho propõe, com base na teoria de redes sociais, um enquadramento teórico a partir dos estudos relevantes sobre a confiança interorganizacional e a criação do valor do relacionamento, a fim de revelar o mecanismo de criação do valor pelas empresas-plataforma a nível distrital por meio da integração indústria-finanças.

Este trabalho focaliza-se nas empresas-plataforma de investimento e financiamento do Distrito ZLJ, adotando os métodos de análise de redes sociais e de estudo de casos múltiplos. Através da análise de redes sociais, constata-se que a evolução das propriedades das redes comerciais das empresas-plataforma oferece fundamentos para a criação de valor do relacionamento: (1) a centralidade de redes das propriedades estruturais sofreu uma evolução de centralização para modularização e o grau de abertura de redes experimentou uma evolução de ser fechado para ser aberto; (2) a força do vínculo das propriedades relacionais experimentou um processo de mudança do domínio de vínculos fortes para a coexistência de vínculos fortes e fracos, e a diretividade das conexões mudou-se do domínio de conexões diretas para a coexistência de diretas e indiretas. Os resultados da análise comparativa de casos múltiplos mostram que: (1) a confiança estrutural e a confiança social podem promover a criação de valor pelas empresas. A confiança estrutural contribui mais para a apropriação de valor do que a criação de valor, enquanto a confiança social contribui mais para a criação do que a apropriação de valor; (2) a confiança estrutural e a confiança social contribuem conjuntamente para as empresas obterem maior valor do relacionamento.

Através da identificação do processo de obtenção do valor e do mecanismo de influência dos fatores, esta tese oferece contributos para a pesquisa das soluções para a escassez de recursos e a inovação de modelos empresariais para as empresas-plataforma a nível de condado.

Palavras-chave: Empresas-plataforma Locais de Investimento e Financiamento, Rede Social, Confiança Interorganizacional, Obtenção do Valor do Relacionamento

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摘要

县级区域占中国土地面积90%以上，而只占用全国经济的24.4%，这些区域是中国实现协调可持续发展的重点和难点。这些地区的政府投融资平台企业在当地经济发展中扮演着重要角色。本研究基于社会网络理论，结合组织间信任与关系价值获取相关研究，提出了一个理论框架，用以揭示县级平台企业通过产融结合的价值获取机制。

本研究关注ZLJ区的投融资平台企业，采取了社会网络分析与多案例研究方法。我们的社会网络分析发现平台企业的商业网络属性演化承载了关系价值获取：（1）结构属性的网络中心性经历了从集中化到模块化的演化过程，网络开放度经历了从封闭到开放的演化过程；（2）关系属性的连带强度经历了从强连带为主到强连带与弱连带并存的变化过程，连接直接性经历了从直接连接为主到直接连接与间接连接并存的变化过程。我们的多案例对比分析结果表明：（1）结构信任和社会信任均会促进企业的价值获取，结构信任促进价值攫取多于价值创造，而社会信任促进价值创造多于价值攫取；（2）结构信任与社会信任共同促进了企业更大的关系价值获取。

本论文通过揭示价值获取的过程及因素的影响机制，为区县级平台企业应对资源匮乏问题以及平台企业的模式创新做出了研究贡献。

关键词：县级政府投融资平台企业，社会网络，组织间信任，关系价值获取

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Chapter 1: Introduction

1.1 Research background

After over four decades since the Reform and Opening-up, China's economy has achieved rapid development. However, the problems of uneven development between the eastern and western parts as well as uncoordinated development between urban and rural areas have become increasingly prominent. County-level regions account for over 90% of China’s land area, and the corresponding population takes up more than 70% of the national population. Therefore, county-level regions are a priority and a main challenge for China to achieve coordinated and sustainable development. Besides, county economy contributed 39 trillion yuan of China’s economic aggregate, accounting for 41% of China’s GDP (Wang, Tan, & Zheng, 2019). In the course of the development of county economy, county-level government investment and financing platform enterprises, as a new product of the recent decade, is impotent in promoting infrastructure construction and urbanization. Government investment and financing platform enterprises (referred to as “platform enterprises” below) are an important bridge connecting the government and external entities. With financial funds and government policy support, they invest in government-led projects and then introduce market mechanisms to attract external players to participate. Platform enterprises generally invest in government infrastructure to enable themselves to lead moderately and provide a good development environment for the local economy. However, the development model of county-level platform enterprises is relatively backward, manifested in the lack of policy support, lack of funds, and lack of attractiveness to external entities. District-level platform enterprises are also facing the same dilemma. Therefore, innovation of the development model of the platform enterprises at district and county levels is a problem that needs to be addressed urgently. the research on platform enterprises mainly focuses on the national level, whereas the research on the transformation of local platform enterprises needs to be increased. In particular, the disadvantages in such aspects as resource and policy faced by the platform enterprises at district and county levels differ significantly from the development of the platform enterprises at the national, provincial, and municipal levels. Therefore, there is an urgent need to establish a new development model for the platform enterprises at district and county levels. The development of the platforms at district and county levels in China can be roughly divided into three stages, namely, platform expansion period, platform transformation period, and model exploration period.

1.1.1 Policy enabled the rapid expansion of government investment and financing platforms

In 2008, China introduced a four trillion-yuan investment plan. This policy stimulated the number of investment and financing platform enterprises to rapidly increase from about 3,000 to more than 8,000, of which the platform enterprises at provincial, municipal, and county levels accounted for 80% (Geng & Hu, 2017). As a matter of fact, there are huge differences between different levels of platform enterprises. Specifically, the platform enterprises at provincial and municipal levels are mainly supported by government funds, and they are mainly state-owned. In comparison, the platform enterprises at district and county levels are relatively smaller in scale, enjoy limited dividends brought by favorable policies, and have no advantage in resource capture (Zhou, 2011). Therefore, the platform enterprises at district and county levels often face greater risks and difficulties in operation and management. They are also a weaker party in the system of investment and financing platforms. In this context, the platform enterprises at district and county levels have shown a unique development model after several years of continuous exploration. In terms of business operation nature, the platform enterprises at provincial and municipal levels are mainly based on public interest projects. Those at district and county levels generally adopt a business model that combines public interest projects and functional projects (Xu, 2015). It can be seen that the platform enterprises at district and county levels can adjust the local economy, and they are important in accelerating urbanization and developing industries with local characteristics.

1.1.2 Policy changes forced investment and financing platforms to transform

Due to the lack of policy advantages, the platform enterprises at district and county levels are highly vulnerable to changes in macroeconomic and government policies. From 2010 to 2012, to standardize the operation mode of platform enterprises, China's Central Government issued policy documents and the Screening Measures for Including Outstanding Local Government Debt in Budget Management and Liquidation (referred to as "the Measures" below). The Opinions and the Measures introduced concrete measures to comprehensively evaluate and effectively prevent risks, while strengthening loan tracking and inspection for local government investment and financing platforms. Strict control was exercised on the risk of investment and financing, and the line of credit was reduced. These adjustments caused a huge impact on the loans and financing of platform enterprises. Under such policy pressure, the platform enterprises at provincial and municipal levels turned to projects with high-quality cash flow, such as water & electricity supply and hospitals, to ensure their sustainable operation. In comparison, the platform enterprises at district and county levels were faced with a series of problems such as low-quality projects, financing difficulties, and compressed living space. In this context, the platform enterprises at district and county levels had to seek business transformation. The integration of their capital advantages with the industrial advantages of private enterprises became an important direction for their transformation.

1.1.3 The integration of industry and finance provided new room for development

With the development of society, industrial and financial capital are bound to integrate, which is an inevitable law in the development of a national economy to a certain stage (Hu, 1993). This gave birth to the popular operation model characterized by the integration of industry and finance. The integration of industry and finance enabled the connection between platform enterprises and financial capital. It was able to open up a channel of connection between state-owned capital and social resources, thus integrating the resource advantages of both parties. In this context, the development of the social network perspective provided new possibilities for the research on the integration of industry and finance. From the social network perspective, enterprises should pay attention to the utilization and complementarity of resources among actors within the network. This can effectively resolve the resource shortage of the platform enterprises at district and county levels and leverage the resource potential within the network. However, platform enterprises and private enterprises are two different types of organizations with different capital nature. The level of trust between them becomes the basis for their effective cooperation. Granovetter (1985) argued that trust arises from social networks and is the basis for social network association and interaction. Therefore, it is of great significance to re-examine inter-organizational trust for platform enterprises to make effective use of the social network and thereby achieve the goal of transformation towards the integration of industry and finance.

1.2 Research subjects

Ziliujing District (ZLJ District) is an old urban district of Zigong City, a traditional industrial city in China. Its district-level platform enterprise, Sichuan Jumu Investment Development Co., Ltd (referred to as “JM Company” below), was established in 2010. The initial purpose of its establishment was mainly to undertake some public interest projects of the government, such as highways and shanty towns. It played an important role in the financing for infrastructure construction in ZLJ District. By 2012, the national macro-policy had changed very quickly, and more requirements had been put forward for platform enterprises. The platform enterprises at national and provincial levels were less affected due to their resource and policy advantages. However, the platform enterprises at district and county levels, which lacked resources, suffered a huge impact. As a result, JM Company had to seek transformation.

In 2012, under the political pressure of the loss of state-owned assets, JM Company began to seek cooperation with social capital and explore a development model suitable for itself leveraging its own superior resources. The development process of JM Company can be roughly divided into three stages. First, JM Company was established to undertake the government’s shantytown renovation project. It provided the qualifications for the government to carry out urban infrastructure construction. Second, under the influence of the relevant Chinese policies, JM Company separated its business operations from the government functions. To address its own survival pressure, JM Company began to seek cooperation with social capital. Eventually, it established Zigong Xinglv Landscaping Engineering Co., Ltd. (referred to as “XLYL Company” below) with Zigong Landscape Engineering Team and achieved self-sufficiency. Third, taking advantage of the government’s development of Jianshan Scenic Area, JM Company began to engage with more entities, including Sichuan Longxiang Jumei Agricultural Tourism Development Co., Ltd. (referred to as “LXJM Company” below), Zigong Chuangfa Construction Co., Ltd. (referred to as “CF Company” below), and Zigong Yandu Construction Co., Ltd. (referred to as “YDJS Company” below). Besides, it also cooperated with other social entities such as Xingfu Shidai Ecological Town Development Co., Ltd. (referred to as “XFSD Company” below) and Zigong Haitian Cultural Communication Co., Ltd. (referred to as “HT Company” below). At this stage, JM Company participated extensively in the construction of various cooperative projects and developed trust with social entities. These projects, along with the cultural resources with local characteristics, promoted the emergence of new types of business. In the course of the integration of industry and finance, JM Company unlocked its value in the business network and captured the value from its cooperative organizations. It revitalized the local economy while achieving its own development.

The district-level platform enterprises in ZLJ District experienced the entire evolution process of the platform enterprises at district and county levels in China from their emergence to the present. Through continuous exploration in the recent decade, JM Company has established a development model in line with China's national conditions and realized the deep integration of industry and finance. Besides, in the process of achieving its own development, JM Company has effectively integrated with the local culture and economy and played an important role in promoting the local economic development. Therefore, from the perspective of either its own development or facilitation of economic development, the platform enterprises in ZLJ District are of typical significance among the platform enterprises at district and county levels in China.

1.3 Research significance

1.3.1 Theoretical significance

In recent years, platform enterprises have played a more significant role in the revitalization of local economy as well as the integration of industry and finance. This thesis takes the integration of industry and finance of the platform enterprises in China as the research subjects. It aims to explore the value release mechanism in the process of the integration of industry and finance from the perspectives of social network and inter-organizational trust.

With the development of the Internet, the research on network has been given a new connotation in the contemporary era. This plays an important role in addressing the lack of resources of the platform enterprises at district and county levels through social network theory. It also helps to realize resource matching and complementarity among organizations so that a systematic analysis of the network evolution process of the platform enterprises at district and county levels can be made in the course of the integration of industry and finance.

Besides, due to the differences in resources and capabilities of each enterprise in the process of network evolution, some difficulties are inevitable in project cooperation. Inter-organizational trust, which has a strong connection with the social network theory, can well explain the resource integration among enterprises. This thesis combines inter-organizational trust and social network theory and views the platform enterprises at district and county levels from the social network perspective to explore how they make use of the sound interactions underpinned by interorganizational trust to facilitate value release and value capture in their business network. Therefore, this study can contribute to the development of the social network theory, inter-organizational trust, and value theory.

This thesis incorporates three theories, namely, inter-organizational trust, social network theory, and value capture, to construct its theoretical framework. The research results can contribute to the development of these theories.

1.3.2 Practical significance

In recent years, China's economy has grown rapidly. However, the problems of uneven development between the eastern and western parts as well as uncoordinated development between urban and rural areas have become increasingly prominent. County economy, as the goal and priority of China's future economic development, has an important impact on the sustainable development of the national economy. As an important financing channel for the government, county-level government investment and financing platforms play a key role in promoting the sustainable development of the county economy. However, the complex and changeable environment renders the platform enterprises at district and county levels unable to play their due role. Therefore, it is crucial to explore a development model for the platform enterprise at district and county levels that is in line with China's current national conditions.

This study synthesizes the development status of the district-level platform enterprises in ZLJ District. It also provides new ideas for addressing their resource scarcity from the perspective of social network theory. The trust theory is conducive to the birth of new types of business and new models enabled by the platform enterprises at district and county levels through the integration of industry and finance. In China's special context, this study provides an important reference for the platform enterprises at district and county levels to develop an effective model to achieve the integration of industry and finance.

1.4 Research contents and innovations

1.4.1 Research contents

According to the structure and research cases, this thesis is divided into seven chapters:

Chapter 1: Introduction. The research background, research subjects, research purposes, theoretical and practical significance, research contents and innovations, research methods, and technical route are introduced. By synthesizing the results of the research on the integration of industry and finance, social network theory, trust theory, and value theory, the author elaborates on the research ideas and research methods of this study and puts forward the technical route and innovations of this study.

Chapter 2: Literature Review. This chapter provides a review of the relevant studies on investment and financing platforms, inter-organizational trust theory, social network theory, and value theory. By clarifying the logical relationships between them, this study explores the important role of trust mechanism for China's local platform enterprises from the social network perspective.

Chapter 3: Theoretical Development and Research Framework. The research questions are put forward based on the research scenarios, inter-organizational trust, social network theory, and value theory.

Chapter 4: Research methods. The research ideas and research methods are introduced. Data were obtained through semi-structured interviews, field visits, second-hand data. The way the data processing was carried out is described. The case representation, research feasibility, and data sources are elaborated on.

Chapter 5: Case Descriptions and Analyses. The case materials were synthesized according to the timeline. And the development process of the platform enterprises in ZLJ District of Zigong City is elaborated on. The development of investment and financing platform enterprises is analyzed using the social network theory. It is revealed how the network evolution process supports the cooperative business between platform enterprises and other entities from the perspectives of structural network and relational network.

Chapter 6: Multi-case Comparative Analysis. This chapter mainly describes the network evolution of the four case enterprises, namely, JM Company, LXJM Company, YDJS Company, and CF Company, and the process of value capture from their partners in the business network. Combined with inter-organizational trust, this chapter explores the role trust plays in the value capture of these cooperative business.

Chapter 7: Conclusions. The research results of this study are summarized. In conjunction with the conclusions presented in the multi-case comparative analysis in Chapter 6, this chapter summarizes the methods and pathway by which the government investment and financing platforms in ZLJ District of Zigong City realized the integration of industry and finance. It also proposes the interactive mode of the trust mechanism in the process of industry and finance integration to guide practice.

1.4.2 Research innovations

(1) The first innovation

This study selects the platform enterprises at district and county levels in China, which lack resources and policy support, as the research subjects. In the development process of the recent decade, the government investment and financing platform in ZLJ District of Zigong City has gradually formed its distinct development path and fully activated the value contained in the social network. This is a brand-new development path for resource-poor platform enterprises at district and county levels. Proceeding from the perspective of social network theory, this study deals with how the platform enterprises at district and county levels respond to resource scarcity and policy disadvantages. Combined with the tie strength, diversity, and other properties of the social network, this study demonstrates the special network evolution of the platform enterprises at district and county levels. In addition, this study also explores how these platform enterprises achieved a deep integration of industry and finance and revitalized the local economy utilizing the network perspective in spite of limited resources.

(2) The second innovation

In the development of the platform enterprises in ZLJ District of Zigong City, the trust relationship established with other entities in the network played an important role in unlocking the network value. There is a deep intrinsic connection between the trust theory and the social network theory. By combining the trust theory with the social network theory, this study acknowledges the role inter-organizational trust plays in unlocking network value and the interactions between different types of trust and different network value capture behaviors. In addition, this study reveals the interaction between the two different types of trust and the two dimensions of value capture from the perspective of social network.

1.5 Research methods and technical route

1.5.1 Research methods

Considering the particularity and typicality of the research case, this thesis comprehensively reviews literature and deploys longitudinal case analysis, and multi-case comparative research to explore and solve the research problems.

(1) Literature research

Although not a method, it is an important activity and hence, the search options are depicted here. The basic idea of literature review is to gain a comprehensive understanding of current state of the art on the constructs and theories and to ground the initial theory constructed by inductive logic, followed by the use of the collected empirical data to verify the authenticity of the theory or, when knowledge is not sufficiently developed, to build propositions for theory building. In the process of validating the theory, instead of directly using the collected empirical data to test the theory, it is necessary to use deductive methods to deduce concrete and verifiable propositions and reduce the abstract level of the theory. This deductive logic is the mirror or inductive logic, which is to take the research method of natural science as the reference to sociological research (Yang, 2012). The theoretical test in this study is based on the use of an interplay between inductive and deductive logic. Specifically, relatively specific hypotheses were arrived at from the abstract theories, and then the theories were tested through the test of the hypotheses. Guided by the research questions, relevant literature was retrieved, read, and synthesized, and the theoretical views put forward in the literature were chosen based on certain principles. This method is helpful for exploring the path and means by which local platform enterprises achieve transformation through the integration of industry and finance, and for reviewing and analyzing the development history of the platform enterprises in ZLJ District, Zigong City.

(2) Longitudinal case analysis method

Case study provides a comprehensive understanding of the real-world scenarios and the inductive thinking process, which facilitates the effective study of various organizational processes. In particular, when this method adopts a holistic and long-term process-oriented perspective, its research results are often unexpected but credible. The case study method enables the researcher to discover and explore the key behaviors of case enterprises from typical cases and further explore the potential operation and development model of typical cases. The reason for choosing the case study method in this thesis is that one of the research questions concerns how network characteristics support the organization’s value release process in the course of the integration of industry and finance of the platform enterprises at district and county levels. Through a complete observation of the development process of the platform enterprises and an anatomy of the network status, the process mechanism by which network supports value release can be identified.

(3) Multi-case comparative research method

The case study method often explains “how” and “why”, which is very useful for solving some new, important, and complex research problems (Wang, 2016). This method allows us to have a clearer understanding of the correlation between factors by comparing cases. Compared with single-case analysis, multi-case comparison has a stronger emphasis on theories, and its research results can be applied more widely. The reason for choosing this method is attributable to one of the research questions: What are the influences of different types of inter-organizational trust on the value capture behavior of enterprises in the context of the integration of industry and finance of the platform enterprises at district and county levels? Four platform enterprises in the same district, namely, JM Company, LXJM Company, CF Company, and

YDJS Company, were selected for comparative analyses in pairs. The performance of the four enterprises in inter-organizational trust and value capture behaviors was analyzed respectively. And the research conclusions were arrived at through the comparative analyses.

1.5.2 Technical route of this study

This study focuses on the transformation of local platform enterprises towards the integration of industry and finance. Based on an in-depth study of the social network theory, inter-organizational trust, and the value theory, this study follows the following route: Research background and questions → field investigation and data collection → longitudinal case studies → comparative analyses of multiple cases → conclusions and prospects. The specific research contents and research methods are shown in Figure 1.1.

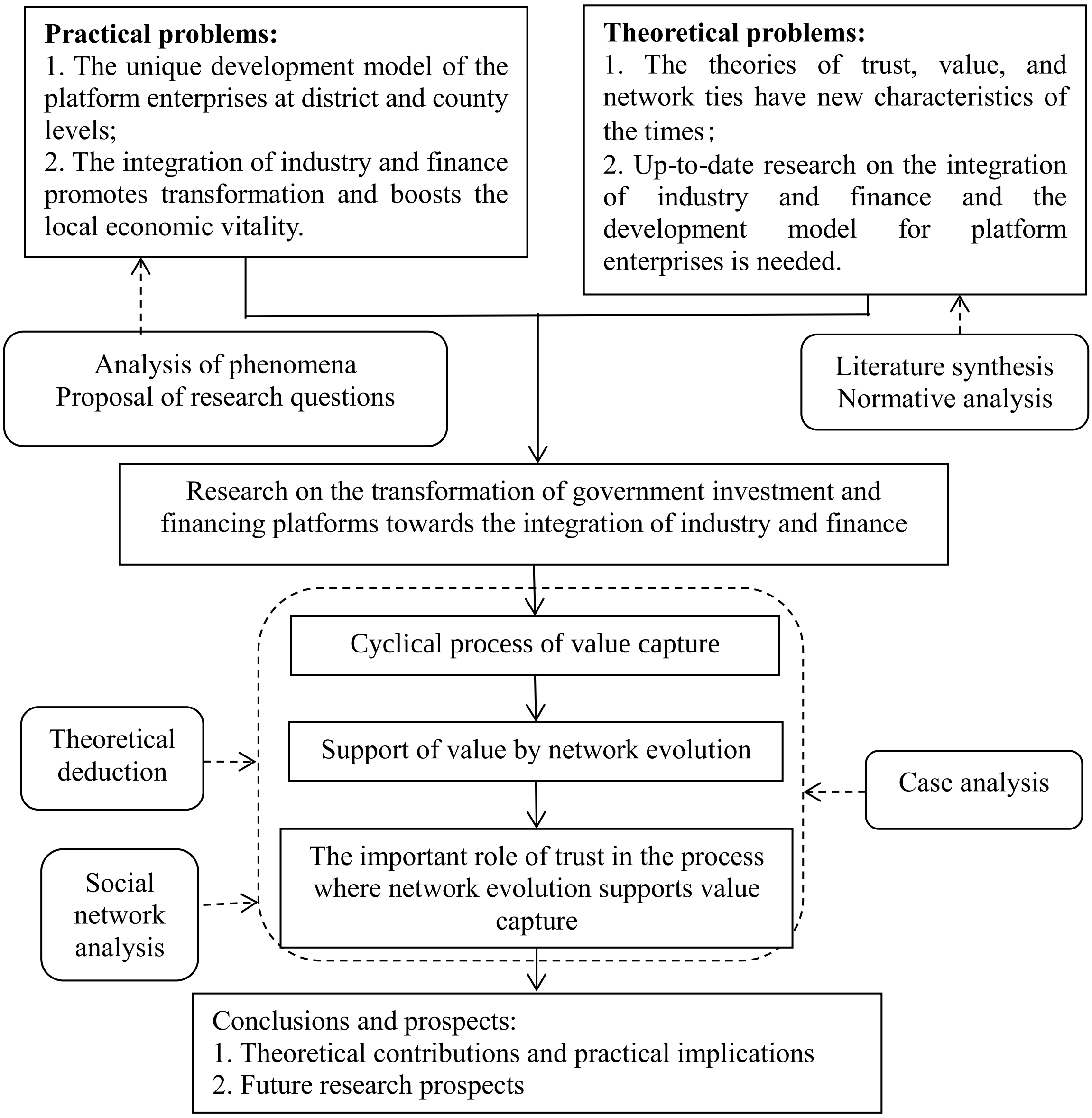

Figure 1.1 Technical route of this study

Chapter 2: Literature Review

2.1 Social network theory

2.1.1 Social network concept and analysis

2.1.1.1 Social network concept

The research on the concept of social network has been very mature to this day, and its range of application is also getting wider and wider. A social network is generally a system that is co-constituted within personal relationships. Three different sources are generally included in the study of social theory. First, the concept of social network comes from the position theory of physics, with the main representatives being the German researchers Lewin and Hyde, who applied the network concept to the research on social interactions. American psychologist Moreno founded *Sociometry* and put forward “Sociogram”. The social psychologist Kurt Lewin believed that the structure of social characteristics can be analyzed by mathematical techniques in topology and set theory and that the “field theory of human behavior” can be used to explore the interdependence of a group and its environment in a relational system (Doreian, 2017; Hedén & Levin, 1959). The cognitive psychology advocated by Heider (1946) has made important contributions to the development of group dynamics theory. Arguably, network research on cognitive and interpersonal influences stems from this tradition.

Second, the concept of social network is derived from the study of social interactions by mathematical methods. There is a group of scholars in the United States who are good at using graph theory as a research tool, such as Cartwright and Harary (1956), they gradually introduced graph theory into the study of social networks in China. Later on, more and more groups started their research using this method. The emphasis on mathematics accelerated the transition of social network research from descriptive to analytical research. As computers become more popular and more individual units are analyzed, new insights into social structure and interaction could be obtained.

Third, the concept of social network comes from the researchers who used anthropological methods to study organizational matters, such as the famous “Hawthorne Test”. In the 1920s, a research team from the Harvard Business School initiated a series of anthropological studies on factory life. The case was the Hawthorne factory of the Western Electric Company near Chicago. These studies are the famous Hawthorne Studies, which were the first series of studies conducted using sociograms. A sociogram depicts the social interaction structure of individuals' free choices. Later on, Harvard scholars led by Warner also carried out continuity study on other cases such as Yankee City and old cities. At the University of Manchester in the U.K., a group of scholars centered on the Department of Social Anthropology studied organizational conflicts from the perspective of social network, which also spawned many innovative results. And their efforts are believed to have prompted "a new turning point in the framework of social network analysis". Subsequently, more and more scholars started to participate in the development of the social network concept. They gave serious consideration to the "network structure" in social life. As a result, all kinds of network concepts were put forward, such as centrality, density, structural balance, and blocks. The term social network was gradually used in academic research.

The concept of network was first put forward by Simmel, the founder of German sociology, in 1908. In his book entitled *Sociology: A Discussion on the Form of Social Communication*, Simmel (1908) pointed out that human society consists of social relationships intertwined with information and communication that focus on emotional factors. In their book entitled *On Social Structure*, Brown and Alfred (1940) coined the term "social networks" to explain social distribution and social support. Subsequently, scholars in the field of sociology started to pay attention to the interaction and association forms of social networks (Škorić, Kišjuhas, & Škorić, 2013). After decades of development of the social network theory, the concept of "the strength of weak ties" proposed by Granovetter (1973) extended social networks to various social research fields and triggered extensive discussions. Subsequently, Granovetter (1973) further systematically elaborated on social networks and the embeddedness theory. He pointed out that: (1) Actions are always socially oriented and cannot be fully explained by personal motivations; (2) A social system cannot be automatically generated in a certain inevitable form. Instead, it is formed in the way of "social construction".

By the mid-1970s, social network research became a new field of sociology and gradually dominated sociological research in the West. In the past, especially in the past 60 years of development, relevant scholars have conducted in-depth analyses of the application of social networks in practical fields and achieved many significant research results (Li & Jia, 2014). On the basis of summarizing the previous studies and in light of China's national conditions, Kuang and Yang (2008) put forward that a social network is the sum of various relationships established in the process of exchanging and transferring resources between various actors.

From the perspective of analysis, a network is abstracted as a collection of nodes and edges, where “nodes” refer to various actors, such as individuals, enterprises, and enterprise clusters, whereas “edges” refer to the various social relations between various actors. The activities in a social network are mainly related to the flow of both resources and production factors, such as knowledge, information transfer, and internal and external transactions with the actors in the network. A social network results from the formal and informal relations produced by the flow of resources （Wang, Ren, &Zeng, 2010）. Although many scholars have explored the multi-dimensionality of the network concept from different perspectives, they all emphasize that the interactions of the actors in the network lead to the interdependence and communication between the actors, which accelerate the realization of value (Li & Gui, 2009; Zhen & Wang, 2009).

Network analysts believe that the entire society is a large system composed of interlaced or parallel networks. The structure of social network and the mode of its influence on social behavior are the topics of research on social networks. Social network research focuses on deep social structure, namely, the Kuaiding network model hidden under the complex appearance of the social system. They emphasized the importance of studying the nature of the network structure, focusing on how the contact mode in a network provides opportunities and restrictions, and their analysis is based on the social network that connects various intersections in a social system. Network analysts regard the social system as a dependent network of connections where social members occupy scarce resources differently according to contact points and allocate these resources structurally. A unique feature of network analysis is the emphasis on explaining behaviors by the structural constraints of behaviors rather than the internal drive of actors (Gu & Ruan, 1993).

Wellman (1983) points out that there are a number of propositions that dominate the direction of research in networking. First, ties with different contents and levels of strength often interact asymmetrically, and social resources flow through ties and networks. Second, ties directly or indirectly connect network members. This can only create a connection if both parties are willing to interact with each other. The ties of small and closely connected groups are quite different from those of large and generally connected networks. Third, the structure of social relationships forms a non-random network, resulting in network groups, boundaries, and interactions. Proposition further consists of two points: On the one hand, the ties in a network are often transitional. If A and B are connected, and B and C are connected, then the connectedness between A and C will be deeper. Making connections costs and brings benefits and maintaining connections between individuals requires a continuous flow of resources, which also makes participants aware of the need for connections. On the other hand, each individual must have trade-offs in maintaining relationships, because each individual is limited in the number of relationships they can maintain. In other words, if you don't let go of some existing relationships, you won't have the resources or energy to maintain others. Fourth, interactions connect groups with individuals. The intersections of a network are not necessarily individuals, but can also be connected groups, societies, nations, countries, or other discrete units. Each individual does not have to participate in only one network, but when he participates in several networks, he can bring intersections between networks. Fifth, there are different networks and connections in different forms of resource allocation, and the flow of resources in such connections is also very different. Group density, the tightness of group boundaries, and the pattern of connections within and outside a group dictate how resources flow. Because each member has a different position in a social system, the ways they obtain resources are also very different. In fact, unequal access to scarce resources increases the asymmetry of ties. Sixth, the formation of networks is driven by resources, and different forms of networks also imply having different ways of resource flow. In particular, for the acquisition of scarce resources, individuals within a network connection generate certain competitive behaviors for the acquisition of scarce resources. Similarly, in non-random multilevel networks, individuals' access to resources may require complementary and collaborative approaches. Groups in a network form groups and alliances with these connections (Wellman, 1983; Wellman & Berkowitz, 1988).

In this study, social network is defined as the system of ties formed by the interactions between various actors in the process of obtaining information, resources, and opportunities. Through the above review of the social network concept, it can be seen that social network is an important theory in the field of social research, and its definition has also been standardized and deepened in the development process.

In summary, according to the above analysis of the social network concept, it is safe to conclude the four dimensions that depict a social network: (1) Social resources are embedded in the social network, and the interpersonal ties will affect its social actions; (2) Social relationships can bring social capital to individuals or organizations; (3) Information dissemination is affected by the strength of ties in the social network and the structure of the social network; (4) Social network actors begin to expand from individuals to teams or organizations, and their network boundaries are constrained by the interconnections between the actors.

2.1.1.2 Social network analysis

Social network analysis (SNA) is a technique for quantitative analysis of social relations (Huang, 2011). Social network analysis, which originated in the 1950s, is an important branch of Western sociology. It is considered to be a research tool that can effectively connect the micro-and macro-level theories as well as an important research direction of contemporary Western mainstream sociology (Barnes, 1954). In the context of the increasing emphasis on structural and systematic research in the field of sociology, social network analysis has gradually emerged as a new tool and method for analysis due to its unique analytical perspective, practicality, and operability. Social network analysis starts with specific social relations to analyze social structure and human behavior. It points out that human behavior is embedded in the social structure, rather than an isolated or one-sided behavior choice. Social network analysis is mainly used to describe and measure the ties between the actors within a network, and various tangible or intangible things generated through the flow of these ties, such as information and resources (Zhang, Li, & Lu, 2004).

In the early 1970s, a large number of technical and professional application documents appeared in the social network analysis field (Škorić, Kišjuhas, & Škorić, 2013). In this field, any social unit or social entity can be regarded as a node in the network, such as individuals, companies, or collective social units (Granovetter, 1973). Borgatti and Foster (2003) believed that social network can be used as a research paradigm in which network ties comprehensively observe and understand social phenomena. Pappi and Scott (1993) further clarified that social network analysis can be either a research trend or a research tool that consists of a series of technologies used for collecting and analyzing network data. As mentioned above, social network analysis is not only a research paradigm and a unique set of methods but also a collection of theories. added that social network analysis is also a unique set of theories used to explain the systematic relevance of the specific aspects of social life, namely, social network analysis theory. By synthesizing relevant literature, they found that social network theory can be divided into three categories: The first category consists of the introduction theories drawn from other disciplines, including graph theory introduced from mathematics as well as balance theory and social comparison theory drawn from social psychology; The second category refers to the original social network theory, which can be divided into heterogeneity theory and structural role theory; The third category consists of network thoughts absorbed by the existing organization theories, including the resource dependence theory developed on the basis of social capital theory, the population ecology integrated with the concept of structural holes, and the weak tie hypothesis integrated with the contingency theory. The focuses of social network analysis are relationships and the pattern of relationships rather than the properties of actors. Since social science analysis is rooted in cultural values and symbol systems, actors are inevitably subject to the influences from other actors. Studying the relations between actors can better reflect the actual situation in interpersonal communication (Škorić, Kišjuhas, & Škorić, 2013); Multi-level analysis can be carried out in social network analysis, and various relations can be accurately and quantitatively analyzed, to provide a quantitative tool for the construction of a certain middle-level theory and the test of empirical propositions. A bridge between "the macro and the micro" can even be built.

In the field of American sociology, social network research is considered to be one of the three most influential schools, parallel to the rational choice school and the new institutional school. At the theoretical level, Li and Xie (2013) believe that social network analysis will become one of the most important research paradigms in the 21st century. Social network theory belongs to the middle-level theory advocated by Merton, and it bridges the chasm between grand theories and micro-theories.

Through the development by various scholars, the network relationship theory has been widely used in sociology and management to explain various phenomena. After a long period of development, scholars mainly adopt two different analytical perspectives in network analysis, namely, the structural perspective and the relational perspective. The structural perspective is represented by Burt (2000). Focusing on the structure of ties in the social network, it is a structural and topological method that underlines the form of ties and involves such dimensions as the analyses of the size of the network, structural holes, centrality, and cohesive subgroups. The relational perspective is represented by Granovetter (1973) and Powell, Koput, and Smith-Doerr (1996), which mainly focus on relational resources, and these relations are regarded as the channel to realize the flow of information, resources, and opportunities. The dimensions examined mainly include the strength, density, diversity, directness & indirectness, and symmetry of the network ties.

2.1.2 Main theories on social network

With the continuous development of the social network theory, different scholars have studied it from different perspectives, and gradually formed different social network theories and views.

2.1.2.1 Network structure view

In the study of social structure, network analysts offer a completely different view of social structure from the traditional one (Granovetter, 1973). The network structure view focuses on the role of inter-individual connections. The network structure view views inter-individual connections as an objective social structure, and this social structure has a very important impact on the behavior of people and organizations. The network structure view asserts that the actions of any person or organization have a very large impact on the other subjects they are connected to. Based on this core view, the network structure view gives rise to the following characteristics. First, the network structure view considers that an individual's position in society is defined by his connections with other individuals together, while the hierarchical status view defines an individual's position by his/her attributive characteristics. Second, the criteria for classifying individuals or organizations are different. The network structure view focuses more on the connection between individuals and other individuals or organizations as a way to classify different networks, while the traditional hierarchical status view classifies individuals solely on the basis of their own characteristics. Third, the network structure view focuses on the influence of inter-individual relationships on behavior and the embeddedness of behavior, while the hierarchical status view analyzes the attribution and identity characteristics of individuals. Fourth, the network structure view focuses heavily on how individuals absorb social resources through social relationships, whereas the hierarchical status view emphasizes whether people own certain social resources and how many such social resources they own. Fifth, the network structure view focuses on the position of the individual in the network and being at the center means having more social resources and the significance of the advantages and disadvantages of their network resources, while the hierarchical status view attributes everything to people's social status, such as class status, education status, and professional status.

2.1.2.2 Market structure view

White (1981) published a research entitled "Where does the market come from?", in which he proposed that the market comes from the development of social networks. Whether they are product producers or operators, they are all in the same network because each of them individually has to refer to the pricing and marketing strategies of their peers. This kind of social network provides necessary information for producers and operators. Second, Individuals in the same network will pass information to each other, suggest risks to each other, and build trust relationships in the process of continuous interaction. Due to the existence of the network, this makes each individual has the risk of violating the rules and trust, once the individual breaks the trust, it is difficult to develop business in the whole network. Third, the market order is formed by the individuals within the network, who do not act strictly according to the laws of the market, but according to the rules among the individuals within the network. In other words, the market order is a response to trust and repeated interaction among individuals within the network. (White, 1981).

2.1.2.3 Strength of weak ties hypothesis

Granovetter (1973) published an article entitled "The Strength of Weak Ties" in the *American Journal of Sociology*, proposing the important theory of the "weak tie hypothesis", which had a significant impact on social network analysis in the academic circles in Europe and the U.S. Granovetter believed that there is a tie between people as well as between organizations due to interpersonal communication and contact, and that this tie is different from the abstract tie between people's attributes and category characteristics (such as scenario-based relationship and class relationship) used in traditional sociological analysis. For the first time, he proposed the concept of the strength of ties. Specially, he believed that strong ties and weak ties play fundamentally different roles between people and people, between organizations and organizations, as well as between individuals and social systems. Strong ties maintain the relationships within groups and organizations, while weak relationships establish bonds between groups and organizations. Based on the distinction between strong ties and weak ties, Granovetter put forward the judgment that "weak ties act as an information bridge". According to him, the establishment of individual connection relationships is based on the individual's own age, personality, educational attainment, professional status and other characteristics, while weak ties are established between individuals with different socioeconomic characteristics. Because the things and events understood by individuals with a high degree of similarity within a group are often the same, the information obtained through strong ties is often highly repetitive. In comparison, weak ties are established between groups. They have a wider distribution range and can better serve as a bridge to cross social boundaries and obtain key information and resources. Through research on the job search process in the U. S., it is found that the use of weak ties in the job search process has more advantages than the use of strong ties. Granovetter believed that although not all weak ties can act as information bridges, the ties that can act as information bridges must be weak ties. The judgment that weak ties act as an information bridge is the core basis for his theory of "the strength of weak ties" (Granovetter, 1973; Granovetter, 1985).

2.1.2.4 Embeddedness concept

Granovetter believed that embeddedness is the social embeddedness of the economy, including the embeddedness of economic activities in social networks, culture, politics, and religion. Economic exchanges often occur between acquaintances instead of between strangers. Compared with the strength of weak ties hypothesis, the embeddedness concept emphasizes trust rather than information, and trust relies on the long-term contact, communication, and understanding between two parties. In fact, the concept of embeddedness implies the importance of strong ties. (Granovetter, 1973; Granovetter, 1985).

2.1.2.5 Social capital theory

The French sociologist Bourdieu and Nice (1980) first put forward the concept of "social capital" in the journal *Social Science Research* in 1980. He regarded social capital as a resource that can bring benefits to individuals. The American sociologist Colman and Rubin (2014) carried forward some of Bourdieu's views. He believes that social capital is owned by individuals and manifested as the property of social structural resources. They are composed of the elements that make up the social structure, which mainly exist in the network of social groups and can only be rewarded through membership and network connections. Colman and Rubin (2014) believed that social capital includes three aspects, namely, social groups, social networks, and network intake. The more social groups an individual participates in, the stronger his/her social capital is; the larger the scale and the higher the heterogeneity of an individual's social network, the richer his/her social capital; the more resources an individual absorbs from the social network, the more social capital he/she has (Bourdieu & Nice, 1980; Colman & Rubin, 2014).

2.1.2.6 Structural-hole theory

The theory of "structural holes" was put forward by sociologist Ronald Burt in his book entitled *Structural Holes*. It refers to the non-repetitive relationship between two related persons. A structural hole is a buffer, equivalent to an insulator in a wireline. As a result, the interests contributed to the network by the two related parties who have structural holes with each other are cumulative, rather than overlapping. Burt (1997) divided the actors in our social network into two types. One is the people we have repetitive relationships with, or the people both we and others know. The other refers to the people we have non-repetitive relationships with, or people we do not know but others know. If the latter type exists, then the social network has a "hole" structure.

2.1.2.7 Balance theory

In 1958, psychologist Heider put forward the "balance theory". Hyde believed that humans generally need balance and harmony. People like balanced relationships instead of unbalanced ones. Once people have cognitive imbalance and disharmony, they will be psychologically anxious, which will promote the transformation of their cognitive structure in the direction of balance and harmony. For example, if you like someone but cannot agree with his work performance, the unbalanced results will cause inner unhappiness and tension. The way to eliminate the imbalance will be to agree with his work performance or stop liking this person. This leads to the change of attitudes. The balance theory shows that people tend to form small groups due to their preference for balanced relationships.

2.1.3 The relational properties of social networks

The relational properties of social networks are an analysis dimension that belongs to the social network theory. Under the relational dimension, the various actors in a network interact and connect through such ways as connections, communication, and business activities, thereby promoting the network actors' access to network information, resources, and opportunities (Pan & Cai, 2010). The creation of the network is based on the actors' active participation in the activities, which facilitates the flow of resources and leading to the establishment of formal and informal relationships. Many scholars have explored the multi-dimensionality of the network concept from different perspectives. They all emphasize that the interactions between network actors cause them to form an inter-dependent relationship, which facilitates value creation (Li & Gui, 2009; Zhen & Wang, 2009). Thus, the relational dimension of social networks is mainly related to the interactions between various actors.

The relational dimension of social networks has been applied at both the individual level and the organizational level. At the individual level, (Granovetter, 1973) argued that weak ties have stronger cohesion because the degree of overlap of network ties between individuals is directly influenced by the strength of the ties between them, while the strength affects the transmission of information, the flow of job opportunities, and the efficiency of community organizations. At the organizational level, most scholars unanimously agree that organizations are embedded in a multi-relationship network with other organizational actors. If an organization is regarded as an independent unit in interpersonal social transactions, it will inevitably fail to obtain an all-round understanding of the entire organizational behavior (Škorić, Kišjuhas, & Škorić, 2013). Relevant research shows that resource capture through inter-organizational relationships is the reason for the formation of network ties in the social network at the organizational level (Škorić, Kišjuhas, & Škorić, 2013). The relational properties of social networks are mainly used to measure the degree of interaction. Therefore, the degree of closeness as well as the duration, strength, diversity, directness and indirectness of ties all belong to the relational properties of social network.

2.1.3.1 Strength

Tie strength, as a quantifiable indicator, reflects the connection between two actors. Granovetter (1973) and Burt (2000) proposed that a network is composed of strong ties and weak ties, and the properties of both ties affect the operation and structure of the network (Burt, 2000; Granovetter, 1973). Weak ties and strong ties are relative. The main difference between them lies in the degree of intimacy between the connected actors, which is measured mainly by communication frequency and durability (Škorić, Kišjuhas, & Škorić, 2013). Granovetter (1973) analyzed weak ties through social metrology and put forward the strength of weak ties hypothesis. He believed that the strength of ties directly affects the degree of relationship overlap between network actors, and further put forward the four evaluation dimensions of the strength of network ties, namely, the frequency and duration of contact, the degree of emotional connectedness, the degree of trust and familiarity, and the degree of equality between the two parties. The strength of network ties will affect the transmission of information, the flow of opportunities, and the efficiency of community organizations (Granovetter, 1973). The importance of weak ties lies mainly in the fact that the information dissemination ability of weak ties is stronger than that of strong ties, which provides a useful perspective for analyzing the capture of new resources. However, weak ties still have their limitations. Enterprises do not always obtain resources from weak ties because strong ties are often the basis and starting point for an individual to have contact with the external environment. Strong ties encompass certain trust, cooperation, and stability, whereas weak ties are associated with instability, risks, and speculation. Therefore, it is easier for enterprises to obtain resources through strong ties (Granovetter, 1973). In terms of knowledge dissemination, weak ties are more conducive to gathering heterogeneous knowledge, and actors are more likely to obtain diversified knowledge; in comparison, due to the relationship overlap, strong ties will form more redundancy in the knowledge dissemination process. Therefore, strong ties are conducive to knowledge utilization, whereas weak ties are conducive to knowledge exploration (Nooteboom, 2000).

2.1.3.2 Diversity

The diversity of social network ties reflects the degree of non-redundancy of information flow within the network. The lower degree of non-redundancy of the social network, the more heterogeneous resources and information accessible to the focal network actors. Due to the intensification of competition and the acceleration of technological change, an enterprise's competitive advantage depends on not only the organization's internal capabilities but also the organization's external network because the organization can obtain partners' complementary assets through external social capital or internalize partners' skills through learning (Gou & Liao, 2005). Ahuja, Soda and Zaheer (2012) defined the diversity of network ties as the degree of connection heterogeneity among actors in the network. At the organizational level, diverse network ties play an extremely important role in community ecological organization networks and can help maintain the strength and type of relationship between partners (Provan et al., 2003; Wang, 2016). At the individual level, the diversity of social network ties can improve individual performance, but an overly diverse network could also cause network overlap and lead to resource congestion (Methot et al., 2016). Besides, due to mutual sharing, the diversity of network ties can generally enhance enterprises' social capital and their central position in the network (Adler & Kwon, 2002; Methot et al., 2016). Additionally, compared to unitary ties, diverse ties are more conducive to the flow of high-quality information (Lazega & Pattison, 1999). However, there are some limitations to diverse ties since the maintenance cost is high as individuals need to spend a large amount of time and resources to communicate and exchange information (McFadyen & Cannella Jr, 2004). Therefore, the higher level of diversity of a tie, the higher maintenance cost for the tie. Besides, extreme diversity may bring about psychological pressure and conflicts.

2.1.3.3 Directness and indirectness

The directness and indirectness of connection is another relational property of social network. Directness refers to the ties that are established directly between actors, and indirectness refers to the ties between actors that must be established through a third party. In generally, direct network ties often connect actors that identify with each other or are the same with or similar to each other. The ties between these actors are often known as strong ties (Yao, Zhang, & Xi, 2008). However, due to the existence of intermediaries in the indirect network ties, the strength of the ties between the actors is significantly affected by the distance (the number of intermediaries). And there is a negative correlation between the number of intermediaries and the ties between the two parties (Zhang, Li, & Lu, 2004).

2.1.4 The structural properties of social networks

Structural properties belong to another analysis dimension of social network analysis. They usually refer to the relatively stable relationship model or "structural hole" model among the actors within the social network, especially the "structural hole" model. (Burt, 2000) proposed a network analysis model of relationship-position, where the former mainly analyzes the number and quality of the relationships the actors have in the network, while the latter focuses on the position or network structure of the actors in the network. Granovetter (1985) divided social network into relational embeddedness and structural embeddedness from the perspective of network embeddedness. The former belongs to the relational properties of the network and analyzes how to obtain high-quality information and knowledge resources through direct or indirect relationships, while the latter belongs to the structural properties of the network and holds that the behaviors of actors in the network and the capture of resources such as knowledge are affected by the structure of the entire network. Krackhardt (1992) measured network centrality from network density, network hierarchy, and network connectivity. Most scholars in China also use the relational dimension and structural dimension to analyze social networks. Wang (2005) regarded social networks as a collection of network density, network strength, reciprocity, diversity, and centrality; Peng divided social networks into four dimensions, namely, network centrality, network scope, the strength of ties, and network stability when measuring the social network of high-tech cluster enterprises; Chang and Hao (2014) analyzed the social network of pharmaceutical enterprises from the dimensions of network scale, the strength of ties, network density, and network centrality.

In summary, it can be seen that network analysis should be considered from two aspects. One is that the actors of a social network must take initiative. The other is that the behaviors of the actors have to be constrained by the social network. The structural perspective of network analysis is a structural and topological approach that focuses on the structure of the relationships in an enterprise's own network. It focuses more on the form of relationships, and involves the density, centrality, and structural holes of the network.

2.1.4.1 Density

Network density refers to the ratio between the actual quantity of relationships between a group of actors in the network and the maximum possible number (Ci, 2005). Therefore, network density, to a certain extent, refers to the quantity of relationships and degree of complexity in the network. The closer the actual number of actual relationships to the total number of all possible relationships in the network, the higher the density of the network, and vice versa. For example, if the density of a network is one, it means that each individual in this network has connections with all other individuals in the same network. Conversely, if the density of this network is zero, it indicates an absence of connections between individuals in this network. In such cases, this network would no longer suffice to be a network. The density of a network also signifies the completeness of the network. The so-called completeness refers to the degree of adjacency between the points in the network graph (Chen & Zhou, 2016). In general, if an actor happens to be in a closed network and its relationships with the surroundings are mostly strong ties, then the overall density of the network is relatively high.

2.1.4.2 Network centrality

Network centrality refers to the quantity of direct and indirect relationships an individual has established. An indirect relationship is one in which there is no direct connection between an individual and another person, but a third person must act as a bridge in order to pass on information or resources. Network centrality is one of the most important structural properties of the social network. It is an important indicator to measure the ability of a node in the network to obtain and control resources (Huang, 2011). Network centrality consists of overall centrality and individual centrality, while network openness includes network density and network boundaries. In the analysis of social networks, the indicators used to determine an individual's position in the social network include many types, such as the degree of centrality, closeness of centrality, betweenness of centrality, and eigen-vector of centrality (Nooteboom, 2000).

2.1.4.3 Network openness

Romanelli and Khessina (2005) pointed out in their study that network openness is a continuous source of value and an important factor affecting the operating results of companies. In their study of the relationship between network openness and performance, Wu and Sheng (2011) drew on Romanelli's description of network openness and held that network openness is composed of three parts, namely, the diversity of network members, the willingness to accept new members, and the degree of contact with organizations outside the cluster. Besides, they also found that the degree of network openness reflects the diversity and heterogeneity among network members. The higher the degree of openness of the network, the more beneficial to corporate performance. Lichtenthaler and Ernst (2007) pointed out that the higher the network openness, the more beneficial it is to optimize the relational network between enterprises. Li (2011) pointed out in her study that the higher the degree of network openness between the two parties in the cooperation process, the more knowledge and resources the two parties will obtain from the cooperation, which can effectively improve the stability of the cooperative relationship between enterprises. The higher the degree of an enterprise's network openness, the more necessary it is for the enterprise to develop relationships with other actors so as to jointly create more development opportunities with other actors in the network. Network openness means that valuable knowledge will be widely distributed in the network, which will be beneficial to the flow of knowledge, so that knowledge and information can be absorbed into the enterprise or transferred to the outside of the enterprise in various ways.

2.1.4.4 Structural holes

The structural-hole theory is based on the properties of social network structure. The specific social network structure presents either a “no hole structure” or a “hole structure”. The former indicates that there are some direct connections between the network actors, and there is no discontinued relationship. This structure is more common in small groups; The latter means that some actors in the network are directly connected to some actors, but not directly connected to other actors. This phenomenon is called “structural holes” (Burt, 2000). Burt (2004) believed that the most important advantage in competitive advantage is relationship advantage. The actors occupying more structural holes have obtained more information advantages and control advantages, so they have a higher status and reputation than other actors and can obtain the greatest return from the network. Therefore, if the actors in a social network want to obtain and maintain a long-term competitive advantage, they need to establish more extensive relationships with other actors in the network. He also pointed out that the members of a group have strong ties, but it is difficult to establish ties between different groups. If two groups want to establish a tie, they must rely on one member of each group to know each other, forming a pathway between the two groups. This pathway is the so-called “bridge”. Therefore, only the person or organization that is good at establishing weak ties is likely to occupy the “structural holes” position and become a “bridge”. In summary, the importance of “structural holes” lies in the fact that it usually functions as the “valve” for the flow of information and resources in the network, and the flow of information and resources is in the hands of the people or organizations occupying the “structural holes”. If a platform enterprise can occupy the “bridge” position within the cooperation network in the course of the integration of industry and finance, it will be able to further its ties with other actors and contribute to the success of the industry and finance integration (Borgatti et al., 2003). The properties of social networks are summarized in Table 2.1.

Table 2.1 A summary of social network properties

Network dimension	Network properties	Relevant information
Relational Network	Strength	Strength reflects the connection between two actors. It is measured by such indicators as the frequency and duration of contact, the degree of emotional connectedness, the degree of trust and familiarity, and the degree of equality between the two actors. The ties between two actors can be divided into strong ties and weak ties. Strong ties can facilitate resource capture, increase the flow of opportunities, and enhance organizational efficiency; weak ties can enable both parties to have stronger information dissemination ability and facilitate the accumulation of heterogeneous knowledge.
	Diversity	Diversity refers to the degree of heterogeneity of connections between the actors in a network. It reflects the degree of non-redundancy of the information flow in the network. The lower the degree of non-redundancy, the more resources and information the actors obtain. Diverse relations are more conducive to the flow of high-quality information than unitary relations. Besides, diversity also requires higher maintenance costs.
	Directness/ Indirectness	Directness refers to the direct relationship between the actors, whereas indirectness refers to the relationship between two actors that can only be made possible through a third party. Normally, the directly connected actors generally have strong ties, and indirect relationships are generally weak ties. And the strength of the ties tends to be negatively correlated to the number of intermediaries.
Structure Network	Density	Density refers to the ratio between the actual quantity of relationships between a group of actors in the network and its maximum possible number. Network density indicates to some extent the quantity and complexity of the relationships in this network.
	Centrality	Centrality refers to the quantity of direct and indirect relationships established by individuals, and it is an important indicator to measure the ability of a node in the network to obtain and control resources. Proceeding from the research needs, network centrality consists of overall centrality and individual centrality.
	Openness	Openness is a continuous source of value in the network. The degree of network openness is composed of three parts, namely, the diversity of network members, the willingness to accept new members, and the degree of contact between organizations outside the cluster. There is a close connection between network openness and enterprise performance. The higher the degree of openness, the more favorable it is to the flow of knowledge between enterprises and the promotion of enterprise performance.
	Structure holes	Specific social networks will present “structured holes” and “unstructured holes”. The former means that some actors in the network are directly connected to some actors, but not directly connected to other actors; the latter means that there are some direct connections between the network actors and that there is no indirect connection. This structure is more common in small groups. Actors occupying more structural holes can obtain more information and gain control advantages.

2.2 Research on inter-organizational trust

2.2.1 Inter-organizational trust

A network organization is a governance structure between the market and enterprise bureaucracy. Trust is considered to be one of the key factors that determine the efficiency of network organization governance. It is a basis for building relationships and measuring the quality of relationships (Wang, Xu, & Zhao, 2013). Before the 1950s, trust was taken for granted and seen as a self-explanatory form that permeated every corner of the society. As a result, the academic community seldom studied topics related to trust. In recent years, as the business environment for enterprises becomes increasingly turbulent and market competition becomes increasingly fierce, inter-organizational cooperation has become more and more important. In this context, as an important factor affecting cooperation, trust has become a research focus. For example, studies on alliances, studies on value, studies on entrepreneurship are increasingly focused on the important role of trust. Research on trust has been enriched, and the factors of trust formation, trust classification, trust evolution process, trust mechanism are becoming hot topics for scholars' attention.

The concept of inter-organizational trust originated from the idea of interpersonal trust (Kawasaki, 2014). In the beginning of the last century, the German sociologist Simmel (1908) first put forward the concept of trust and pointed out that the prerequisites formed with trust as the exchange mechanism also constitute the basis of social sustainability. The sociological paradigm sees trust as the product of social systems, laws and regulations, as well as cultural norms, morals and customs. It is a social phenomenon closely related to social structure and cultural norms (Xu, 2010). As to inter-organizational trust, researchers have given different definitions from different perspectives. The first view sees trust as an expectation, where one party believes that the other party will not do anything that harms the cooperation between the two parties despite the availability of such an opportunity (Krishnan, Martin, & Noorderhaven, 2006). The second view sees inter-organizational trust as the degree of trust given, namely, the extent to which the members of an organization trust that its partner organization has the consistent tendency (Zaheer, McEvily, & Perrone, 1998). The third view regards trust as an attitude, specifically, the common attitude the members of an organization have towards the organization with which they cooperate, and this attitude is a stable evaluation of things and behavioral tendencies (Chu, 2003).

Trust is the actors' performance of their perceived obligations based on the other party's expectations (Madhok, 1995a). Mutual adaptation and learning among enterprises can generate trust, and this kind of valuable trust will strengthen enterprises' willingness to maintain their relationships (McEvily & Marcus, 2005). Granovetter (1985) believed that trust, as an important foundation for the interaction and association between social network relationships, is critical to bringing the role of social networks into full play. (Panico, 2017) found that organizational alliances are an important form of inter-organizational cooperation, and that the lack of trust will aggravate the vicious competition between organizations, hinder the capture of alliance value, and increase the probability of failure for the alliance (Uzzi, 1997). As the external environment becomes increasingly uncertain and complex, inter-organizational trust can increase network actors' willingness for long-term cooperation and propel them to focus on long-term interests and reduce opportunistic behaviors aimed at seeking short-term interests (Yin, Xu, & Qiu, 2014). Therefore, the establishment of inter-organizational trust has great significance for enterprises to make full use of network resources.

Existing research suggests that trust is an important foundation for maintaining relationships in business networks, and that trust acts as a medium for network organizations to penetrate the market and hierarchy (Dammer et al., 1993; Wagner, 2010). Trust is established in the course of interaction and communication. In the process of enterprise cooperation in the past, the ways of both information exchange and problem solving played a role in the establishment of trust. As time goes by, trust has gradually become a conventional principle that regulates the relationship between two enterprises that cooperate with each other (Škorić, Kišjuhas, & Škorić, 2013). Inter-organizational trust plays an important role in the process of association and interaction between network actors (Smith, Carroll, & Ashford, 1995). For example, some scholars confirmed that inter-organizational trust is significantly negatively correlated with negotiation cost and organizational conflicts from the organizational negotiation perspective (Wagner, 2010). Besides, trust can direct both parties' expectation for return on investment to the future rather than expecting immediate returns, thereby helping to maintain and sustain the relationship between organizations (Gulati, Lavie, & Madhavan, 2011). It can be seen that inter-organizational trust can effectively affect the relationship behavior of network actors and help enterprises cope with the impact caused by the dynamic changes in the external environment and the uncertainties in the organization. Therefore, the research on the influence of trust mechanism, trust conditions, and different types of trust on the establishment and maintenance of enterprises' network relationships is worth further exploration (Gulati, Lavie, & Madhavan, 2011).

It takes a lot of time and energy to establish and maintain inter-organizational trust, which makes the existence of trust very unstable. Inter-organizational trust may be broken due to a certain event, causing irreparable harm to the relationship between network actors (MacDuffie, 2011). Verbeke and Greidanus (2009) believed that due to the existence of opportunistic behaviors and other selfish behaviors, trust dynamics have become an inevitable problem for each organization. Under the influence of trust fluctuations, different types of trust also have different effects on the relationships in the network. If the inter-organizational trust comes from a contract, and its fluctuations are within the acceptable range of the partner organization, the parties tend to adjust their behaviors accordingly to repair the inter-organizational relationship; If the inter-organizational trust is rooted in social identity, the act of destroying trust will more likely be seen as a betrayal with more serious consequences. This shows that the trust built on the basis of contract may be repaired faster than that built on the basis of social identity. Moreover, MacDuffie (2011) pointed out that in a scenario of transition economy like China, maintaining a certain degree of trust duality is essential for enterprises to carry out social network relationship behaviors (MacDuffie, 2011). At this time, the inter-organization trust based on contract and that based on social identity are not mutually replaceable, but coexist with each other (Lai & Möllering, 2010). Inter-organizational trust changes dynamically in the relationships between actors. Due to the different types of trust, this change results in different relationship maintenance effects. This requires a dual perspective to explain the influence mechanism of trust on the relationships between actors.

In summary, the conceptual characteristics of inter-organizational trust are as follows. First, inter-organizational trust is a psychological perception. So, it is a potential existence. The trusting party makes a credible judgment of the trusted party based on the information it owns; second, inter-organizational trust is a common understanding of the other party formed on the basis of integrating the attitudes of the members of the organization. It embodies the trust of the enterprise as an organic whole in the alliance. Besides, the establishment and maintenance of inter-organizational trust is a time-consuming process, which makes the existence of trust very unstable.

2.2.2 The structural dimension and social dimension of trust

Under the dual perspective, trust has two components, namely, the structural dimension and the social dimension, and the components of each dimension strengthen the components of the other dimension (Madhok, 2006). Jones (1983) held that structural trust assumes that actors have “bounded rationality” and are “opportunistic”. Its core logic is based on the rational evaluation of well-structured rewards and punishment mechanisms, reflecting the focal organization's positive expectation for the reliability and predictability of its trading partners' behaviors. The focal organization believes that the high penalty for perfidy will outweigh the benefits of opportunistic behaviors. Social trust refers to the strong trust that the focal organization has in its trading partners based on repeated transactions and continuous social interactions in the past. In other words, the focal organization believes that its trading partners will take ethical, fair, and good-faith actions and have the knowledge and ability to help it complete its tasks. Social trust assumes that all economic activities are embedded in social relations, and the actors in economic activities and their institutional environment are affected by specific social relations or restricted by circumstances.

Structural trust can encourage both parties to restrain their selfish behaviors. However, in the case of cooperation with only structural trust, both parties would suspect each other, and opportunistic behaviors may occur at any time and exhaust the potential value added by resource complementarity, harming the interests of both parties (Buckley & Casson, 2010). Social trust can propel both parties to take more initiative because under the conditions of social trust, the behaviors of both parties are aimed at not preventing value consumption but increasing the value of the relationship between the two parties, so as to reduce the probability of the occurrence of opportunistic behaviors (Madhok, 1995a). Besides, Madhok (2006) also pointed out that structural trust can provide greater added value for both parties through the synergy of complementary resources, whereas social trust can increase the consistency of the overall goals and reduce the monitoring cost. It can be seen that the association and interaction of network relationships require the joint effect of both dimensions of trust (Madhok, 2006).

Structural trust provides the basis for resource collaboration (Madhok, 2006). In the association process between network actors, structural trust enables each actor in the network to effectively match its internal resources with external resources. For example, (Tomlinson, 1971) found in his empirical study on joint ventures that there is a strong correlation between the motivation of a joint venture and the resource complementarity between partners, even for partners with a history of successful cooperation. However, it is difficult for structural trust alone to achieve the continuation of the relationship, unless both parties of the cooperation obtain balanced benefits from this relationship (Madhok, 1995a). The absence of social trust will weaken the potential coordination value of inter-organizational resource synergy because the contributions of both parties cannot be continuously balanced, which will increase the opportunistic behaviors between organizations and increase the partners' cost for preventing opportunism (Hill, 1990).

In a society with a high degree of social trust, people are more inclined to maximize social efficiency through cooperation, rather than through mutual suspicion and calculation (Hill, 1990). Social trust can promote information exchange and reduce the degree of information opacity. This means that actors in areas with a high level of social trust will regard honesty and integrity as the code of conduct, and that in addition to self-discipline, they will also monitor and discipline others to adhere to honesty and integrity as well. Social trust, as an informal system, may have a relationship of mutual supplementarily and mutual substitution with such formal systems as law (Peng, Zhang, & Li, 2017). According to the study carried out by Putnam (1993), different communities and different levels of trust will lead to different public policies and market operation efficiency. Specifically, in places with a higher level of trust, the effect of system operation will be better.

Social trust also provides room for opportunity-seeking (Madhok, 1995a). In the process of interactions between actors in their social network, the contributions of both parties cannot be continuously balanced. In this context, social trust functions as a “glue” for inter-organizational interaction, enabling both parties to be more tolerant to survive the temporary period of imbalance (Madhok, 1995a). In this process, social trust provides motivation for the two interacting parties and determines which actions meet the best interests of the relationship between the two parties. This also means that social trust can induce reciprocal behaviors and coordinate the actions of both parties (Löser, Bierstedt, & Blum, 1999). It can be seen that the establishment of social trust makes it unnecessary for both parties to achieve balanced contributions for each round of interaction because the consistency of goals helps them tolerate some conflicts of goals and the temporary unfairness in the relationship (Wilkins & Ouchi, 1983).

The importance of social trust has been elaborated on before. Similarly, structural trust is also indispensable. This is because social trust cannot directly function as “strong glue” to bind all the differences together. Instead, it promotes the continuation of the relationship in the intermittent periods of inequality. Therefore, structural trust is needed to stabilize the relationship. This is why structural trust is indispensable in the interaction between the actors (Madhok, 1995a).

In summary, the structural dimension of trust is necessary but insufficient, while the social dimension of trust part is sufficient but unnecessary. The two dimensions complement each other and are indispensable to each other (Madhok, 1995a). As mentioned earlier, cooperation between actors in their social network requires both structural trust that can help achieve mutual collaboration and social trust that is oriented towards reciprocal behaviors, so that the actors can tap and enhance the potential of resources under synergy. Structural trust provides a prerequisite for actors' association and interaction in the network so that each actor in the network can effectively allocate internal and external resources. Social trust provides continuous motivation for actors' association and interaction in the network, making both parties more tolerant to overcome temporary imbalance (Li & Liang, 2002). Therefore, it is very important to study the interaction mechanism of different types of trust to bring out the effectiveness of relationships in social networks.

2.3 Value release in the integration of industry and finance

2.3.1 The concept of the integration of industry and finance

The research on the integration of industry and finance in the West can be traced back to Tobin's research on the division of wealth and their interrelationships. In his book entitled *Thoughts on the Interaction of Financial Markets and Practical Asset Markets*, (Tobin, 1998) pointed out that the wealth of an individual and the wealth of the society can both be divided into two categories. The first category consists of physical assets, which mainly include enterprise plants and equipment, residential houses, and durable consumer goods. The second category consists of financial assets, which mainly includes cash and government bonds issued by government departments in a capitalist society as well as various securities assets (such as stocks) issued by the private sector of a society (Tobin, 1998).Marx pointed out in his book entitled *Capital* that capitalist competition is the main way to stimulate and accelerate capital accumulation to achieve capital concentration. The British economists Hicks (1965) believed that technological progress can only promote industrial development when it is combined with financial revolution. In other words, only when a highly liquid financial market can provide the necessary financial support for industrial development can technological progress play a role in industrial development. To take this point further, Pantzalis, Park, and Sutton (2008) made an empirical analysis of the relationship between the integration of industry and finance and enterprise performance. They found that how effective the integration of industry and finance can increase enterprise value is related to the level of development of the country's capital market, government efforts, and the degree of perfection of the national legal system. In summary, it can be seen that the integration of industry and finance guided by local platform enterprises is crucial to local economic development.

For a long time, there had been few studies on the integration of industry and finance. In late 1990s, there was an upsurge of industrial capital entering the financial sector in China, leading to an urgent need for theoretical guidance on practice. As a result, Chinese scholars began to gradually carry out research on the theory of industry and finance integration. In the book entitled *Research on the Integration of Industry and Finance*, Xie (2000) objectively analyzed the economic development status and studied the theoretical and practical issues related to the effective integration of the industrial sector and the financial sector from the strategic perspective and on the basis of drawing from the experience of industry and finance integration in developed countries in Europe and the U.S. The study by Wang and Xu (2004) from the perspective of capital operation indicated that capital integration between banks and enterprises is not necessarily an integration of industry and finance. Take the debtor-creditor relationship for example. Only the capital collection that takes place in the form of shareholding is considered an integration of industry and finance. The integration of industry and finance is essentially the combination of the industrial economy and the financial sector. And the way of this integration is the transformation of industrial capital and financial capital through equity penetration. It can thus be seen that the combination of industrial capital and financial capital is achieved through the interpenetration of equity (Yang & Zhang, 2005).

In summary, the concept of the integration of industry and finance can be understood from the following aspects. First, the integration of bank capital and industrial capital; second, the integration of financial capital and industrial capital; third, the combination of direct and indirect financing as well as the combination of investment and financing; fourth, the combination of the various functions of capital in a certain institutional structure (such as economic functions and political functions); fifth, the mutual integration of finance and economy at the macro level. Furthermore, the integration of industry and finance can be interpreted in a narrow sense and a broad sense. In the narrow sense, this concept proceeds from the micro level, referring to the economic relationship between industrial and commercial enterprises and financial enterprises in such aspects as personnel and capital. In the broad sense, this concept proceeds from the macro perspective, mainly emphasizing the ways of financial capital distribution. To sum up, the integration of industry and finance refers to a process where the two different types of capital, namely, industrial capital and financial capital, achieve interconversion or combination by means of equity or personnel participation in the course of development for the purpose of achieving the common goal and increase of interests (Wei, 2017). shows the categories of the integration of industry and finance.

Table 2.2 The categories of the integration of industry and finance

Concept	Category
Integration of industry and finance	Integration of bank capital and industrial capital
	Integration of financial capital and industrial capital
	Integration of direct and indirect financing as well as integration of investment and financing
	Integration of various functions of capital in a certain institutional structure
	Integration and promotion of finance and economy at the macro level

With the intensification of the dynamic changes in the external environment, more and more scholars began to re-examine the integration of industry and finance from the perspective of business networks. Many Chinese scholars began to pay attention to the division of labor and collaboration in the network where the organization is located. A network is an intermediate form that transcends the dichotomy between the market and hierarchy. It is a long-term relationship system composed of participants in the organization. This kind of institutional arrangement between the market and enterprises is essentially a relationship of complementary value, and it will continue to evolve with time (Wang, 2005). When an enterprise evolves from a market organization to a hierarchical organization, the marginal benefits existing between the economic benefits and the scale of organization management tends to dimmish. Insufficient embeddedness of the relationship between the enterprises in the network will cause the transaction cost to rise. Nevertheless, if the relationship is too close, there will be over-embeddedness (Oliver, 1990). It can be seen that the organizational form of the integration of industry and finance should be between the market organization and the hierarchical organization. Considering the balance of network embeddedness comprehensively, market organization and hierarchical organization can be regarded as the two poles of network organization. The change from market organization to the hierarchical organization can be regarded as a process where network organization participants develop from loose cooperation to close cooperation with increasing embeddedness. Therefore, measuring the effectiveness of the combination of industrial capital and financial capital means measuring the embeddedness between industrial capital and financial capital (Granovetter, 1985; Uzzi, 1997). In summary, the social network perspective provides a new solution for the platform enterprises at district and county levels to achieve transformation. Besides, the innovative combination of industry and finance also provides a new way for enterprises to capture value.

2.3.2 Value capture from inter-organizational relationships

Inter-organizational relationships (IORs) refer to "the relatively enduring resource transactions, flows, and linkages that occur among two or more organizations" (Oliver, 1990). They are based on self-discipline, trust, and interdependence. IORs are different from not only the pure commodity exchange relationships in the market, but also the clear hierarchical relationships formed within an organization. Based on scholars' understanding of organizational development, the development of the theories of IORs can be divided into three stages. In the first stage, scholars regarded organization as a closed and independent concept, and no attention was paid to organizational relationships. In the second stage, scholars started to pay attention to the relationship between organizations and the environment. In the third stage, scholars gradually became aware of the important significance of IORs and started to focus on the open interactives between organizations (Oliver, 1990).

Since the late 1990s, Chinese scholars have carried out a series of beneficial studies on IORs. However, on the whole, there is still little literature on IORs, and the existing literature is relatively scattered, with the most still staying at the level of the relationship between organizations and the environment. In stark contrast, foreign studies on IORs started earlier. Back in the 1970s, IORs attracted much attention from many scholars, including organization theorists, management scientists, economists, and sociologists. Currently, IORs have become a special topic in the field of organizational theory study.

Keeney (1996) put forward the idea of decision making with value-focused thinking in his book entitled *Value-Focused Thinking: A Path to Creative Decision-making* and held that value is the source of all decision-making. Value-focused thinking mainly consists of the following steps. (1) Identify objectives; (2) Structure objectives; (3) Convert the quantitative goals generated by the first two steps into quantitative measures; (4) Measure the achievement of various goals, integrate them into a value model, and use this model to explain qualitative goals or as a basis for quantitative analysis.

Value is generated in the dynamic process of the interactions between the subject and the object, and this process is mainly reflected in human activities (Hunt, 1974). In other words, value is the emotional relationship between the object and the subject, and it is released when a consensus is reached between the object and the subject. There is a lot of controversy surrounding the concept of value in the current research. It can even be said that there is still some confusion and ambiguity (Lieberman & Balasubramanian, 2007). Based on the traditional resource-based view, Peteraf (1993) analyzed the contributions of a company's internal resources and capabilities to capture value. The new forms of inter-organizational cooperation, such as network alliances, as an important way for enterprises to obtain value today, can effectively activate all stages of the value chain, which is far different from the relatively simple peripheral activities carried out in traditional enterprise cooperation (Powell, Koput, & Smith-Doerr, 1996). From the social network perspective, enterprise resources include internal resources owned or controlled by enterprises themselves, and more importantly, the rich resources owned by the alliance partners and available to them (Powell, Koput, & Smith-Doerr, 1996). The proposal of social network theory made people aware that economic activities are embedded in the social structure and that the social relations between actors have some impact on an organization’s economic activities. Enterprises cannot create value independently. So, they must cooperate and interact with other organizations to achieve value capture. The cooperative relationships between enterprises can be regarded as various modes of interaction formed by the exchange activities between enterprises. The exchanges of social resources belong to a trading activity based on cooperation, mutual benefit, interdependence, and trust. (Granovetter, 1985) pointed out that embeddedness is how individual economic behavior is affected by social structure. (Gulati & Gargiulo, 1999) also pointed out that the development of the network is dynamic and that it will be affected by the need for external interdependence. Besides, the internal network embeddedness mechanism can help organizations determine which enterprises they should establish cooperative relationships with. Therefore, when the chosen enterprises are embedded in the alliance, the organizations will be able to realize the association and interaction of resources, thereby releasing the value of relationships.

Through the interaction and linkage of relationships in the network, enterprises can capture the value of relationships through three value mechanisms. First, enterprises may use network resources to directly expand and enrich their opportunities of value capture; second, enterprises can create value by integrating the network resources of different partners, thereby enjoying the synergy effect that cannot be obtained by a single partner in the alliance’s investment portfolio; third, the key enterprises can indirectly benefit from network resources, which can increase the value of their internal resources or provide them with the opportunity to internalize external resources (Dyer & Nobeoka, 2000). In the process of relationship value capture, IORs are an important carrier of value release and plays a key role in the generation and maintenance of enterprises’ competitive advantages. Enterprises achieve their purpose of relationship value capture through interaction and association in the relationship network (Bae & Insead, 2004). Therefore, for local platform enterprises, good IORs have become the key to value capture.

In summary, the relational properties and structural properties of social networks, especially their degree of embeddedness, have a significant impact on how organizations capture the relationship value (Wang & Wu, 2012). A network may be tight or loose, depending entirely on the number of members as well as the frequency of interaction and form of cooperation between members. Specifically, the embeddedness properties of an organization's network, such as strength, diversity, centrality, and density, determine the differences in the structure and function of the network. Such differences will lead to different forms of organizational relationship value capture. For example, Burt (1980) held that the value of strong ties is mainly captured through the synergy among members of small groups, while the value of weak ties mainly comes from the control power given to certain enterprises by the favorable position in the overall network structure. Different levels of strength of ties may prompt member enterprises to choose different relationship value capture mechanisms (Jiang, 2008). Therefore, the research on the value capture of IORs from the social network perspective is of great significance for enterprises to release value in a broader environment. A summary of the research on value and value capture is given in Table 2.3.

Table 2.3 A summary of the research on value and value capture

Research domain	Researcher(s)	Main content
Value	Pitelis (2009)	Value cannot be thoroughly defined.
	Helfat et al. (2007)	Value is defined as the willingness to pay less opportunity cost.
	Hitt, Ireland and Hoskisson (2016)	Value is measured with the functions and attributes customers are willing to buy.
	Chen (2014)	The concept of value has changed in the process of value creation and capture.
	Li and Jia (2014)	Use value is an objective basis, and utility is a subjective reflection
	Wei (2012)	Customers are the determinants of value.
Value capture	Lepak, Smith and Taylor (2007)	Value creation and capture is an independent process; competition and isolation mechanisms have explained enterprise value capture.
	Chen (2014)	The value capture of platforms is explained from the perspective of bilateral markets and platform charges.

2.3.3 Value creation and value appropriation

Value capture has different meanings in different fields and for different objects. For customers, it means a product or service that is always useful; for employees, it means respect, participation in decision-making, access to excellent incentives, as well as continuous training and development; for investors (shareholders and credit institutions), it means the continuous high return on capital (Atanda, 2015). However, the social network theory suggests that the capture of organizational value is not a single ac. Instead, the bilateral competition between the company and its partners will have a certain negative impact, and the multilateral collaboration between partners in the business network can effectively make up for this negative impact, and even mobilize the positive effect of competition. Based on the duality of relationship value capture, there are two ways of value capture. One is value appropriation, and the other is value creation (Lavie, 2007).

The value appropriation mechanism does not create new value but determines the relative share of common value each enterprise can obtain. In this relationship, partners competitively pursue self-interest goals and try to increase their share of common interests. Therefore, value appropriation mechanisms often trigger co-opetition (Lavie, 2007). In comparison, the purpose of value creation is to enhance the ability of an enterprise to generate value in its cooperative relationship with its partners. As enterprises pursue common goals, they expand the scope of value chain activities, which help to enhance the overall value of the alliance (Dyer, Singh, & Kale, 2008). This value creation mechanism depends on the ability of the enterprise to create synergy by combining external resources with internal resources, and eventually internalize the synergy through learning and imitation (Lavie, 2006). However, it cannot be ignored that both value creation and value appropriation are very important for inter-company cooperation. Value creation is the way to achieve sustainable cooperation, and value appropriation is the driving force for continuous cooperation between organizations.

Value creation reflects the process in which all partners in a business network jointly create interests. The value appropriation mechanism determines how these common interests are distributed to a single partner and the ability of the partner to unilaterally obtain private interests not accessible to other partners (Lavie, 2007). Paradoxically, the partners that make significant contributions to common value creation may also limit other partners' value appropriation ability, which will undermine cooperation (Lavie, 2007). An enterprise's value appropriation ability depends, to a certain extent, on its bargaining power relative to partners in the alliance's investment portfolio. Such bargaining power is reflected in the ability to change the terms of the agreement, the ability to obtain convenience from partners, and the ability to affect the outcome of negotiations. Therefore, the asymmetric common value distribution can be attributed to the attempts of alliance partners to use their stronger bargaining power relative to other companies to extract asymmetric value shares (Yan & Gray, 1994). Nevertheless, both the ability of value creation and the ability of value appropriation are necessary to achieve sustainable competitive advantages. Value creation affects the potential advantages, while value appropriation helps maintain an enterprise's existing competitive advantages. The two are mutually complementary and incomplete substitutes for each other (Mizik & Jacobson, 2003).

In summary, the balance of the conflict between value creation and value appropriation has a significant impact on the sustainable development of an organization. This balance depends on a series of factors, including the industrial environment, enterprise characteristics, executive preferences and interests, innovation and competition (Evered, 1979). At the same time, the conflict between value creation and value appropriation is the driving force behind the continuous improvement and development of the organization, and this imbalance provides an important basis for the continuous release of value. For example, Mizik and Jacobson (2003) pointed out that value appropriation and the level of enterprise competitive advantage are interrelated. Based on the different characteristics of an enterprise and the current business environment, the enterprise may need to weigh and consider between value creation and value appropriation. Therefore, local platform enterprises need to achieve the integration of two different types of capital. On the one hand, enterprises should unleash the potential for common value creation by making full use of inter-organizational collaboration. On the other hand, they should also protect their own interests in value appropriation so as to gain sufficient motivation for sustained growth of the regional economy.

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Chapter 3: Theory Development and Research Framework

The literature review in the previous chapter has enabled us to have a deeper understanding of the background and influencing factors of how the platform enterprises at district and county levels capture value through the integration of industry and finance as well as cooperation with social capital. Based on an all-round review of theories, this study focuses on Tier-Four and Tier-Five districts and county-level regions. China’s county-level regions occupy the vast majority of China’s land area and accommodate more than 70% of the country’s population (Mi, Ji, & Lin, 1999). With China’s continued urbanization, county economy will be an important new engine for China’s economic growth, and with the introduction of new policies such as China's domestic circulation, county economy has become an important way to undertake this policy, Because the county economy is the last administrative unit in China, only the county can maintain the vitality of economic development in order to promote a good self-circulation within the Chinese economy. Under various comprehensive backgrounds, the platform enterprises at district and county have become important economic entities. The integration of industry and finance has also become an important model for local governments to develop economy. Government capital and social capital jointly serve the value proposition of local economic development. However, the existing research still fails to fully explain the process and mechanism of this process with complex and multiple correlations. In particular, it is necessary to carry out further research on the factors that influence the two types of value capture, namely, value creation and value appropriation.

Therefore, according to the expected value and possible contributions of the research field, this thesis will focus on two aspects. The first is the establishment and development of the cooperative relationship between the platform enterprises at district and county levels and external entities. There will be a comprehensive analysis of the evolution of the characteristics of the cooperative network that enables the capture of inter-organizational cooperation value in the course of the integration of industry and finance. This part will reveal the law by which the platform enterprises at district and county levels and their partners jointly realize value capture on the overall level. The second is the type of trust that influences the value creation and value appropriation behavior of the platform enterprises at district and county levels. Trust, as the essential characteristic of IORs in the network, is the key to ensuring the effective operation of the network. Based on the duality of trust, this part will deeply reveal the internal mechanism by which IORs in the network act on value creation and value appropriation. In short, this thesis puts forward three corresponding issues for analysis based on these two aspects and elaborates on the views of current academic researchers and business practitioners. As the research context of this thesis, a review of relevant studies on local platform enterprises will be provided below.

3.1 China's local government investment and financing platforms

As its name suggests, an investment and financing platform performs two main functions, namely, investment and financing. defined both investment and financing in his book entitled *Capital*. Specifically, investment refers to the "process of converting capital into currency", which means choosing to convert existing income into assets instead of spending it on consumption in anticipation of future income. Financing refers to the process of financing funds through various methods. In the late 1940s, the concept of local government investment and financing began to appear in Western countries. It is a means of raising financial funds for departments through capital contribution or financing to provide financial guarantee for the government to implement social development strategies with the state or local finance as the main body and in compliance with the principle of credit (Brennecke & Rank, 2017). Existing foreign literature mainly studies the economic driving function of local platform enterprises. For example, Beshers (1970), from the statistical perspective, believed that the investment and financing platforms for urban infrastructure construction can effectively promote GDP growth. Some domestic scholars also believe that investment and financing platforms can not only promote infrastructure construction and economic growth through their own development but can also release the production potential of the private sector and further increase the output of the whole society as a kind of induced investment (Xiong, 2005).

The focus of the research on China's investment and financing platforms is different from that in the West, but there is no major controversy regarding the definition of the concept. Based on a summary of the nature of platform enterprises, (Guo, 2009) believed that local platform enterprises are enterprises that undertake the investment and financing functions of urban infrastructure construction or land development and that they are enterprises initiated, established, and authorized by local governments or state-owned asset management departments. It is generally believed that platform enterprises in the narrow sense refer to local state-owned enterprises (SOEs) or enterprise groups that can meet financing standards in terms of both assets and cash flow and that are established with the funds allocated by governments at all levels and with the initial assets obtained through the allocation of land, equity, regulatory fees, bonds, and tax return. These local SOEs or enterprise groups are controlled by the government. The specific forms include urban construction investment companies, transportation investment companies, state-owned asset management companies, various development zone (park) investment companies, and land reserve companies. As an investment and financing system with Chinese characteristics, China's local government investment and financing platforms are conducive to increasing domestic demand and making up for local governments' fiscal deficits. They are an important guarantee for promoting local infrastructure construction, leveraging social capital, improving residents' quality of life, and responding to the impact of the international financial crisis (Cao & Zhao, 2014).

Since the founding of New China in 1949, China's economic system has undergone several rounds of change. In particular, after the Reform and Opening-up in 1978, it gradually shifted from a planned economy to the establishment of a socialist market economic system. Along with this, the development of local investment and financing platforms in China can be roughly divided into five stages: (1) the stage relying on government funds alone during the planning period (1949-1978); (2) the stage of the initial development of local government investment and financing platforms (1978-1991); (3) The stage of the establishment of local government investment and financing platforms (1992-1997); (4) The stage of the deepening and promotion of investment and financing system reforms (1998-2007); (5) The stage of expansion of local government investment and financing platforms (2008 to present) (Brennecke & Rank, 2017).

Since the end of 2008, the number and financing scale of local government investment and financing platforms have exhibited a trend of rapid development. However, from the perspective of either micro risk management or overall economic operation, the financing behavior of local government investment and financing platforms has obvious weaknesses. Specifically, from the perspective of micro risk management, the financing status of local government investment and financing platforms is very untransparent. What is worse, some local governments themselves are even not aware of the debt and guarantee status of investment and financing platforms; commercial banks are in a relatively disadvantageous position in their interactions with local governments, making it difficult for them to implement some of the control and risk management methods of local government investment and financing platforms that used to be common in the past. At present, they mainly rely on informal financial guarantees. From the perspective of macro policies, local governments use investment and financing platforms to carry out large-scale borrowing, which directly restricts the room for adjusting the macro monetary policy (Ba, 2009).

On the whole, China's local platform enterprises have promoted various local infrastructure construction projects since the 1980s and provided important financing support for urbanization. However, due to changes in the economic situation and other unfavorable factors, there is an increasing possibility that these platform enterprises may bring structural risks. From 2010 to 2012, the Chinese government began to introduce relevant policies for investment and financing platform enterprises, requiring them to separate government functions from enterprise operations. Local platform enterprises, especially those at district and county levels, started to try to access social capital. In this context, the trust between the two different types of capital, namely, state-owned capital and social capital, has become a topic of general interest in the current research on local government investment and financing platforms in China.

Nowadays, the research on promoting local economic development mainly focuses on large-scale investment and financing platform enterprises at national, provincial, and municipal levels, with more attention paid to macro factors such as financial policies and supporting policies. However, there are huge differences between the platform enterprises at district and county levels and those at national, provincial, and municipal levels. The former pays more attention to individual enterprises and the relationships between enterprises in the value capture process of serving the local economy and local development. And the two categories of platform enterprises exhibit extremely different paths and forms (Xu, 2015). Specifically, due to the weak industrial foundation and policy disadvantages in county-level regions, the platform enterprises in these regions are inherently short of resources (Zhou, 2011), and they are more inclined to cooperate with external parties. In other words, they tend to cooperate with industrial capital in the way of integrating industry and finance to capture value.

3.2 The law of social network evolution of platform enterprises in the process of capturing the value of cooperation

IORs constitute a social network for enterprise cooperation. Due to the match and complementarity of internal and external resources, enterprises can achieve value capture through cooperation (Goerzen & Beamish, 2005). Most of the existing literature focuses on the leading role the platform enterprises at national and provincial levels play on the local economy and their development model. These enterprises have obvious advantages in industrial resources and policy support resources. They can drive local economic development by investing in their business sectors. However, the platform enterprises at district and county levels suffer from an extreme lack of business development capabilities and the corresponding industrial resources. They rely more on the integration of industry and finance to integrate their financial capital with external industrial capital so as to give full play to their strengths to overcome their inherent disadvantages in industry and policy resources. In fact, enterprise resources include not only the internal resources owned by enterprises themselves. But more importantly, there are a large number of rich resources that can be leveraged in the business network where the enterprises are located (Powell, 2003). Through cooperation with external entities, enterprises can improve resource operation efficiency and operating performance, thereby effectively avoiding the dilemma of resource scarcity.

Any social unit or entity that participates in an enterprise’s business activities is an important node of the social network in which the enterprise is located. The status of social networks for business activities is jointly represented by the characteristics of the connections between these nodes (Koka, Madhavan, & Prescott, 2006). The status characteristics of a network are key to their effective support for cooperation between nodes. In the course of the business cooperation between an enterprise and its external partners, a proper network status will be the basis for it to capture the value of cooperation (Lepak, Smith, & Taylor, 2007). According to the associated attributes and configuration properties in the network, (Granovetter, 1985) divided social networks into two types, namely, structural networks and relational networks. The social network properties of an enterprise change dynamically (Gnyawali & Madhavan, 2001). In fact, social network characteristics are dynamically changing (Gnyawali & Madhavan, 2001). For example, (Powell et al., 2005) connected network topology with field dynamics and found through empirical research that changes in the position and structure of organizations in the network over time will have an important impact on the continued cooperation between organizations. Therefore, this study believes that the evolution of the structural properties and relational properties of the social network in which enterprises are located supports the capture of the value of inter-organizational cooperation in the network.

The structural properties of social networks focus on the position of nodes and the overall configuration in the network (Burt, 2000). Considering the stage differences and sustainability of inter-organization cooperation to capture value, this study chooses network centrality and network openness of the structural network to measure the structural properties. Specifically, network centrality consists of overall centrality and individual centrality, while network openness consists of network density and network boundaries. To this end, the first research question is put forward (see Figure 3.1): In the evolution of the structural properties of the social network of local government investment and financing platform enterprises, how do network centrality and network openness iteratively support them to jointly capture value with their partners?

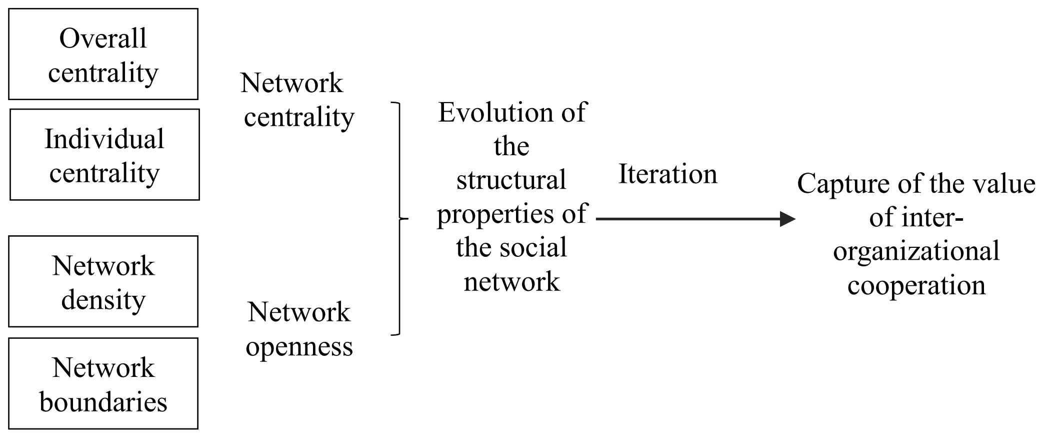

Figure 3.1 Support of the capture of the value of cooperation by the evolution of the structural properties of social networks

The relational properties of social networks focus on the binary relationship attributes between the nodes in the network (Powell et al., 2005). Considering the stage differences and sustainability of inter-organizational cooperation to capture value, this study chooses the tie strength and connection directness of the relational network to measure the relational properties. Specifically, tie strength consists of cooperation frequency and cooperation duration, while the connection directness consists of direct connections and indirect connections. To this end, the second research question is put forward (see Figure 3.2): In the evolution of the relational properties of the social network of local government investment and financing platform enterprises, how do tie strength and connection directness iteratively support them to jointly capture value with their partners?

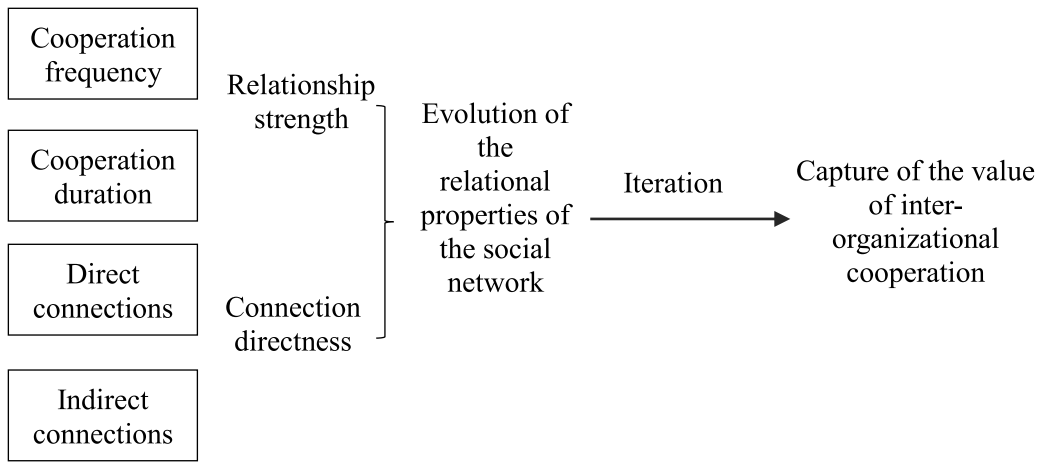

Figure 3.2 Support of the value of cooperation by the evolution of the relational properties of social networks

3.3 The dual dimensions of trust promote the integration of industry and finance and value capture of platform enterprises

Trust originates from and is rooted in social networks (Granovetter, 1985). As an important carrier and support of the cooperative relationships in the network, inter-organizational trust is a medium that runs through the market and hierarchy, which provides room for in-depth cooperation between organizations (Smith, Carroll, & Ashford, 1995). Inter-organizational trust can help both parties better understand their respective advantages and disadvantages, realize the significance of long-term development, and enhance the stability and enthusiasm of cooperation, thus playing an important role in the cooperation between network actors (Day et al., 2013). For example, Panico (2017) found through their research on organizational alliances that an alliance, as an important form of inter-organizational cooperation, may suffer from intensified vicious competition, hindered value appreciation, and an increased possibility of cooperation failure due to the lack of trust (Panico, 2017). It can be seen that it is of important significance to realize the integration of industry and finance for resource-poor enterprises so as to effectively leverage the external resources in the cooperation network.

The research on the influence of inter-organizational trust on enterprises' capture of cooperation value is still in the initial development stage. Most literature regards inter-organizational trust as a cooperation behavior where a single factor acts on the social network in which the enterprise is located (Adobor, 2005). In fact, inter-organizational trust is often complex and dynamic, and is characterized by duality (Day et al., 2013). Based on the study conducted by Madhok (1995a), this thesis divides inter-organizational trust into two types, namely, structure trust and social trust. Specifically, structural trust is a type of trust that is based on the rewards and punishments from the perspective of the economic interests, such as the trust in that the cost and benefit of abiding by the cooperation agreement between the two parties will outweigh the cost and benefit of engaging in selfish and opportunistic behaviors. This forward-looking decision-making rule will constantly reevaluate the collaboration to determine if it is worth the relative return. Under normal circumstances, structural trust will show the degree of inter-organizational trust from the perspective of resource matching. In comparison, social trust originates from social relationships and is judged based on repeated interactions in the past. When both parties strongly believe in each other's goodwill, they will consider each other's interests as their own, which creates a stronger interdependence and reduces the risk of cooperation. This heuristic and retrospective decision-making rule is based on the overall quality of the prior relationship, rather than on measurements and assessments made on the basis of a single transaction.

Under normal circumstances, social trust will show the level of inter-organizational trust from the perspective of the communication between the two parties (Madhok, 1995a). Besides, social trust and structural trust are mutually complementary and indispensable to each other. It is difficult for structural trust alone to achieve a sustainable cooperative relationship (Madhok, 2006). The two types of trust act together on the value creation and value appropriation of the capture of the value of cooperation. Moreover, as a carrier of trust, social networks have a significant impact on the nature and value of exchanges between organizations. This makes a significant difference in the impact of different types of trust on value capture behavior. Thus, inter-organizational cooperation requires both structural trust that can achieve mutual synergy and social trust that is oriented toward mutual benefit, and the two work together to create and capture appropriate value in the network. Value creation refers to the synergistic creation of value and the achievement of common goals by cooperating enterprises with the ultimate goal of enhancing the cumulative value of the entire cooperative arrangement (Dyer & Singh, 1998; Dyer, Singh, & Kale, 2008). Value appropriation does not consider the creation of new value. Instead, it mainly focuses on the distribution of rents in inter-organizational cooperation and how the party can appropriate a larger share of the benefits in inter-organizational cooperation (Gulati & Sytch, 2008; Khanna, Gulati, & Nohria, 1998). In general, value creation emphasizes on making a bigger cake, whereas value appropriation emphasizes on sharing the cake. In addition, the network state characterized by social networks, which function as a vehicle for trust, has a major impact on the nature and value of interorganizational exchange (Schilke & Cook, 2015). This also leads to distinctive differences in the impact on value by different types of trust (Zaheer & Venkatraman, 1995). It can thus be seen that inter-organizational cooperation requires both structural trust that enables mutual synergy and social trust with reciprocal behavioral orientation. Both of them jointly act on the creation and appropriation of the value of cooperation in the network.

The structural trust and social trust between organizations in the network are the foundation and support for local platform enterprises to realize the integration of industry and finance. Structural trust and social trust have different roles for the industry-financing combination. Structural trust can ensure the foundation for the formation of the integration of industry and finance, while social trust can ensure the sustainability of the integration of industry and finance. Structural trust can ensure the sustainability of the integration of industry and finance, and social trust can reduce the cost of the integration of industry and finance and release the potential value space in the integration of industry and finance. The two need to achieve balanced development. Considering the different roles of the dual dimensions of trust in the social network formed among organizations, social trust and structural trust will not only separately influence value creation and value appropriation, but also jointly influence these two behaviors of value capture. Therefore, the implementation effectiveness and combination of the dual components of trust will have differentiated impacts on platform enterprises' creation and appropriation of the value of cooperation. To this end, the third research question is put forward (see Figure 3.3). How do the relational trust and structural trust between local government investment and financing platform enterprises and their partners separately and jointly influence the platform enterprises' value creation and value appropriation in cooperation?

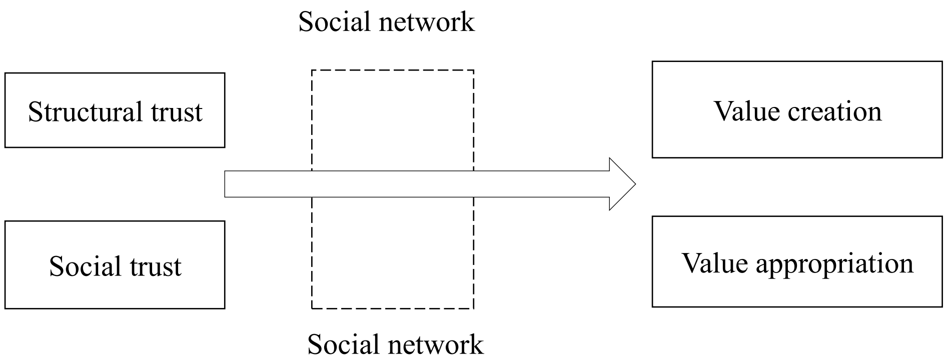

Figure 3.3 The two dimensions of trust and two ways of value capture supported by the network

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Chapter 4: Research Methods

4.1 Research design ideas

This study combines social network theory and trust theory on the basis of the existing literature. On the one hand, it describes the network evolution of the platform enterprises at district and county levels in the context of resource scarcity and explores how they utilize social networks to achieve the deep integration of industry and finance and revitalize the local economy. On the other hand, it analyzes the important role that trust plays and analyzes the mechanism of inter-organization trust in local social networks. Based on a review of the existing literature, we found that as a new research field, how the platform enterprises at district and county levels overcome the disadvantages of resource scarcity and policy disadvantages to achieve an effective integration of industry and finance needs in-depth exploration. From the perspective of social networks, this study explores the mechanism by which inter-organizational trust plays its role in social networks. Despite the in-depth research on social networks and trust theory, the research on how trust works and its combination with network evolution is still an emerging field. The development process of the platform enterprises at district and county levels provides an effective research scenario. This requires rich and detailed data as support. In particular, a large amount of first-hand information is needed to provide strong support for theoretical expansion. Eisenhardt (1989a) pointed out that the most appropriate methods for theoretical research on process mechanisms are induction and qualitative research. Besides, the case study method can also help us better answer the explanatory and exploratory questions in the field of insufficient research.

China's county-level regions account for more than 70% of the country's land area and population, but its economy accounts for only 24%. China needs to regard the development of county economy as a priority in its endeavor to address both the uneven development between the eastern and western regions as well as the unbalanced development between urban and rural areas. As an important entry point for the government to motivate the county economy, the platform enterprises at district and county levels play an important role in accelerating China's urbanization. It will also continue to play an important role in balancing the economic development between the eastern and western parts of China as well as between the urban and rural areas. In this context, the platform enterprises at district and county levels serve as important network nodes connecting the government and the social economy. Therefore, it becomes an issue worthy of attention to explore the ways to activate the value contained in the social network of the county economy in the new context of China's economic development.

Besides, China's government investment and financing platforms used to be corporate entities initiated, established, and authorized by local governments or state-owned asset management departments. Since establishment, they have been playing the important role of advancing local infrastructure construction, leveraging social capital, improving citizens' quality of life, and stabilizing local economy. Under the influence of the global financial crisis in 2008, China issued a four-trillion-yuan infrastructure investment plan. Subsequently, platform enterprises began to mushroom, and their scale continued to increase. However, as the debts undertaken by platform enterprises became higher and higher, China's central government began to introduce policies to require local governments to prevent structural risks. The core of these policies was to promote the substantive reform of local platform enterprises. The government investment and financing platforms at district and county levels, as the end of government investment and financing platforms, are relatively small in scale and enjoy relatively less policy dividends compared to their counterparts at provincial and municipal levels and are thus located at a significantly disadvantageous position in terms of resources. For these enterprises, it is very important to find a development model suitable for them despite their resource disadvantages and realize their own development while revitalizing the local economy.

The cases of this study are the platform enterprises in ZLJ District of Zigong City, including JM Company, LXJM Company, YDJS Company, and CF Company. JM Company was established in 2010 in the context of shantytown renovation in the old district of Zigong City. In 2012, under the influence of national policies, JM Company implemented the separation of government functions from enterprise operations, which marked the beginning of its operation as an independent business entity. At that time, JM Company began to try to introduce social capital to alleviate its survival pressure. For example, it established a joint venture with Zigong City Landscape Engineering Team and initially achieved self-sufficiency. In 2016, the government planned to divide ZLJ District into three areas, namely, the old city area, Suping Logistics Park, and the Southern Ecological Area. YDJS Company, CF Company, and LXJM Company respectively became the "headquarters" of the three areas in the process of their development. These enterprises gradually became the vortex of the development of each area, attracting a wide range of social capital to participate in and develop the local economy. In the process of undertaking a series of projects such as the development of Jianshan Scenic Area, the trust generated by the interactions between JM Company, YDJS Company, CF Company, LXJM Company and social capital activated and released the network value. Many new forms of business emerged and a new model of revitalizing the local economy was established, which truly achieved the effect of “1+1>2” between the state capital and social capital. This study reviews the network evolution and explores the trust mechanism of the case in the past ten years, which is an important way to reveal the laws of its development. In response to this research topic, a large number of relevant data and materials were collected through semi-structured interviews, field visits, and web crawling. Besides, theoretical deduction and social network analysis were made to arrive at the conclusions.

It should be noted that from a positivistic research paradigm, even when the research has a qualitative nature, it is usually to expect evidence of objectivity such as the inter-rater agreement tests or procedures to guarantee multiple sources (e.g. Delphi technique) or even the use of quantitative-based data analysis techniques (multidimensional correspondence analysis) that offer some assurance subjective interpretation bias due to the researcher’s perspective did not occur (Duberley, Johnson, & Cassell, 2012). However, when designing this study, we adopted the premise that the inductive process is fundamentally a reasoning-based cognitive process intended to gain meaningful insights by connecting isolated data. As a meaning-search process it is essentially a subjective exercise and thus, from an interpretivist perspective (Prasad, 2005), the focus is placed more on deep understanding of the cases and how they share features and differ, taking the leading theoretical dimensions as guidelines. So, no claims of positivistic objectivity are made or called for as regards methodological options.

4.2 Selection of research methods

4.2.1 Theoretical deduction

The basic idea of theoretical deduction is the logic of hypothesis testing. The researcher needs to put forward research hypotheses based on a summary of theories, and then test the hypotheses by collecting and analyzing relevant data. In the process of validating the theories, instead of using the collected data to directly test the hypotheses, the researcher needs to use the method of deduction to concretize the abstract theories so that they can be tested in actual research. This deductive logic is the same as inductive logic as both of them draw on the mature research method of natural science (Yang, 2012). This thesis employs the logic of deduction. It first puts forward concrete hypotheses from abstract theories, and then validates the theories through testing the hypotheses based on the logic of deduction.

Centering on the research questions, this study explores the following issues. The first is the social network evolution of the platform enterprises at district and county levels in the context of resource scarcity. The second concerns the influence of the structural network and relational network properties of the platform enterprises at district and county levels on organizations' value appropriation and value creation as well as the mechanism. The third concerns the influence of the structural trust and social trust of the platform enterprises at district and county levels on enterprises' different value capture behaviors as well as the mechanism of action from the perspective of social network. Through searching, synthesizing and summarizing the existing literature on social networks, trust, and other theories, together with the choice of theoretical viewpoints in each piece of literature based on certain principles, this study explores how resource-poor enterprises use inter-organization trust to activate and unlock network value to achieve their own development and activate the local economy. In summary, this thesis intends to employ the trust theory and the social network theory as the theoretical support to study the transformation of local platform enterprises towards the integration of industry and finance. The theoretical deduction method underpins the logical context of the entire study.

4.2.2 Social network analysis

Social network analysis is a comprehensive analysis method developed in the fields of social sciences and natural sciences. After more than 70 years of development, this method has formed a relatively complete system of terminologies and concepts. Some authors believed that the social network analysis can be used as a research paradigm, namely, the social network analysis paradigm (Borgatti & Foster, 2003). Network analysis is based on a series of unique theories, namely, social network analysis theories. Some further clarified that social network analysis can also be a research trend or a unique research method (Pappi & Scott, 1993). Some scholars reviewed and synthesized these theories from the ontological perspective and put forward that the social network analysis paradigm acknowledges the objective existence of social structure and social actions (Li & Xie, 2013). Based on epistemological theories, these scholars proposed that the social network analysis paradigm advocates studying social structure and social actions from the perspective of relational field. In terms of research method, the social network analysis paradigm can mainly use mathematical methods to analyze the research on social interactions and study organizational issues with anthropological methods (Yang, 2010). Thus, the social network analysis paradigm, as a relatively new research paradigm, focuses on the study of social structure and social actions from the perspective of “relationships”.

4.2.3 Longitudinal multiple case studies

This thesis studies the mechanism by which trust acts on the integration of industry and finance for government investment and financing platforms from the social network perspective. The research questions are the typical “how” and “why” questions, which are very suitable for the case study method (Yin, Xu, & Qiu, 2014). Through the study of the literature on the social network theory and the inter-organizational trust theory, this study focuses on the following three sub-questions. (1) How do the structural properties of social networks influence organizations’ value capture? (2) How do the relational properties of social networks influence organizations’ value capture? (3) How do the structural and social dimensions of trust influence enterprises’ different value capture behaviors? Based on these research objectives, the author chose the case study method from a large number of available methods for the following specific reasons.

First, qualitative research can better describe the characteristics of the social network evolution of the case companies. This study focuses on the changes in the social network properties of platform enterprises at district and county levels in the course of their integration of industry and finance. In particular, it is difficult to quantitatively describe the mechanism of trust. Therefore, this study chooses the qualitative research method to describe the process mechanism.

Second, the social network theory and the trust theory are closely integrated with China’s specific social, economic, and cultural context. For the research on either the network between local governments and enterprises or the connection between local governments and other platform enterprises and social capital, researchers need to understand from the specific context explained by the managers of the platform enterprises. Besides, the core research theories of this study are the social network theory and the trust theory. The existing research on these two theories have proven the validity and applicability of the case study method. As a concept developed from sociology, the social network theory and the inter-organizational trust theory are inseparable from the research context, and quantitative research cannot explain the interaction between internal and external situations well. Therefore, qualitative research methods are more suitable for the research context of this study.

Third, the case study method has unique effects on the interpretation of the process mechanisms of “how” and “why”. So, this study applies case study to the main research questions. In fact, Eisenhardt and Graebner (2007) emphasized that the case study method is very practical when studying the various process mechanisms of organizations and strategies, especially when the holistic and long-term process-oriented perspectives are adopted. This is because the questions of "how" and "why" are fundamentally more inclined to the exploratory analysis of process mechanisms rather than simply demonstrating theoretical relationships. Therefore, the case study method is more suitable for process exploratory research. Besides, this study also requires a detailed analysis of the behavioral attributes of the case enterprises in the process of integration of industry and finance. Thus, qualitative methods apply better.

In summary, the case study method, as a method widely used in social science research, has been greatly developed in domestic and foreign research and is a relatively complete research paradigm. Case study usually selects cases with typical extreme attributes, obtains detailed first-hand materials through formal interviews, informal interviews, field visits, and surveys, as well as synthesizes and analyzes a large number of second-hand materials collected through various channels, to expand the existing theories or explore new theories. Therefore, this study, based on the theoretical construction of case study and the characteristics of exploratory research, adopts the qualitative case study method to explore the process mechanism of the industry and finance integration of the platform enterprises at district and county levels.

There are many kinds of case studies according to different classification criteria. Among them, from the number of selected cases, case studies can be divided into single case studies and multiple case studies. (Eisenhardt, 1989b) pointed out that multiple case studies can realize the replication and expansion between single cases, which is more conducive to the construction of theories. Single case studies and multiple case studies apply to different research scenarios. Single case studies can describe the whole and specifics of the cases in detail, but the replicability and generalization of the research results are limited. In comparison, multiple case studies lack a solid description of details, but the research conclusions have more general applicability. Based on the research objectives of this study, the author chose the multiple case study method.

4.3 Data collection

This study takes China's local platform enterprises at district and county levels as the research subjects and studies the process mechanism by which trust influences the integration of industry and finance from the social network perspective. It provides new ideas for the platform enterprises at district and county levels to develop new forms of business and new models through the integration of industry and finance despite the disadvantage of resource scarcity. Therefore, when collecting first-hand data, this study focused on in-depth interviews with the senior management of the platform enterprises at district and county levels, government officials at district and county levels, and key personnel in the organizational networks. Considering the extensive connections of the platform enterprises themselves, this study also aims to ensure the comprehensiveness of data collection. Thus, it also obtained corresponding second-hand data before and after the semi-structured interviews through various channels to support and supplement the first-hand data. Besides, this study integrates field observations and other means to improve the overall data and constitute the “triangular verification” to ensure reliability and validity (Glaser, Strauss, & Strutzel, 1968). Table 4.1 is the result of categorizing and synthesizing the above data.

Table 4.1 Descriptive statistics of data collection

Data type	Data source	Data information statistics					
		Formal interviews			Informal interviews		
		Length of interview	Interview text	Number of interviewees	Length of interview	Interview text	Number of interviewees
First-hand data	Semi-structured interview	2,380 minutes	357,500 words	17, including five government officials, five managers of platform enterprises, and seven representatives of partner enterprises	800 minutes	80 pages	30
	Field visit	Jianshan Scenic Area, CF Industrial Logistics Park, Colored Lantern Town in Zhongquan Town, Revitalization Academy, Atlantic Welding Industrial Park					
Second-hand data	Second-hand	Through such platforms as *Baidu News*, Baidu Encyclopedia, and the official websites, the author collected information about many entities, including JM Company, LXJM Company, CF Company, YDJS Company, Huadengyaosi Road, and Zhongquan Town, and compiled more than 40,000 words of text materials.					

4.3.1 Semi-structured interviews

Interviews, as the most common and effective way to understand the research subjects, can provide researchers with detailed first-hand data. Centering on the research questions, the author conducted several semi-structured interviews with key members in the organizational network of the platform enterprises as much as possible to obtain rich and detailed case data. First, there was no pre-designed sequence for the interviews. The sequence was mainly based on the actual dynamics of the interviews. Second, the selection criteria for interviewees are as follows. (1) In terms of government officials, this study selected those who can make decisions from the strategic height of the economic development at the district or even the municipal level. The main interviewees included the secretary of ZLJ District Committee, the deputy district head responsible for the investment and financing platforms, the finance director, the director of the district investment and financing platform center, as well as the party secretary and deputy mayor of Zhongquan Town. (2) As to enterprise managers, this study selects those with high administrative rank who can make strategic decisions about their enterprises' development. The interviewees mainly include the financial directors who have worked in the enterprises for a long time and have a comprehensive understanding of the enterprises. Finally, taking into account the language communication and the interview requirements of the survey site in Zigong City, the author ensured that at least two researchers were present in each interview, one responsible for interviews and the other responsible for recording. When necessary, researchers who are familiar with the local dialect of Zigong City were invited.

The author conducted a total of four rounds of semi-structured interviews, respectively in August 2017, June 2018, August 2018, and April 2019. Each round lasted three to four days, including informal discussions with key personnel and field visits. Upon completion of each round, the recording was transcribed into a text document and submitted to the interviewees for confirmation within two days. In April 2019, the author believed that the collected materials suffice to support the development of the theories and thus stopped the semi-structured interviews. As of the fourth round of interview, the author had completed 2,380 minutes of recording materials and transcribed 357,500-word manuscripts. The author had conducted more than 20 informal interviews with key government officials, heads of investment and financing platform enterprises, and managers of partner enterprises, each lasting about 40 minutes. Table 4.2 shows the elements of the semi-structured interviews, including the names of the interviewees, their positions, the length of interview, and the number of words in the recorded text.

Table 4.2 Relevant data of the semi-structured interviews

Stage	Interviewee	Position	Length	Text word count
The first-round interview	Shen**	Head of a state-owned company	70	10,500
	Xie**	Head of a government department	55	8,250
	Zeng*	The government leader in charge of the platform enterprises at that time	95	14,250
	Wei*	Head of JM Company	60	9,100
	Mei**	Director of the industrial area of SP District	50	7,500
The second-round interview	Zeng*	The government leader in charge of the platform enterprises at that time	85	12,750
	Zhong*	Leader of the standing committee of the District Party Committee	75	11,250
	Gu**	Director of the district finance bureau	70	10,500
	Mei**	Director of the industrial area of Suping District	45	6,850
	Zhou*	Director of the District Investment and Financing Service Center	95	14,250
	Wei*	Head of JM Company	80	12,000
	Liu*	Financial director of JM Company	75	11,250
	Yang**	Chairman of CF Company	85	12,800
The third-round interview	Jia**	Head of the Southern Ecological Area	70	10,500
	Gu**	Director of the district finance bureau	85	12,900
	Mei**	Director of SP District Office	95	14,250
	Lin**	Leader of Zhongquan Town Government	130	19,500
	Wei*	Head of JM Company	110	16,500
	Yang**	Chairman of LXJM Company	90	13,500
	Yes**	Chairman of YDJS Company	75	11,250
	Ye**	Head of Atlantic Welding Industrial Park	60	9,000
The fourth-round interview	Yang**	Chairman of CF Company	130	19,500
	Zhong*	Leader of ZLJ District Party Committee	105	15,750
	Yang**	Chairman of LXJM Company	80	12,050
	Duan**	Leader of RB Town Government	70	10,500
	Tian*	Leader of Zhongquan Town Government	75	11,250
	Wei*	General manager of JM Company	95	14,750
	Yang**	Chairman of CF Company	85	12,300
	Huang**	President of the Revitalization Academy	85	12,750
		Subtotal	**2,380**	**357,500**

4.3.2 Field observations

Relying on the social network relationships with the government departments of ZLJ District, the author conducted close field observations of key projects such as Jianshan Scenic Area, CF Logistics Park, and ZQ Lantern Town. On the one hand, the author sorted out the network relationships involved in the construction of such projects as fruit bases and lanterns. On the other hand, the author obtained the social and economic benefits of each project through field observations and visits. For example, in the Jianshan Scenic Area, the author communicated with the person in charge of the fruit base and learned that they can develop rose grapes with higher economic benefits according to local planting conditions and labor characteristics. In light of the red historical culture of the former residence of the famous anti-Japanese general in Jianshan Area, the Revitalization Academy adopted a classroom and field experience to carry out party and government education for government officials. Many types of training subjects, such as lantern production, fruit tree cultivation, and e-commerce, were extended to provide important assistance for solving the employment problem of the local young labor force. During the four field investigations, the author participated in six meetings of the platform enterprises and various project leaders. For each meeting, the author saved audio files and picture files, and compiled a complete file within 24 hours after each field visit. These materials allowed the author to further understand the construction of the trust mechanism and the practical role of the integration of industry and finance. The collection results are shown in Table 4.3.

4.3.3 Second-hand data

Second-hand data are important evidence and supplementary materials for the first-hand data obtained from the interviews and are indispensable in case studies. The second-hand data in this study were mainly obtained in the following ways. First, through contacting the platform enterprises and their superior departments in charge, as well as searching the official websites of the people's governments at all levels such as Zigong City and ZLJ District and the official websites of the state-owned assets supervision and administration commission of Zigong City, the researcher obtained such internal development materials as government guidance documents, corporate memorabilia, documents before and after corporate restructuring, and the operation plans of various departments in various periods. Second, the researcher typed in such keywords as "investment and financing", "government investment and financing at district and county levels", and "the integration of industry and finance" on such channels as the State Council website, *Baidu News*, CNKI, news websites (*Sohu News*, *Phoenix News*), and WeChat official accounts (Xinhua News Agency, *People's Daily*, *Xiakedao*) to search for relevant policy documents of the platform enterprises and the internal speeches by government officials and company executives on the development of related industries. By interpreting and synthesizing the related second-hand materials, as shown in Table 4.4, the researcher obtained rich historical materials as well as evidence from semi-structured interviews and field observations.

Table 4.3 A brief introduction to the field visits and projects

Name	Brief introduction
Jianshan Scenic Area	Jianshan Scenic Area is an attempt in the southern area. Due to the very high forest coverage and good cultural heritage in the southern area, the government of ZLJ District plans to build the southern area into an ecological area to better protect the environment.
CF Logistics Park	In 2017, the government needed to introduce social capital to fund the construction of supporting infrastructure. Yet, back then, the government could not directly cooperate with social capital. Instead, an entity was needed to connect social capital with the government while innovating the mechanism of the industrial park, accelerating park construction, and effectively coordinating investment and financing for park development. On June 9, 2017, ZLJ District finance bureau fully invested in the establishment of CF Company. As the investor, the finance bureau was responsible for management and exercised the rights and obligations of the investor on behalf of the government.
ZQ Lantern Characteristic Town	The lantern culture in ZQ Town has a very long history and culture. Zigong City had more than 700 lantern-related enterprises. But most of them focused on the production of lanterns, while the culture and publicity were very weak, resulting in the failure to make good use of these resources. In December 2016, JM Company and other entities of social capital jointly established Sichuan Huadengyaosi Road Lantern Culture Communication Co., Ltd. as a platform to leverage the strong brand of Zigong City lanterns to integrate local culture and traditional Chinese culture as a way to promote the traditional Chinese culture and Zigong City.
Revitalization Academy	Through cooperation with XFSD Company, the Revitalization Academy transformed local villagers' idle resources into unified homestays, farmhouses, and other tourist facilities, to more conveniently serve the trainees coming to participate in trainings. Trainees receive training at the Academy while eating and staying in farmhouses. In this way, both training and tourism were developed. Besides, the Academy also introduced a night school program for farmers in rural areas and integrated local resources to provide skills training for ordinary farmers during their leisure time.
Atlantic Welding Industrial Park	Atlantic Welding Industrial Park is an industrial park in SP Logistics Area. During its development, it worked closely with CF Company. For example, they jointly issued industrial funds.

Table 4.4 List of second-hand data

Case company	Main contents	Number of words	Source of contents	Description of the case company
M Company	Establishment background and operation status	8,000 words	Baidu Encyclopedia, *Baidu News*, and interviews with relevant employees and managers of the company.	To obtain the qualification to undertake the Resettlement Housing Project in 2010, the government of ZLJ District funded the establishment of JM Company as the local platform enterprise.
CF Company	Establishment background and operation status	5,000 words	Baidu Encyclopedia, *Baidu News*, and interviews with relevant people	On June 9, 2017, ZLJ District finance bureau invested in the establishment of CF Company, with the main purpose of connecting social capital from the government-dominated market, while innovating the mechanism of industrial parks, accelerating their construction, and efficiently coordinating their investment and financing development.
YDJS Company	Establishment background and operation status	5,500 words	Baidu Encyclopedia, *Baidu News*, and interviews with relevant people	YDJS Company was established in August 2016, mainly to resolve the short-term debt of the resettlement houses. It adopted the PPP model to convert short-term debt into long-term debt.
LXJM Company	Establishment background and operation status	7,000 words	Baidu Encyclopedia, *Baidu News*, and interviews with relevant people	The predecessor of LXJM Company is LXSW, which was established in 2015 as a subsidiary of JM Company. LXSW was mainly engaged in public interest projects such as rural collective water supply. In September 2017, the government improved LXSW and renamed it as LXJM Company.
Huadeng yaosi Road	Establishment background and operation status	6,500 words	Baidu Encyclopedia, *Baidu News*, and interviews with relevant people	In December 2016, JM Company and other private entities jointly established Sichuan Huadengyaosi Road Lantern Culture Communication Co., Ltd. as a platform to leverage the strong brand of Zigong City lanterns to integrate the local culture with traditional Chinese culture so as to better promote traditional Chinese culture and Zigong in a broader context.
ZQ Town	History, culture and the overall situation of the lantern industry	9,500 words	Interviews with the relevant people in charge of ZQ government	Centering on lanterns, ZQ Town positioned itself as a town characterized by Chinese lanterns and built three major parks, namely, Lantern Cultural Creative Park, Lantern Art Park and Creative Education Park, focusing on developing the lantern cultural creative industry and the related tourism industry.

4.4 Data processing

Considering that the types of materials collected in this study are mainly non-standard text materials, this study adopted content analysis to analyze and process the data. Jacobs (2002) pointed out that the content analysis method is a scientific quantitative research method that summarizes information. This method is not limited to the type of variables to be measured or the background of the information to be created and stated. Through this objective, systematic, and quantitative method of studying the content displayed by the communication, the researcher can effectively study and organize the recorded media. In essence, content analysis is a type of encoding, and encoding is a form of transforming original data into standardized data.

4.4.1 Data processing

The overall research process is as follows, which explains how the researcher obtained first-hand and second-hand data, iterated such data, and analyzed them to form the theory.

The first is the development of core questions. Initially, the researcher was interested in how the platform enterprises at district and county levels successfully achieved the integration of industry and finance despite their resource scarcity. With the in-depth study of the literature and the enrichment of relevant materials, combined with China's specific context, the researcher gradually found that observing the process mechanism of network value release from the perspective of social networks has significant practical and theoretical value.

The second concerns the exploratory interviews. To develop and improve the research questions, the researcher conducted exploratory interviews. First, the researcher conducted tentative interviews with three platform enterprise leaders and one government leader in charge of the platform enterprises in ZLJ District. These interviewees expressed their views and opinions on issues about the development model of the platform enterprises at district and county levels and their practice of industry and finance integration from different perspectives. The interviews were also carried out with the purpose of knowing some topics such as the platform enterprises, value, trust, economic revitalization, and development models.

The third is the general framework. During the interviews, the two keywords of identity and relationship appeared frequently. For example, during the semi-structured interview, Mr. Wei, the head of JM Company, said: "The establishment of JM Company is mainly to have an organization to finance through the relationship with the government. Besides, the government also needs JM Company to establish contact with social capital. It is hoped that the establishment of JM Company can bring funds to the government to promote the construction of the infrastructure in ZLJ District."

In addition, some interviewees also mentioned such keywords as identity and trust during the interviews. For example, relevant interviewees from XLYL Company pointed out: "Zigong Landscape Engineering Team and JM Company cooperated because they valued each other's capabilities and resources. We hoped that JM Company can bring us some convenience in work with its government background. JM Company also values our professional abilities. After all, our Landscape Engineering Team was established earlier, and it has been a very professional team for so many years."

Through the continuous study of materials and literature based on the tentative interviews, we extracted two core theoretical constructs, namely, trust and social network.

The fourth is the preliminary analysis. The researcher timely sorted out the data of each interview that lasted about three to four days and focused on the discussion of the data of each interview and the core concepts mentioned in the interviews to identify the similarities and differences in each interview. In the process of data compilation, the outline of the study gradually emerged. The researcher noticed that in their development process, the platform enterprises in ZLJ District only undertook the role of financing for the government in the beginning. Yet in the later stages, they gradually separated from the government to participate in the project alone. In this process, the local platform enterprises gradually established trust with more social entities. Thus, it is believed that trust plays an important role in the process of industry and financing integration of the platform enterprises.

The fifth is the formal analysis and literature backtracking. Through analyzing all the first-hand and second-hand materials collected, the researcher conducted an in-depth analysis of the conclusions and relationships of the preliminary analysis and realized that the network and trust are increasingly important for us to understand the process of industry and finance integration. Based on this understanding, the researcher integrated the first-hand data and second-hand data collected from various channels and encoded them in different groups. While adopting open coding, the researcher used axial coding to explain the relationship and difference between the research topics. In the end, three core sub-questions were extracted: (1) How do the structural properties of social networks influence organizations' value capture behaviors? (2) How do the relational properties of social networks influence organizations' value capture behaviors? (3) How do the structural and social dimensions of trust influence enterprises' different value capture behaviors? Then, in the coding process, the researcher relied on the synthesized data to confirm the expression of different concepts, and further clarified the questions under study in this thesis through continuous discussions.

In this stage of the study, the researcher continuously returned to the related literature and collected interviews, recordings, second-hand materials, and other materials to deepen the conclusions. Finally, the researcher integrated the whole process of this study on the basis of the continuous connections between theories and phenomena. The data collection and analysis in Figure 4.1 shows the above research process in detail.

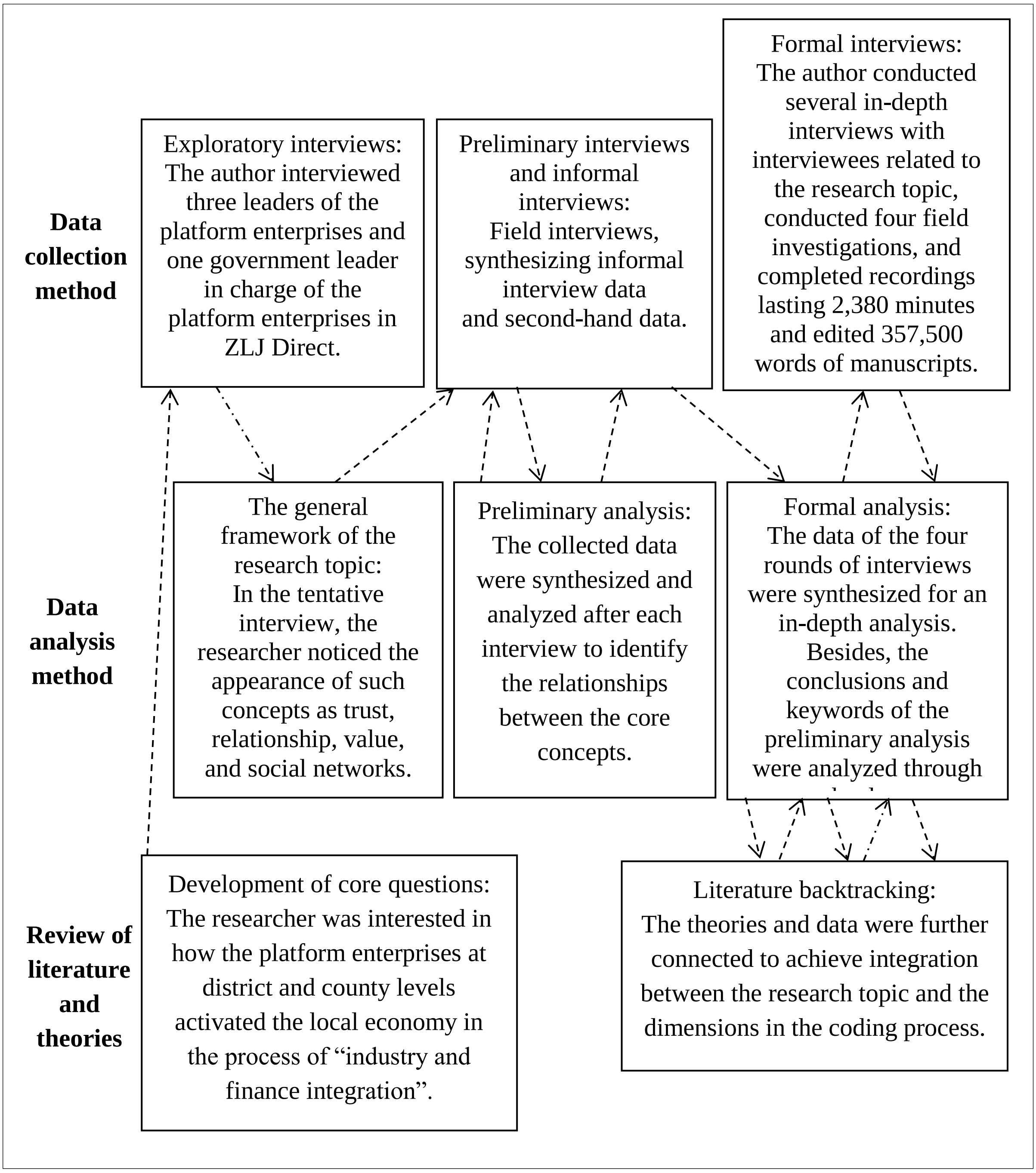

Figure 4.1 Data collection and analysis

4.4.2 Data encoding process

After a three-year follow-up on the research problems, the researcher obtained abundant and detailed textual materials and developed theoretical constructs with scientific methods. These non-standardized data could not be used directly for this study. So, the researcher had the data sources and data contents encoded. Due to the large number of related materials and contents involved, the multi-level coding method was adopted. During the coding process, expressions from a unified source or texts with similar meanings were counted as one item only. First, according to the stage division of the case enterprises, all cases were coded at the first level to obtain the first-level item library at each stage. In this case, there were 28 first-level items for the first stage, 127 first-level items for the second stage, and 270 first-level items for the third stage, for a total of 425 first-level items. Second, according to the six measurement dimensions of trust, namely, the structural dimension of trust, the social dimension of trust, centrality, degree of openness, strength, as well as directness and indirectness, the first-level items were allocated to 12 second-level item libraries and six third-level item libraries. Finally, the fourth-level coding was completed with reference to the existing research results, interview texts, and second-hand materials, and the coding results were allocated to the fourth-level item library. For example, the materials collected from the semi-structured interviews with the government officials were marked as G, those collected from the interviews with the platform enterprises as P, those collected from the interviews with the representatives of the partner enterprises as E, those collected from field observations as S, and the second-hand data as SH. After that, the materials under each category were graded and encoded. For example, the materials collected from the semi-structured interview with the former district party committee secretary were marked as G-1, and those collected from the semi-structured interview with the deputy district director as G-2. The second-hand materials obtained through the Internet (such as *Baidu News*, CNKI and doc88.com) were marked as SH-1, and those obtained from the websites of government authorities at all levels (the red-headed documents on investment and financing platforms issued by the State Council) as SH-3.

In the process of encoding the sources of case data, the author adopted the following strategies to ensure reliability and validity. First, after each interview, the team would transcribe the recording within 24 hours after the completion of each interview and send the transcripts to the interviewee for confirmation. The revisions would be made accordingly to ensure the authenticity and integrity of the first-hand text materials. Second, after simple training, the research team was divided into two sub-teams. The double-blind coding method was adopted.

In other words, the two sub-teams independently completed multi-level coding. After completing the first-level and second-level coding, the team members maintained close communication and constantly modified and improved the data processing method before finally reaching an agreement. The items on which agreement could not be reached were deleted. The same process applied to the third-level coding process. Table 4.5 shows the coding rules of the sources of data about the cases.

With reference to the explanations of each concept in the literature and in combination with the texts, the researcher put forward keywords/statistical bases for the data contents, including key constructs, measurement variables, and the codes of meanings. As the existing research suggests, trust has dual dimensions, including structural trust and social trust (Madhok, 1995b). Jones (1983) pointed out that structural trust realizes the complementarity and synergy of resources between enterprises, while social trust is built on the basis of the perception of long-term fairness within the relationship. The quality of relationships significantly influences the nature and value of inter-organization exchanges, which also results in explicit differences between the two. This study selects self-capabilities and resource matching between partner enterprises as the measurement variables to measure the structural dimension of trust, and perception of long-term fairness and reciprocity and mutual benefit between partner enterprises to measure the social dimension of trust. Based on the concept definitions of self-capabilities, resource matching, perception of long-term fairness, as well as reciprocity and mutual benefit in the relevant literature, the research team conducted several in-depth discussions based on the text and developed corresponding keywords comparison tables. For example, the keywords or statistical bases of enterprises' self-capabilities are qualifications, capital status, financial ability, government identity, and government credit endorsement. The specific key concepts, measured variables, and meanings for coding items are shown in Table 4.6.

Table 4.5 The coding rules of the sources of data about the cases

No.	Data sources		Data classification	Source code
1	Semi-structured interviews	Government officials (G)	Obtained data through a semi-structured interview with the former district party secretary (who was in charge of the platform enterprises at that time).	G-1
2			Obtained data through a semi-structured interview with the deputy district head.	G-2
3			Obtained data through a semi-structured interview with the district finance director.	G-3
4			Obtained data through a semi-structured interview with the director of the district's platform enterprise center.	G-4
5			Obtained data through interviews with the deputy secretary and deputy mayor of the ZQ Town Party Committee.	G-5
6		Platform enterprises (P)	Obtained data through a semi-structured interview with the general manager (successive) of JM Company.	P-1
7			Obtained data through a semi-structured interview with the CFO of JM Company (since the establishment of the company).	P-2
8			Obtained data through a semi-structured interview with the chairman of LXJM Company.	P-3
9			Obtained data through a semi-structured interview with the director of CF Park.	P-4
10			Obtained data through interviews with YDJS Company.	P-5
11		Cooperative enterprise representative (E)	Obtained information through a semi-structured interview with the chairman of XLYL Company.	E-1
12			Obtained data through a semi-structured interview with the general manager of Huadengyaosi Road.	E-2
13			Obtained data through interviews with the Project Manager of XFSD Company in Jianshan Scenic area.	E-3
14			Obtained data through the general manager of HT Company and the director of the overseas business office.	E-4
15			Obtained data through interview with the project manager of Jianshan Fruit Base.	E-5
16			Obtained data through interviews with the general manager of the Revitalization College.	E-6
17			Obtained data through interviews with the Atlantic Welding Industrial Park.	E-7
18	Field Observations (S)		Obtained data through field visits.	S-1
19	Second-hand materials (SH)		Obtained data through the Internet (*Baidu News*, CNKI and doc88.com).	SH-1
20			Obtain data through the annual reports, internal records, executive speeches, and internal publications of the case enterprises.	SH-2
21			Obtained data through the government websites (the red-headed documents issued by the State Council on the platform)	SH-3

Table 4.6 Statistics of coding items of key concepts, measured variables and meanings

Concept	Measured variable		Meaning	Keywords/Statistical bases	Development stage 1	Development stage 2	Development stage 3	Subtotal
Trust	Structural dimension of trust	Self-capabilities	Trust is based on organizations' financial situation and identity background.	Qualifications; capital status; financial capabilities; government status; government credit endorsement.	2	6	9	17
		Resource matching	Cooperation is established through the resource matching between organizations maximize efficiency and achieve all-win.	Resource matching; he has...I have...; division of labor, joint...common...	2	8	17	27
	Social dimension of trust	Perception of long-term fairness	Focus on long-term goals with a higher degree of tolerance for short-term failure to achieve a balanced distribution of benefits.	Long-term goals; future development; exploitation of opportunities	0	9	19	28
		Reciprocity and mutual benefit	Control opportunistic behaviors to maintain good cooperative relationships underpinned by reciprocity and mutual benefit.	Mutual trust; mutual support; mutual guarantee or support.	1	11	17	29
Social network properties	Centrality	Local centrality	The number of other points directly connected to a certain point; the bigger the number of points, the higher the individual centrality.	Count the number of directly connected points as per the development process diagram.		...		
		Global centrality	The sum of the distances required to connect to a point; the smaller the distance sum, the higher the degree of centrality.	Calculate the sum of the distances according to the development process		...		
	Openness	Organizational diversity	The degree of diversity of the nature and business of the organizations in the network	Statistics on the nature of the organization and the type of business (XX unit/company)	5	14	26	45
		Willingness to accept new organizations	The network members' acceptance of new external organizations entering their network	According to whether the developed business or cooperative organization has changed significantly compared with the previous stage	1	11	23	35

Concept	Measured variable		Meaning	Keywords/Statistical bases	Development stage			Subtotal
					1	2	3	
Social network properties	Strength	Cooperation frequency	Project cooperation between organizations	Number of organizational cooperation projects	2	14	28	44
		Cooperation duration	Duration of continued inter-organizational cooperation	Depending on whether the business is performed by one party or by multiple parties	2	10	22	34
	Directness and indirectness	Direct connections	The ratio of the direct inter-organizational connections to the total number of connections without relying on third-party relationships	Statistics according to the development process diagram	4	17	42	63
		Indirect connections	The ratio of the indirect inter-organizational connections to the total number of connections relying on third-party relationships	Statistics according to the development process diagram	4	17	42	63
Value capture	Value creation		The process of “making a bigger cake” by capturing value through creating common interests with the partners	Long-term project; division of labor and cooperation; attracting other enterprises; emergence of new business types	0	7	11	18
	Value appropriation		The process of “sharing the cake” by sharing the existing benefits through joint cooperation and relationship coordination with partners to obtain vested interests	Short-term project; pursuit of profits; loss of state-owned assets	5	3	14	22

4.5 Reliability and validity

To ensure reliability and validity, the author set up a research team upon initiation of this study. First, since its establishment, the research team has conducted the special study of research methods for up to eight weeks to ensure that the members of the research team, including the author, could master the qualitative research methods and case analysis method adopted in this study. After that, the research team members contacted with the case enterprises and the local government leadership, and then spent two years categorizing and synthesizing data. During the period of data collection, the research team constantly reviewed a large number of corresponding papers in top journals about relevant theories. While ensuring the timeliness and novelty of this study, the team members constantly reflected on and revised the use of methods based on the literature and the practice of collecting data to ensure the reliability and validity of the study. The data obtained in this study include the following: (1) The data collected from semi-structured interviews with more than 17 people, including the former party secretary of ZLJ District of Zigong City, the incumbent deputy head of ZLJ District, and the general manager of JM Company, as well as the development process materials of relevant units and departments; (2) second-hand data related to the reform policies of investment and financing platforms collected through the manual search and use of crawler technology on such channels as China’s State-owned Assets Supervision and Administration Commission of the State Council, the official websites of government departments at various levels including the state-owned assets supervision and administration commission of Sichuan Province, *People’s Daily*, *Xiakedao*, *Baidu News*, and *Phoenix News*; (3) other second-hand data related to the research subjects, such as the materials related to Zigong City. The research team conducted a large-scale team discussion on unclear materials and issues on which a consensus was not reached to achieve a final consensus and ensure the reliability and validity of the synthesis and analysis of all materials. For example, due to the existence of the structural and social dimensions of trust, divergences occurred in the process of classifying trust. The research team engaged in in-depth discussions to confirm each key code. To improve the accuracy of coding, the research team adopted a team-based comparison method. First, the research team was randomly divided into two sub-teams. Each sub-team was responsible for studying and discussing on the codes separately, and each would arrive at its own consensus. Afterwards, the two sub-teams would discuss with each other based on the results of their own discussions to verify the coding results with each other. In case of inconsistency, they would continue to discuss until the entire team reached a consensus. In this way, the accuracy and heterogeneity of the codes were ensured, and the encoding results finally formed.

The massive data involved in this study include first-hand data obtained from semi-structured interviews and field visits as well as second-hand data obtained from the local government and platform enterprises. Focusing on resolving the issues of self-development of the platform enterprises at district and county levels and the issue of revitalizing the local economy, this study chooses the social network perspective and inter-organization trust theory to shed light on how trust influences the integration of industry and finance. Besides, the process of arriving at the research results using data and the encoding method is shown at the end of each chapter.

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Chapter 5: Value Capture Enabled by the Evolution of Social Networks

With reference to the multi-case research techniques proposed by Yin, Xu, and Qiu (2014), the research questions, and the need of the theoretical framework, the case study of this thesis was divided into two stages, namely, within-case analysis and inter-case analysis. This chapter focuses on within-case analysis. Specifically, the four platform enterprises at district and county levels, namely, JM Company, LXJM Company, CF Company, and YDJS Company, were analyzed as to how they activated the vitality of the local economy while unlocking network value despite their disadvantages of resources and policies. The within-case analysis mainly uses the content analysis method and the typical exemplary analysis techniques to systematically analyze such variables of each case enterprise as structural networks, relational networks, and value capture behaviors as well as their categories to explore the social network evolution and the value capture supported by it in the process of industry and finance integration of the platform enterprises at district and county levels.

5.1 A description of the research variables

Based on the identification and description of the theoretical dimension of the key constructs, this study extracted six key research variables from all the original data: structural trust, social trust, structural properties of the social network, relational properties of the social network, value creation, and value appropriation. The purpose of extracting research variables is to extract and refine theoretical constructs and their relationships from a large number of qualitative materials. This chapter will discuss the establishment and development of the cooperative relationships between the platform enterprises at district and county levels and external entities. It will comprehensively analyze the evolution of social network properties that support value capture between organizations in the process of industry and finance integration. Therefore, the main variables to be studied in this chapter are the structural properties and relational properties of social networks.

Granovetter (1973) put forward the theory of weak ties in social networks and extended social networks to various fields of social research. He believed that the connections between actors constitute the social network, and any economic behavior is included in this social network. Since China is a traditional relationship-oriented society, relationships play an important role in the operation of economic and social organizations, and social network relationships are even more obvious. This study of relationships is more suitable for the Chinese context.

In a social network, any social unit or entity is regarded as a node in the network, and the ties between the nodes include two types, structural properties and relational properties. The structural perspective, represented by Burt (2000), focuses on the structure of the network and involves such properties as network centrality, openness, and density. The relational perspective, represented by Granovetter (1985) and Powell, Koput, and Smith-Doerr (1996), mainly focuses on the social relationship resources in the network, and regards relationship as a pipeline that can realize the flow of information, resources, and opportunities. These relational properties involve the strength of ties, the directness and indirectness of connections, and the degree of formality of connections. Macdonald, Rabinowitz, and Listhaug (1998) believed that the different properties of social networks have different effects on the value capture behaviors of the network members. These properties of social networks are dynamic and changing. (Powell et al., 2005), by combining the theories of network topology and field dynamics, conducted an empirical study on the evolution of vertical networks. They found that social networks do not affect all participants equally. Over time, changes in the position of an enterprises in the business network and its relationships will have an important impact on its value capture behavior, which provides a proper perspective for characterizing the development process of the enterprise and studying the process mechanism.

Inter-organizational connections constitute social networks. Goerzen and Beamish (2005) believed that value capture benefits from the effective matching and mutual complementarity among inter-organizational resources. For enterprises with superior resources, the superior resources are the guarantee for their efficient operation in the cooperation process. However, for enterprises suffering from resource scarcity, the efficiency of inter-organizational resource exchange will weaken. It is difficult to capture network value from explicit resources alone. Organizational resources include not only the internal resources owned or controlled by the organization itself but also the rich external resources that can be leveraged in the social network of the enterprise. Therefore, effectively embedding the external business network and actively leveraging the required resources are the key for the platform enterprises at district and county levels to overcome the disadvantage of their internal resource scarcity. Suitable structural properties and relational properties of social networks jointly constitute an important carrier for these enterprises to capture value from inter-organizational relationships.

5.2 The development process of the government investment and financing enterprises in ZLJ District

5.2.1 The period from 2008 to 2012

In 2008, ZLJ District specially set up an organization (the predecessor of JM Company) to promote the construction of infrastructure in the region. JM Company, as a local state-owned enterprise, undertook the construction of such infrastructure projects as highways, parks, and landscape projects in ZLJ District.

In April 2010, the government of ZLJ District needed to undertake several national shantytown renovation projects. However, the local government could not directly undertake these renovation projects due to its identity restrictions. In this context, JM Company was established with the joint investment from the District Finance Bureau, China Development Fund Development Co., Ltd., and Agricultural Development Key Construction Fund Co., Ltd. as a government-owned investment and financing platform enterprise. The District Finance Bureau held 19.17% of its shares, China Development Fund Development Co., Ltd. 66.8%, and Agricultural Development Key Construction Fund Co., Ltd. 14%. Since the local government could not borrow loans with its own identity, it could only assign the task of financing to JM Company. Therefore, the initial purpose of the establishment of JM Company was mainly to finance for the government. Besides, JM Company also undertook local public interest projects such as shantytown renovation, highways, and landscape projects within the government regulations. In this stage, the managers of JM Company were mainly part-time employees from the local government departments. For example, the then chairman of JM Company was the deputy director of the district commerce bureau. JM Company did not recruit professional managers from the society.

By 2012, due to the wild growth of platform enterprises, such platform enterprises as JM Company had accumulated a large amount of debt. Besides, with the rapid changes of national policies during this period, China's Central Government issued a series of related policies to regulate the operation and financing of platform enterprises. For example, the No. 19 document entitled the *Notice on Stopping Local Governments' Illegal Financing Activities* and the No. 463 document entitled the *Notice on Stopping Local Governments' Illegal Financing Activities* strictly regulated the behavior of platform enterprises. The platform enterprises at national, provincial, and municipal levels were less affected by these policies due to their advantages such as sufficient resources and strong policy support. However, JM Company, as a platform enterprise at the district/county level. Was significantly affected due to its resource scarcity. Therefore, JM Company had to carry out reform and transformation to seek a new development model.

In general, the establishment of JM Company was mainly due to the financing and project needs of the local government. It was meant to execute the specific business required by the local government. At that time, JM Company performed the tasks assigned by the government. Specifically, it carried out public infrastructure projects such as urban highways and parks and had little contact with other social organizations other than the government. Therefore, the network relationships at this stage are shown in Figure 5.1.

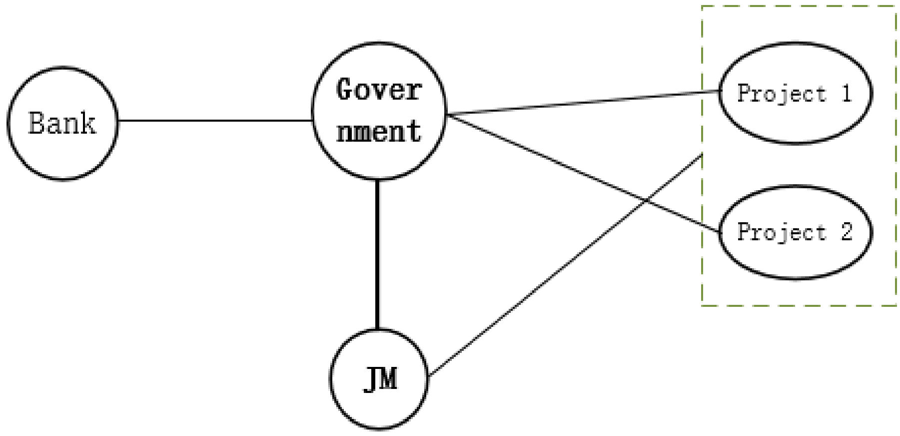

Figure 5.1 The network relationships at the first stage

5.2.2 The period from 2012 to 2016

In 2012, due to the rapid changes in China's macro-environment, JM Company faced a series of political pressure such as high interests and the loss of state-owned assets in the financing process. So, it began to seek business transformation.

Under the policy pressure, JM Company chose the township and village-level domestic water supply and urban pipeline network construction business as its first business transformation attempt. The business, which was of low risks and able to generate stable income, were high-quality projects. However, as the policy pressure also impacted the platform enterprises at provincial and municipal levels, the business was eventually taken back by municipal platform enterprises. Nevertheless, it can be seen that JM Company had attempted to carry out organizational transformation instead of entirely relying on the government to carry out business, and that it had certain rights of independent operation. The second attempt was the establishment of Lihudong Reservoir Fund Project with the joint investment from the government assets and the social capital Zigong Bank. The two investors planned to make three rounds of investment. But after the first two rounds were made, the third round failed to continue due to the rapid changes in policies, indicating the failure of JM Company's second business transformation attempt. However, compared with the business model of its first attempt, JM Company began to involve the market and social capital, which was an important symbol in the process of its marketization. After the failure of the fund project, JM Company faced huge pressure, as well as the requirements for market-oriented operation. At that time, Zigong Landscape Engineering Team, as a public institution, also faced the pressure of restructuring the unit according to the requirements of the local government. It also wanted to conduct market-oriented operation and develop a business with a larger market. Therefore, JM Company and the Landscape Engineering Team jointly established XLYL Company in 2014, which was JM Company's third attempt to achieve business transformation.

The Landscape Engineering Team was established early, mainly responsible for such businesses as landscaping maintenance and management of municipal works as well as park construction, operation and management. After many years, it trained a professional team with rich experience in landscaping. As a platform enterprise, JM Company had a good background, a proper identity, and favorable relationships. So, XLYL Company leveraged the government background of JM Company to carry out the landscaping business of the government, public institutions, and state-owned enterprises. After its establishment, XLYL Company was faced with a shortage of local nursery stock resources and the single variety of nursery stocks. In this context, JM Company built two nursery bases with its background advantages. On the one hand, it introduced new varieties of nursery stock of ZLJ District and cultivated cost-effective nursery stock resources. On the other hand, it cultivated a variety of quality nursery stock resources that could be sold to other cities and provinces. This cooperation process promoted the landscaping business to a more market-oriented and professional level through the mutually complementary advantages.

Both JM Company and the Landscape Engineering Team made good use of the resources of both parties and fully activated the potential of both parties. By jointly establishing a joint venture, JM Company eased the political pressure to maintain and increase the value of state-owned assets, and the Landscape Engineering Team also achieved initial restructuring success. In the early stage, the division of labor between JM Company and the Landscape Engineering Team was clear. Although JM Company was a major shareholder, it neither interfered with the operations of the Landscape Engineering Team nor was anxious for dividends. Instead, it worked together with the Landscape Engineering Team to make XLYL Company bigger and stronger. The total assets of XLYL Company also increased rapidly from 1.34 million in 2015 to 37 million in 2016. The cooperation between JM Company and XLYL Company was a breakthrough and an attempt for JM Company to carry out in-depth cooperation with social capital, and the two parties also established a very deep emotional relationship with each other. XLYL Company also started to carry out market-based competitive business to rapidly increase its own market share.

In summary, JM Company gradually separated from the government to develop some businesses independently at this stage. It already had certain autonomy. Through several attempts at working with social organizations, JM Company gradually established more long-term and far-reaching connections and common goals in the process of cooperation. The network relationships at the second stage are shown in Figure 5.2.

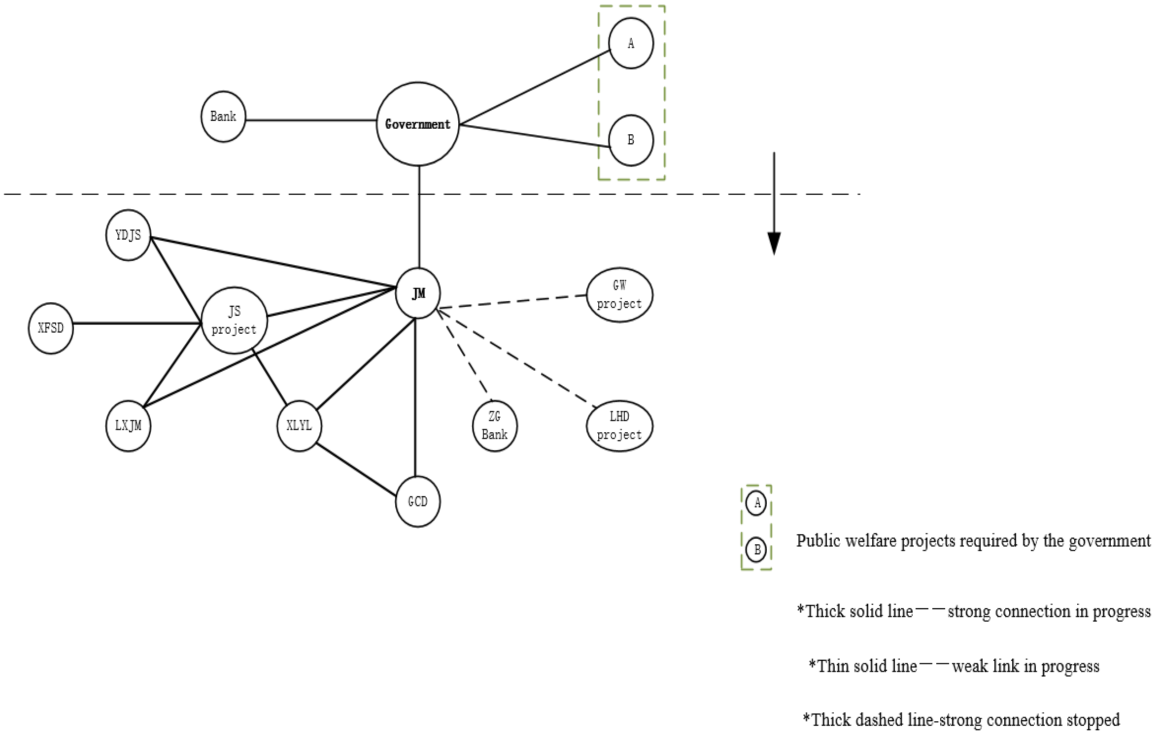

Figure 5.2 The network relationships at the second stage

5.2.3 The period from 2016 to the present

In 2016, the government re-planned ZLJ District and divided the administrative regions into three areas, namely, the central old urban area, SP Logistics Area, and the Southern Ecological Area. The three areas had distinctive characteristics. Specifically, the central old urban area had a large population density and a long history. SP Logistics Area had convenient geographical location and transportation advantages as well as close links between logistics and business. The Southern Ecological Area focused on the protection of the ecological environment, and it had a forest coverage rate of 80%, providing very good prerequisites for the protection of the ecological environment and green development. The government of ZLJ District hoped that the three areas could develop their unique industries in light of their own distinctive advantages. In the development process, regional platform enterprises were gradually established in the three areas to function as "headquarters".

At that time, the government had borrowed a debt of more than 200 million to build resettlement houses under the BT project. The debt would have to be repaid upon maturity, which would exert tremendous short-term debt repayment pressure on the government. So, it became necessary to establish an enterprise entity that could use the PPP model to convert short-term debt into long-term debt. As a result, YDJS Company was established in August 2016 with the joint investment of JM Company and Huidong Group. After its establishment, YDJS Company took over the responsibilities of revitalizing the old urban area. Specifically, it was responsible for underground pipeline network, rain and sewage diversion, road widening, street cleaning, landscaping along the route, cultural relics protection, cultural promotion, and tourism development. Its core mission was to protect and carry forward the excellent culture of ZLJ District.

In 2017, to promote the shantytown renovation project in SP Town and the construction of supporting infrastructure, the local government needed to introduce social capital. Besides, the government also hoped to jointly innovate the industrial park mechanism, speed up park construction, and efficiently coordinate the investment and financing for the development of the park. On June 9, 2017, ZLJ District Finance Bureau fully funded the establishment of CF Company and served as its manager on behalf of the government. After its establishment, CF Company participated in the construction and management of the park, and gradually explored the "management committee + company" operation and management mode.

LXSW Company, established in 2015 as a subsidiary of JM Company, was mainly engaged in public interest business such as rural collective water supply. In September 2017, the local government restructured LXSW Company into LXJM Company, which became a stated-owned investment company with Lihudong Reservoir Company and ZLJ District Water Conservancy Project Management Station as shareholders. Lihudong Reservoir was a management company set up for a project. It was mainly responsible for supplying water for household consumption and irrigation, flood control, and drought control. It did not have operation autonomy.

With the implementation of the plans of the three major areas and the development of YDJS Company, CF Company, and LXJM Company in their respective areas, the "one + three" development model has been formed in ZLJ District. Specifically, one refers to JM Company, a district-level platform enterprise mainly responsible for financing for ZLJ District and other platform companies and coordinating the construction tasks of the district government. Three refer to the “headquarters” of the three major areas, namely YDJS Company, CF Company, and LXJM Company, which are responsible for the development and coordination of the respective area.

In the development process, the development project of Jianshan Scenic Area was a very important turning point as well as a priority of the district government. This project was led by JM Company and jointly developed by LXJM Company, YDJS Company, and XLYL Company. It also attracted many external entities such as XFSD Company. During the development of the project, many problems surfaced, such as house demolition and the shortage of funds. In response to the challenges, the government departments actively communicated with villagers to win their support for demolition. The participating entities provided guarantee for each other and lent money to each other to resolve the shortage of funds. Their joint efforts promoted the development of the project. During this tough period, all entities jointly completed this project. They had sufficient communication and established deeper connections and carried out a deeper level of cooperation with each other.

With the progress of the Jianshan project, more entities were attracted to join. Through the cooperation among the entities in the business network, new types of business with the historical, cultural, and regional characteristics of the local area gradually emerged. For example, villagers handed over the idle resources to XFSD Company to transform them into unified guesthouses, farmhouses, and other tourist facilities to provide convenience to trainees who came to receive training at the Revitalization Academy. Besides, it also established a night school for farmers to provide them with professional skills training at their leisure time.

Following the Jianshan Scenic Area Project, the Colored Lantern Project centered on ZQ Town was initiated in 2017. The colored lanterns of Zigong City had a long history and rich cultural heritage. There were more than 730 colored lantern enterprises in the area. But most of these companies focused on the production of colored lanterns. Little effort was made to popularize the lantern culture, nor were there any specialized talents to manage the lanterns. In December 2016, JM Company and social capital jointly funded the establishment of Sichuan Huadengyaosi Road Lantern Culture Communication Co., Ltd. (referred to as “Huadengyaosi Road” below). This company gradually became a platform to leverage the strong colored lantern brand to integrate local culture and traditional Chinese culture in an effort to popularize traditional Chinese culture and the culture of Zigong City. The colored lantern project gradually developed into a project group centered on Huadengyaosi Road and ZQ, supported by JM

Company, YDJS Company, and XFSD Company. Besides, these projects also attracted the participation of external entities such as HT Company while celebrating such festivals as the Spring Festival and Lantern Festival which featured lanterns. Besides, Huadengyaosi Road and HT Company also carried out business cooperation. Specifically, during the Spring Festival of 2018, they jointly held "The Same Lantern Lights up the World and ZQ Town 2018 Happy New Year Season" in ten cities of seven countries around the world. The activity lasted about one month and had a significant impact on the promotion of the colored lantern culture industry of Zigong City. Huadengyaosi Road was also included in the list of the "Belt and Road" national key cultural investment projects as well as the list of the key projects of the Ministry of Culture. In January 2019, the second season of the Chinese Happy New Year Season themed on "Lighting up the Small Town of Colored Lanterns to Bring You Love Along the Way" was held. With the participation of many entities, the long-standing-colored lantern culture of Zigong City was brought to public attention and became more influential. Its colored lantern culture industry gradually became bigger, stronger, and more dynamic.

To sum up, during this stage of development, the local platform enterprises of ZLJ District had more extensive contacts with external entities. During the cooperative development of such projects as the Jianshan Project, the Colored Lantern Project, and the Logistics Park, the participating entities were more active, and the forms of cooperation were increasingly diverse. The three major areas also formed their corresponding project groups and area-based networks. The network relationships of the third stage are shown in Figure 5.3.

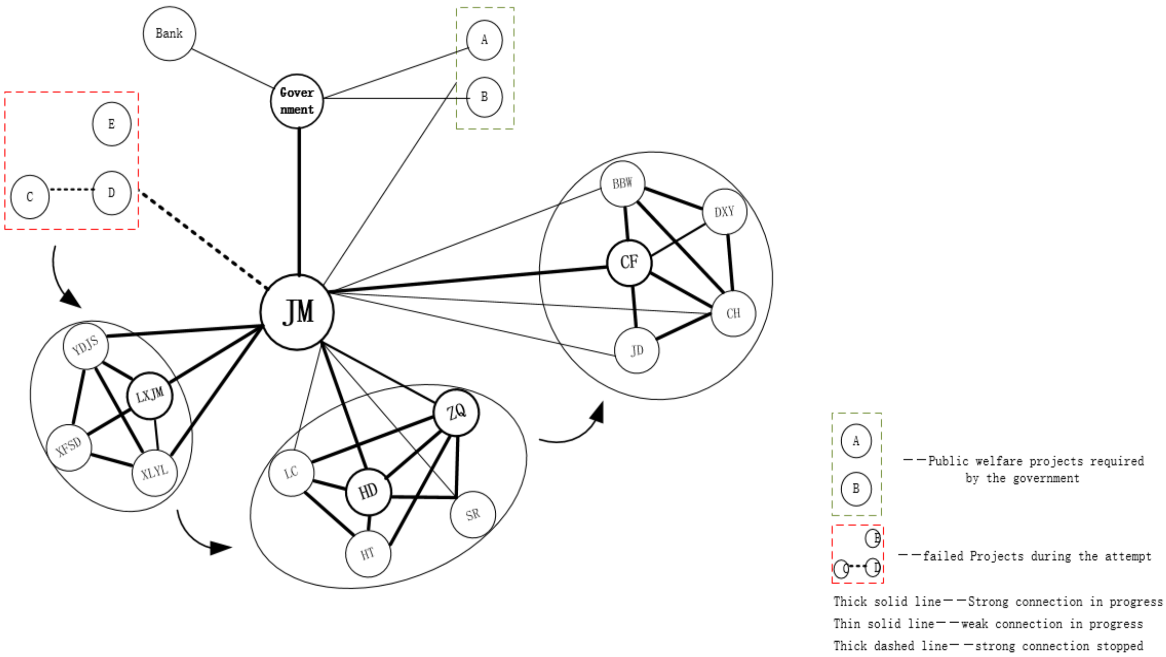

Figure 5.3 The network relationships at the third stage

5.3 Value capture supported by network evolution

In the process of its continuous development, ZLJ District showed tremendous development vitality. State-owned capital and social capital achieved adequate and effective coordination and brought their respective advantages into full play. The form of the regional network also changed accordingly, formed a bigger and more active social network that effectively supported network value capture. The following sections will proceed from the structural properties and relational properties of social networks to explore how social network evolution supports network value capture.

5.3.1 Value capture supported by the evolution of the structural properties of social networks

In the first stage, in terms of both the individual centrality and the overall centrality, JM Company focused on carrying out the business required by the local government. It executed such specific projects as the transformation of shantytowns, financing, and infrastructure construction entrusted by the government. For example, in the interview, Mr. Wei from JM Company said: "I did not do anything before 2012. I was just working on a part-time basis. I remembered doing a shantytown renovation project at that time by financing from banks." Therefore, the government was the absolute center of the network at this stage. As to network openness, the type of business that JM Company was engaged in was very simple, almost only in contact with the government, with little contact with other social organizations, and the initiative was also very low. Therefore, the network density was very low, and the network boundary between JM Company and other organizations was very clear. For example, an interview with Mr. Gu from the District Finance Bureau said: "We dared not to do so at that time because it was not a private enterprise. Otherwise, the loss of money would become the loss of state-owned assets, which would impose huge political pressure on us." It can be seen that the degree of network openness at this stage was very low.

In the second stage, in terms of centrality, JM Company began to engage with social capital or other external entities as an independent entity due to political pressure. For example, its first attempt was to engage in the township and village-level domestic water supply project; its second attempt was to engage with Zigong Bank to do the Lihudong Reservoir Fund Project; and its third attempt was the successful project carried out in collaboration with XLYL Company. These attempts suggested that JM Company had started to separate its enterprise operations from the government functions and enjoy a certain degree of autonomy. As mentioned by Mr. Gu from the District Finance Bureau, "Public institutions were self-sufficient before they were restructured, and the reason that they were proposed as pilots for reform was to set an example for institutions in ZLJ District." Therefore, at this stage, network centrality began to shift from the government to JM Company. In terms of network openness, compared to the first stage where there were only a few entities such as the government, JM Company, and banks, this stage saw the participation of such external entities as Lihudong Company, Zigong Bank, and the Landscape Engineering Team. The entire network became more diverse and richer in details. JM Company had established closer relationships with other members of the network, and there were also business and network interactions. For example, the district government leader Mr. Zeng mentioned in his interview: "The district government intended to use JM Company as a breakthrough, and to guide social capital into the areas of their weaknesses so as to advance the development of social capital." Therefore, at this stage, the network density started to increase, and the network boundaries started to become blurring. Compared with the first stage, this stage was characterized by a higher degree of network openness.

In the third stage, as to centrality, the Jianshan project group, the colored lantern project group, the logistics park project group, and the cultural corridor project group were gradually formed based on the previously established relationships. The participants of each project included not only government platform enterprises but also more social entities. A network center started to be formed centering on the project groups. YDJS Company, CF Company, XLJM Company, and Huadengyaosi Road gradually became the centers of the sub-networks of various project groups, playing more important roles as area headquarters. JM Company was responsible for the overall management and financing business. For example, the head of JM Company Mr. Wei said in his interview: "JM Company needed to handle its relationships with the enterprises of the three major platforms, support each other, and play an active role. Therefore, the key is to perfect JM Company's mechanism and activate its vitality. Now some subsidiaries of JM Company have entered the market with business covering the whole market." It can be seen that the centrality started to transform from JM Company to multi-network centers. In terms of the degree of openness, with the participation of multiple organizations as well as the establishment and development of various project groups, such new types of business as homestays, trainings, residential projects, and tourism began to emerge. These new types of business provided services for not only the local market but also the market of other provinces. As mentioned by the head of HT Company in his interview: "We chose to cooperate with JM Company at that time mainly out of market channel considerations. Our company (HT Company) had international business experience before, but the government channel was still unavailable. After cooperating with JM Company, we jointly held this activity and achieved good effects." Therefore, compared with the first and second stages, this stage was characterized by higher and higher network density and more and more blurring network boundaries. It can thus be seen that the degree of network openness at this stage was higher.

This section analyzed the evolution of the structural properties of the network and the value capture supported by it in the three stages from the perspective of the four properties, namely, individual centrality, overall centrality, network density, and network boundaries. Then, the two aspects (centrality and openness) and four dimensions (individual centrality, overall centrality, network boundaries, and network density) of the three stages were encoded based on typical language reference. The encoding results are shown in Table 5.1.

In terms of the structural network, the local government was the center of the network in the first stage, and the network center started to shift from the government to JM Company in the second stage. In the third stage, as more external entities join, the business network gradually evolves into a multi-center and modular-network form centering on JM Company, LXJM Company, YDJS Company, CF Company, and Huadengyaosi Road. Seen from the openness of the network, there were only a few actors such as JM Company and the government in the first stage. The overall network density was very low, and the network boundaries were also very clear. In the second stage, JM Company started to establish relationships with social capital. As Mr. Wei from JM Company said: "Originally, JM Company was just an investment and financing platform. Later, in 2014, it established XLYL Company together with the Landscape Engineering Team. We had more cooperation business intertwined with XLYL Company." In the third stage, the types of projects were more diverse and there were more participants. Just like the leader of ZQ Town Mr. Tian said: "After cooperating with JM Company, I started the Huaman Yandu project. At that time, I proposed to turn ZQ Town into a nursery production base. After a while, I found that the topography and landforms were very good. There were mountains and rivers, and the transportation was also convenient. So, I wanted to develop the tourism business. Later on, a lot of other entities also joined." Therefore, at this stage, more entities participated in the network; the business of each entity became more integrated and interwoven; the network density became higher and higher; and the evolution of network boundaries became more and more blurring. The evolution of the structural network throughout the three stages supported many cooperative businesses and the value capture of the local platform enterprises, such as shantytown renovations, domestic water supply at township and village levels, Lihudong Reservoir Fund, the Landscape Engineering Team, as well as the cultural corridor, colored lantern culture, Jianshan Scenic Area, and the logistics park.

Table 5.1 Typical language reference and related coding of the structural properties of social networks

Stage	Construct	Measured variable		Typical language examples	Source	Encoding results
First stage	Structural network	Centrality	Individual centrality	"I did not do anything 12 years ago. I was working on a part-time basis. I remembered doing a shantytown renovation project at that time by financing from banks".	P-1 G-2	Government as the network center
			Overall centrality	"JM Company did not do much work. It was through this qualification that the government got the project."	G-4	
		Openness	Network density	"After the establishment of JM Company, they were not willing to give up the status of civil servants. We could only require the colleagues working in the Ministry of Construction to work there on a part-time basis."	G-1 P-1	Low network density
			Network boundaries	"We dared not to do so at that time because it was not a private enterprise. Otherwise, the loss of money would become the loss of state-owned assets, which would impose huge political pressure on us."	G-3 P-1	Clear network boundaries
Second stage	Structural network	Centrality	Individual centrality	"Public institutions were self-sufficient before they were restructured, and the reason that they were proposed as pilots for reform was to set an example for institutions in ZLJ District."	G-4	Shift of network center to JM Company
			Overall centrality	"XLYL needed to be restructured to set an example for the public institutions in the district, and JM Company also needed to be materialized. So, we took actions once the government expressed its intent." "JM Company also started to seek cooperation with social capital."	G-4 P-1	
		Openness	Network density	"The Landscape Engineering Team cultivated a professional team after so many years. With its professional staff, it could maximize the functions of facilities and equipment." "XLYL mainly cooperated with the municipal entities. It had relatively less cooperation with entities at other levels."	E-1	Increase in network density
			Network boundaries	"The district government intended to use JM Company as a breakthrough, and to guide social capital into the areas of their weaknesses so as to advance the development of social capital." "JM Company used to be only an investment and financing platform. Later in 2014, it established XLYL together with the Landscape Engineering Team."	G-2 P-1	Network boundary started to be blurring

Stage	Construct	Measured variable		Typical language examples	Source	Encoding results
Third stage	Structural network	Centrality	Individual centrality	"The three areas were seeds, and they were able to revitalize the local economy."	G-1	Exhibition of multiple centers in the network
			Overall centrality	"JM Company should handle the relationship with the three major platform companies, support each other, and play an active role. Therefore, JM Company's perfect mechanism and activation vitality enabled it to be the center. Now some subsidiaries of JM Company have already entered the market, and their business is targeted at the entire market."	P-1	
		Openness	Network density	"It is still being planned right now. The progress in the initial stage was good and the types of business have gradually been developed. As long as the funds can be provided according to the original plan, there will be no problem."	P-3	Very high network density
			Network boundaries	"We chose to cooperate with JM Company at that time mainly out of market channel considerations. Our company (HT Company) had international business experience before, but the government channel was still unavailable. After cooperating with JM Company, we jointly held this activity and achieved good effects."	E-4	Very blurring network boundaries

In summary, the network centrality underwent an evolution from centralization to modularization, and the network openness evolved from closedness and low density to openness and high density. This structural network evolution process supported the value capture behavior of the platform enterprises.

5.3.2 Value capture supported by the evolution of the relational properties of social networks

In the first stage, in terms of the tie strength, JM Company mainly undertook the public interest business initiated by the local government. It had not independently engaged in too many other projects, nor had it established a very stable long-term cooperative relationship with other partners. Therefore, the project cooperation frequency was very low, and the duration of project cooperation was also very short. For example, in the interview, the head of JM Company Wei** said: “We just helped the government to finance, and we did not participate in the project substantially.” Therefore, the tie strength at this stage was very poor. As to the directness of the connection, no external entity jointed at this stage, and the autonomy of JM Company was very low. In addition to having a direct connection with the government, JM Company was also indirectly connected to banks and other entities in projects. In most cases, it indirectly connected with other entities through the government. Mr. Wei also mentioned: “JM Company was focused on the government shantytown renovation projects at this stage. No other enterprises were involved. We also did not take the initiative to cooperate with any other enterprise.” Therefore, this stage was dominated by indirect connections.

In the second stage, JM Company made many attempts to strengthen the tie. In particular, the third attempt was to cooperate with the Landscape Engineering Team to establish XLYL Company, which had a long-lasting relationship. Therefore, the project cooperation frequency at this stage became higher, and the duration of project cooperation also became longer. For example, the head of JM Company Wei** said: “At that time (2012-2016), we still did a lot of things, raised a few funds, and also launched some fund in collaboration with Zigong Bank and other institutions. Later, we attempted to implement the transformation, including urban pipe networks, funds, and infrastructure.” Therefore, the strength of inter-organizational ties increased at this stage. Concerning the directness of the ties, JM Company no longer conducted business completely under government control. Instead, it began to engage with social capital independently and established more direct connections. For example, the former Party Secretary of ZLJ District Zeng** said: “Platform enterprises were difficult to operate. They were used as a bridge and a connector. They took in the money for the government to spend, and then returned the money. But now it was necessary to engage in actual business and participate in the construction and financing process instead of merely functioning as a platform.” Therefore, at this stage, JM Company gradually formed the characteristics of direct network ties centering on direct connections and supported by indirect connections.

In the third stage, as to the tie strength, more external entities were involved in the project groups, and the communication and cooperation between these entities became even more frequent. Many cooperative business models, such as homestays, cold storage of fruits and vegetables, and farmers’ night schools gradually emerged in the process of completing the Jianshan Scenic Area Project and the colored lantern project. At this stage, the project cooperation frequency among various entities became higher and higher, and the duration of project cooperation became longer and longer. For example, the leader of the Revitalization Academy Huang** said: “The Revitalization Academy has held training several times, mainly targeting at village heads and town heads in the region. The leaders of other provinces and cities have also started to come here for training.” The emergence of the development mode of project groups resulted in the coexistence of strong ties and weak ties. The ties within each project group were strong, while the ties among project groups were mainly weak. As to the directness of connections, multiple project groups were established, and multiple network centers were formed. As a result, JM Company, as the center responsible for coordinating and managing the overall investment and financing, began to establish direct connections with YDJS Company, LXJM Company, and CF Company. In each project group, the central company established direct connections with other internal organizations, while JM Company formed indirect connections with other organizations within the project group. For example, Yang** from LXJM Company said in the interview: “Every village established a company, with the village secretary as the chairman and the village chief as the general manager. They came to recruit people themselves. And I asked the recruits to make overall planning for the company. This process is actually a process of integrating each household of farmers to continuously promote the development of relevant industries through capital advantages and completely turning into enterprise operation.” Therefore, there was also a mixture of direct connections and indirect connections. The connections within each project group were direct connections, whereas those among the project groups were mainly indirect connections.

In summary, regarding the network tie strength, the cooperation frequency between JM Company and other entities was very low in the first stage, and the duration of cooperation was also very short. With the increase in the number of cooperation projects in the second stage, especially the cooperation with the Landscape Engineering Team and the establishment of

XLYL Company, the cooperation frequency increased, so did the cooperation duration. As Wei* from JM Company said: “We never thought that the result could be so good (it could develop so well). At that time, we only hoped that this attempt would help us meet the crying needs.” It can be seen that the less promising projects in the early stage gradually evolved into long-term projects and achieved sound development. In the third stage, due to the establishment of various project groups, JM Company also had more cooperation with other business entities. For example, the head of JM Company Wei** said: “JM Company needed to handle its relationships with the enterprises of the three major platforms, support each other, and play an active role. Therefore, the key is to perfect JM Company’s mechanism and activate its vitality. Now some subsidiaries of JM Company have entered the market with business covering the whole market.” It can be seen that cooperation was gradually based on long-term cooperation.

In terms of the directness and indirectness of network ties, JM Company had almost no connection with other entities except its direct connection with the local government in the first stage. In the second stage, JM Company began to try to cooperate with social entities and formed direct ties with them supported by indirect ties. In the third stage, with the implementation of more projects, both direct ties and indirect ties became closer. The evolution of the tie strength as well as the directness and indirectness of connections in the relational network throughout the three stages supported many cooperative businesses, such as shantytown renovations, Lihudong Reservoir Fund, XLYL Company, Jianshan Scenic area, cultural corridor, and the Revitalization Academy as well as the capture of value from these projects.

In summary, the network tie strength evolved from strong ties to the coexistence of both strong ties and weak ties. The network directness and indirectness evolved from the dominance of direct connections to the coexistence of direct connections and indirect connections. This evolution of the network ties supported the value capture behavior of the platform enterprises.

Chapter 6: The Dual Dimensions of Trust Promote the Value Capture Behavior of Platform Enterprises

The synthesis and analysis of the cases in Chapter 5 suggest that the evolution of structural networks and relational networks will support the cooperative business of multiple organizations and their value capture. Different network properties and the association and interaction between organizations have an important influence on network value capture (Wang & Wu, 2012). Network ties provide us with a new perspective to study the value capture behaviors beside resources, and the integration of the dual dimensions of networks provides a new way.

From the network perspective and based on the development process of platforms, the changes in inter-organizational partnerships are the most important variable. Back in 1985, Granovetter (1985) put forward the important relationship between trust and network. He pointed out that trust is generated and rooted in social networks. Inter-organizational trust plays an important role in the association and interaction of network actors (Smith, Carroll, & Ashford, 1995). Subsequently, inter-organizational trust became a hot topic, which was studied by scholars from different perspectives. For example, Panico (2017) found through their study of organizational alliances that an alliance is an important form of inter-organizational cooperation, and that the lack of trust will aggravate the vicious competition between organizations, undermine the value of the alliance value, and increase the probability of failure of the alliance. In the continuous follow-up research on trust, some scholars pointed out that the successful cooperation between network actors requires both structural trust and social trust so as to tap and enhance the potential of resources under synergy (Beilmann & Lilleoja, 2015). Structural trust provides a prerequisite for the association and interaction between network actors, enabling each actor in the network to effectively allocate internal and external resources. Social trust provides continuous motivation for the association and interaction between actors in the network, enabling both entities to have greater tolerance to tide over the temporary imbalance (Wilkins & Ouchi, 1983). In this study, the integration of industry and finance is the combination of state-owned capital and social capital, and the integration of the two different types of capital requires inter-organizational trust. The proposal of the duality of trust provides us with an important research direction. Further research is needed to figure out how these two types of trust act on different value capture behavior and how they interact with each other. This is of great significance for tapping the potential and unlocking the network value of the trust mechanism. Therefore, it is very necessary to study how the interactive mechanism of different types of trust acts on the effect of ties in the network.

It can be seen from the case descriptions and analyses in Chapter Five that the characteristics and paths of JM Company, LXJM Company, CF Company, and YDJS Company differ in the process of industry and finance integration. Chapter Five provides a systematic analysis of the network evolution and value capture of the platform enterprises. This chapter will provide a systematic analysis of the variables of the case enterprises, including structural trust, social trust, value creation, and value appropriation. On this basis, the case enterprises will be compared to each other and analyzed systematically. Based on the dualistic view of trust, this study will reveal the internal mechanism by which inter-organizational trust in the network acts on value creation and value appropriation. In this way, this study will summarize how structural trust and social trust correlate with value creation and value appropriation and how they interact with each other as both cause and effect, so as to arrive at the research conclusions.

6.1 A description of variables

Chapter Five discussed how the evolution of the structural properties and relational properties of business network impacts relationship value capture. This chapter will further discuss how the dual dimensions of trust affect the value capture behaviors of platform enterprises.

6.1.1 Structural trust and social trust

There is a close tie between trust and networks as trust is generated and rooted in the social network. Smith, Carroll, and Ashford (1995) believed that inter-organizational trust plays an important role in the process of association and interaction among network members, and that it is critical to give full play to the role of social networks.

Trust has two dimensions, namely, structural trust and social trust (Madhok, 1995a). Structural trust realizes synergy through the complementarity and matching between organizational resources, while social trust originates from the perception of long-term fairness within an organization. The quality of ties has a huge impact on the nature and value of internal exchanges, which results in distinctive differences between structural trust and social trust (Jones, 1983). Madhok (1995b) held that structural trust provides a basis for resource collaboration, enabling each actor in the network to match internal and external resources effectively. However, in the case where there is only structural trust, the two related parties are in a mutually-constrained situation. Either party may engage in opportunistic behaviors at any time and exhaust the potential added value brought by resource complementarity, harming the interests of both parties. Social trust provides both parties with an effective form of soft commitment. Social trust stems from the perception of long-term fair relationships, which can increase the consistency of the overall objective. Social trust can make both parties more motivated. The behaviors of the two parties are not to prevent value consumption, but to enhance the relational value of the two parties, thereby reducing the perceived probability of opportunistic behaviors to increase trust (Madhok, 1995a).

Structural trust is necessary yet insufficient, while social trust is sufficient yet unnecessary. The two dimensions complement each other. The cooperation between network actors requires both structural trust that can achieve mutual synergy and social trust with reciprocal behavior orientation, so as to exploit and enhance the resource potential under synergy. Structural trust provides a prerequisite for the association and interaction among network actors, while social trust provides continuous motivation.

6.1.2 Value creation and value appropriation

Wang and Wu (2012) believed that different network properties and the association and interaction between the main actors of organizations have an important impact on network value capture. There are two kinds of behaviors in network value capture, namely, value creation and value appropriation. Value creation is a process in which companies in the network pursue the common goal to expand the scope of activities of the value chain, and effectively enhance the overall value of the cooperative relationship (Dyer, Singh, & Kale, 2008). Value creation is attributed to enterprises' better use of external resources. Specifically, enterprises create synergies by combining external resources with internal resources and achieve internalization through learning and imitation. Value appropriation mechanism determines the relative share of the common value that each can obtain. In this relationship, partners' competition for selfish goals often triggers co-opetition (Lavie, 2007). Value appropriation is indispensable for an organization to obtain its interests and achieve self-development. The cooperation of these two mechanisms is necessary for achieving sustainable competitive advantages. Value creation affects the size of the potential of advantages, while value appropriation helps maintain enterprises' existing competitive advantages. The two complement each other and are incomplete substitutes for each other.

6.2 Within-case analysis

6.2.1 JM Company

Since the establishment of JM Company in 2010, its network has undergone very important changes. This network evolution process supported its capture of the value of such business projects as the shantytown renovation project, Lihudong Reservoir Fund project, the Landscape Engineering Team cooperation project, and the Jianshan Scenic Area project.

At the beginning of its establishment, JM Company was mainly responsible for carrying out the resettlement housing construction project. In these government-led projects, little social capital was involved other than construction companies and banks. As these resettlement housing construction projects were short-term public interest projects, the construction companies and JM Company did not establish long-term cooperative relationships. For example, the head of JM Company Wei* said in the interview: “JM Company did not do much work. It was through this qualification that the government got the project. We were mainly engaged in the shantytown project without any contact with external entities.” Therefore, JM Company did not establish ties with more external entities back then. It only undertook public interest projects entrusted by the government.

The second stage was the transformation period of the platform enterprises when JM Company started to establish contact with social capital. It carried out such business projects as domestic water supply at township and village levels, Lihudong Reservoir Fund Project, and the cooperation project with Zigong Landscape Engineering Team. In this period, JM Company began to establish connections with other entities, and came out under the government umbrella to contact more entities. It established long-term connections with Zigong Bank, Lihudong Reservoir, and the Landscape Engineering Team. Although the third batch of funds eventually failed due to policy reasons, the two sides were able to establish a cooperative relationship at this time based on their respective capabilities and resources, and the cooperation lasted longer. The Lihudong Reservoir Fund Project was a long-term project. It is the marketization sign of JM Company. Although this fund project eventually failed due to policy factors, the cooperation experience of both parties laid the foundation for future cooperation. Later on, JM Company actively participated in the development of such projects as the Jianshan Scenic Area and characteristic towns where Zigong Bank became the largest long-term investor. Such developments were all based on the relationship established in the cooperation of this project. Just as what Wei* of JM Company said in an interview: “That was the first time that our company (JM Company) had such deep cooperation with social capital. We all wanted to do well, and the project was promising. But the policy came so suddenly. Nevertheless, our two companies have maintained a good relationship with each other and trust each other. Now many of the projects that our company (JM Company) developed are invested by Zigong Bank, and it has become our biggest investor."

With the failure of the Lihudong Reservoir Fund Project, JM Company tried to cooperate with the Landscape Engineering Team. Based on the previous two business attempts, JM Company further broke away from the government and started its business independently. JM Company and the Landscape Engineering Team jointly established XLYL Company, the duration of the cooperative business was longer than the previous business. As the main shareholder of XLYL Company, JM Company even handed over the management power to the Landscape Engineering Team. As Wei*, the person in charge of JM Company, pointed out in an interview: "During my cooperation with President Wang of XLYL Company, I almost did not participate in the company operation. I never attended the shareholders' meeting, neither did I merge any financial statement...Later, we mainly undertook business from the government and public institutions. Public interest projects assigned by the government took up a large percentage of our business." As a result, a relatively deep friendship was established between JM Company and the Landscape Engineering Team during this project. In the beginning, JM Company and the Landscape Engineering Team started to cooperate only to meet their respective needs. However, with the establishment of XLYL Company and the development of the follow-up projects, JM Company and the Landscape Engineering Team established a deeper cooperative relationship, which was more recognized by both parties. As the major shareholder of XLYL Company, JM Company gave up statement consolidation and operating dividend. The total assets of XLYL Company also increased rapidly from 1.34 million in 2015 to 37 million in 2016.

The third stage was a stage with the emergence of many types of business. In this stage, JM Company mainly carried out such projects as Jianshan Scenic Area and the Colored Lantern Culture Project. JM Company, LXJM Company, XFSD Company, and other entities established deeper and longer-term cooperative relationships. They established a large number of direct and indirect connections in their cooperation. During the construction process of these project groups, the parties helped each other and placed more emphasis on long-term interests. As Yang**, the person in charge of LXJM Company, said in the interview: "When developing this project (Jianshan Scenic Area Project), our company was the headquarter of the southern area. But our company was established late, and the funds could not keep up. So, we borrowed more than ten million yuan from JM Company and 60 million yuan from YDJS Company. At that time, to keep the project going, we tried to finance from all possible sources. We also borrowed money from banks.” Therefore, to solve the problems occurring in the construction process of this project, the entities borrowed from each other and guaranteed for each other. They established partnerships based on the perception of long-term fairness. The cooperative relationship established in the Jianshan Scenic Area Project played an important role in the fruit and vegetable planting base projects that emerged in the later period. Just as Wei*, the head of JM Company, said in the interview: “JM Company was responsible for the infrastructure of the Jianshan Scenic Area Project. The gate on the south side has been repaired and has begun to welcome guests.” This showed that the Jianshan Scenic Area Project and the emerging projects have already brought more benefits and value to the participants.

In summary, JM Company supported such cooperative businesses as the Shantytown Resettlement, Lihudong Reservoir Fund, Landscape Engineering Team cooperation, and Jianshan Scenic Area in the network evolution. This was the result of the influence of different dimensions of trust on different value capture behaviors. The summary is shown in Table 6.1.

Table 6.1 A summary of JM Company's inter-organizational trust on its value capture behaviors

Cooperation business	Inter-organizational trust	Value capture behaviors
antytown resettlement Project	This project was undertaken by JM Company at the request of the local government. JM Company mainly undertook the construction of roads, parks, landscapes, and other public facilities. It had no right or opportunity to contact other external entities. Therefore, the participating entities did not establish long-term cooperative relationships with each other.	The Shantytown Resettlement Project was undertaken by JM Company under the leadership of the government. No external entities participated in this project. JM Company was an executor and was mainly engaged in public interest projects required by the government. At this stage, JM Company did not give full play to its own initiative.
Lihudong Reservoir Fund Project	JM Company and Zigong Bank originally planned to do three batches of fund projects. The third batch failed due to policy reasons, but the relationship established between the two parties continued. Zigong Bank continued to participate in the later projects led by JM Company and played an important role as the largest investor.	Lihudong Reservoir Fund Project was an attempt made by JM Company. It was a collaborative project carried out by JM Company, Zigong Bank, and Lihudong Reservoir. The establishment of this fund cooperation project effectively contributed to the development of infrastructure in the local area.
Cooperation with the Landscape Engineering Team	JM Company and the Landscape Engineering Team jointly established XLYL Company. As the major shareholder, JM Company gave the Landscape Engineering Team the right to give full play to its own initiative. The financial statements of the two companies were not consolidated. Besides, JM Company did not interfere too much with the operation of XLYL Company and allowed XLYL to operate independently without participating in the distribution of profits.	To meet their respective needs, JM Company and the Landscape Engineering Team jointly established XLYL Company. JM Company handed over the management right of XLYL to the Landscape Engineering Team. On the basis of giving full play to the initiative of the Landscape Engineering Team, XLYL grew quickly, and its performance improved rapidly. JM Company and the Landscape Engineering Team also achieved the success of restructuring and transformation.
Jianshan Scenic Area Project	The development of the Jianshan Scenic Area Project attracted the participation of JM Company, XLYL company, LXJM Company, XFSD Company, and other entities. When encountering problems such as the shortage of funds and difficulties in demolition, these entities provided guarantee for each other and lent money to each other to help each other overcome difficulties together. The relationships established during this difficult period were further deepened in the follow-up projects. And these entities also participated in the follow-up projects many times.	Based on the resources and cooperative relationships accumulated in the first and second stages, JM Company continued to play a leading role in the third stage of such projects as the Jianshan Scenic Area, the Colored Lantern Culture Project, and the Revitalization Academy. The entities participated in the new types of business many times and jointly contributed to the coordination and development of industries of the regional economy.

6.2.2 LXJM Company

LXJM Company, established in 2015, was mainly responsible for public interest projects entrusted by the government, such as the rural collective water supply. It did not have too much contact with other social entities. By 2017, LXJM Company had extensively involved in various types of business, established closer connections with other organizations, and intertwined with their business. As the headquarter of the Southern Ecological Area, LXJM Company gradually became the center of the southern area, leading its contact with external entities. Network evolution supported the organizational cooperation business of Jianshan Scenic Area Project, farmers' night schools, and the Colored Lantern Culture Project.

LXJM Company, as the headquarter of the southern area, played an important role in the Jianshan Scenic Area Project. Multiple external entities, including the local government, JM Company, LXJM Company, and XFSD Company, participated in the project. In the face of funding difficulties during the project development process, the entities provided guarantee for each other and helped each other tide over the difficulties together. In this process of mutual help, mutual-lending, and mutual-guarantee, these entities established deeper relationships and connections with each other. The reason that the entities could overcome difficulties and avoid unfair practices in the tough period was attributable to the fact that their cooperation was not only based on short-term profits. Besides, they focused more on obtaining long-term interests through long-term cooperation and trying some innovative businesses. Eventually, the Jianshan Scenic Area Project contributed to the development of the entire southern area.

With the development of the Jianshan Scenic Area Project, more new types of business mushroomed, including the farmers' night schools, fruits and vegetables, and the Revitalization Academy. Besides, new models were also explored, including homestays, tourism, and training. These projects also evolved into long-term projects, and they received strong support and trust from the residents, who were more willing to hand over their idle houses to XFSD Company to have them built into homestays for tourists and training centers for those who came to receive training at the Revitalization Academy. Besides, the night school model was also a way for people to concentrate their leisure time on receiving skills and professional training. Therefore, in the emergence and development of these new types of business, deep friendship was established between the participants, social entities, and residents. The local residents strongly supported these projects because these projects could bring them substantial improvements and help encourage villagers and participants to support each other. The profound historical and cultural background and resources of the region were also unleased, attracting more people from other places to visit and exchange here. As Ye**, the person in charge of XFSD Company, said in the interview: "Currently, a dozen companies would come to visit here every day. The new types of business have gradually developed and matured. Now we are able to accommodate the visits by one or two groups of external enterprises every day. They are very interested in the prospects of this area." Therefore, the continuous emergence of these new types of business was the result of the perception of long-term fairness on the basis of the profound partnership formed between the various participating entities in the course of their interactions.

Meanwhile, construction of Zigong Colored Lantern Cultural Project also started in 2017. Based on the cooperative relationships established by the Jianshan Scenic Area Project and the support of the local government and platform enterprises, the Colored Lantern Cultural Project centering on Huadengyaosi Road and ZQ Town attracted not only the continued participation of LXJM Company, YDJS Company, and XLYL company but also the participation of such external entities as HT Company, Poly Eco Company, and YT Group. The participation of a large number of external entities further enhanced the popularity of the local lantern culture. Many external enterprises sent representatives to stay here to study the colored lantern project in the hope of identifying cooperation opportunities. As the person in charge of the HT Company said in the interview: "We decided to cooperate with it back then mainly due to channel considerations. Our company (HT Company) engaged in international business before. But we did not have government channels. This lantern festival held in collaboration with our partners turned out fantastic. Our company (HT Company) has a production workshop in ZQ. We might move the design center there... Now we are planning a night tour project there to develop a business model for night economy. It seems very promising." In the development process of the Colored Lantern Cultural Project, the business network members already had expectations for its future development. The Colored Lantern Cultural Project was a long-term project, a process where the participating entities frequently interacted with each other to jointly create a colored lantern culture IP. As a result, new types of business such as the Chinese New Year Happy Season, overseas colored lantern festivals, and night tour economy began to emerge, and they gradually evolved into long-term cooperation models. Just as Tian**, leader of the competent authority of ZQ Town, said: "Now we are planning the night tour economy. ZQ is well-known right now and has attracted enough visitors. So, we plan to realize the economic value its popularity brings." In the project development process, not only was the colored lantern culture popularized, but the emerging types of business also attracted more external entities to join.

In summary, the network evolution of LXJM Company supported the inter-organizational cooperation business of such projects as the Jianshan Scenic Area Project, the farmers' night school project, and the Colored Lantern Cultural Project. This was the result of the influence of different dimensions of trust on different value capture behaviors. A summary is shown in Table 6.2.

Table 6.2 A summary of the influence of LXJM's inter-organizational trust on its value capture behaviors

Cooperation business	Inter-organizational trust	Value capture behaviors
Jianshan Scenic Area Project	This project was a very important attempt made by the southern area. It saw the continued participation of such entities as JM Company and XLYL Company. LXJM, as the headquarter of the southern area, did not fully undertake its leadership role in this project due to its short history. Instead, it engaged in collaborative project development with JM Company, XLYL company, and XFSD Company.	During the development of the Jianshan Scenic Area Project, more external entities joined. They helped each other, lent money to each other, and provided guarantee for each other to jointly overcome the difficulties encountered in the project. Besides, the Jianshan Scenic Area Project contributed to the development of the entire southern area, triggering the birth of more new types of business.
Farmers' Night School Project	The farmers' night school model was a new type of business that emerged during the construction of the Jianshan Scenic Area. The cooperation relationships established in the Jianshan Scenic Area Project extended to this project. Each participating entity was more willing to leverage on their own strengths to provide knowledge and technical training for farmers.	With the construction of the Jianshan Scenic Area Project, new types of business such as farmers' night schools, vegetables and fruits, and the Revitalization Academy gradually emerged. The villagers also valued these new types of business and actively involved in them. They were willing to learn more knowledge and skills during their leisure time. Some even handed over their idle houses to XFSD Company for unified construction.
Colored Lantern Culture Project	During the construction of this project, the participants explored the history and culture of colored lanterns to jointly develop a cultural brand of lanterns. As the center of colored lanterns, ZQ Town collaborated with Huadengyaosi Road Company to jointly develop the colored lantern brand. JM Company helped to coordinate financing, and LXJM also played an active role. Each entity not only fully activated the history of Zigong's culture of colored lanterns, but also jointly held various activities to popularize the lanterns of Zigong City.	The development of the Colored Lantern Culture Project was based on the trust established earlier. The Colored Lantern Culture Project propelled the continued cooperation between such entities as JM Company and LXJM Company. Meanwhile, it also attracted the participation of external entities such as HT Company. The parties engaged in more frequent interactions to jointly create a colored lantern culture IP. Besides, new types of business such as the Chinese New Year Happy Season, overseas lantern festivals, and the night tour economy also emerged, which eventually evolved into long-term cooperation models.

6.2.3 CF Company

To connect with social capital during the SP Shantytown Renovation Project, innovate the management mechanism of the logistics park, and strengthen the park construction, the local government established CF Company in June 2017. During the development of CF Company, the network evolution mainly supported logistics park management and such cooperative partners as Chuanhua Company, Jiuda Company, and Purun Company.

After its establishment, CF Company actively participated in the management of SP Logistics Park. However, it had very little contact with other social entities. Other than establishing ties with the government and some entities inside the park, it almost had no contact with other external entities. As the headquarter of SP Logistics Park, CF Company played a leading role in park management and jointly developed the management model characterized by the combination of the management committee and platform enterprises. Nevertheless, CF Company did not take the initiative to seek cooperation with social entities, and there were few professional managers. As mentioned by the leader of CF Company Yang** in the interview: "There was a lack of professional managers in the management process of the logistics park. At that time, we did not recruit from society. So, the management of the park was not very standardized." It can be seen that in the logistics park project, CF Company mainly interacted with the government and did not establish long-term cooperative relationships with external entities. The responsibilities of CF Company, the government, and other enterprises in the park were also very clear. The parties did not establish long-term cooperative relationships or a common understanding. As mentioned by Yang**, the leader of CF Company, in the interview: "CF Company was established to carry out the landscaping, management, and construction of the park. So, after undertaking this project, we will continue to undertake the management responsibility of the park and mainly engage in the public interest projects entrusted by the government."

As the headquarter of SP Logistics Area, CF Company actively cooperated with external entities such as Chuanhua Company, Jiuda Company, and Purun Company. With the entry of external entities, CF Company began to have closer ties with them, with some business intertwined. CF Company tried to cooperate with external entities. In particular, it established a cooperative company with such entities as Chuanhua Company, Jiuda Company, and Purun Company. But the duration of cooperation was not very long. The cooperative company did not fully carry out business, and the specific business was not very clear. The establishment of the cooperative company was just an initial result of cooperation. The cooperation between CF

Company and external entities was still the result of matching the capabilities and resources of all parties. The establishment of the cooperative company did not contribute to the in-depth exchanges and cooperation among all parties. Their discussions on business development were also at the initial stage. For example, the head of CF Company Yang** mentioned in the interview: “At that time, our cooperation with Chuanhua, Jiuda, Purun, and Atlantic Smart Welding was mainly aimed at promoting and managing the Salt Expo held in Zigong City every year and the construction of the Highway Port City Logistics Center Project. We did not discuss too many details with them.”

In summary, during the development process of CF Company, its network form continued to evolve, supporting such cooperative businesses as the management of SP Logistics Park and the cooperation with Chuanhua Company, Jiuda Company, and Purun Company. This was the result of the influence of different dimensions of trust on different value capture behaviors. The summary is shown in Table 6.3.

Table 6.3 A summary of CF Company’s inter-organizational trust on its value capture behavior

Cooperative business	Inter-organizational trust	Value capture behaviors
Logistics park management	As the headquarter of the Logistics Park, CF Company assumed responsibilities for the construction, management, and landscaping responsibilities of the Park as required by the government. At that time, CF Company functioned as the executor of the government’s public interest projects. It did not take initiative to try new business.	In the process of managing SP Logistics Park, the responsibilities of the government and CF Company were relatively clear. CF Company was responsible for carrying out work under the guidance of the government. Back then, the government, CF Company, and social entities did not establish a long-term partnership. instead, they were more focused on their own short-term interests in the project.
Chuanhua, Jiuda, Purun	To promote the construction of the park and the logistics system in the local area as well as the salt culture, CF Company used its own platform identity to contact such entities as Chuanhua Company, Jiuda Company, and Purun Company, and established a cooperative company with them. Both sides combined their advantageous resources and capabilities to jointly promote the development of the cooperative company.	As the headquarter of the Logistics Park, CF Company took the initiative to make contact with Chuanhua, Jiuda, Purun, and many other external entities and jointly established a cooperative company with them. However, the cooperative company was still at the initial stage of exploration. It failed to play its due role of leading and stimulating the local industrial and economic development.

6.2.4 YDJS Company

To convert the short-term debt of the BT House Resettlement Project into long-term debt using the PPP model, the government established YDJS Company in August 2016. The network evolution of YDJS Company supported such cooperative businesses as the SLB Resettlement Housing Project and the old city cultural corridor.

In the initial period after its establishment, YDJS Company carried out the SLB Resettlement Housing Project. However, when undertaking the project, YDJS Company had almost no connection with other entities other than its connections with the government. In this period, YDJS Company did not attract more external entities to join. To undertake and develop this project, the government needed YDJS Company to convert short-term debt into long-term debt, thereby reducing the fiscal pressure. Therefore, on the one hand, the government needed the professional abilities of YDJS Company. On the other hand, YDJS Company almost only undertook the matters required by the government. It did not conduct any independent business. During the construction of this project, the government, YDJS Company, and social capital did not establish a longer-term cooperative relationship or common perception of reciprocity and mutual benefit. Each party was mainly focused on meeting its own needs. As the person in charge of YDJS Company Ye** mentioned in the interview: “We did not carry out business ourselves at that time. We mainly carried out some work required by the government to help the government convert the short-term debt of the resettlement houses into long-term debt.”

As the headquarter of the central old urban area, YDJS Company was responsible for rejuvenating the old urban area and the cultural corridor project of the old urban area. With the implementation of the Resettlement Housing Project and Jianshan Scenic Area Project in the earlier stage, external entities joined in the Cultural Corridor Project of the old urban area, and there were more direct connections between YDJS Company and other external entities. YDJS Company not only undertook such work as the underground pipe network, rain and sewage diversion, and landscaping along the line, but also bore the responsibilities of cultural protection, cultural publicity, and tourism promotion in the old urban area. However, most of these businesses were carried out at the request of the government, and the government chose YDJS Company mainly because of its professional capabilities. YDJS Company mainly undertook public interest projects assigned by the government in this project. It did not establish long-term cooperative relationships with the government and external entities. Instead, the cooperation was mostly a result of the match in professional capabilities and resources. As the person in charge of YDJS Company Ye** mentioned in the interview: “When building the cultural corridor of the old urban area, our company (YDJS Company), as the headquarter of the central old urban area, must take the leading role. But we still had little contact with external entities. The Cultural Corridor Project in the old urban area was also a project undertaken by the government to improve the central old urban area. It was mainly participated by YDJS Company and a few other entities."

In summary, the continuous business network evolution of YDJS Company supported such cooperative businesses as the SLB Resettlement Housing Project and the Cultural Corridor Project in the old urban area. This was the result of the different dimensions of trust acting on different value capture behaviors. The summary is shown in Table 6.4.

Table 6.4 A summary of the influence of YDJS Company's inter-organizational trust on its value capture behavior

Cooperation business	Inter-organizational trust	Value capture behaviors
SLB Resettlement Housing Project	YDJS Company was established and undertook this project to help the government convert the short-term debt into long-term debt. There were no external entities involved in the construction of this project. This was a representation of the government's full use of the capacity of YDJS Company.	The establishment of YDJS Company was to help the government convert the short-term debt into long-term debt. It did not carry out business by itself. At this stage, YDJS Company did not establish long-term cooperative relationships with the government and external entities. All the entities were mostly focused on gaining short-term interests.
Cultural Corridor Project in the old urban area	To preserve and carry forward the history and culture of the old urban area, YDJS Company, as the headquarter of the old urban area, assumed the leading role. However, this project did not attract more social capital or entities to participate except for a few entities such as the government and YDJS Company.	The Cultural Corridor Project in the old urban area was built by YDJS Company at the request of the local government. This was the result of the government's recognition of the professional capabilities of YDJS Company. At this stage, YDJS did not undertake projects by itself, nor did it take initiative to seek cooperation.

6.3 Inter-case analysis and conclusions

JM Company, LXJM Company, CF Company, and YDJS Company exhibited different trust characteristics and value capture behaviors in the process of inter-organizational cooperation. Through the analysis of the inter-organizational trust and value capture behaviors of these four enterprises in the course of their development, we have a more systematic understanding of the overall development of each enterprise. Next, based on the above case analysis materials, we will dive deep into the structural trust, social trust, value creation, and value appropriation behaviors of each case enterprise. Besides, through the comparative analysis of various cases, we will summarize the correlation and causality between inter-organizational trust and value capture behaviors and put forward the research conclusions.

6.3.1 Inter-case analysis

A review of the entire development process of JM Company shows that it was established in response to the needs of the local government, or specifically, its Shantytown Renovation Project. In the early stage, JM Company undertook a wide range of public interest projects including the Shantytown Renovation Project, road construction projects, and park construction projects. The participation in these projects provided JM Company with rich construction experience, construction qualifications, and popularity, which provided conditions for its inter-organizational value appropriation. Besides, these efforts also laid the foundation for JM Company to establish contact with other organizations, including the joint development of Jianshan Scenic Area and the ZQ Lantern Town Project with other organizations in the later period. JM Company relied on its capabilities and resources to quickly establish structural trust with other organizations. In the business development process, JM Company and the Landscape Engineering Team jointly established XLYL Company. Relying on the professional and management capabilities of the Landscape Engineering Team, as well as the channels and financial capabilities of JM Company, XLYL Company quickly achieved effective expansion of the market business. Besides, the success of XLYL Company also benefited from JM Company's delegation of power to the Landscape Engineering Team. Although JM Company was the major shareholder, it did not suppress the Landscape Engineering Team from giving full play to its professional capabilities. These interactions and activities enabled both entities to establish effective social trust and laid the foundation for overcoming difficulties in the new projects in the future. Based on its professional resources and capabilities, as well as the social trust it had established with XLYL Company, JM Company undertook the development project of the Jianshan Scenic Area. The development of the Jianshan Scenic Area Project also attracted the active participation of such entities as LXJM Company, YDJS Company, and XFSD Company. The project development process was faced with huge pressure from various sources such as capital and social issues. But such pressure provided several companies with opportunities for full communication and a platform for building social trust. JM Company, LXJM Company, and other organizations lent money to each other and provided guarantee for each other to solve the loan problems. The process of jointly solving the problems propelled them to establish an effective social trust relationship. Therefore, in the later project development process, the inter-organizational social trust supported them to have a longer-term understanding, which allowed them to effectively carry out business innovation and value creation on the Jianshan Scenic Area Project. The successful advancement of the Jianshan

Scenic Area Project attracted the active participation of more external organizations, which contributed to the gradual formation of the Jianshan Project Group with LXJM Company as the center. As a result, JM Company also established new connections with more external organizations and established higher structural trust, which ensured its value appropriation ability. It can be seen from this that JM Company established a high level of structural trust and social trust relationship with other organizations, which helped it conduct very good value creation and value appropriation in the process of cooperation with other organizations and promoted its rapid development (see Table 6.5).

Table 6.5: JM Company's trust relationships with other organizations and its value capture behavior

Construct	Structure trust		Social trust		Value creation		Value appropriation	
Measured variable	Self-capability	Resource matching	Perception of fairness	Reciprocity and mutual benefit	Long-term	Shared interests	Short-term	Private interests
JM Company	Very high	Very high	Very high	High	Very good	Very good	Very good	Good
Characteristics	JM Company is the earliest platform company established in ZLJ District. In the process of undertaking the infrastructure projects of the whole district, it accumulated rich experience and operational capabilities, such as construction qualifications, asset capabilities, and popularity. Besides, its special government background enabled it to have a wide range of channels. All these strengths laid the foundation for JM Company to establish structural trust with other organizations. In the development process of the Jianshan Scenic Area Project and ZQ Colored Lantern Project in the later stage, JM Company leveraged its capabilities to quickly establish connections with external organizations.		Affected by the policy, JM Company separated its business operations from the government functions. In the process of its marketization, JM Company established better social trust with Zigong Bank and the Landscape Engineering Team through continuous interactions. The process of helping each other to overcome difficulties enabled them to establish a higher level of perception of fairness, and all parties attached more importance to long-term goals. Besides, such behaviors as mutual-guarantee and mutual-lending also deepened their relationships of reciprocity and mutual benefit, strengthening their inter-organizational social trust.		Since JM Company and the Landscape Engineering Team jointly established XLYL Company, JM Company has always emphasized the use of the professional capabilities of all entities to create more value. For example, JM Company did not interfere with the operation and management of the organizations, and it did not consolidate the financial statements. During the development of the Jianshan Scenic Area in the later period, despite of the complete lack of clarity about the future of the project, JM Company was fully involved from the early stage of the development, creating the high-quality Jianshan Scenic Area Project. It also attracted villagers and the government to participate and create value together.		The original intention of JM Company was to meet the construction needs of the local government. It undertook many public interest projects and accumulated some experience, qualifications, and capabilities. But it hardly established long-term cooperative relationships with any organization. Its behavior was typical value appropriation. After the full development of the Jianshan Scenic Area Project, JM Company was able to quickly realize resource integration with organizations in the Jianshan Scenic Area relying on its comprehensive capabilities. For example, it established of Huadengyaosi Road Company to undertake the colored lantern culture promotion business in the local area. it can be seen that JM company had good value appropriation ability throughout the entire process.	

In the initial period of its development process, LXJM Company had poor resources and business capabilities. In the development of the Jianshan Scenic Area Project, LXJM Company, JM Company, XFSD Company, and other companies lent money to each other and provided loan guarantee for each other, which effectively promoted the emergence of new types of business for the Jianshan Scenic Area project. This led to the establishment of effective social trust between LXJM Company and other organizations. In the process, several organizations can actively participate in project development and innovation. LXJM Company developed farmhouses, homestays and night training schools and built fruit and vegetable planting bases in collaboration with the villagers and XFSD Company, which was an effective manifestation of value creation. As the headquarter of the Jianshan Scenic Area Project, LXJM Company established frequent interactions with many cooperative enterprises and formed a social trust relationship. On this basis, it also attracted more external entities to actively participate and jointly create cultural activities such as the Peach Blossom Festival and the Grape Picking Festival, turning the Jianshan Scenic Area into a local super IP. Therefore, the Jianshan Scenic Area became a fertile ground and platform for the organization to freely capture value and contributed to the local economic development. However, the lack of business capabilities and resources in the previous period restricted LXJM Company's room for business cooperation, meaning that the value appropriation ability of LXJM Company was poor. In this process, LXJM Company functioned as a representative of the local government to activate local economic vitality and create more value and opportunities. It can be seen that LXJM Company established a high degree of social trust relationship with network organizations and that it had good value creation capabilities. However, it had average performance in structural trust and value appropriation capabilities (see Table 6.6).

Table 6.6 LXJM Company's trust relationships with other organizations and its value capture behavior

Construct	Structural trust		Social trust		Value creation		Value appropriation	
Measured variable	Self-capability	Resource matching	Perception of fairness	Reciprocity and mutual benefit	Long-term	Shared interests	Short-term	Private interests
LXJM Company	Average	Average	High	High	Good	Good	Poor	Average
	LXJM was the platform company responsible for the southern part of ZLJ District. Before the development of the southern area, LXJM Company had very poor business resources and very weak capabilities. It did not have any business, resulting in its very slow development and the failure to establish a high level of structural trust relationship with its cooperative organizations. In the development of the Jianshan Scenic Area and ZQ Colored lantern Project, LXJM Company played a more important role as the coordinator. It only participated in the implementation of specific projects, which limited the development of its professional abilities to a certain extent. It can thus be seen that LXJM Company only had an average level of structural trust with other organizations in the network.		LXJM was responsible for coordinating the southern district project. The most typical and most successful is the Jianshan Scenic Area Project and the subsequent ZQ Colored Lantern Town development project. During the development process, LXJM Company mainly acted as the representative of the local government and focused on infrastructure construction. The continuous interactions between LXJM Company and its partners enabled them to set longer-term goals. Besides, such activities as mutual- guarantee and mutual-lending enabled them to develop the perception of long-term fairness. Due to its special identity, LXJM Company laid more emphasis on reciprocity and mutual benefit to retain the enterprises in the project. It can be seen that LXJM Company established a very high level of social trust in this process.		The Jianshan Scenic Area Project was a major project for LXJM Company, which functioned as a platform company in the southern area. As a project that started from scratch, the most important thing was to be able to provide better opportunities for external organizations so as to attract their participation. Therefore, LXJM Company paid more attention to the long-term goals in the development process and wished to establish shared interest with its business partners so as to ensure the continuity of the project. As the project coordinator, LXJM Company had more opportunities for follow-up development. It can be seen that LXJM Company had very strong value creation ability in this process.		During the development of the Jianshan Scenic Area Project in the southern area, LXJM Company played a very important role as the organization responsible for project coordination. When the project was fully developed, it became very difficult and inefficient for LXJM Company to cooperate with the organizations in the project due to its lack of professional capabilities and resources. It was difficult for LXJM Company to achieve the rapid development of its own business. In other words, it had very poor value appropriation ability.	

CF Company, which was established with a good economic and resource foundation, was responsible for the management and investment attraction of the logistics park in ZLJ District. It occupied a very good transportation position. Based on its resource advantages and capabilities, it mobilized the organizations in the park to actively participate in the development of the Jianshan Scenic Area. It cooperated with the local fruit and vegetable planting base to adopt the refrigeration technology of the enterprises in the logistics park. It also promoted the logistics transportation business of Chuanhua Company to the local commodity producers. While realizing the development of enterprises in the park, it also effectively activated the emergence of new types of business in the Jianshan Scenic Area Project. Upon completion of the Jianshan Scenic Area Project, it launched ZQ Characteristic Town Development Project. CF Company could quickly realize resource connection with its rich and diverse resource advantages, which promoted the establishment of structural trust between CF Company and the organizations within the network. Besides, this process also allowed it to give full play to its value appropriation ability. However, due to its late establishment, CF Company did not participate in the development process of early projects and could not establish a strong social trust relationship with the project organization in the short term. Besides, CF Company's participation in the development of Jianshan and ZQ Town development project group was mainly based on its complementary advantages in resources and capabilities, lacking value creation. It can be seen that CF Company had a higher level of structural trust relationship with the organizations in the social network where it is located and strong value appropriation ability. However, its social trust and value creation ability are average (see Table 6.7).

Table 6.7 CF Company's trust relationship with other organizations and its value capture behavior

Construct	Structure trust		Social trust		Value creation		Value appropriation	
Measured variable	Self-capability	Resource matching	Perception of fairness	Reciprocity and mutual benefit	Long-term	Shared interests	Short-term	Private interests
CF Company	High	High	Average	Average	Average	Average	Good	Good
Characteristics	CF Company was established in response to the government's need to build a logistics park. The government invested a lot of resources in the logistics park, which attracted a large number of external organizations to settle there. The park boasted sound infrastructure, and various types of enterprises, including agricultural companies, logistics companies, and oil products companies. Besides, it also had the best traffic location in ZLJ District as well as convenient railway and port. These advantages provided a solid foundation for CF Company. And CF Company had a very high level of structural trust relationship with its partners.		Although CF Company boasted sound infrastructure and resources, it was established late. It failed to participate in the preliminary development of the Jianshan Scenic Area Project. Therefore, in the process of cooperation, it failed to develop the perception of long-term fairness. Instead, it focused on maximizing its own interests rather than reciprocity and mutual benefit in cooperation. It can be seen that the social trust relationship between CF Company and its partners was at a low level.		CF Company had rich resources. In the process of its participation in the project, it mainly focused on observing the existing business. Its willingness for long-term cooperation was not strong. Besides, CF Company was just focused on using the high-quality platform of Jianshan Scenic Area Project and ZQ Lantern Town Project to establish business connections with more organizations rather than creating shared interests to benefit the entire network. It can be seen that its value creation ability was average.		With the gradual development of Jianshan Scenic Area Project, CF Company achieved business cooperation with the Project based on its resources and capabilities. CF Company promoted the cold storage services, logistics services, and transportation services of the enterprises in the park. It provided a wider range of business channels and profit space for the business development of enterprises in the park. It can be seen that CF Company had strong value appropriation ability.	

YDJS Company had poor resources and a weak capability foundation. It is an enterprise established by the local government to meet the construction needs of the shantytown renovation project. Although it participated in such projects as the shantytown renovation and the development of the Jianshan Scenic Area, it could only play a supplementary role by participating in the construction tasks of these projects due to its unitary capacity and poor resources. It is also because of this reason that YDJS Company developed quite slowly in recent years. It could neither participate in projects to capture more value nor create new types of business together with other companies. Its pace of business expansion was too slow, while such projects as Jianshan Scenic Area and ZQ Lantern Town progressed very fast. The growth speed of its business capabilities could not keep up with the speed of project construction. Therefore, after participating in the Jianshan Scenic Area Project, it still only played a supplementary role in ZQ Town Development Project and could not achieve any breakthrough. It can be seen that YDJS Company had very low levels of structural trust and social trust in the network, and its value creation and value appropriation abilities were both very weak (see Table 6.8).

Based on the above inter-case analysis, the author has arrived at Figure 6.1, the comparison matrix of typical cases that shows the relationships between the measured variables (structural trust, social trust, value creation, and value appropriation) of each case enterprise.

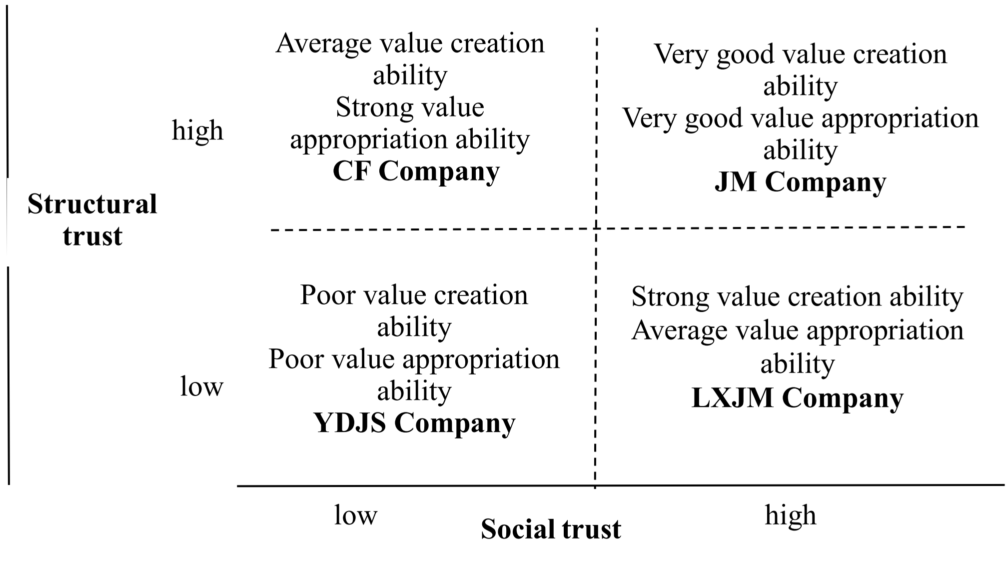

Figure 6.1 The comparison matrix of typical cases

Table 6.8 YDJS Company's trust relationship with other organizations and its value capture behavior

Construct	Structure trust		Social trust		Value creation		Value appropriation	
Measured variable	Self-capability	Resource matching	Perception of fairness	Reciprocity and mutual benefit	Long-term	Shared interests	Short-term	Private interests
CF Company	Low	Low	Low	Very low	Poor	Very poor	Poor	Poor
Characteristics	YDJS Company was established to meet the local government's need to build public interest projects. With the change of policies, YDJS Company separated its busines operations from the government functions. Its business channel became narrower, marketization degree progressed slowly, and its capabilities and resources could not be nurtured. During the development of the Jianshan Scenic Area Project, its level of participation was very low. Constraints in capabilities and resources caused it to have a very low level of structural trust relationship with other organizations.		YDJS Company was established to cooperate with the project advancement of JM Company. Its business and resources were both very limited. In the process of project advancement, due to its single source of business, YDJS Company played only a supplementary role and could hardly have the opportunity to establish a continuously interactive relationship with the organization. It failed to establish the perception of long-term fairness as well as reciprocity and mutual benefit with its business partner. Thus, YDJS had a very low level of social trust.		Since its establishment, YDJS Company mainly participated in public interest projects and functioned as an executor. Examples include the construction of resettlement houses and the repair of roads in the Jianshan Scenic Area. The fact that YDJS Company did not participate in the core business led to its lack of intention to create shared interests and long-term benefits. It can be seen that the value creation ability of YDJS Company was poor.		The projects that YDJS Company participated in were mostly public interest projects, which was not conducive to improving its own business resources. After the completion of the Jianshan Scenic Area, it still failed to attract more business, which limited the development of business resources. It can be seen that the value appropriation ability of YDJS Company was poor.	

6.3.2 Structural trust promotes value capture behavior

The above case analysis shows that there is a high degree of similarity between YDJS Company and CF Company. They were both platform enterprises established to meet the construction needs of the local government, and they both played a very important role as executors in the development process. From the perspective of trust and value capture behavior, they had very similar evolutionary paths: First, in the initial period, YDJS Company was mainly focused on the construction of resettlement houses, which was the implementation of short-term business arranged by the government and the main manifestation of structural trust. Its value capture behavior in this period was mainly manifested as value appropriation. CF Company, which was established later, was mainly responsible for the management, investment attraction, and other businesses of the logistics park. In the initial period, it mainly relied on its resources and business capabilities and was unable to achieve integration in long-term projects. It mainly exhibited structural trust and value appropriation behaviors. In general, as platform enterprises, both companies had very similar external environments, which provides us with excellent analytical materials for exploring the relationship between trust and value capture behaviors.

6.3.2.1 Structural trust promotes value appropriation behavior

CF Company, which had a short history, had relatively less projects and less types of business. The establishment of CF Company was also aimed at further standardizing the management and construction of the logistics park. So, in the beginning, the responsibilities of the government and CF Company were clear. The two sides did not establish cooperation on the basis of the perception of long-term cooperation. Instead, their cooperation was mainly a result of their complementary resources and capabilities. Just as Yang**, the leader of CF Company, mentioned in the interview: “There was a lack of professional management talents in the management process of the logistics park. At that time, we did not recruit from society. So, the management of the park was not very standardized.” Later on, CF Company continued to establish connections with external entities such as Jiuda, Chuanhua, and Purun and jointly set up a cooperative company with them. As a result, they began to develop a common perception of reciprocity and mutual benefit. However, the partner company was only an initial attempt. Overall, CF Company had a high level of structural trust and strong value appropriation ability.

Compared with CF Company, YDJS Company, which had a low level of structural trust, also performed poorly in terms of value appropriation. YDJS Company was established to meet the government’s need to convert the short-term debt of the resettlement houses into long-term debt by adopting the PPP model. The government chose YDJS Company mainly because of its professional capabilities and resources. However, there were no more external parties involved in the early stage of the project. YDJS Company was only an executor of the tasks assigned by the government. It mainly cooperated with the project departments of the government. In general, YDJS Company had a low level of structural trust and its value appropriation ability was also poor.

It can be drawn from the cases of YDJS Company and CF Company that structural trust has an important impact on value appropriation behaviors. Structural trust provides a prerequisite for the association and interaction between various actors in the network. The cooperation of these network actors requires structural trust that can achieve mutual cooperation. Structural trust realizes synergy through complementary resources and provides a basis for resource collaboration between enterprises, thus enabling each entity in the network to effectively match their resources (Madhok, 1995b). In the process of value capture, CF Company continued to interact with external entities. In particular, the establishment of the cooperative company laid the foundation for establishing a long-term cooperative relationship. In the subsequent development process of various project groups, CF Company could leverage its own professional capabilities and resources to achieve resource integration of complementarity with other entities, so that all entities can work together to achieve value capture. Due to its insufficient structural trust, YDJS Company was greatly restricted in matching its resources and capabilities, mutual cooperation, relationship coordination, and sharing existing benefits. Through a comparative analysis, it was concluded that CF Company had a higher degree of structural trust than YDJS Company. As a result, CF Company also enjoyed a higher level of development in value appropriation. The structural trust and value appropriation characteristics of CF Company and YDJS Company are shown in Table 6.9.

Table 6.9 Structure trust and value appropriation characteristics of CF Company and YDJS Company

Construct	Structural trust		Value appropriation
Measured variable	Self-capabilities	Resource matching	The ability to gain its own vested interests
YDJS Company	Low	Low	Poor
CF Company	Medium	Medium	Strong

Conclusion 1.1 The higher degree of structural trust, the more it can help the companies to develop value appropriation behaviors.

6.3.2.2 Structural trust promotes value creation behavior

It can be seen from the cases of YDJS Company and CF Company that structural trust also has an important impact on enterprise' value creation behaviors. The structural trust of CF Company was well reflected, and it also participated in more projects. In particular, in the process of managing the SP Logistics Park project, CF Company interacted extensively and established cooperative relationships with such entities as the property company and the landscaping company. Just as Yang**, the leader of CF Company, mentioned in the interview: "CF Company was established exactly to carry out the landscaping, management, and construction of the park. Therefore, after undertaking this project, we continued to undertake park management responsibilities and were mainly engaged in public interest projects assigned by the government." Meanwhile, as more and more entities participated in the park, the structural trust relationship established during this period laid the foundation for the long-term cooperation between them. It can be seen that CF Company gradually exhibited value creation behaviors in the cooperation process.

YDJS Company had insufficient structural trust and participated in less projects. After its establishment, YDJS Company actively participated in such projects as the Cultural Corridor Project in the old urban area. However, in the course of these projects, the participating entities did not establish a long-term cooperative relationship. Instead, they mainly undertook public interest projects assigned by the government. There were not many external entities involved in this project, and the participating entities did not continue their cooperation afterwards.

A comparative analysis shows that compared with YDJS Company, CF Company had a higher degree of structural trust and a better-developed value creation behavior. It can thus be concluded that when the level of structural trust is high, the platform enterprises at district and county levels have better development in terms of their capabilities and resource matching, and thus have more opportunities to make new attempts. With the increase of entities in the network, these platform enterprises will have more opportunities to develop value creation behaviors based on the preliminary common understanding established through extensive connections with other entities. The structural trust and value creation characteristics of CF Company and YDJS Company are shown in Table 6.10.

Table 6.10 Structure trust and value creation characteristics of CF Company and YDJS Company

Construct	Structure Trust		Value Creation
Measured variable	Self-capabilities	Resource matching	Creation of common interests
YDJS Company	Low	Low	Poor
CF Company	Medium	Medium	Neither strong nor poor

Conclusion 1.2 The higher degree of structural trust, the more contribution to the development of enterprises' value creation behavior.

6.3.2.3 Structural trust promotes value capture behavior

According to the comparative case analysis, the higher degree of structural trust between entities, the more contribution to the value appropriation and value creation behavior of platform enterprises. However, it also reflects that structural trust has different impacts on enterprises' value appropriation and value creation behaviors.

CF Company played a very important role in the management of SP Logistics Park. As the headquarter of the area, CF Company cooperated with the enterprises in the park and explored the model characterized by "the combination of the management committee and companies". It started to establish long-term cooperative relationships with the entities in the park. In particular, it established a cooperative company with Jiuda Company, Chuanhua Company, and Purun Company, which further strengthened their ties, established the perception of long-term fairness, and realized the evolution towards value creation. However, the trust between the entities was also changing. It can be seen that structural trust mainly acted on value appropriation behaviors, and the gradual change of the ties between entities provided conditions for value creation.

Compared with CF Company, YDJS Company had insufficient structural trust. This was mainly due to the fact that almost no external social entities participated in the Resettlement Housing Project and the Cultural Corridor Project it undertook except for a few entities such as the government. Besides, the development model was also not sound as it mainly relied on the match in resources and capabilities to develop its business. As a result, YDJS Company had poor value appropriation ability as well as poor value creation ability.

Structural trust enables synergies between actors through resource complementarity and lays a foundation for resource collaboration, thus enabling each actor in the network to effectively match their internal and external resources. Although a high degree of structural trust can promote value creation behavior to a certain extent, it has a greater effect on the value appropriation behaviors. The structural trust and value capture behavior characteristics of CF Company and YDJS Company are shown in Table 6.11.

Table 6.11 Structural trust and value capture characteristics of CF Company and YDJS Company

Construct	Structural trust		Value capture	
Measured variable	Self-capability	Resource matching	Value appropriation	Value creation
YDJS Company	Low	Low	Poor	Poor
CF Company	Medium	Medium	Good	Average

Conclusion 1.3: The influence of structural trust on enterprises' value capture behavior is mainly reflected on value appropriation.

6.3.3 Social trust promotes value capture behavior

LXJM Company, as the headquarter of the Southern Ecological Area of ZLJ District, played an important role as a coordinator in the development of the Jianshan Scenic Area. It jointly developed the Jianshan Scenic Area Project with JM Company, YDJS Company, and XFSD Company, and established long-term and stable cooperative relationships with them in this process. Compared with CF Company and YDJS Company, LXJM Company had the most mature development, which benefited from the establishment of social trust that provided a continuous source of vitality for the emergence of new types of business. In comparison, YDJS Company had a short history and was still in the development stage as shown in the afore-mentioned case analysis. It mainly exhibited structural trust and value appropriation behaviors. The contrast between the two enterprises provides excellent analytical materials for us to explore the role of social trust.

6.3.3.1 Social trust promotes value appropriation behavior

LXJM Company was the headquarter of the Southern Ecological Area. Before being responsible for the project development of the Jianshan Scenic Area, LXJM Company was in a terrible state of business, lacking high-quality assets and business. As a new project, Jianshan Scenic Area was an important development opportunity for LXJM Company, but LXJM Company also needed to face tremendous development pressure. In fact, LXJM Company, YDJS Company, JM Company, and XFSD Company all went through a very tough development period characterized by the lack of funds and technologies. Despite the challenges, it was exactly this period that prompted various entities to quickly establish deep trust. In the development process, there merged many unexpected new types of business, such as training schools, agricultural product bases, and rural homestays, all of which became important sources of income for LXJM company. Meanwhile, social trust provided LXJM Company with more sources of income. For example, the cultural development projects of YDJS Company actively attracted the participation of LXJM Company to increase the business income channels. This was the result of cooperation between the participating entities through social trust. In this process, LXJM Company achieved value appropriation from several aspects.

Compared with LXJM Company, YDJS Company had a lower level of social trust and thus performed poorly in value appropriation. As the headquarter of the old urban area of ZLJ District, YDJS Company took an initiative to play a leading role by undertaking many public interest projects to facilitate the SLB Resettlement Housing Project and rejuvenating the old urban area. Its efforts also contributed to its higher position in the area network. However, in this period, no external entities joined, nor did YDJS Company establish any long-term cooperative relationship with other entities. Compared with LXJM Company, YDJS Company had relatively less frequent connections and shorter cooperation duration with other entities, and its cooperative relationships with other entities were significantly restricted as a result. It can thus be seen that YDJS Company performed more poorly in value appropriation.

It can be seen from the comparison between LXJM Company and YDJS Company that social trust had an important impact on the value appropriation behavior of the platform enterprises. Social trust provides a soft commitment for the two sides in the cooperation to obtain balanced gains from mutual relations. Social trust stems from the perception of long-term fair relationships, which can increase the consistency of overall goals and reduce the monitoring need (Madhok, 2006). Social trust can also make both entities more motivated, in which case the behavior of the two entities was not to prevent value consumption, but to enhance the value of the relationship, which can reduce the perception of opportunistic behaviors to increase trust (Madhok, 1995b). Because LXJM Company had more extensive connections with market entities, it could continue to carry out high-frequency interactions, which helped the platform enterprises to match and complement resources in the projects with their own resources and professional capabilities, thereby promoting value appropriation behaviors. Compared with LXJM Company, YDJS Company had a low level of social trust and poor value appropriation performance. The social trust and value appropriation characteristics of YDJS Company and LXJM Company are shown in Table 6.12.

Table 6.12 Social trust and value appropriation characteristics of YDJS Company and LXJM Company

Construct	Social Trust		Value Appropriation
Measured variable	Long-term fairness perception	Mutual benefit	Gain one's own vested interests
YDJS Company	Low	Low	Poor
LXJM Company	Medium	Medium	Average

Conclusion 2.1: The higher the level of social trust, the more conducive it is to the development of enterprises’ value appropriation behavior.

6.3.3.2 Social trust promotes value creation behavior

Social trust can also affect value creation behavior. The development of the Jianshan Scenic Area Project was a starting point. As the headquarter of the Southern Ecological Area of ZLJ District, LXJM Company achieved rapid business development in this process. Meanwhile, as the development of the Jianshan Scenic Area gradually progressed, more entities were also involved, including real estate companies, tourism companies, and cultural companies. With the increasing number of participants, more cooperation models gradually emerged, such as the development of the fruit base, rural tourism, colored lantern culture promotion, and the colored lantern characteristic town, which significantly contributed to the development of the Jianshan Scenic Area. Based on the development of the Jianshan Scenic Area, the development of ZQ Town attracted more entities to participate, such as Haitian Culture Company, XFSD Company, YDJS Company, and CF Company. The participation of these enterprises was based on the previous cooperation foundation and the established social trust relationship. The formation of the various project groups was the best proof. It can be seen that LXJM Company performed well in value creation behaviors, and that the establishment of social trust relationships laid an important foundation for its subsequent development and value capture.

Compared with LXJM Company, YDJS Company, which had a lower level of social trust, performed poorly in value creation. YDJS Company only established connections with a few related entities such as the government, and the degree of closeness was still insufficient. Therefore, it was difficult to form a long-term common perception and mutually beneficial cooperation relationship. Almost all the projects undertaken by YDJS Company were public interest projects assigned by the government. It did not make any market-oriented business attempt as most of the projects it undertook relied primarily on resource matching and complementarity, falling into the category of value appropriation. It can thus be seen that YDJS Company did not establish effective social trust with other entities, which hindered its value creation ability to some extent and caused it to perform poorly in value creation.

LXJM Company established close connections with many entities in the market, whereas YDJS Company had a low degree of connections with market entities and failed to establish long-term cooperative relationships with them. It can be seen that LXJM Company, with a higher level of social trust than YDJS Company, achieved better development in value creation. The social trust and value creation characteristics of YDJS Company and LXJM Company are shown in Table 6.13.

Table 6.13 Social trust and value creation characteristics of YDJS Company and LXJM Company

Construct	Social trust		Value creation
Measured variable	Perception of long-term fairness	Reciprocity and mutual benefit	Creation of shared interests
YDJS Company	Low	Low	Poor
LXJM Company	Medium	Medium	Good

Conclusion 2.2: The higher the level of social trust, the more conducive it is to the development of enterprises' value creation behavior.

6.3.3.3 Social trust promotes value capture behavior

According to the comparative case analysis, the higher level of social trust the platform enterprises have, the more they are able to carry out value appropriation and value creation activities. However, social trust has different effects on value appropriation and value creation.

The process of the development from the Jianshan Scenic Area Project to ZQ Town was a process of evolution from structural trust to social trust as well as one from value appropriation to value creation. In the initial period of the development of Jianshan Scenic Area, the participating entities jointly undertook project development due to their complementary resources and capabilities. The emerging value broadened business channels and contributed to their increased value appropriation ability. As the project progressed, the close interaction between the various entities and the new organizations contributed to the increased activities within the network. The diversity of business and resources within the network also facilitated the cooperative innovation ability between the entities. These prerequisites enabled the development of the ZQ Town Project as well as the historical and cultural corridor project, leading to the continuous emergence of new types of business and new projects. With the launch of new projects, social trust among enterprises gradually took dominance, and value creation gradually became the main value capture behavior within the network, which guarantees the continuous emergence of new types of business and the continued activity within the network. Therefore, from the perspective of LXJM Company’s development process, the existence of social trust facilitated the emergence of inter-organizational value creation behavior and realized sustainable development.

Compared with the development of YDJS Company, the company mostly played a supportive and supplementary role in response to the government settlement houses and cultural protection of the old urban area. Therefore, the development in the initial period was mostly value appropriation dominated by structural trust. With its own development, YDJS Company was able to participate in the Jianshan Scenic Area Project and ZQ Development Project to gradually give full play to its own strengths. However, YDJS had a low level of integration with other entities. It was mostly focused on providing business support, without in-depth participation. In this process, it established long-term cooperative relationships with such entities as JM Company, LXJM Company, and Huadengyaosi Road Company, and attracted the participation of more entities in the process of developing the project group. Many new types of business and new ways of value production appeared in this process, which was a process of creation from zero to one. In general, YDJS Company had insufficient social trust, and its value capture was mainly reflected in value appropriation.

It can be seen from the comparative analysis of the cases that social trust pays more attention to the closeness of the relationships between the entities, which directly affects the interactive relationship between the two parties and their perception of long-term cooperation. The establishment of social trust helps to tolerate conflicts of goals and temporary inequities in relationships (Wilkins & Ouchi, 1983). In short, although a higher degree of social trust can facilitate value appropriation, it can contribute more to value creation. The social trust and value capture characteristics of YDJS Company and LXJM Company are shown in Table 6.14.

Table 6.14 Social trust and value capture characteristics of YDJS Company and LXJM Company

Construct	Social trust		Value capture	
Measured variable	Perception of long-term fairness	Reciprocity and mutual benefit	Value appropriation	Value creation
YDJS Company	Low	Low	Poor	Poor
LXJM Company	Medium	Medium	Average	Good

Conclusion 2.3: The influence of social trust on value capture behavior is mainly reflected in value creation.

6.3.4 Structural trust and social trust jointly influence value capture behavior

The structural trust and social trust between platform enterprises will respectively influence value appropriation and value creation. When the levels of both structural trust and social trust are high, the two will jointly work on value appropriation and value creation. For example, JM Company, as the earliest platform enterprise established in ZLJ District, had high levels of structural trust and social trust with other organizations. As a result, it had better value capture performance. Therefore, the comparison between JM Company and LXJM Company as well as that between JM Company and CF Company provide analysis materials for us to study the combined influence of structural trust and social trust on value capture behavior.

As the earliest platform enterprise in ZLJ District, JM Company was originally established to undertake the government’s shantytown renovation project. In the beginning, JM Company had almost no connection with other entities other than its direct connections with the government. Later on, JM Company began to transform due to policy reasons. Through repeated attempts such as the county-level water supply, the Lihudong Reservoir Fund Project, and the cooperation with Zigong Landscape Engineering Team, JM Company began to establish contact with social capital. It gradually established preliminary cooperative relationships with these partners. Based on the emotional relationships accumulated in the past, JM Company extensively participated in such projects as Jianshan Scenic Area, colored lanterns, and the cultural corridor in the old urban area in the third stage. An understanding of long-term fairness as well as reciprocity and mutual benefit was established within the network on the basis of the complementary capabilities and resources among the network members. In the process of cooperation of these projects, the structural trust and social trust established between the participating entities continuously reinforced each other, enabling JM Company to demonstrate a high level of value capture ability reflected in high levels of value appropriation and value creation.

LXJM Company had a high level of social trust and a low level of structural trust. Compared with JM Company, LXJM Company had relatively weaker value appropriation ability. As it gradually became the “headquarter” of the southern area and the coordinator of multiple projects, in the process, LXJM Company established connections and long-term cooperative relationships with JM Company, YDJS Company, and XFSD Company. Later on, their cooperation gave rise to such projects as the Revitalization Academy and the vegetable and fruit base. The cooperation between LXJM Company and other entities was based on not only the match of resources and capabilities but also the common understanding between the various entities of the projects that they would collaborate in the long term to create and share more value along with the development of the projects. However, compared with JM Company, LXJM Company still had an insufficient level of overall trust, which caused it to exhibit average performance in value appropriation but good performance in value creation.

CF Company had a low level of social trust and a high level of structural trust. Compared with JM Company, it had relatively weak value creation ability. In the development process, CF Company, as the “headquarter” of SP Logistics Park, was responsible for the overall coordination of the construction, landscaping, and management business within the park. Later on, CF Company established a cooperative company with such companies as Chuanhua Company, Jiuda Company, and Purun Company. It started to establish long-term cooperative relationships with its partners, but the project was still not successful. Compared with JM Company, CF Company did not have sufficiently close connections with other entities in the market, which caused it to have a low level of social trust. As a result, it could hardly have in-depth interactions with other entities. In the end, CF Company exhibited good performance in value appropriation but average performance in value creation.

It can be seen from the above case comparisons that the structural trust and social trust between the platform enterprises and external entities can interact with each other. Based on structural trust, JM Company could establish social trust relationships with other entities to understand their thoughts and needs through strengthened interactions with them. This further promoted JM Company to participate in a wider range of projects, such as the Jianshan Scenic Area Project, the Colored Lantern Cultural Project, the Historical and Cultural Corridor Project, and the Logistics Park Construction Project. The continuous development of these projects benefited from the joint effect of structural trust and social trust, which ultimately led to a virtuous cycle.

In general, when the levels of both structural trust and social trust between organizations are high enough, a virtuous cycle can be formed to facilitate the interaction and association between platform enterprises and push them to engage in high levels of value appropriation and value creation behaviors. The characteristics of structural trust and social trust of JM Company, LXJM Company, and CF Company are shown in Table 6.15.

Table 6.15 Structural trust and social trust characteristics of JM Company, LXJM Company, and CF Company

Construct	Structure trust		Social trust		Value capture	
Measured variable	Self-capability	Resource matching	Perception of long-term fairness	Reciprocity and mutual benefit	Value appropriation	Value creation
JM Company	High	High	High	High	Very good	Very good
LXJM Company	Low	Low	Medium	Medium	Average	Good
CF Company	Medium	Medium	Low	Low	Good	Average

Conclusion 3: The higher the degree of structural trust and social trust, the better the development of value capture.

This chapter provides inter-case analyses and an in-depth analysis of the four platform enterprises at district and county levels, namely, JM Company, LXJM Company, YDJS Company, and CF Company. The it summarizes the correlation and causality between the two dimensions of inter-organizational trust (structural trust and social trust) and the variables of value capture (value appropriation and value creation). Finally, the research conclusions are put forward.

Chapter 7: Conclusions and Prospects

Chapter 2 of this thesis provides a review of the literature on social network theory, trust theory, and value theory; Chapter Three puts forward the overall research design of this study; Chapter Four elaborates on the sources of data and the selection of research methods; Chapter Five systematically describes how network evolution supports value capture from the structural and relational dimensions of social networks; and based on the analysis of network properties, Chapter Six describes how structural trust and social trust in the network support value appropriation and value creation behaviors through the use of the comparative case analysis method, and reveals the role trust plays in the value capture behaviors of organizations in the network. This chapter will draw the main research conclusions, put forward theoretical and practical implications, and point out the research limitations and suggestions for future research.

7.1 Research conclusions

Through such ways as literature review, field research, and interviews, the author obtained a large number of first-hand data from the case enterprises and conducted a longitudinal study of the development process of the platform enterprises in ZLJ District, including JM Company, LXJM Company, YDJS Company, and CF Company. The author divided the four case enterprises in groups for comparative analyses and arrived at effective conclusions to address the research questions: How can the government investment and financing platform enterprises at district and county levels give full play to inter-organizational trust to realize the effective integration of the platform enterprises and social capital as well as organizations' value capture, so as to revitalize the local economic development? The research conclusions of this study are as follows:

First, an analysis of the overall development process of the platform enterprises in ZLJ District suggests that the social network of these platform enterprises underwent continuous evolution. On the one hand, in the context of the integration of industry and finance of the platform enterprises, the structural properties of the network are characterized by the evolution of network centrality and network openness. The network center shifted from an absolute center to a modular center. This was mainly manifested in the formation of a network with the government as the sole center in the first stage. As the degree of marketization of JM Company became higher and higher, the network center gradually shifted from the government to JM

Company. Finally, a sub-network was formed centering on LXJM Company, YDJS Company, and CF Company, and the network also had multiple centers and exhibited modular distribution. In terms of network openness, the closed network in the beginning was gradually opened up. Besides, the network density also evolved from low to high, indicating that while attracting external entities, the connections between the actors within the network also became closer and more active. On the other hand, the relational properties of the network were characterized by the strength of ties and the directness of connections. The strength of ties experienced an evolution of characteristics from weak ties to strong ties, and then to the coexistence of strong and weak ties. The main manifestation was that the nature of a project in one stage determined that the entities in the network could not form strong ties. With the initiation of new projects, the participating entities established deeper and more interactive relationships in the process of overcoming difficulties together. Finally, with the gradual formation of the network layers, the strength of ties was also gradually layered, demonstrating the characteristic of the coexistence of strong and weak ties. Similarly, the directness of connections underwent the evolution of characteristics from indirect connections to direct connections and then to the coexistence of direct and indirect connections. The common changes in structural properties and relational properties effectively supported the organization’s value capture behavior at different stages.

Second, the process of the industry and finance integration of platform enterprises and social capital can also be reflected in the process of interaction between structural trust and social trust. The analysis of JM Company, LXJM Company, YDJS Company, and CF Company shows that the structural trust and relational trust between organizations both underwent continuous development during the development process, and both types of trust had positive influences on enterprises’ value creation and value appropriation behaviors. Through a longitudinal case comparison analysis, it can be concluded that the interaction of the two types of trust can cause organizations’ value capture behavior in the network to be significantly different and that structural trust mainly affects organizations’ value appropriation behaviors. CF Company participated in the cooperation project late, and mainly established a structural trust relationship with other organizations, which promoted the value capture in the project and effectively promoted the organization’s value capture in the network. But at the same time, it could hardly rely on structural trust to activate the cooperation potential between the two organizations. In comparison, social trust mainly affects the value creation behavior of organizations. Relying on the development of the Jianshan Scenic Area Project, LXJM Company established a social trust relationship with other external organizations, which promoted the emergence of new types of business in the network and enhanced the value creation behavior of the organization. These two types of value capture behaviors are both indispensable to organizations. Only when the degree of structural trust and that of social trust between organizations are both high can an organization's value capture behaviors be positively influenced.

7.2 Research implications

7.2.1 Theoretical implications

Through analyses of single cases and comparative analyses of longitudinal cases, this study has shed new light on the correlation between social network, trust, and organizations' value capture behaviors as well as their mechanism.

First, existing research mainly focuses on the analysis of the relationship between the behavior and results of "trust and value" as well as the exploration of the role of trust in such dimensions as organizational cost, organizational performance, and innovation (Schilke & Cook, 2015). For example, trust has a significantly negative correlation with negotiation costs. Such studies were conducted from the perspective of static analysis. They have significantly expanded the application scenarios of trust and are a horizontal expansion of the trust application mechanism. However, they failed to demonstrate the in-depth relationship between trust and value. Through a comparative analysis of the four case enterprises, the present study finds that different types of trust have different influences on value capture behaviors. Specifically, structural trust mainly facilitates value appropriation, whereas social trust mainly contributes to value creation. The findings of this study provide us with a reference to effectively utilize inter-organizational trust relationships.

Second, this study also contributes to the mechanism of the value release process. Social networks have the characteristic of dynamic evolution, which is closely related to the two types of value capture behaviors of organizations. Through the longitudinal case analysis method and social network perspective, this study describes and analyzes the development process of case enterprises in detail. On the one hand, two types of value capture behavior, namely, value appropriation and value creation, exist in the process of inter-organizational cooperation. And in different stages of development, organizations will exhibit different types of value capture behaviors. On the other hand, different value capture behaviors need to be supported by different network properties. This thesis reveals the mechanism by which the network supports enterprises' different value appropriation behaviors from the structural and relational dimensions of the network. The research results provide a good reference for organizations to release the value of the network. Besides, the results can be applied to actual analysis and provide a basis for subsequent research in trust, network, and value.

7.2.2 Practical implications

As the number of platform enterprises in China continues to grow, the debt problems have become more and more serious. Besides, there is a lack of sound development models. As a result, platform enterprises in China, especially a large number of the platform enterprises at district and county levels, are faced with serious survival predicament. Therefore, by selecting the platform enterprises at district and county levels as research subjects, this study can help government platform enterprises understand how to establish a trust relationship with social capital in the process of industry and finance integration and realize value capture. Through the joint application of structural trust and social trust, it provides important practical guidance for the cooperation between platform enterprises and social capital.

First, this study can help us understand the development differences between the platform enterprises at district and county levels and other platform enterprises and point out the correct development direction. The platform enterprises at district and county levels, as the majority of China’s platform enterprises, have limited resources, are susceptible to policy influences, and are faced with development dilemma. Meanwhile, they are the economic organizations most closely integrated with the local economy and an important bridge for the local government to implement economic development ideas. Therefore, building a cooperative development network and connecting with external resources to achieve the effective industry and finance integration with social capital are the key to avoiding their own weaknesses and revitalizing the local economic development so as to realize the development of the platform enterprises.

Therefore, this study focuses on how to effectively realize the integration of industry and finance between the platform enterprises at district and county levels and social capital. From the perspective of social networks and proceeding from the elements of inter-organizational trust, this study avoids the resource disadvantages through inter-network connections and fully realizes connected effects to provide important guidance for the platform enterprises at district and county levels to establish effective networks and making full use of inter-organizational trust. Besides, practice proves that the effect of investment attraction, which has been regarded an important means for governments at district and county levels to develop the local economy, is not impressive. Thus, the integration of industry and finance provides another effective development path for the economic development in districts and counties where resources are scarce.

Second, this study can help enterprises establish inter-organizational trust relationships and utilize the value contained in such relationships. As mentioned before, the resources and policies of the platform enterprises at district and county levels are different from those of other platform enterprises. This study shifts the research perspective from a single resource perspective to an inter-organizational relationship perspective, providing a new direction for the development of platform enterprises. Inter-organizational trust is rooted in the network and is an important condition for unlocking the value of the network. The process of value capture includes two processes, namely, value creation and value appropriation. Value appropriation is an important way for an organization to realize sustainable investment and obtain benefits, whereas value creation is an important way to expand the organization's network and development opportunities. For the long-term sustainable development of the organization, the two types of value capture behaviors complement each other. Inter-organizational trust consists of two different dimensions, namely, structural trust and social trust. Structural trust comes from the match and complementarity of resources between organizations, whereas social trust comes from the long-term cooperation and interaction between organizations and can activate the development potential between organizations. Through longitudinal case analysis and case comparison, this study elaborates on the in-depth relationship between inter-organizational trust and value capture. Specifically, both structural trust and social trust can facilitate value creation and value appropriation. Yet in comparison, structural trust can better facilitate value appropriation, and social trust can better facilitate value creation. In different development stages, different value capture behavior takes dominance in the organization. Taking the platform enterprises at district and county levels for example. They have experienced different development stages, from value appropriation to value creation and then to the coexistence of value creation and value appropriation. In the meantime, the corresponding inter-organizational trust has also been constantly adjusted. Therefore, in the development process of the platform enterprises at district and county levels, it is necessary to flexibly adjust the way of inter-organizational trust to effectively realize inter-organizational value capture.

Third, this study can help guide organizations to build social networks correctly to effectively support inter-organizational trust and value capture. In the process of cooperation between platform enterprises and social capital, the cooperation network has been continuously evolving with the passage of time. Specifically, when an enterprise' position in the network changes, its resource intensity changes accordingly, so are its cooperative relationships with other organizations. Through longitudinal case analysis, this thesis explains the characteristic of network evolution from the perspective of two dimensions, namely, structural network and relational network. On this basis, it connects network evolution with value capture and reveals the profound relationship between network properties and value capture behaviors. In addition, there are close connections between network, value, and trust, and the continuous evolution of the network can support changes in inter-organizational trust relationships and enterprises' value capture behaviors. In the early days following the establishment of JM Company, the network was centered on the government, and the value capture was mainly reflected in value appropriation. With its continuous contact with external capital, the characteristics of the network changed, which facilitated the transformation of inter-organizational trust from structural trust to social trust and the shift of value capture behaviors from value appropriation to value creation. With the local economy as the basis and the platform enterprises as the link, JM Company attracted social organizations to participate in the network. It also facilitated the rapid development of the local economy in the process of achieving the integration of industry and finance, realizing the goal of common development of the local economy and the platform enterprises.

7.3 Limitations and suggestions for future research

This study describes the development process of the case enterprises in detail through a longitudinal case study. It discusses the mechanism by which trust influences the value capture behaviors of the platform enterprises at district and county levels in the process of network evolution from the perspective of case analysis. Through the case materials and coding results, this study selects four network properties, namely, centrality, openness, strength, as well as directness and indirectness. In this way, it arrives at a practical and unique development model of the integration of industry and finance for the platform enterprises at district and county levels. However, due to the limitations of the case enterprises themselves, this thesis has some limitations. There is much room for improvement if further research is to be carried out. The limitations of this study and suggestions for future research are as follows:

First, the cases selected in this study are all located in ZLJ District. As to whether the conclusions of this thesis apply to the whole country, it is necessary to carry out further observations and research of the platform enterprises in other places across China. Future research may study more case enterprises from other regions to explain the characteristics of the changes of network properties, better demonstrate the influence of trust on the structural and relational properties of network, and better reveal how trust influences enterprises' value capture behavior.

Second, through case analysis, this thesis studies the influence of the dual dimensions of trust (structural trust and social trust) on the two types of value capture behaviors (value appropriation and value creation). This is only one research perspective. Future research can try to analyze it from other perspectives, such as risks, opportunities, and innovations, to verify its rationality. Future researchers can also explore other development models of the integration of industry and finance applicable to a wider range of platform enterprises.

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