

Social Networks and Organisational Performance: The Mediating Effects of Social Capital and Resource Acquisition

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Declaration of authorship

I, Helen Guofen Guan, hereby declare that this thesis and the work presented in it is entirely my own. Where I have consulted the work of others, this is always clearly stated.

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Abstract

In the literature pertaining to social networks and social capital, the former have been shown to influence organisational performance. Previous studies have examined this influence, but have yielded diverging and inconsistent results. Some empirical studies found that social networks positively affect organisational performance, while others reported the exact opposite. But the former studies did not clarify which of the cooperation and coordination components of social capital are responsible for the positive effects on organisational performance that enable collective actions. Neither did they examine how social networks at the individual level transfer to the organisational one, where, in turn, they have positive effects on organisational performance.

In order to explain the inconsistency in the results, this study aims to explore the relationship between social networks and organisational performance in Chinese listed companies. To achieve this aim, this study identifies three types of social networks (business ties, government ties, and managerial ties) as the structural dimensions of social capital that, affect organisational performance via five of their key components (trust, emotional commitment, reciprocity, sharing norms, and collective goals) and the three forms of resource acquisition (access to information, organisational learning, and organisational social capital). The relationship was examined by testing the mediating effects of the three forms of resource acquisition and the five key components of social networks.

The data were collected through the survey of a sample of 400 Chinese listed companies and by means of semi-structured interviews with 20 senior managers from 20 Chinese listed firms. A structural equation model was created to test the mediating effects of two sets of variables on this relationship by using survey data analysis, as well as employing interview analyses to explain the survey results for this relationship.

This study finds that the three forms of resource acquisition and a key component of social networks, reciprocity, play a mediating role in the positive relationship between the three types of social networks and organisational performance, but that the other

four key components (trust, emotional commitment, sharing norms and collective goals) do not. The result may be due to risks exist in trust and emotional commitment based relationships within the three types of social networks, which hinder the focal firm in achieving its organisational goals, such as profit and growth.

This study makes several theoretical, methodological, and practical contributions. First, it contributes to the development of a conceptual framework for the relationship between social networks and organisational performance by conceptualising and testing the mediating effects of two sets of variables on it. Second, it contributes to the understanding of how the three types of Chinese social networks transfer from the individual level to the organisational level through the three forms of resource acquisition, leading to improved organisational performance. Third, it is the first to examine the effect of the three dimensions of social capital (structural, relational, and cognitive) on organisational performance. In this, it differs from previous such studies, which examined the effect of only one such dimension (either the structural or the relational one). Fourth, this study contributes to the examination of whether and how the cognitive dimensions of social capital, i.e., sharing norms and collective goals play coordinating and cooperating roles within traditional Chinese collective culture, influencing the organisational performance of Chinese listed firms. Fifth, it contributes to the examination of whether and how the relational dimensions of social capital (trust, emotional commitment, and reciprocity) play coordinating and cooperating roles, leading to positive effects on organisational performance. Sixth, it contributes to the understanding of the three types of social networks, including how internal and external stakeholders influence organisational performance in the Chinese context. Besides these six key theoretical contributions, this study makes a key methodological contribution. No previous Chinese social network study adopted a qualitative or mixed (quantitative and qualitative) approach to investigate the relationship between Chinese social networks and organisational performance. The study used a qualitative approach to explain the survey results, thus contributing to the understanding of how Chinese listed companies use social networks to achieve their profit and growth goals, among others. Further, it makes a practical contribution with regard to how the three types of social networks can be used to achieve organisational goals or improve organisational performance in terms of how they can be shifted from the individual level to the organisational level. For example, managers using their

close connections with business partners, government officials and employees to exchange information, knowledge, and ideas, and to innovate.

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Chapter 1 Introduction

1.1 Introduction

This chapter presents the introduction to this dissertation. It starts with the research background pertaining to the debate regarding the mixed results in the extant research on the relationship between social networks and organisational performance. It then explains the significance of this research, including the key issues in previous studies. In order to address the key issues or gaps in the social network and social capital literature, it points out this study's research objectives and questions, and its contribution. Finally, it illustrates the structure of this dissertation.

1.2 Background of the Research

A social network is broadly defined as a web of personal ties (i.e. connections and relationships) that serves the aim of personal and organisational action (Granovetter, 1985; Burt, 1992; 2000). These connections and relationships constitute the network resources that actors use to achieve their particular goals (Adler and Kwon, 2002). The debate on whether social networks benefit organisational performance is almost 30 years old. Many researchers adopted social capital theory to examine the relationship between social networks and organisational performance, but the results are mixed and inconsistent. For example, in some studies, social networks were found to positively affect on organisational performance (such as Return of Assets and market share) by providing resources such as access to information (see e.g. Gelekanycz and Hambrick, 1997; Stuart *et al.*, 1999; Davidsson and Honig, 2003; Florin *et al.*, 2003; Zaheer & Bell, 2005; Hu and Stanton, 2011), while other studies reported the opposite (Uzzi, 1999; Ma, 2010; Nie *et al.*, 2011). The former studies, however, did not clarify which of the cooperation and coordination components of social capital lead to positive effects on organisational performance, to enable collective actions, although they did indicate that embedded ties (i.e. stakeholder relationships) are characterised by trust and reciprocity of norms (as elements of social capital).

Through the analysis of three dimensions of social capital (structural, relational and cognitive dimensions), most of the previous studies considered social networks to be

either the structural (see e.g. Gargiulo and Benassi, 2000; Davidsson and Honig, 2003; Soda *et al.*, 2004; Dyer and Hatch, 2006; Chen and Wu, 2011; Li *et al.*, 2011) or the relational dimension of social capital (see e.g. Uzzi, 1996; 1997; 1999; Luo and Chen, 1997; Park and Luo, 2001; Moran, 2005; Barnes *et al.*, 2011; Chung, 2011; Nie *et al.*, 2011; Jones and Taylor, 2012) in their investigation on how social capital influences firm performance. Some researchers argued that trust, emotional commitment and reciprocity (as components of the relational dimension of social capital) enhance the strength of the ties in a social network, which enables the acquisition of resources such as access to information (Davidsson and Honig, 2003), organisational learning (Dyer and Hatch, 2006; Li *et al.*, 2011), and organisational social capital (Moran, 2001; Jones and Taylor, 2012), which in turn have positive impacts on organisational performance. However, other researchers (such as Chen and Wu, 2011; Nie *et al.*, 2011) found that these components of social capital not only help a social network perform positive functions (such as cooperating to solve a problem), but also cause a social network to have negative impacts on firm performance because of the liabilities of government ties (Chen and Wu, 2011) and the rapidly changing Chinese market environment (Nie *et al.*, 2011).

Most of the previous studies on social networks ignored sharing norms and collective goals as the cognitive dimension of social capital that, influences the relationship between social networks and firm performance. Only Liao and Welsch (2003) examined the relationship between the cognitive dimension of social capital and organisational performance by using a hypothesis test. However, Liao and Welsch (2003) did not clearly indicate which components of the cognitive dimension facilitate access to information, thus positively affect firm performance. In other words, previous social network studies did not identify the key coordination and cooperation components of social networks that, lead to an improvement in organisational performance.

On the other hand, previous Chinese social network (Guanxi) studies used a quantitative approach to investigate the relationship between Guanxi at the individual level (the focal firm's manager's ties with the executives of other organisations) and organisational performance at the organisational level (Xin and Pearce, 1996; Luo and Chen, 1997; Park and Luo, 2001; Luo *et al.*, 2012). This means that they agreed that

individual social capital can be converted into organisational social capital. But they did not examine how individual-level Guanxi can be shifted to organisational social capital because Guanxi, in the Chinese context, is a personal asset (Zhang and Zhang, 2006). They did not clearly mention whether and how individual social capital can be transferred to organisational social capital. They only addressed the entrepreneur's ability to use Guanxi to obtain resources. As a result, they found that government ties have no effect (Sun and Chen, 2009) or, negative impacts (Ma, 2010) on organisational performance. The above discussion of these key issues reflects the gaps in the existing literature, which are presented in Chapter 2.

Based on social capital theory, this study proposed and tested the key components of social capital (i.e. trust, emotional commitment, reciprocity, sharing norms and collective goals) and resource acquisition (access to information, organisational learning and organisational social capital) as mediators in the relationship between social networks and organisational performance to address the gaps in the existing literature. Nahapiet and Ghoshal's (1998) social capital theory holds that social networks are a form of social capital that actors can access and use to achieve their goals. The three dimensions of social capital, i.e., the structural dimension (e.g. the social network itself or the tie strength), the relational dimension (such as trust, emotional commitment and reciprocity), and the cognitive dimension (such as sharing norms and collective goals), are interactive in enabling the collective aim (Nahapiet and Ghoshal, 1998; Tsai and Ghoshal, 1998).

The existing social network literature shows that the strong ties within social networks as social capital can help a focal firm gain access to valuable resources such as information (Granovetter, 1973; Burt, 1992, 2000), organisational learning (Yli-Renko *et al.*, 2001), and organisational social capital (Gabbay and Leenders, 1999), which have positive effects on organisational performance (Harrington, 2001; Yli-Renko *et al.*, 2001). From the relational dimension of social capital (such as trust) perspective, Tsai and Ghoshal (1998) argued that the good quality of social network relationships (e.g. the higher level of trust and emotional commitment and reciprocity) enables the sharing or exchanging of information or knowledge within social networks, which helps the focal firm to achieve its profit and growth goals (Yli-Renko *et al.*, 2001). Sharing norms or collective goals as the cognitive dimension of social

capital within social networks can enable the achievement of the common goal of enabling the transfer of individual learning to organisational learning (Dyer and Nobeoka, 2000; Dyer and Hatch, 2006), and the transfer of individual capital to organisational social capital (Gabbay and Leenders, 1999), which influences organisational performance (Harrington, 2001; Dyer and Hatch, 2006).

1.3 Research Objectives and Questions

To address the key issues or gaps identified above, the aim of this study is to identify the key coordination components of social networks and examine how these affect access to information, organisational learning and organisational social capital, as well as how social networks affect on organisational performance, through an investigation of how the Chinese listed companies' use of social networks affects their performance.

Hence, this study seeks to achieve four main research objectives and answer four related research questions. The first research objective is to examine how, in Chinese listed companies, three types of social networks (business ties, government ties and managerial ties) influence organisational performance via the three forms of resource acquisition to achieve their collective aims. In examining this, it firstly investigates the direct relationship between the three types of social networks and organisational performance and it then examines the mediating roles played by the three forms of resource acquisition in the relationship, in terms of how the three types of social networks at the individual level transfer to the organisational one, which influences organisational performance. Since previous studies (e.g. Uzzi, 1996; 1997;1999; Luo and Chen, 1997; Park and Luo, 2001) produced mixed findings with regard to the relationship between social network and organisational performance, this study examines whether and how the three types of social networks are positively associated with organisational performance, and why they influence organisational performance in the Chinese context. On the other hand, this research objective addresses a gap in the existing literature, i.e., previous studies did not investigate how Chinese social networks at the individual level transfer to the organisational one (Zhang and Zhang, 2006). In order to fill this gap, this study uses social capital theory to examine whether and how the three types of social networks enable actors to access and use

the three forms of resources, influence Chinese listed companies' performance and achieve organisational goals.

Research question 1: Do Chinese listed companies use their social networks such as business ties, government ties, and managerial ties to obtain resources such as information, organisational learning and organisational social capital in order to achieve their collective aims? If so, what is the relationship between social networks and organisational performance? Do the three forms of resource acquisition mediate the relationship?

The second research objective is to examine how the three kinds of social networks impact on access to information, organisational learning and organisational social capital. Nahapiet and Ghoshal's (1998) three dimensions (structural, relational and cognitive dimensions) of social capital theory posit that social capital (i.e. social networks) is a set of resources that actors can access and use to achieve their goals. Most researchers consider that social networks to be the structural dimension of social capital that actors can employ to acquire resources such as information (e.g. Gargiulo and Benassi, 2000; Davidsson and Honig, 2003; Soda *et al.*, 2004; Dyer and Hatch, 2006; Chen and Wu, 2011). This study examines whether and how Chinese listed companies use business ties, government ties and managerial ties as the structural dimension of social capital to acquire three forms of resources (information, organisational learning and organisational social capital) and it investigates how Chinese listed companies acquire each form of resource from which types of social networks. To date, no Chinese social networks research has examined managerial ties as a set of resources to be accessed and used by actors.

Research question 2: Do business ties, government ties and managerial ties positively facilitate access to information, organisational learning and organisational social capital?

The third research question requires the examination of how access to information, organisational learning and organisational social capital affect organisational performance. Previous studies found that the acquisition of resources such as access to information, organisational learning and organisational social capital variously

(positively or negatively) affects organisational performance (e.g. Uzzi, 1997; 1999; Li *et al.*, 2011; Harrington, 2001), but they did not examine how and why individual capital can be transferred to achieve organisational goals, which leads to improved organisational performance. This study addresses this gap, i.e. whether and how the positive relationship between the three forms of resource acquisition and organisational performance is significant and why, in terms of how and why individual capital or individual goals can be transferred to organisational social capital or goals.

Research question 3: Does the acquisition of resources such as information, organisational learning and organisational social capital result in positive organisational performance?

The fourth research question aims at identifying the key coordination and cooperation components of social networks and examining the impact they have on organisational performance in Chinese listed companies. Most previous studies failed to identify which key components of social networks (trust, emotional commitment, reciprocity, sharing norms and collective goals) play a coordination and cooperation role, which leads to improved organisational performance. No Chinese social network studies examined the relationship between the cognitive dimension of social capital (such as sharing norms and collective goals) and organisational performance. This study addresses this gap in the existing social network and social capital literature.

Research question 4: What are the key coordination components of social networks that have positive effects on the organisational performance of listed companies in China?

In order to investigate and explain the relationship between social networks and organisational performance, this study aims at exploring the relationship between the three types of social networks at the individual level and organisational performance in a Chinese context via the three forms of resource acquisition and the five key components of social networks (trust, emotional commitment, reciprocity, sharing norms and collective goals). In this study, social networks include business ties (those between the top managers in the focal firm and other managers among its customers,

suppliers, and competitors), government ties (those between the top managers in the focal firm and government officials), and managerial ties (those of the top managers in the focal firm and its employees). Organisational performance refers to an organisation's sales, profit and efficiency (Nie *et al.*, 2011), including its financial and strategic performance (Chen and Wu, 2011; Chung, 2011). The literature uses financial indicators, such as ROA, market share and net profits (Peng and Luo, 2000), and strategic performance ones, such as profit growth over recent years, to reflect company performance (Chen and Wu, 2011).

In order to further achieve the research objectives and answer the research questions, I use social capital theory to develop a theoretical framework, including the seven hypotheses in Figure 2.6 in chapter 2.

This study identified two sets of mediating variables (i.e. resource acquisition and key components of social networks) to examine the relationship between the three types of social networks (business ties, government ties and managerial ties) and organisational performance in the Chinese context, informed by social capital theory and from the two perspectives of the scarcity of resource and of the existence of information asymmetry.

Firstly, social capital theory holds that social networks constitute social capital (i.e. a set of resources) that actors can access and use to achieve their goals (Putnam, 1993; Nahapiet and Ghoshal, 1998). Social capital theorists (such as Gabbay and Leenders, 1999; Putnam, 1995; Nahapiet and Ghoshal, 1998) considered that the components of social networks such as trust, commitment, reciprocity, sharing norms and collective goals form the relational and cognitive dimensions of social capital that enable actors to achieve their goals. These components can help a company to obtain the resources it needs to achieve the desired outcome of its performance (Gabbay and Leenders, 1999). Social capital theory examines the positive or negative influence wielded by relationships among actors and their networks relations (e.g. social networks) in regard to the achievement of specific goals (the outcome of firm performance). For example, treating actors' relationships and social networks as social capital might influence the outcome of a company's performance through the acquisition of resources such as access to information (Davidsson and Honig, 2003), organisational

learning (Villena *et al.*, 2011), and organisational social capital (Harrington, 2001). This study uses social capital theory to analyse how Chinese listed companies use social networks to acquire resources aimed at achieving their goals, such as those of profit and growth. The components of social networks (trust, emotional commitment, reciprocity, sharing norms and collective goals) may affect the achievement of Chinese listed companies' goals, i.e. organisational performance, as, according to social capital theory, they constitute social capital. Moreover, social networks are resources that Chinese listed companies can access and use to achieve their profit and growth objectives, thus potentially influencing their performance. In other words, Chinese listed companies use the three types of social networks to acquire the three kinds of resources, with either positive or negative effects on their performance.

Secondly, resource scarcity forces companies to secure external sources to reduce financial risk and build competitive advantage (Chen and Wu, 2011; Wang *et al.*, 2011). The focal company builds connections with business partners, such as customers and suppliers, to be able to access its partners' valuable resources. For example, the top managers in the focal firm build ties with customers that might enhance the levels of trust and commitment and enable the focal firm to secure a high degree of customer loyalty and valuable market demand information (*ibid.*). From this perspective, this study needs to investigate how Chinese listed companies use the strong or weak ties of the three types of social networks to acquire the three kinds of resources, with either positive or negative effects on organisational performance.

Thirdly, since information asymmetry exists (Sheng *et al.*, 2011), the focal Chinese companies' connections with business partners and government officials generate mutual trust and reciprocity (Granovetter, 1973), which enhance the exchange of information between them. Therefore, causing government officials to possibly allocate key resources such as bank loans to the companies (Peng and Luo, 2000; Chen and Wu, 2011). From this perspective, this study needs to investigate whether trust, emotional commitment, reciprocity, sharing norms and collective goals enable Chinese listed companies to use the three types of social networks to acquire the resources they need to achieve their goals, as well as to investigate how the three types of social networks at the individual level can be transferred to the organisational level due to the existence of information asymmetry.

This study focuses on how and why three types of social networks and relational embeddedness influence firm performance via the acquisition of three forms of resources in Chinese listed companies, in terms of how the three types social networks at the individual level transfer to the organisational one, leading to improved organisational performance.

1.4 Contributions

In line with the achievement of the four research objectives and the provision of answers to the research questions, this study makes theoretical, methodological and practical contributions. First, it contributes to the creation of a conceptual framework for the relationship between the three types of social networks and organisational performance by conceptualising and testing the mediating effects on such relationship of two sets of mediating variables. No previous studies used the two sets of mediating variables to develop such a conceptual model. This study uses three modes of resource acquisition as one set of mediating variables, and the five key components of social networks as the other to examine whether and how they mediate the relationship between the three types of social networks and organisational performance. In this, it differs from prior studies, which considered a single form of resource acquisition, such as organisational learning (Li *et al.*, 2011; Yli-Renko *et al.*, 2001), or only the relational dimension of social capital, such as trust, emotional commitment and reciprocity (Barnes *et al.*, 2011) to examine the relationship between social networks and company performance.

Second, this study is the first to examine the effect of the three dimensions of social capital (structural, relational and cognitive) on organisational performance. This study uses Nahapiet and Ghoshal's (1998) three dimensions of social capital to examine whether and how they affect the organisational performance of Chinese listed companies. This sets it apart from previous Chinese social networks studies (e.g. Barnes *et al.*, 2011; Chen and Wu, 2011), which only used one dimension of social capital (either the structural or the relational dimension) to examine how Chinese social networks affect organisational performance.

Third, this study contributes to the examination of whether and how the cognitive dimension of social capital, such as sharing norms and collective goals, play a coordination and cooperation role from the perspective of the traditional Chinese collective culture, influencing the organisational performance of Chinese listed firms. No previous Chinese social networks studies examined this.

Fourth, this study contributes to the examination of whether and how the relational dimension of social capital (trust, emotional commitment and reciprocity) plays a coordination and cooperation role, leading to a positive effect on organisational performance. Previous Chinese social networks failed to identify which key components of social networks foster the coordination and cooperation within business ties and government ties, influencing organisational performance.

Fifth, this study makes a contribution with regard to the effect of Guanxi on organisational performance (the Guanxi-performance link) via three forms of resource acquisition (i.e. access to information, organisational learning and organisational social capital) in the Chinese context, in terms of how Guanxi at the individual level (individual social capital) is converted to organisational social capital or goals via these forms of resource acquisition. Previous Guanxi studies were limited to only examining the Guanxi-performance link via access to information or organisational learning (Li *et al.*, 2011); they did not address organisational social capital. In particular, they did not examine how Guanxi at the individual level (i.e. personal assets) converts to social capital at the organisational level (i.e. organisational assets).

Sixth, this study contributes to the understanding of three types of Guanxi, i.e. business ties, government ties and managerial ties, including how internal and external stakeholders influence organisational performance in the Chinese context. In studying the effect of Guanxi on organisational performance, most studies addressed only how one type of Guanxi, such as business ties (e.g. Chung, 2011), or government ties (e.g. Li *et al.*, 2011) influences organisational performance. Few studies examined how two or more types of Guanxi affect company performance (e.g. Chen and Wu, 2011). In addition, these Guanxi studies only addressed how the focal company's ties with external stakeholders impact organisational performance, but failed to address

the influence on organisational performance of the focal company's ties with "internal" stakeholders, such as employees.

Besides these six key theoretical contributions to the social networks and social capital literature, this study makes three main methodological contributions. Firstly, no previous Chinese social network studies had adopted a qualitative or mixed (both quantitative and qualitative) research approach to investigate the relationship between Chinese social networks and organisational performance. This study adopts a mixed approach to examine the relationship. It used the qualitative result to explain the survey result, such as why the three types of social networks (business ties, government ties and managerial ties) affect organisational performance via the three forms of resource acquisition and the five key components of social networks (trust, emotional commitment, reciprocity, sharing norms, and collective goals). Thus, it contributes to our understanding of how Chinese listed companies use social networks to achieve their profit and growth goals.

Secondly, the measures of the three types of social networks (business ties, government ties and managerial ties) are different from those used in previous Chinese social network studies. This study uses Granovetter's definition of the tie strength (contact frequency, intimacy, and intensity) of social networks to measure the three types of Chinese ones. This is related to how often the focal company's top manager has contact with other managers among the company's business partners, government officials, and employees; this, represents a measure of how good or close is the relationship with its business partners, government officials, and employees. This sets it apart from Chinese social networks studies, such as those by Peng and Luo (2000), Park and Luo (2001), and Wang *et al.*, (2011), which only use the quality of relationship with business partners or government officials, from a traditional Chinese culture perspective, to measure Guanxi.

Thirdly, this study performs a structural equation model (SEM) to test the mediating effect of two sets of variables on the relationship between the three types of social networks and organisational performance in the Chinese context. The hypothesised relationships were tested in this study through a SEM with latent variables to reduce measurement errors. This study employed 400 empirical tests in the SEM analysis

that was important to achieve the statistical significance. No Chinese social networks studies had used 400 empirical tests in a SEM analysis to examine the relationship between social networks and organisational performance via two sets of mediating variables.

In addition to its theoretical and methodological contributions, this study makes a practical one with regard to how managers use the three types of social networks to achieve organisational goals or improve organisational performance in terms of how social networks can be shifted from at the individual level to the achievement of organisational goals. That is, managers use their close ties with business partners, government officials, and employees to exchange information, knowledge and ideas, and to innovate, in order to achieve their profit and growth objectives.

1.5 Structure of the Study

The remaining of this study is structured below:

Chapter 2 reviews the concepts of social networks, social capital and organisational performance, as well as the findings of the extant research on the relationship between them. Moreover, the chapter identifies trust (xinren), emotional commitment (ganqing), reciprocity (renqing), sharing norms, and collective goals as the key coordination and cooperation components of social networks that influence organisational performance via the three forms of resource acquisition, as well as justifying Guanxi as social networks and social capital from the traditional Chinese culture perspective. The final part of Chapter 2 develops a theoretical framework including the seven hypotheses.

Chapter 3 discusses the mixed research method used in detail. This includes the survey with a sample of 400 respondents and semi-structured interviews with 20 interviewees from Chinese listed companies. The chapter explains the researcher's ontological position of postpositivism (critical realism) and epistemological position of neo-realism in the undertaking of this study. The items used to measure the independent variables, the two sets of mediating variables and the dependent ones for the survey questionnaire are presented. The last part of Chapter 3 briefly explains the

methods of data analysis which includes how a SEM based test is performed (e.g. steps: one with a measurement model and the other with a structural model) in order to test the hypotheses, and how a thematic framework was adopted to analyse the interview data.

Chapter 4 explains the detailed process involved in performing a SEM based test and testing the hypotheses as proposed in chapter 2. Consistent with its research objectives, this study presents the empirical results of the survey regarding the relationship between the three types of social networks and organisational performance via the three forms of resource acquisition and the five key components of social networks in the Chinese context. The three forms of resource acquisition and reciprocity were found to mediate the relationship between the three types of social networks and organisational performance; however, trust, emotional commitment, sharing norms and collective goals were not found to play such a mediating role.

Chapter 5 presents the qualitative findings of the interview data analysis. It also explains the qualitative results regarding why and how the three types of social networks have positive effects on organisational performance via the three forms of resource acquisition and reciprocity, and why trust, emotional commitment, sharing norms and collective goals were not found to play the mediating role.

Chapter 6 discusses the findings from both the quantitative and qualitative methods and compares them with the social capital theory and empirical evidence found in the existing literature on social networks and social capital, to explain why and how these findings of this study differ or similar from those of previous ones.

Chapter 7 discusses the conclusions and implications of the findings. It firstly provides a summary of the findings of the research and a justification as to whether the research objectives have been achieved and the research questions answered. It then indicates the implications of the findings of this study for social capital theory and practice. It also discusses the theoretical, methodological and practical contributions and limitations of this study. Finally, it draws the conclusions of the whole thesis.

The appendices include the survey questionnaire and the semi-structured interview covering letters, as well as the survey and interview questions in both Chinese and English, and a list of figures and tables.

1.6 Chapter Summary

This chapter provides the outline of this study and an explanation of the importance of the investigation into the relationship between social networks and organisational performance for Chinese listed companies. It starts with the research background and a definition of the key concepts of social networks, organisational performance and their relationship. It then explains why this study was necessary and presents the research aim, objectives and questions. It also highlights the theoretical, methodological and practical contributions made by this study. Finally, it presents the structure of this study. The next chapter will provide a literature review and develop the conceptual framework with the hypotheses.

Chapter 2 Social Networks, Social Capital and Organisational Performance

2.1 Introduction

The aim of this chapter is to discuss the relationship between social networks, social capital and organisational performance in order to develop a conceptual framework. This conceptual framework comprises several hypotheses regarding the use of social capital theory to analyse how social networks influence organisational performance in the Chinese context in this study. It is comprised of seven main sections. The first section presents the concept of social networks including four social network characteristics - tie strength, structural holes, density and centrality within an ego network. The second section introduces the concept of social capital theory and explains how the three dimensions of social capital affect firm performance. The third section offers a justification for “Guanxi”, a term which used to describe social capital and social networks from a Chinese traditional culture perspective. Trust (xinren), emotional commitment (ganqing), reciprocity (renqing), sharing norms (social norms or social orders), and collective goals (common goals) are components of Chinese Confucian culture, as well as social networks, which affect firm performance in a Chinese context. The fourth section identifies the gaps in the existing literature and highlights the contribution in this study. The fifth section presents a conceptual framework comprising several hypotheses and explains the elements of this framework. The sixth section is to develop seven hypotheses based on the existing literature. The seven hypotheses reflect the relationship between the three types of social networks (business ties, government ties and managerial ties) and organisational performance via three forms of resource acquisition. Finally, it provides a summary of this chapter and concludes the study’s arguments related to the seven hypotheses.

2. 2 An Overview of Social Networks

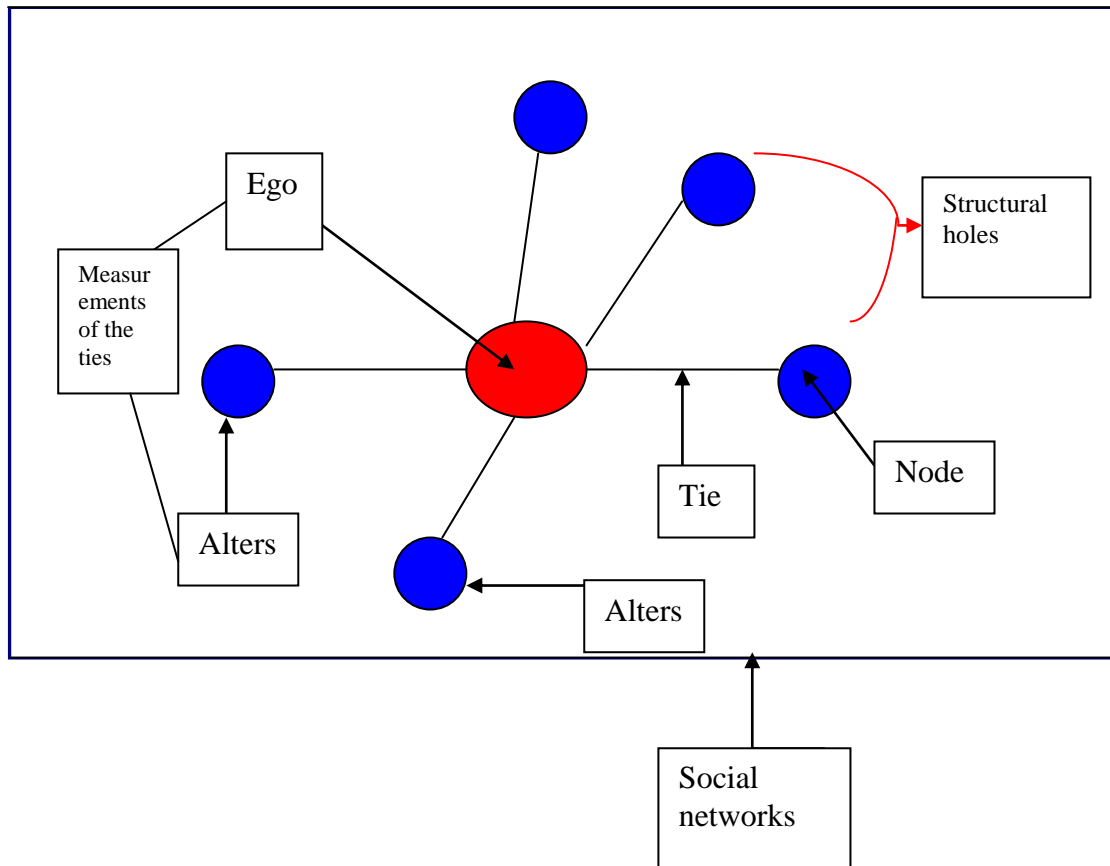
2.2.1 The Definition and Types of Social Networks

The term “social networks” not only includes its key components, such as structural relationships among actors in terms of a set of social relationships and networking

activities (an exchange of favours among actors) but also consists of measurements of their relationships. As Wellman (1979: 1203) considers, the term “social networks” is involved in “delineating structures of relationships and flows of activities between individuals and collectivities” (such as teams, organisations, and countries). For example, Adler and Kwon (2002) consider that social networks as the network resource for actors including organisations to attain in order to achieve their goals. Moreover, scholars (e.g. Granovetter, 1985; Burt, 1992) indicate that social networks as a web of personal ties for the aim of exchanging favours in personal and organisational actions.

Scholars have investigated two types of networks: total networks (socio-centric networks) and ego networks (ego-centric networks) in the existing social network studies (Wasserman and Faust, 1994; Howe *et al.*, 2004; Kadushin, 2012). A total network analysis focuses on the whole group and the global structural relationships (*ibid.*). An ego network is comprised of “*a focal person or respondent (ego), a set of alters who have ties with ego and measurements from ego to alters and on the ties between alters*” (Wasserman and Faust, 1994:53). In an ego network, the “ego” is a focal individual actor (such as a firm or a person); a tie is a connection or relationship between the ego (the focal actor) and alters (nodes); and alters are individual actors (such as people or firms) (Kadushin, 2012) (see Figure 2.2).

Figure 2.2 An Ego Network Structure



Scholars (e.g. Marin and Wellman, 2011; Kadushin, 2012) indicate that the use of an ego-network or socio-centric network approach depends upon the research question. If the research question is about phenomena of the network affecting the individual entities (such as persons, organisations, and so on), then the research is an ego-network study; a socio-centric network is concerned with different patterns of interaction within defined networks. On the other hand, an ego-network is a source of information and access to resources (Kadushin, 2012). This study is about how the focal individual actor (the focal firm) of a social network affects its organisational performance in a Chinese context. Hence, this study is an ego-network study.

“Ties” in the social network structure represent social relationships between each focal ego and the alters (such as internal and external stakeholders) in terms of different types of social ties with their specific contents such as an exchange favours (e.g. trust and reciprocity) between the ego and the alters (Adler and Kwon, 2002;

Zhou *et al.*, 2007). Social ties have been categorised into business ties, government ties, and managerial ties in the extant social network studies. Business ties refer to ties between managers at the focal firm with other managers at other firms (i.e. business partners such as customers, supplier, and competitors) (Park and Luo, 2001; Chen and Wu, 2011; Sheng *et al.*, 2011). Government ties refer to ties between managers at the focal firm with government officials (Gu *et al.*, 2008; Li *et al.*, 2011). Managerial ties refer to the ties between top managers at the focal firm and its employees (Atuahene-Gima and Murray, 2007). The three types of Chinese social networks (business ties, government ties, and managerial ties) have main unique features in the Chinese management context. First, these ties are long-term personal social ties based on Chinese hierarchical social relationships and the purpose of the exchange of favours (Barnes *et al.*, 2011; Chen and Wu, 2011). For example, top managers in the focal firm may keep close or friend relationships with their business partners in order to acquire valuable resources (Chen and Wu, 2011). Due to the hierarchical social relationship in China, e.g. ruler-subject, father-son, and friend-friend (Yeung and Tung, 1996), government ties and managerial ties are unequal and hierarchical (i.e. the ruler-subject relationship). Top managers in the focal firm may keep close ties with government officials in order to acquire more resources (from their administrative supervisors) than other firms (Chen and Wu, 2011). Top managers may keep close ties with their employees to enable employees' goals to become the organisational goal. Second, these ties include the key components of trust, emotional commitment, reciprocity, sharing norms and collective goals in the Chinese culture context, which help top managers in the focal firm to achieve their goals (Barnes *et al.*, 2011; Chen and Wu, 2011). Top managers may use strong ties or close ties with their business partners, government officials and employees to build mutual trust, emotional commitment and reciprocity relationships to follow the social and cultural norms of Guanxi in order to achieve the collective aim (*ibid.*). In the existing Chinese social networks literature, most studies only address how one type of social networks, such as business ties (e.g. Chung, 2011) or government ties (e.g. Li *et al.*, 2011) influences organisational performance; a few studies address two types of social networks such as business ties and government ties (e.g. Chen and Wu, 2011); no studies address employees relations (managerial ties). As a result, the empirical studies have yielded mixed results, and thus left gaps in Chinese social networks

research (Chen and Wu, 2011). This study includes three types of social networks in the Chinese context: business ties, government ties, and managerial ties.

Since an ego network study focuses on a web of personal connections at an individual level (i.e. the focal firm uses top executives to build ties with internal and external stakeholders) (Geletkanycz and Hambrick, 1997), there is a debate as to whether or not social ties can be transferred from the individual level to the organisational level. Some scholars (e.g. Tsang, 1998; Park and Luo, 2001; Chai and Rhee, 2010; Luo *et al.*, 2012) consider that social ties can be shifted from the individual level to the firm level since social ties such as social capital and components of social networks (such as trust) affect organisational performance. However, other scholars (such as Yeung and Tung, 1996; Fan, 2002) assert that social networks at the individual level cannot be transferred to the organisational level due to the fact social networks in the Chinese context are personal assets (i.e. individual capitals). It can be argued that ego networks can be transferred to the firm level once the individual goal becomes the organisational goal (i.e. organisational social capital), which is based on social capital theorists' (such as Gabbay and Leenders, 1999; Schuller *et al.*, 2000) arguments that individual social capital can be transferred to organisational social capital.

On the other hand, the transferring individual social capital to organisational social capital depends on the quality of relationships (such as trust and reciprocity) between the ego and the alters, or among the alters (Harrington, 2001). In this study, business ties and government ties are inter-organisational relationships (networks), and such relationships (networks) will be analysed at the individual level rather than the organisational level, because "many relationships between organisations are played out or mediated by individuals", according to Gabbay and Leenders (2001:9). This is consistent with the argument of Tsang (1998), that is, individuals initiated and implemented all transactions of business organisations. For example, according to the 2011 annual report (P.19 and P.22) of the Chongqing Brewery Co., Ltd. (the ego), the Chongqing Brewery Co., Ltd has ties with top business partners such as customers (the alters): the Chongqing Shapingba Tangjiu Co. and the Chongqing Tangjiu Ltd.. A business transaction between the Chongqing Brewery and its customers could be seen at both the individual level and the organisational level. At the individual level, a transaction is between the two representatives of both companies - the fact that the

personal relationship between the two respective representatives has resulted in the successful business transaction. At the organisational level, this transaction could be seen as being between the two companies. It could be seen that the personal relationships between the two representatives play a significant mediating role in the inter-organisational relationship for the business income of the Chongqing Brewery Ltd. (i.e. the organisational goal).

Based on the above discussion, the unit analysis of this study is individual managers in terms of an analysis of how they use the three types of social networks at the individual level to achieve the organisational goal. The individual level of analysis can inform the understanding of organisational performance based on social capital theory. The collective paradigm of social capital theorists (Putnam, 1993; Nahapiet and Ghoshal, 1998) considers that social networks at the individual level can be transferred to the organisational level (organisational performance) because social networks are social capital as a set resources for actors to access and use to achieve the collective aim. The present study uses the survey and interviews to investigate how general and vice-general managers in Chinese listed firms use the three types of social networks to achieve profit and growth objectives via resource acquisition. These top managers have the power to determine their companies' financial and strategic objectives and the resources they obtain from their personal/individual networks can be used to achieve the organisation's financial and strategic objectives. For example, they may use close ties with business partners, government officials and employees to acquire resources to achieve financial and strategic goals (i.e. the outcome of organisational performance). This justifies why the present study obtained information from general managers (individual level) to help us understand organisational performance (organisational level).

In sum, a social network refers to a set of social connections in terms of the social ties that are used for the exchange of favours between the focal company and actors in the ego network. In other words, social networks are considered as social capital for actors to use to achieve their goals. The focal company uses social ties at the individual level to acquire resources that affect organisational performance in terms of how the individual relationships shift to organisational assets at the organisational level.

2. 2. 2 The Characteristics of Social Networks

Scholars have uncovered that the four main characteristics of ego-networks (social networks): tie strengths, density, structural holes and centrality (Wasserman and Faust, 1994). They are associated with the quality of relationships in terms of trust, reciprocity, sharing norms, emotional commitment (Brass *et al.*, 1998; Scott, 2000), as well as they influence organisational performance (Yli-Renko *et al.*, 2001; Barnes *et al.*, 2011). The four characteristics of ego-networks also reflect the ego-network measurements of the ties between the ego and the alters or the ties between them (e.g. number of alters and density) (Wellman, 1979; Wasserman and Faust, 1994).

2.2.2.1 Tie Strength

The tie strength is the emotional intensity, frequency of interaction, reciprocity, and intimacy of a relationship (Granovetter, 1973). It includes strong ties and weak ties (Brass *et al.*, 1998). Strong ties refer to the ego and alters within the ego network who have frequent contact and the ego and alters who have sharing norms or share values which require emotional commitment of time to develop this relationship (Granovetter, 1973). As a consequence, strong ties are correlated with high levels of trust (Granovetter, 1992) and reciprocity (Yli-Renko *et al.*, 2001), and have positive effects on organisational performance (Barnes *et al.*, 2011). Weak ties refer to insufficient contact ties or complementarity ties (i.e. direct and indirect ties) of minimal intensity and interaction; these may support to assess to information (Granovetter, 1973). The mix of direct and indirect ties supports direct ties to access information and resources from indirect ties, due to the mixed ties having connections with network actors to build a trusting relationship (Uzzi, 1996). For example, the focal firm has direct ties with its employees, but its employees have indirect ties with the firm's customers, suppliers and competitors (i.e. minimal intensity of weak ties) in the ego network. As a result, employees in the focal firm may access information and resources from suppliers and customers via business ties (the focal firm has direct ties with suppliers, customers, and competitors). To measure tie strength, researchers may ask the ego to indicate the ties among the alters, how frequently they have contact with each other (Wasserman and Faust, 1994) and their commitment to their relationships (Rowley *et al.*, 2000).

On the other hand, scholars argue that strong ties or close ties generate trust (Florin *et al.*, 2003), norms and reciprocity (Larson, 1992), which enhance firms to acquire resources such as access to information (Geletkanycz and Hambrick, 1997; Davidsson and Honig 2003) and organisational learning (Li *et al.*, 2011). As a result, such ties have positive impacts on firm performance (Liao and Welsch, 2003).

2.2.2.2 Density

Density is a measure of tie strength. Density means that an ego network has a greater proportion of relationship ties than another ego network (i.e. a sparse ego network), that is, a dense ego network comprises more strong ties than the sparse ego network (Scott, 2000; Kadushin, 2012). A clique is a dense subgroup within a network, according to Scott (2000). Similar to strong ties and weak ties, scholars consider that both dense and sparse ego networks are related to the improvement of organisational performance in the existing network studies. For example, Rowley *et al.* (2000) gathered ego networks data from the semiconductor industry (data source: CMP data set and Domicity's report) and the steel industry (data source: *Dow Jones News Retrieval Service*) over certain periods to examine the contingent effects of network structure, tie strength and environment on firm performance (e.g. ROA and net income) via ordinary least square regressions of analysis. The empirical findings show that strong ties and a dense network are positively associated with firm performance via high levels of trust and information transfer in the stable environment, and weak ties and sparse networks are positively associated with firm performance in a volatile environment. This finding supports the argument of Granovetter (1973) that weak ties provide access to information, as well as strong ties.

Regarding resource acquisitions, dense networks are more positively associated with acquiring resources than sparse networks. Because a dense network is comprised of main strong and reciprocal ties that creates trust, sharing norms and reciprocity, and an obligation to cooperate and coordinate, which in turn facilitate access to information (Coleman, 1988), organisational learning and organisational social capital (Hansen *et al.*, 2001).

2.2.2.3 Structural Holes

Structural holes exist in an ego network (Wasserman and Faust, 1994). Structural holes mean that there are no ties (connections) among the alters (see Figure 2.2). For example, the focal firm (ego) has ties with its suppliers and employees, but its suppliers have no ties with its employees; thus, there is a structural hole between the firm's suppliers and employees. The focal firm as an individual organisation (actor) bridges over the structural holes to acquire information for its employees from its suppliers and to control benefits.

According to Burt (1992, 1997, 2000) structural holes theory as a social network approach, which focuses on the absence of ties or the lack of ties between alters. This approach suggests that information benefits stem from the fact that the individual who bridges a structural hole has obtained more non-redundant information. As a consequence, the bridge may control the flow of information between the other alters. For example, Toyota automakers have strong ties with their suppliers' manufacturing operations (the U.S. automotive suppliers), and as a result, their employees have a faster rate of learning within the US automotive suppliers and network resources have significantly influenced firm performance (Dyer and Hatch, 2006).

Besides this, building the cohesive relationship from the lack of connections in the ego network helps the focal firm to acquire resources. Since this cohesive relationship contain reciprocity (Burt, 1992), trust, norms and obligation of cooperation among individuals (Coleman, 1988), which enable the focal actor's ability to obtain resources such as access to information (Soda *et al.*, 2004) and organisational social capital (Moran, 2005), and have positive impacts on firm performance (Gargiulo and Benassi, 2000; Moran, 2005).

2.2.2.4 Centrality

Centrality is concerned with the relative distance of an individual actor from others in a social network, if the actor is centrally located within the social network and thus it has greater acquired resources (e.g. access to information), which affect the outcome of behaviour (Brass & Burkhardt, 1993).

There are three measures of centrality – degree centrality, closeness and betweenness (Freeman, 1979), which reflects how the actor's ability to obtain resources in the network (Burt, 1992, 2000; Brass & Burkhardt, 1993). Degree centrality is concerned with how many direct ties of a focal actor to all others in the social network (Wasserman and Faust, 1994). Closeness refers to how connected (including directly and indirectly) that an actor (node) is to all other actors (nodes) in a social network. A high degree centrality and a high closeness scores may illustrate that an actor can obtain resource efficiently in the network (Wasserman and Faust, 1994; Scott, 2000). Similar to structural holes, betweenness centrality refers to a measure of an ego's (company A) connection to actors (such as companies B and C) that are not connected. The lack of connection of two actors (B and C) may need to be bridged through the ego (company A). In other words, company A may act as a broker between company B and company C connected only via company A. Betweenness centrality is related to power and brokerage chances (Burt, 1992, 2000). Power and brokerage opportunities rely on trust, emotional commitment, reciprocity and norms to obtain resources such as organisational learning (Atuahene-Gima and Murray, 2007; Li *et al.*, 2011).

To sum up, a social network comprises four main characteristics: tie strength, structural holes, density and centrality, which are associated with the quality of relationships in terms of trust, reciprocity, sharing norms, emotional commitment, all of which affect the focal firm's ability to obtain resources.

2.3 An Overview of Social Capital Theory

In this section, I firstly describe and analyse two paradigms of social capital, i.e., the instrumental-individualist and collective paradigms. Secondly, I briefly explain Nahapiet and Ghoshal's three dimensions of social capital (structural, relational and cognitive dimensions) as the collective paradigm of social capital, which I use to analyse the relationship between three types of social networks (business ties, government ties and managerial ties) in the present study. Thirdly, I discuss the concept of social capital theory as the three dimensions of social capital as resources

that actors can access and use to achieve their goals. Fourthly, I justify why I use social capital theory in the present study.

The term “social capital” was first used in 1916 (Putnam, 2000:19) and it has since gained wider use in describing networks in community studies , i.e. developing personal relationships based on trust, coordination, and collective action in communities (Jacobs, 1965). Following the work of Jacobs (1965), a number of definitions of social capital have focused on both the individual level and the collective level, according to social networks and the influence of social relationships on economic outcomes (Lin, 2001). For example, Bourdieu’s (1985:248) instrumental-individualist paradigm of social capital asserts that social capital is an asset of each individual within the structure of a network to pursue individual goals; that is, social capital is a set of resources including the actual or potential resources, which is associated with social networks to achieve individual goals.

In contrast, Putnam’s (1993) collective paradigm of social capital can help a firm to achieve the collective goal. Putnam (1993: 167) defined social capital as “*features of social organization, such as networks, norms, and trust, that facilitate coordination and cooperation for mutual benefit*”. In other words, social capital is considered to be a set of useable resources possessed by a community or social group via their structural relationships that facilitate cooperation and collective action (ibid.). Both definitions of social capital (individual and collectives paradigms) are formed by resources, networking relationships including personal relationships and inter-organisational relationships, in other words, resources embedded in social networks that are accessed by actors (Lin, 2001). The instrumental-individualist paradigm of social capital focuses on the individual goal while the collective paradigm of social capital focuses on collective goals.

There are two different arguments for the instrumental-individualist and collective paradigms of social capital. The first debate focuses on whether or not social capital is individual assets and goods that can be converted into collective assets and goods, although most scholars agree that inter-organisational relationships (i.e. business ties and government ties) with embedded resources are intended to benefit both the individuals and collectives at the collective level (Lin, 2001). The second debate is

concerned with whether or not forms of social capital include trust, culture and norms, since Lin (2001) argues that relational assets (such as trust, culture, norms and so on) as social capital, must be differentiated from collective assets and goods. These relational assets are not forms of social capital even if they affect social capital (Lin, 2001), while collective paradigm of social capital theorists (such as Putnam, 1993; Coleman, 1990; Nahapiet and Ghoshal, 1998) claim that relational assets as collective assets (such as trust and norms) can form social capital.

Nahapiet and Ghoshal (1998: 243) defined social capital as a set of the actual and potential resources that actors possess and use to achieve their goals since these resources are embedded within the network of relationships. This definition of social capital focuses on social capital in a management context, which specifically delineates three dimensions of social capital - structural, relational, and cognitive dimensions (also called embeddedness). The three dimensions of social capital interact to achieve the common goal (Tsai and Ghoshal, 1998). Hence, the three dimensions of social capital form the collective paradigm of social capital as discussed above.

The structural dimension of social capital is the social network itself (Nahapiet and Ghoshal, 1998). In the present study, the structure of the social network includes business ties, government ties and managerial ties. The relational dimension of social capital refers to different qualities of personal relationships in the social network structure (ibid). For instance, trust, emotional commitment and reciprocity are the key elements of this relational dimension (Granovetter, 1973; Putnam, 1993; 1995). The cognitive dimension of social capital refers to all common aspects that are shared within social networks (ibid.). For example, sharing norms and collective goals are key components of this cognitive dimension of social capital (Putnam, 1993). Based on the three dimensions of social capital, I summarise the concept of the three dimensions of social capital theory for use in the present study in figure 2.3.

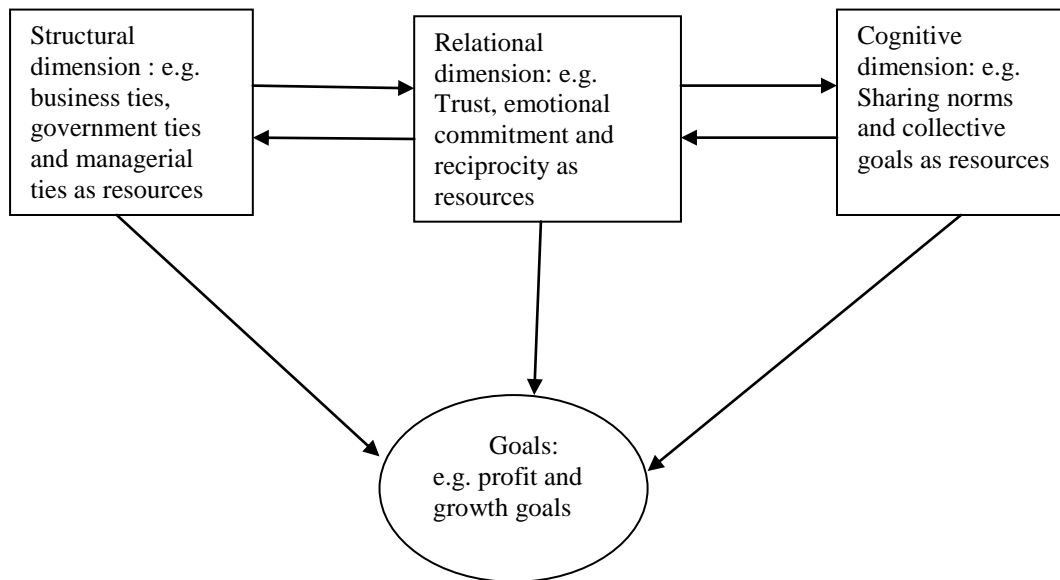


Figure 2.3 The three dimensions of Social capital theory

Figure 2.3 presents the concept of the three dimensions of social capital theory, i.e. the three dimensions of social capital (structural, relational and cognitive dimensions) as a set of resources that actors can access and use to achieve their goals (Nahapiet and Ghoshal, 1998). I will use this concept of the three dimensions of social capital theory to analyse the relationship between three types of social networks (business ties, government ties and managerial ties) and organisational performance in the Chinese context in the present study.

This study adopts the three dimensions of social capital theory for two key reasons:

Firstly, the relationship between social networks and organisational performance depends on how social networks as social capital at the individual level transfer to the organisational level, but previous studies such as that by Peng and Luo (2000) and Park and Luo (2001) on Chinese social networks have not examined how Guanxi at the individual level transfer to the organisational level (Zhang and Zhang, 2006). The

purpose of the present study is to explore the relationship between three types of social networks (business ties, government ties and managerial ties) and organisational performance in the Chinese context via three forms of resource acquisition (access to information, organisational learning and organisational social capital) and the key components of social networks (trust, emotional commitment, reciprocity, sharing norms and collective goals) in terms of how the three types of social networks at the individual level transfer to the organisational level. Organisational social capital scholars (e.g. Gabbay and Leenders, 1999) argue that individual assets and goods can be transferred to collective assets and goods, depending on organisational goals or collective goals. Moreover, Putnam (1993) points out that trust and norms as social capital enhance the focal firm in reaching its collective goals. Once individual goals become collective goals, individual assets or capital are shifted to organisational social capital (Gabbay and Leenders, 1999). From this perspective, the view that individual capital would be converted to collective social capital or organisational social capital, is consistent with the three dimensions of the collective paradigm of social capital. Hence, the use of the three dimensions of social capital theory in the present study can facilitate filling the gap in the existing literature regarding how the focal firm uses the three types of social networks as social capital at the individual level to achieve its goals (organisational goals).

Secondly, some empirical studies (e.g. Chen and Wu, 2011; Barnes *et al.*, 2011) found that relationship assets (e.g. elements of Chinese culture such as trust, emotional commitment and reciprocity) determine the coordination and cooperation of business ties, which leads to improved organisational performance in the Chinese context. Hence, relational assets as a relational aspect of capital (Nahapiet and Ghoshal, 1998) generate organisational social capital (the outcome of firm performance). From this viewpoint, the relational dimension of social capital such as trust, emotional commitment and reciprocity as resources for actors that use to achieve their goals.

Previous research has found that elements of the three dimensions of social capital (such as trust, emotional commitment, reciprocity and sharing norms) impact on organisational performance via resource acquisitions such as access to information (Uzzi, 1999; Davidsson and Honig, 2003), organisational learning (Atuahene-Gima

and Murray, 2007), and organisational social capital (Moran, 2005; Taylor, 2007). But these studies yielded mixed findings. Some of them, such as those by Davidsson and Honig (2003) and Atuahene-Gima and Murray (2007) found that these dimensions of social capital have a positive effect on firm performance while others such as that by Uzzi (1999) found these dimensions of social capital have negative impacts on firm performance. Moreover, these studies only used one form of resource acquisition to examine the relationship between social capital and firm performance. The detail regarding the review of the three dimensions of social capital and organisational performance will be discussed in section 2.3.1. The present study investigates how social networks (i.e. business ties, government ties, and managerial ties), through the three forms of resource acquisitions (i.e. access to information, organisational learning and organisational social capital) affect organisational performance in a Chinese context. Nahapiet and Ghoshal's (1998) three dimensions of social capital (structural, relational, and cognitive) theory is therefore employed in this study.

2.3.1 Three Dimensions of Social Capital and Organisational Performance

This section firstly explains the three dimensions of social capital (structural, relational and cognitive dimensions) and business ties, government ties and managerial ties are structural and relational dimensions of social capital. Secondly, it reviews organisational performance. Thirdly, it provides three subsections to discuss how the three dimensions of social are related to social networks that facilitate access to resources, which influence organisational performance.

According to Nahapiet and Ghoshal (1998), the structural dimension of social capital is the actual social network itself, which refers to who is known by the focal actor and how they are known to the focal actor within the network. As mentioned earlier in this study, in an ego-network, the focal company (ego) has direct ties with business partners such as customers, suppliers, competitors (as business ties), government officials (as government ties), and employees (as managerial ties). Employees have indirect ties with business partners and government officials via the focal company, as well as absent ties (i.e. structural holes). This means that this structure of this actual social network consists of business ties, government ties and managerial ties, which is the structural dimension of social capital.

The relational dimension of social capital refers to different types of personal relationships in the social network structure (Nahapiet and Ghoshal, 1998). This dimension is comprised of three main types of relationships - the strength of relationships (Granovetter, 1973), multiplex and asymmetric relationships (Brass *et al.*, 1998), and the quality of relationships (or the content of relationships) such as trust and emotional commitment (Granovetter, 1973; Putnam, 1995), norms and reciprocity (Putnam, 1993). The strength of relationships refers to strong and weak relationships (ties) as mentioned in the characteristics of social networks. Hence, strong and weak ties as measures of social capital can be a characteristic of both dimensions of structural and relational capital. In this study, social networks in a Chinese context focus on relational embeddedness (i.e. personal relationships and the quality of relationships in a social network). Three types of social networks in this study represent the strength of relationships, multiplex and asymmetric relationships, and quality of relationships. For example, business ties as multiplex relationships (e.g. business partners may be the focal firm's friends or classmates), which refer to ties which include more than one form of relationship (Brass *et al.*, 1998). Government ties as asymmetric relationships (e.g. government ties may represent with an inequality of power), which refer to the relationship of actors who possess different levels of power or status, or emotional intensity (Brass *et al.*, 1998). The greater their power, and the lower their emotional intensity, thereby the actor has the greater the controlling (ibid.). Government officials possess greater powers than the focal firm, especially Chinese government officials, who have the power to distribute resources (e.g. financial resources and lands) to Chinese firms in China. This means that the relationship between the managers in the focal firm and government officials is unequal in China.

The cognitive dimension is defined as "*those resources providing shared representations, interpretations and systems of meaning among parties*" (Nahapiet and Ghoshal, 1998:244). In other words, all common aspects shared within social networks, such as sharing norms and collective goals or shared goals are the key elements of this cognitive dimension, according to Putnam (1993).

Organisational performance includes two dimensions of performance, i.e. financial performance and strategic performance (Chen and Wu, 2011; Chung, 2011). Financial dimension of organisational performance refers to an organisation's sale, profit, efficiency (Nie *et al.*, 2011), and strategic dimension of organisational performance refers to effectiveness, product quality, and marketing outcomes (Combs *et al.*, 2005). The operational dimension performance regarded as the outside of the domain of organisational performance due to the operational performance focuses on firms' different operational activities and resources that affect organisational performance, which is in line with the resource-based theory view of operational performance (Priem and Butler, 2001). For example, product and technological innovation are considered as the operational performance (Combs *et al.*, 2005). On the other hand, Combs *et al.* (2005:280) suggest that "operational performance" needs to be separated from organisational performance to "avoid measures that are composites of operational and organisational performance". Hence, I employ two dimensions of organisational performance for this study, that is, financial and strategic performance.

There is no consensus as to how to measure financial performance (such as efficiency) and strategic performance (such as effectiveness) in the existing social capital and organisational performance studies (Combs *et al.*, 2005; Chung, 2011). Some social capital studies (e.g. Gargiulo and Benassi, 2000; Soda *et al.*, 2004; Barnes *et al.*, 2011) used business objectives and goals to measure the effective dimension of organisational performance, while others adopted return of assets (ROA), return on equity (ROE), return on investment (ROI), net profits (Gelekanycz and Hambrick, 1997; Park and Luo, 2001; Li *et al.*, 2011), market share (Zaheer and Bell, 2005). However, the dimensions of organisational performance are still broad, it is necessary to distinguish each dimensional construct of organisational performance. Therefore, organisational performance can use financial indicators such as ROA, ROE, and net profits (Peng and Luo, 2000; Li *et al.*, 2011; Luo *et al.*, 2012) to reflect its financial dimension of performance; and strategic performance indicators such as profit growth over the past years (Chen and Wu, 2011) and "*product/firm/brand awareness, response to competition, and expansion to other industrial sectors*" to represent its strategic dimension of performance (Chung, 2011:523-524).

2.3.1.1 Structural Dimension and Organisational Performance

The structural dimension of social capital as a social network itself includes the social network characteristics: tie strength, structural holes, density, and centrality. As mentioned earlier, the tie strength also comprises strong ties and weak ties in the networks of relationships for the three types of social networks (business ties, government ties and managerial ties). Previous empirical studies have found that both strong and weak ties facilitate access to information (Granovetter, 1973, Davidsson and Honig, 2003; Chen and Wu, 2011; Wang *et al.*, 2011), organisational learning (Dyer and Nobeoka, 2000; Dyer and Hatch, 2006; Li *et al.*, 2011), and organisational social capital (Moran, 2005), but can have a positive or negative impact on organisational performance (Table 2.3.1 provides a review of the structural dimension of social capital literature on organisational performance). For example, building strong ties with business partners or business partners' networks, the focal firm such as Toyota can assess to its supplier's network's valuable resources via creating a new knowledge-sharing network with its US suppliers (Dyer and Nobeoka, 2000), which has a positive effect on firm performance. Two studies (Dyer and Nobeoka, 2000; Dyer and Hatch, 2006) examined Toyota's knowledge-sharing network for knowledge transferring to organisational learning, that improved its performance. Some studies such as Chen and Wu (2011) found that the focal firm networking with business partners are enhance to access to valuable resources to respond effectively to market changes and keep its competitive advantages (i.e. corporate adaptive capability), which has a positive effects on business performance, while government ties in a Chinese context have not contributed corporate adaptive capability and had a negative impact on firm performance. However, Li *et al.* (2011) found that government ties have a significant positive effect on organisational learning to strengthen product quality, which led to improved firm performance. The focal firm with strong government ties could obtain more resources and provide more resource support for its organisational learning (such as technology, innovation learning and the capability of the firm to learning through questioning and engaging in proactivity), to improve its product quality and competitive capability, which produce a positive result in its performance (Li *et al.*, 2011). Norms play an important role for the relationship between government ties and organisational learning (*ibid.*).

Similarly, social capital empirical studies have examined structural holes, centrality, and density in the social networks, and how these influence firm performance through access to resources (including information or knowledge). These have resulted in inconsistent findings (see table 2.3.1.1). For example, Burt (1992) found that structural holes help actors to access diversity of information, which might result in improved performance. However Soda *et al.* (2004) found that structural holes offer actors for accessing to information, only in the current period such as after 1995, and not in a previous period such as before 1995. Scholars argue that the firm network's position has different impacts on firm performance or the coordination failure, that depends on different assessments of the effect of amplified reciprocity on social action (Gargiulo and Benassi, 2000). For instance, Burt's (1992) structural holes theory builds the cohesive relationship among alters, and view this cohesive relationship as an amplifier of reciprocity. Such reciprocity is assessed as "structural arthritis" (Burt, 1999), which makes it difficult to coordinate complex markets and organisational goals, and as a result, the focal firm may not reach its goal. In contrast, Coleman's (1988, 1990) notion of social capital is as closure that poses that actors in a dense network, which relies on norms. Coleman views this amplifying reciprocity as necessary for trust to foster cooperation, and thereby share information each other (Gargiulo and Benassi, 2000), which is in line with Putnam's trust and norms as forms of social capital. In other words, the structural dimension of social capital in terms of social network characteristics interrelates with the quality of network relationships such as trust, norms, and reciprocity (Taylor, 2006; 2007). This is why table 2.3.1.1 includes these elements of social capital.

Table 2.3.1.1 shows the relationship between the structural dimension of social capital and organisational performance, as well as a variety of measures of organisational performance. The overall result for three out of the fourteen studies shows the structural dimension of social capital has a negative impact on organisational performance, while eleven studies have positive impacts on organisational performance in table 2.3.1.1. All these studies adopted the quantitative method (such as a survey) to investigate the relationship between this dimension of social capital and organisational performance except that Dyer and Nobeoka (2000) used mixed methods (i.e. interviews and a survey) to collect data. The components of social capital such as trust, reciprocity, sharing goals and norms help the focal firm to obtain

resources, which have positive effects on firm performance in the eleven studies. The fourteen studies adopt different performance indicators to measure organisational performance, but most of them are financial dimension of organisational performance such as profitability, net profits, IPO, sales ratio, ROA, ROS and ROI.

Table 2.3.1.1 The Structural Dimension of Social Capital Literature on Organisational Performance

Authors	Social capital measures	Organisational Performance Measures	Resource acquisitions	Elements of social capital	Relationship
Burt (1992)	Structural holes	Profitability	Access to information	Reciprocity	Positive
Chen & Wu (2011)	Business ties Government ties	Return on investment Sales growth Profit level Market share Brand building	Access to information Unclear acquisitions for more value information	Sharing goals Reciprocity	Positive Negative
Davidsson & Honig (2003)	Tie Strength	Profitability	Access to information	Trust	Positive
Dyer & Nobeoka (2000)	Knowledge-sharing networks	Profitability	Organisationa l learning	Norms	Positive
Dyer & Hatch (2006)	Networks with suppliers	Inventory/sales ratio	Organisationa l learning	Norms	Positive
Florin <i>et al.</i> (2003)	Tie Strength	IPO performance	Access to information	Trust	Positive
Granovetter (1973)	Weak ties	Job seeking and Community	Access to information	Trust Norms	Positive Negative
Gargiulo & Benassi (2000)	Structural Holes	Coordination Effective performance	Access to information	Reciprocity	Positive
Gelekanycz & Hambrick (1997)	Internal ties External ties	ROA and ROS	Access to information	Trust and norms	Positive

Li, Wang & Liu (2011)	Government ties Financial ties	ROA Net Profits ROS	Organisational learning	Norms	Positive Negative
Liao & Welsch (2003)	Direct ties	Growth of entrepreneur	Access to information	Trust	Positive
Moran (2005)	Structural embeddedness of manager's networks & relational embeddedness	Managerial Performance	Organisational social capital	Trust	Positive
Soda <i>et al.</i> (2004)	Structural holes	Business objectives (Increase audience size)	Access to information	Reciprocity of norms	Positive
Zaheer & Bell (2005)	Structural holes	Market share	Access to information	Shared norms	Positive
Wang, Jiang, Yuan, and Yi (2011)	Political ties (government ties) Business ties	ROS, ROI, ROE, ROA, and net profits	Resource acquisition	Trust Collective goals	Positive

2.3.1.2 Relational Dimension and Organisational Performance

As noted earlier, this study focuses on the relational embeddedness in a social network. The relational embeddedness includes the components of the relational dimension of social capital such as trust, emotional commitment, norms and reciprocity as mentioned before. These components of the relational dimension of social capital play a role of coordination and cooperation, as well as shaping and governing the strength of relationships, multiplex and asymmetric relationships in business ties, government ties, and managerial ties. It also affects the characteristics of social networks (such as the density of strong-ties versus weak-ties) for actors to obtain resources, which can have a positive or negative effect on organisational performance in terms of financial benefits and profitability (see tables 2.3.1.1 and 2.3.1.2). Barnes *et al.* (2011:511) explain coordination as “*the synchronization of*

activities and flows and the extent to which activities in general are well coordinated and timely between partners. It can also represent a process whereby exchange parties work closely together in the process to improve products, service and coordinate orders". Cooperation refers to exchange partners willingness to cooperate in maintaining a relationship to pursue mutual interest in order to achieve mutual and individual goals (ibid.).

Trust has three aspects of coordination and cooperation of benefits between exchange partners, as trust is defined as a belief between exchange partners or a promise in their reliability to fulfil their obligations in an exchange relationship (Nahapiet & Ghoshal, 1998; Barnes *et al.*, 2011). Firstly, trust enhances interactions and closeness between the exchange partners in a relationship, thus ensuring their ability to effectively access information (Adler and Kwon 2002). For instance, Tsai and Ghoshal (1998) found that trust made a contribution to effective resource exchange and recombination which led to creating intellectual capital. Secondly, trust enhances the acquisition of information and the sharing of new information among actors, which reduces the costs of financing in an organisation (Uzzi, 1996). Thirdly, trust reduces the time and the cost of finding an exchange partner (Granovetter, 1985). In other words, trust can reduce the cost of negotiation between exchange partners. Trust is considered to reduce the transaction cost since there it is a lower information cost between exchange partners (Wu, 2000).

Based on the above three aspects of trust benefits in a social network, some researchers regard trust as an independent variable which is associated with organisational learning (Atuahene-Gima and Murray, 2007), and which has a positive effect on firm performance (Barnes *et al.*, 2011), whereas others consider it as a dependent variable or the mediator of a variable which indirectly influence organisational performance (Selnes and Sallis, 2003; Nie *et al.*, 2011). Trust serves as an extraordinary lubricant of inter-organisational relationships for better coordination and cooperation between actors to achieve their goals (Gulati *et al.*, 2000). Thus trust is considered as the mediator of a variable (a dependent variable) rather than an independent variable in this study, this will be tested in later chapters.

Emotional commitment is concerned with feeling and emotional attachment within social networks (Wang, 2007), based on emotional intensity and intimacy of a relationship within social networks (Granovetter, 1973; Putnam, 1995). Compared with trust, emotional commitment focuses on a team work as two parties have positive feelings to cooperate for solving problems, such a cooperation role to improve firm performance (Barnes *et al.*, 2011).

Norms refer to rules and standards that are understood by actors (Putnam, 1993; Gilbert *et al.*, 1998; Lapinski and Rimal, 2005). Lapinski and Rimal (2005) argue that norms exist at two levels: at a collective level as collective norms and at an individual level as prevailed norms. At the collective level such as the level of a group, community or culture, norms serve as prevailing codes of conduct that members of the group can enact. Collective norms operate in a social network or in the whole of society. Prevalled norms exist at the individual level, and represent an individual's interpretation of the prevailing collective norms (*ibid.*). Scholars consider collective norms as social norms (or sharing norms) as relational dimensions of social capital, which generate norms of reciprocity for social ties to attain collective goals or common goals (Carrol and Teo, 1996; Bigley and Pearce, 1998; Reimer *et al.*, 2008). From this viewpoint, sharing norms are considered as both dimensions of social capital (relational and cognitive), which is consistent with Putnam's (1993) collective paradigm of definitions of social capital as noted earlier.

Scholars argue that a firm's position in a dense network or its strong ties rely on norms to cooperate and coordinate with each other to achieve collective goals (Coleman, 1988; Gargiulo and Benassi, 2000). Empirical studies demonstrate that if the collective norms can generate norms of reciprocity to reach the collective goal , social ties have positive effects on firm performance (Gargiulo and Benassi, 2000; Reimer *et al.*, 2008); otherwise, norms still remain at an individual level within social ties, such social ties have negative effects on firm performance (Uzzi, 1997). In other words, norms, reciprocity, and collective goals are interrelated with each other.

In social networks, reciprocity usually entails the exchange of favours within social ties (Adler and Kwon 2002), which are almost equivalent in value among actors (Barnes *et al.*, 2011). This reciprocal exchange of favours facilitates benefiting each

actor in the social networks and thus the benefit of the social network itself (Lee and Dawes, 2005). On the other hand, reciprocity can make the focal firm and its other actors in the social networks have motivated mutual interests to achieve collective goals, as actors in this network are more likely to coordinate and collaborate with the focal company (Chen and Wu, 2011).

Table 2.3.1.2 provides a review of previous empirical studies (nineteen quantitative studies) on the relational dimension of social capital influences organisational performance and their measures. The result for twelve out of nineteen studies shows this relational dimension (including trust or reciprocity or emotional commitment) has positive effects on organisational performance, while seven studies yield the mixed result in table 2.3.1.2. Some scholars (e.g Luo and Chen, 1997; Park and Luo, 2001) consider that trust, face, reciprocity and emotional commitment as components of social capital (i.e. Guanxi) has direct positively influenced organisational performance from a Chinese traditional perspective, but others such as Nie *et al.* (2011) used face, reciprocity and emotional commitment as independent variables and interorganisation trust as a mediator to investigate this relationship was negative. Ten studies have not clearly indicated which forms of resources for the focal firm to obtain within a Guanxi network from the Chinese traditional perspective, which influences organisational performance. A few studies such as Atuahene-Gima and Murray (2007) found that trust had a positive impact on resource acquisitions (such as organisational learning), which improved the firm's sales growth (Yli-Renko *et al.*, 2001). Eighteen studies use the financial dimension of organisational performance such as ROI and profit growth to measure the outcome of organisational performance, and only one study (Chung, 2011) uses both financial and strategic dimension of organisational performance to measure firm performance.

Table 2.3.1.2 The Dimension of Relational Social Capital Literature on Organisational Performance

Authors	Social capital measures	Organisational Performance Measures	Resource acquisitions	Elements of social capital	Relationship
Atuahene-Gima	Managerial ties	New Product	Organisationa	Trust	Positive

and Murray (2007)		quality Market goals	l learning		
Barnes <i>et al.</i> (2011)	Supplier relations(Guanxi practice)	Business objectives & goals	Resources	Trust, emotional commitment , reciprocity	Positive
Chen, Huang & Sternquist (2011)	Buy-supplier relationship (Guanxi practice)	Economic and social satisfactory	Resources	Trust Commitment	Positive
Chen & Chiang (2011)	Supplier relationship (network partner)	Operational performance Financial performance	Network agility Mixed channel strategies	Reciprocity	Positive
Chung (2011)	Business ties Government ties	Financial performance: Profit & Market share Strategic performance	Resources	Trust	Positive and negative Positive Negative
Gu, Hung & Tse (2008)	Guanxi control	Market Performance: Sale growth Market share	Information	Trust	Positive
Harrington (2001)	Net Instrumental ties Mix of ties	Financial Performance(ROI), Task orientation	Organisational social capital	Trust	Positive
Hu and Stanton (2011)	Guanxi	Sale revenue Sale growth ROI Profit growth	Resources	Collective goal-sharing resources	Positive
Jones and Taylor (2012)	Customer relations	Firm Value via Customer loyalty	Organisational social capital	Trust, Sharing value and norms	Positive
Luo and Chen (1997)	Guanxi	ROI, Sales Growth, Asset Turnover	Access to information	Reciprocity	Positive

Nie <i>et al.</i> (2011)	Guanxi	Return on Equity (ROE)	Resources	Face, reciprocity, and emotional commitment	Negative Positive
Peng and Luo (2000)	business and government ties	ROA Market share	Resources	Reciprocity	Limited positive
Park and Luo (2001)	Guanxi	Sale growth Profit growth	Resources	Reciprocity Face	Positive But limited to sale and profit growth
Sheng, Zhou, and Li (2011)	Business ties Political ties (government ties)	Returns on investment, sales growth rate, market share growth	Resources		Positive Negative
Uzzi (1996)	Tie Embeddedness	Probability of survival	Access to information	Trust Norms	Curvilinear(U-shape)
Uzzi (1997)	Tie embeddedness	Resource allocation	Access to information	Trust Sharing norms	Positive
Uzzi (1999)	Tie Embeddedness Mix of Ties	Cost of financing	Access to information & Acquisition deals	Reciprocity	Negative
Wu and Leung (2005)	Network ties	Business growth Sale growth ROI	Resources	Trust Reciprocity	Positive
Yli-Renko <i>et al.</i> (2001)	Quality of Customer ties	Sales costs	Knowledge acquisition(or organisational learning)	Trust Norm of reciprocity	Positive

2.3.1.3 Cognitive Dimension and Organisational Performance

As noted before, the components of cognitive dimension of social capital are sharing norms and collective goals. Empirical research has found that this dimension of has an effect on organisational performance that is very limited. Only Liao and Welsch (2003) test the hypothesis: the more the cognitive dimension of social capital is associated with the stronger the growth aspiration of entrepreneurs via access to information, the finding has supported the hypothesis. Because sharing norms provide the legitimacy for the growth of entrepreneurs and thus achieve their economic goals via access to resources (ibid.). In addition, the cognitive capital provides social support and a safety net to open up for sharing and exchanging information between parties, to increase the opportunity of the growth of enterprises (ibid.).

Besides this, firms acquire organisational social capital in social networks via sharing trust and collective goals (Leana and Van Buren, 1999). For example, Uzzi (1997) found that sharing trust, sharing norms and collective actions had a direct effect on access to new knowledge and information, which in turn, had positive effects on firm performance. Without collective goals and sharing trust, organisational social capital becomes costly, and as a result, it might have negative impacts on organisational performance.

2. 4 Guanxi as Social Capital and Social Networks

The Chinese term “Guanxi” has different definitions at different levels according to different perspectives in the existing literature (Chen and Chen, 2004). According to Yeung and Tung (1996:55), Guanxi is comprised of two Chinese characters (“guan” and “xi”) which mean “gate/pass” (guan) “connection”(xi), i.e., “*Guanxi is a general term for social networking and is often translated as ‘relationship’ or connection*”. As discussed in the concept of social networks, this study focuses on social ties at an individual level; the definition of Guanxi is here at an individual level. From the traditional Chinese culture perspective, Guanxi is defined as “*a web of personal connections, relationships, and obligations that business persons can use to obtain resources or advantages through a continual cooperation and exchange of favours*” (Abramson and Ai, 1997: 769). This definition of Guanxi includes the elements of social networks: actors and their relationships, resources, networking activities among actors, and the exchange of favours between relationships (Davies *et al.*, 1995; Fan,

2002; Chen, 2009). In other words, Guanxi is a special kind of personal or social relationships, but the relationship between actors or a personal network does not necessarily mean Guanxi (Wang, 2007), because Guanxi means to build relationships through guanxi networking activities for a special purpose (Fan, 2002). The definition of Guanxi derives from the traditional Chinese culture (i. e. Confucian culture) (Luo and Chen, 1997; Park and Luo, 2001; Barnes *et al.*, 2011). The components of Confucian culture are the three dimensions of social capital (structural, relational, and cognitive), as well as the components of social networks discussed below.

The Confucian culture has dominated the Chinese society since Han Dynasty (BC 206–AD 220), and it has more than two thousand years of history in China (Dunning and Kim 2007). Chinese Confucianism posits that people’s behaviours and attitudes follow social rules within the hierarchical structure of Guanxi networks towards collectivism in the Chinese social community (Chen and Chen, 2004). The hierarchy of Guanxi structure is social relationships, for example, ruler-subject, father-son, husband-wife, sister-sister, and friend-friend (Yeung and Tung, 1996). The hierarchical structure of Guanxi networks refers to Guanxi-hu within Guanxi-wang in Chinese as the structural dimension of social capital in China (Chen and Wu, 2011). Guanxi-wang is the focal firm’s network (an ego-network), including a lot of Guanxi-hu (Chen and Wu, 2011; Zhou *et al.*, 2007). Guanxi-hu is a person, or an organisation who has a guanxi link with the focal firm (such as the firm’s customers, suppliers, employees, and government officials) within the structure of social networks (Zhou *et al.*, 2007). Hence, Guanxi as a network has the same characteristics as a social network: tie strength, structural holes, density, and centrality.

However, Guanxi compared with Western social networks, is more hierarchical. This means that Guanxi networks embody different levels of unequal social positions among actors. This hierarchical structural of Guanxi networks has influenced a firm’s acquisition of resources to achieve its goal. The actor has dense or central position in the Guanxi network, which influence the focal firm for the access of resource and for the attainment of their joint goals (Chen and Wu, 2011). For example, due to Chinese government officials’ control of key resources such as financial and land assets in the Chinese transitional economy, the relationship between the focal company’s managers and government officials is unequal, but hierarchical. This is the government officials

occupy higher social posts in Chinese social networks with more powerful influences, so the managers deliberately build more relationships with their administrative supervisors to access resources (Peng and Luo, 2000; Chen and Wu, 2011). This is in line with asymmetric relationships as noted earlier. On the other hand, in a social hierarchy, the weaker actor can ask for special favours for which he or she does not have to equally reciprocate (Dunning and Kim 2007), and as a result, reciprocity has not been achieved i.e. the objective of their joint goal (Chen and Wu, 2011). In contrast, in business ties, the focal firm's manager builds more contacts with top executives at other firms in non-hierarchical positions (both at the same level of positions) to share information and resolve joint problems to reach their joint goals (Uzzi, 1996; Adler and Kwon, 2002).

Sharing norms are defined as the common rules and standards or regulations (such as social rules, and the industry's rules and standards) within social networks (Tsai and Ghoshal, 1998; Lapinski and Rimal, 2005). Collective goals are defined as any common goals shared between exchange parties to achieve the collective action (Putnam, 1993). For example, Li *et al.* (2011) considered that a product's quality and innovation are collective goals within social networks. Sharing norms and collective goals are components of Guanxi based on the Confucianism of the collective culture in China and social capital theory. Under the Confucianism of the collective cultural guidance, each individual and Guanxi networking activity is guided by social orders and norms in order to reach collective goals (Chen and Chen, 2004). This Confucian cultural guidance is consistent with the social capital view of individuals or groups within a collective culture, which "*give the collectivity cohesiveness and thereby facilitate the pursuit of collective goals*" (Adler and Kwon, 2002: 21). Moreover, social orders and norms as social norms at the collective level for the elements the Chinese Confucian culture are in line with Putnam's (1993:167) concept of social capital as trust, sharing norms and collective goals, which "*improve efficiency of society that fosters the coordination of activities*". Their coordination and cooperation roles for facilitating access to resources have been discussed in previous sections (see Figure 2.3.3). But most Guanxi studies have ignored sharing norms and collective goals as coordination and cooperation components of social networks which influence organisational performance.

As mentioned before, social networks include social relationships with relationship content in terms of the quality of the relationship, such as trust and reciprocity. Trust, emotional commitment and reciprocity as components of Guanxi are based on the definition of social relationships and the Chinese Confucian culture from the social capital perspective. According to social capital theory, social relationships mean that “*favours and gifts are exchanged*” (Adler and Kwon, 2002: 18). The exchange of favours and gifts reflects Chinese Confucian culture as components of Guanxi - “renqing”, “xinren”, and “ganqing”. Under the Confucian culture in the Chinese society, Chinese companies often use the exchange of favours; that is to say the exchange of “renqing” (reciprocity) and the giving of favours at different levels of “xinren” (trust) and “ganqing” (emotional commitment) to build and maintain Guanxi ties with other stakeholders (e.g. government officials, suppliers, customers, and competitors), to acquire resources, which in turn, influence organisational performance (Park and Luo, 2001; Chen and Wu, 2011; Barnes *et al.*, 2011).

Trust (xinren) is defined as a belief or a promise between exchange partners to fulfil their obligations in an exchange relationship (Barnes *et al.*, 2011). “Xinren” has the meaning of trust in the Chinese Confucian culture (Yeung and Tung 1996). Xin (fidelity) means faithfulness, including an obligation to pay debts of gratitude, and “ren” which means “benevolence” as “a belief in partners’ honesty and good intention based on human nature” (Wang, 2007:83). The Chinese “trust” definition is the same as the way in which Westerners view trust as a belief; “xinren” can be a relational dimension of social capital. But scholars argue that the low level of trust exists in the Chinese society, and thus Chinese companies prefer to establish Guanxi connections tightly by blood, marriage or adoption, friends and having common finance to have a high level of trust to implement the obligation of reciprocity and their joint goals (Zhang and Zhang, 2006). In contrast, Western firms do business to build social networks based on contractual trust and their agreements in Western societies such as the US to achieve their goals. Their trust is not based on the hierarchy of social relationship, such as “*ruler-subject, father-son, husband-wife, brother-brother, and friend-friend*” (Yeung and Tung, 1996:55; Wu and Leung, 2005; Wang, 2007). Furthermore, trust is associated with reciprocity (renqing). It is difficult for firms to establish trust and to develop network ties without reciprocity, as both are positively related with firm financial performance (Wu and Leung, 2005). Due to the fact that

“renqing” cannot be separated from trust, some scholars (e.g. Fan, 2002; Chen and Chen, 2004) consider that “renqing” is the middle level of trust within the guanxi network, which is based on familiar friends, schoolmates and colleagues. “Jiaoqing” (“friendship” in English) is the lowest level of trust, which is rooted in unfamiliar persons within social relationships. “Ginqing” (“affection” in English) is the highest level of trust based on kinships and family members. The different levels of trust (“jiaoqing”, “renqing”, and “qinqing”) as guanxi components (called the quality of relationships) are embedded in business ties, government ties, and managerial ties, and have impacts on the acquisition of different resources (i.e. social capital) and organisational performance (Chen and Wu, 2011; Gu *et al.*, 2008).

Emotional commitment (ganqing) is defined as brotherhood or affection between exchange parties to commit their obligations in an exchange relationship (Barnes *et al.*, 2011). “Ganqing” means feeling or affection in English (Barnes *et al.*, 2011). Feeling or affection is used to measure emotional commitment of the relationship among actors within the Guanxi network (Tsang, 1998). There are two kinds of emotional commitment: qinqing and qanqing touzi (Wang, 2007), which is very closing the following meanings of the tie strength of relationships within social networks: emotional intensity and intimacy of a relationship (Granovetter, 1973). Qinqing is the most intimate ganqing, which is based on a blood system (direct family members). Qanqing tozi is non-intimate ganqing, which has common feelings within the Guanxi network (Wang, 2007). If two actors have common feelings, they attempt to be more cooperative and coordinative to help each other to reach their common goals or collective goals (Wang, 2007; Barnes *et al.*, 2011).

The definition of reciprocity (renqing) is the exchange of a favour between two parties including the process of fulfilling obligations, receiving and returning favours. “Renqing” means “favour” in English, following the rule of reciprocity, in which an exchange party has an obligation to pay back a favour that it has received before (Barnes *et al.*, 2011). In other words, “renqing” as a kind of resource in terms of a favour or gift, can be used as a social exchange based on a set of social norms and human feelings (Qian *et al.*, 2007). Compared with the Western “renqing” of “repay a favour”, the Chinese “renqing” is somewhat different. The Western reciprocity (“renqing”) focuses on a short term, interdependence for mutual benefit and equality

of exchanges in a balanced exchange relationship, while the Chinese “renqing” can be repaid in the long run, which involves the procedure of the obligation of giving, receiving, and returning gifts, called “li shang wang lai” (Wang, 2007; Qian *et al.*, 2007)). On the other hand, Park and Luo (2001) consider that the reciprocal obligations in the Guanxi network are not equal, i.e. it is not necessarily for a stronger exchange party to repay the equal value of reciprocity. As a result, this unbalanced exchange relationship within government ties has negative impacts on Chinese firm performance (Chung, 2011; Nie *et al.*, 2011).

Based on the above discussion, the concept of Guanxi includes five key components, i.e. trust, emotional commitment, reciprocity, sharing norms and collective goals. These components of Guanxi act as social capital for actors to use to achieve their goals under the Chinese collective culture. Guanxi as social networks has four characteristics: tie strength, structural holes, density and centrality. However, compared with the Western concept of social networks, Guanxi has its unique characteristics: 1) The tie strength (e.g. the emotional intensity and intimacy of a relationship) is a long-term personal social relationship based on the hierarchical Guanxi structure, i.e. ruler-subject, father-son, husband-wife, sister-sister, and friend and friend. This close friend relationship is more than the business relationship; 2) The long-term Guanxi relationship enables the exchange of favours between two exchange parties to achieve their collective aim as Guanxi includes the key components of trust, emotional commitment, reciprocity, sharing norms and collective goals; and 3) Guanxi is more hierarchical than Western social networks. For example, due to Chinese government officials having a central position within social networks and having the power to allocate key resources to different firms in different industries, the relationship between top managers in the focal firm and government officials is unequal and hierarchical.

2.5 Gaps in Extant Literature

Research on the impact of social networks on organisational performance, can be justified and discussed from both theoretical and firm performance measurement perspectives. From a social capital theory perspective, a gap exists in the existing literature regarding the effect of social networks on organisational performance, i.e.,

previous studies did not clarify which of the cooperation and coordination components of Chinese social networks are responsible for the positive impacts on organisational performance. There is very limited research concerning why and how the five coordination components of social networks - that is, trust, emotional commitment, reciprocity, sharing norms and collective goals - lead to improved organisational performance in the Chinese context. The majority of research focuses on the key components of social networks (Guanxi networks), that is, trust (xinren), emotional commitment (ganqing, also called the affective element), face (mianzi), and reciprocity (renqing), to examine how Guanxi networks influence organisational performance (e.g. Park and Luo, 2001; Nie *et al.*, 2011). But neglecting sharing norms and collective goals as the coordination and cooperation components of Guanxi networks has resulted in mixed findings with regard to some firms having no benefits from Guanxi networks while others have positive benefits from Guanxi networks. Similarly, they fail to identify the key cooperation and coordination of components of Guanxi networks that lead to the improvement of organisational performance. As a result, these key elements, as components of Guanxi networks, have produced inconsistent findings in this field of studies. For instance, Nie *et al.* (2011), Park and Luo (2001) identified three key elements of Guanxi (i.e. face, emotional commitment and reciprocity) through reviewing Chinese culture. They examined Guanxi and firm performance by testing hypotheses, but their findings reveal conflicting evidence with respect to the impact of Guanxi ties on organisational performance. Nie *et al.* (2011) found that Guanxi had negative impacts on firms' performance while Park and Luo (2001) found that Guanxi led to improved organisational performance. Only one current study, that by Barnes *et al.* (2011), proposes that three elements of Guanxi (trust, emotional commitment and reciprocity) determine coordination and cooperation, which lead to improved performance.

In order to fill this gap, this study focuses on the key five coordination components (trust, emotional commitment, reciprocity, sharing norms and collective goals) of social networks to potentially offer a comprehensive picture of the relationship between social networks and organisational performance. Compared with the previous research in the Chinese social networks literature, this is a new contribution since previous studies have not examined whether, or how, the cognitive dimension of social capital (such as sharing norms and collective goals) impacts on organisational

performance or plays a mediating role in the relationship between social networks and organisational performance. On the other hand, a focus on five coordination components of social networks draws attention to how social networks have impacts on firms' performance through resource acquisitions in a Chinese context.

There is another gap in the existing literature with regard to how internal and external ties (such as business ties, government ties and managerial ties), and resource acquisition (such as access to information) deriving from social capital, impact on organisational performance in Chinese firms. Many studies have examined how social networks affect organisational performance in the Chinese context, but very few have examined how Chinese firms use social networks to obtain resources such as access to information, organisational learning, and organisational social capital and how these resource acquisitions impact on organisational performance. As mentioned earlier, the majority of the previous studies such as that by Peng and Luo (2000), have contributed to examining the direct effect of social networks on organisational performance. But the fact that social networks might not directly convert to organisational performance by themselves, according to Wang *et al.* (2011). Moreover, no previous Chinese social networks studies have examined how and why social networks (business ties or government ties or managerial ties) influence organisational performance via resource acquisition in terms of how Chinese social networks at the individual level transfer to the organisational level (Zhang and Zhang, 2006).

Hence, the study adopts social capital theory to analyse social networks as resources for actors to use to reach their particular goals in terms of how Chinese social networks at the individual level (individual goals) shift to organisational social capital (organisational goals) to fill this gap. This is another new contribution of this study. As noted before, Guanxi empirical studies have contributed to the important influence of individual-level Guanxi (ties with executives of other organisations) on organisational performance at the organisational level (Xin and Pearce, 1996; Luo & Chen, 1997; Peng & Luo, 2000; Park & Luo, 2001). For example, Park and Luo (2001) claim that Guanxi can become an organisational asset (i.e. organisational social capital) when a personal relationship is used by the organisation via a strong connection among its managers. However, these studies have not directly or clearly

addressed the question of how Guanxi at the individual level is transferred to organisational social capital (Zhang and Zhang, 2006). This study examines three modes of resource acquisition (access to information, organisational learning and organisational social capital) and the five coordination components of social networks (trust, emotional commitment, reciprocity, sharing norms and collective goals) as mediators in the relationship between social networks (business ties, government ties and managerial ties) and organisational performance, by using hypotheses testing and interviews to explain whether, or how, the three forms of resource acquisition and the five components of social networks play a significant mediating role in individual assets shifting to organisational assets, to see whether these have positive effects on organisational performance.

2.6 A Theoretical Framework

As discussed earlier, social capital theory examines how different kinds of relationships in the network and/or network structure may provide actors with resources to attain their certain goals (Bourdieu, 1985; Coleman, 1988; Nahapiet and Ghoshal, 1998; Lin, 2008). This means that social networks as social capital comprise a set of resources which actors use to achieve their mutual goals (Schuller *et al.*, 2000).

Consistent with social capital theory, researchers argue that direct and indirect social relations (social networks) are a key source of resources such as information and learning (Adler and Kwon 2002; Tsai and Ghoshal 1998). In explaining how social networks influence organisational performance, this study focuses on three types of Guanxi (i.e. business ties, government ties, and managerial ties) as resources for actors to use to achieve their certain goals in the social capital context according to the following points. Firstly, since information asymmetry exists, regular meetings and close contacts with business partners (customers, suppliers, and competitors) can improve access to information (Chen and Wu, 2011; Uzzi, 1999). The information, acquired may become part of organisational learning (Dyer and Nobeoka, 2000, Dyer and Hatch, 2006), and employees' learning would achieve the focal organisational goal (Leana and Van Buren, 1999). Secondly, because of resource scarcity, firms seek external resources to reduce their financial risk and reach their strategic goals, and the

legitimizing qualities of alliance and strength ties enable organisations to survive rather than close (Wells *et al.*, 2001). Thirdly, power is a resource of social capital because it ensures that actors who are in a relationship achieve their goals (Adler and Kwon, 2002). Government officials have the power to get things done (e.g. approval authority of organisational learning), and thus ties with government officials enable the attainment of organisational goals (Chung, 2011; Li *et al.*, 2011). Fourthly, social capital theorists consider that trust, emotional commitment, and reciprocity are the key elements of social networks because they reflect the quality of the relationship (Tsai and Ghoshal, 1998). These elements play the role of coordination and cooperation in the procedure of the resource acquisition in the social network (Chen and Wu, 2011).

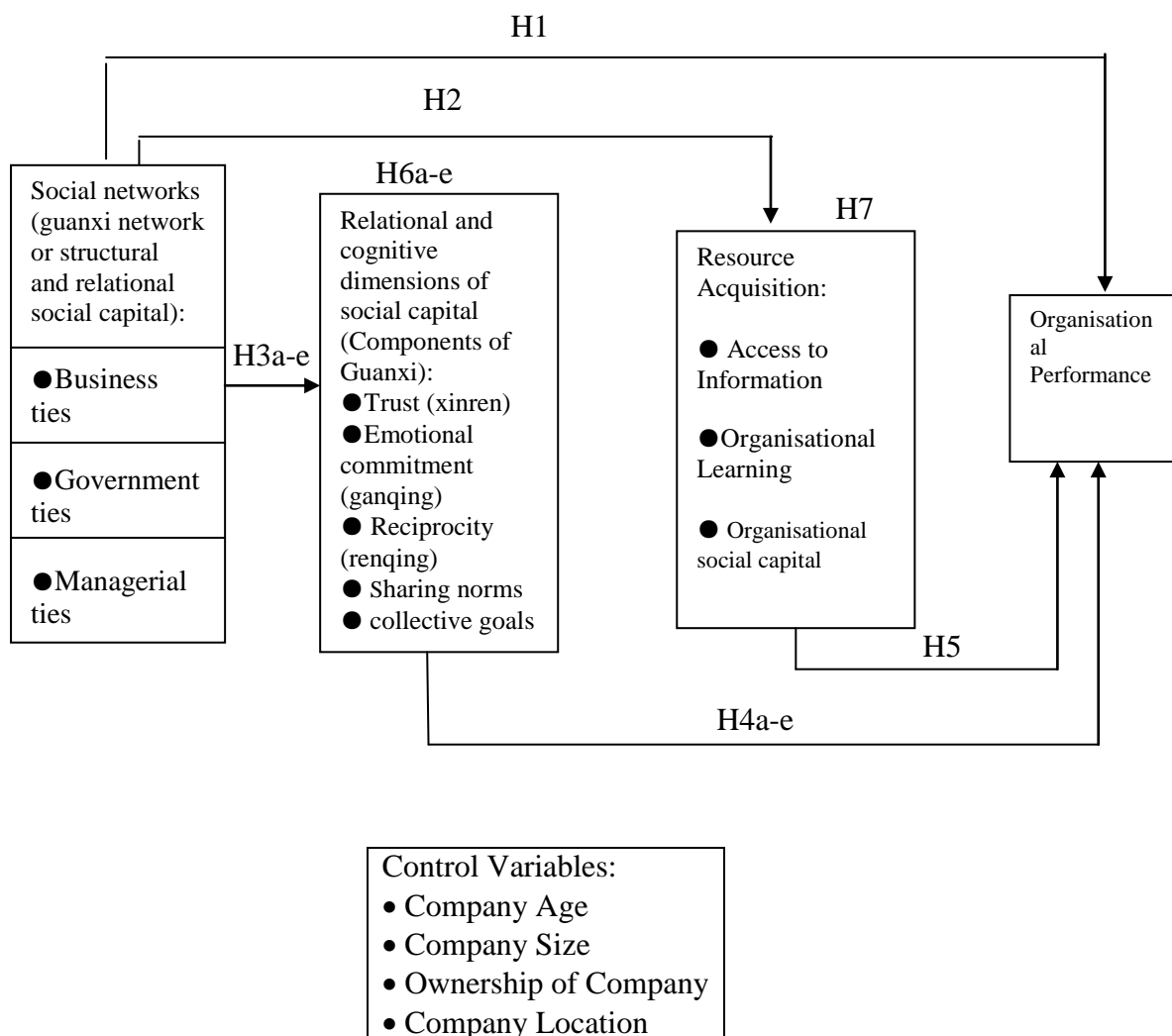
Social capital analysis, within the literature on the impacts of social networks on organisational performance, has increased in popularity, especially in a Chinese social network context. Researchers consider that social networks provide opportunities for resource acquisition such as access to information (Davidsson and Honig, 2003; Uzzi, 1996, 1999; Gu *et al.*, 2008; Chen and Wu, 2011), organisational learning (Li *et al.*, 2011; Dyer and Nobeoka, 2000; Dyer and Hatch, 2006), and organisational social capital (Harrington, 2001; Moran, 2005; Jones and Taylor, 2012), which influence organisational performance either positively or negatively.

This study aims to address the research gaps (as noted in section 2.5) in investigating the relationship between social networks and Chinese listed companies' performance. This study addresses these gaps by using social capital theory to analyse how the three types of Guanxi as social capital at the individual level transfer to organisational social capital, and by focusing on the key elements of Guanxi which play the role of coordination and cooperation to enhance the focal firm's ability to obtain resources such as information, organisational learning, and organisational social capital, which in turn, influence organisational performance.

Hence, I develop a conceptual framework (Figure 2.6) for this study, which includes seven hypotheses as discussed below. This study will use this conceptual framework to examine how Chinese listed companies use social networks such as business ties (ties with customers, suppliers and competitors), government ties (ties with

government regulatory officials/agencies), and managerial ties (ties with employees) to obtain resources such as access to information, organisational learning and organisational social capital, which impact on organisational performance. It will also examine how the five coordination components of social networks (i.e. trust, emotional commitment, reciprocity, sharing norms and collective goals) impact resource acquisitions on organisational performance.

Figure 2.6 - A Conceptual Framework



This conceptual framework as a social capital framework includes three independent variables - business ties, government ties, and managerial ties (i.e. each type of Guanxi), a dependent variable- organisational performance, two sets of mediating

variables - one set of mediating variables – trust (xinren), emotional commitment (ganqing), reciprocity (renqing), sharing norms and collective goals (social norms and common goals) and the other set of mediating variables - access to information, organisational learning and organisational social capital, and control variables - company age, company size, ownership of company, and company location in the following discussion of each hypothesis.

This study adopts three types of Guanxi - business ties, government ties and managerial ties, and five components of social capital (Guanxi), and organisational performance in this conceptual framework and these have been explained in previous sections. The following explains why this study emphasises on three forms of resource acquisition and how they mediate the relationship between Guanxi and organisational performance.

Three forms of resource acquisition play the role of a mediation of effects of the relationship between social networks and organisational performance according to social capital theory. Social capital theory focuses on a set of resources (e.g. wealth, information, power, and reputation) that is associated with actors, and actions in the network that can be used by the actors to attain certain goals (Bourdieu, 1985; Coleman, 1988; Nahapiet and Ghoshal, 1998; Lin, 2008). According to this, social networks can serve three forms of resource acquisition through a review of three dimensions of social capital literature on organisational performance (see Tables 2.3.1.1, 2.3.1.2 and section 2.3.1.3). Hence, this study adopts the following three forms of resource acquisition in its conceptual framework.

i) Access to information

Access to information is defined as access to the market, products/services, production and industry policy information, and land or financial resources (such as financial capital and bank loans) (Chen and Wu, 2011; Wang *et al.*, 2011). Land or financial resources can be considered as key information because they are related to the tax and interest rate information (Chen and Wu, 2011; Wang *et al.*, 2011). Social networks as social capital provide a focal firm with access to information (Burt, 1992, 2000; Granovetter, 1973; Uzzi, 1999), which leads to improved firm performance

(Uzzi, 1997; Rowley *et al.*, 2000). The focal firm uses its Guanxi network to access markets, production, and technology information from other actors in the Guanxi network, to achieve its organisational goal (Sheng *et al.*, 2011; Wang *et al.*, 2011). Due to information asymmetry which exists, the focal firm has access to information that others cannot access, such as policy information, or this information might not be available in the open market – for example, production information (Sheng *et al.*, 2011). The focal firm builds closer ties with government officials which mean it might gain a lower price of land than the higher market price of ones in the Chinese transitional economy (Wang *et al.*, 2011). The focal firm also obtains less or free local taxes and fees (*ibid.*). As a result, the focal firm saves costs in obtaining such information from the open market and gains the benefit of Guanxi.

ii) Organisational learning

There is no consensus regarding the definition of organisational learning in the existing literature (Wong *et al.*, 2003). In this study, “organisational learning” is defined as “knowledge acquisition” by actors (Cook and Yanow, 1995; Miller, 1996). The knowledge acquired from social networks can be shared and learned by employees in the focal firm. Such knowledge includes product development skills, and new technology and innovation skills in areas in which employees do not have prior experience (Li *et al.*, 2011). Employees share and learn the acquired knowledge, which helps the focal firm to achieve its profit and growth goals (Yli-Renko *et al.*, 2001; Li *et al.*, 2011). The focal firm uses social networks for knowledge exploitation (i.e. organisational learning) through network relationships such as business ties and managerial ties. The organisational learning outcome benefits product development, sales cost efficiency (Yli-Renko *et al.*, 2001), which in turn has positive effects on the focal company’s performance (Dyer and Nobeoka, 2000, Dyer and Hatch, 2006). The relationship embeddedness such as trust, norms, and emotional commitment can motivate network members to share or exchange knowledge (Nahapiet and Ghoshal, 1998; Yli-Renko *et al.*, 2001). For example, empirical studies have tested whether the trust and emotional commitment are positively associated with the relationship learning (Selnes and Sallis, 2003); a focal firm such as Toyota had clear norms for participation in cooperation and coordination that led to Toyota’s success to its organisational performance (Dyer and Nobeoka, 2000).

Senge (1990) suggests that organisational learning embraces five aspects: systems thinking, sharing vision, personal mastery, mental models, and team learning. System thinking and sharing vision disciplines are similar to cognitive social capital (i.e. sharing goals or sharing collective action) and organisational social capital. Based on the above discussion, this study focuses on personal mastery, mental models, and team learning to represent organisational learning in its conceptual framework. Personal mastery discipline refers to a culture and process of individual learning within an organisation since organisations learn only through individuals who learn (ibid.), in terms of a life long learning discipline (Field, 2005). Similarly, mental models discipline enhances employees to reassess market assumptions. Team learning discipline is “*the process of aligning and developing the capacities of a team to create the results its members truly desire*” (Senge 1990: 236). With regard to ties with business partners, the focal firm’s employees engage in knowledge-based activities such as technologies and innovative learning with its business partners in the long-term (Li *et al.*, 2011), and thus employees’ individual learning goals become the focal firm’s goal.

iii) Organisational social capital

Gabbay and Leenders (1999: 3) defined organisational social capital as “*the set of resources, tangible or virtual, that accrue to a corporate player through the player through the player’s social relationships, facilitating the attainment of goals*”. The “*corporate player*” refers to the focal organisation and its members in a social network. Social capital is considered to relate to specific goals including both individual and organisational goals (Gabbay and Leenders, 1999). The social capital of the individuals (or the group) is corporate social capital once individual goals are converted to organisational goals (ibid.). When social networks benefit organisations and their members in the attainment of their goals, social networks become organisational social capital (ibid.). For example, Harrington (2001) has demonstrated that the increase in the relative quantity of instrumental ties at the individual level yields social capital at the organisational level by increasing individuals’ willingness to engage in decision makers, in terms of individuals’ goals shift to the organisational goal, and such organisational social capital produces increased profits for the

organisation. When they hinder the attainment of these goals, this is corporate social liability (Leana and Van Buren, 1999; Gabbay and Leenders, 1999). Hence, organisational social capital contains individual or group goals and organisational goals. In other words, top managers in the focal firm may use social networks to acquire social capital (resources) (individual level), i.e., they may use social networks to achieve their individual goals or the organisational one. If the top managers in the focal firm put organisational goals before their individual goals, then the individual capital becomes the organisational capital, which leads to an improvement in organisational performance (Harrington, 2001).

In addition, this study adopts company age, company size, ownership of company and company location as control variables in its research framework, due to some scholars indicate that Guanxi has positive impacts on firm performance, but this is conditional on these control variables (Peng and Luo, 2000; Park and Luo, 2001; Li *et al.*, 2008). For example, nonstate-owned companies (i.e. private and foreign investment companies) are more likely to use Guanxi than state-owned in China (Park and Luo, 2001), and small and medium privately owned companies including foreign investment companies use Guanxi that positively impacts on their performance (Hu and Stanton, 2011). Moreover, small firm and medium firms prefer to utilise Guanxi networks to acquire useful resources than large firms in China (Park and Luo, 2001). Company size refers to a company's revenue and the number of employees of the company (Li and Sheng, 2011; Malik, 2012). Company location refers to open economic regions (such as Chinese special economic zones and some Chinese eastern cities such as Guangzhou and Shanghai) and non-open regions such as China's western cities (such as Chongqing) (Park and Luo, 2001). Regarding company age, scholars (e.g. Park and Luo, 2001; Li and Sheng, 2011) argue that younger companies prefer to use Guanxi networks than older companies, because young companies lack information about business environment and working relationship with business partners, Guanxi ties enable them to acquire resources such as access to information, and as a result, the impact of Guanxi utilization on organisational performance is stronger for younger companies than for older companies (Li and Sheng, 2011). The detail of all these variables and measurement will be discussed in the following research method chapter.

2.7 Hypotheses Development

2.7.1 Social Networks and Organisational Performance

According to social capital theory (Adler and Kwon, 2000; Nahapiet and Ghoshal, 1998) , social networks such as business ties can be considered as social capital that provides a set of valuable resources (such as information, assets and power) for actors to access to achieve particular goals or positive outcomes. Indeed, strong or weak ties in terms of the emotional intensity, frequency of interaction, reciprocity, and intimacy of a social network relationship (Granovetter, 1973; Brass *et al.*, 1998), directly influence firm performance (Rowley *et al.*, 2000; Dyer and Hatch, 2006). For example, both the focal company's direct connections with its business partners (strong ties) and the indirect ties tie its employees (minimal intensity of weak ties) in social networks, which has positive impacts on organisational performance (Rowley *et al.*, 2000).

Consistent with social capital theory, the intimacy of relationships refers to close friendship relationships in a social network. Many researchers have directly examined the business or government ties-performance relationship in a Chinese context (Luo and Chen, 1997; Peng and Luo, 2000; Park and Luo, 2001; Luo *et al.*, 2012). The empirical findings demonstrate that if managers have strong ties or close ties with business partners and government officials this is positively correlated to organisational performance in a stable environment (e.g. Luo and Chen, 1997; Peng and Luo, 2000), although this positive result depends on the focal company's location, age, size, ownership, and environment.

Managers use their close connections with business partners and government officials to exchange resources such as favours and reciprocal obligations to achieve their organisational goals, which in turn, directly affects their organisational performance (Peng and Luo, 2000; Luo *et al.*, 2012). For example, Peng and Luo (2000) found business ties with customers and suppliers that can improve the quality of products and services, customer satisfaction and loyalty, and sale incomes, whereas, business ties with competitors might facilitate strategic alliance. Managers have closer ties with government officials that help their firms to reduce or waive local taxes and fees in

the transitional Chinese economy (Wang *et al.*, 2011), which affects firm performance (Park and Luo, 2001).

Managerial ties relate to employee relations. “Employee relations” is concerned with maintaining firm-employee relationships, which contribute to satisfactory productivity and working conditions, training, and rewards for individuals (Wilson, 1988; Gunnigle, 1993). In line with social capital theory, structural holes and strong ties in network relationships in the MNC’s global operation contribute to the effective cooperation and the flow of knowledge (Granovetter, 1973; Burt, 1992). For example, where structural holes exist between two or more employees (internal connections) or between employees and other actors (external connections), ties with employees can “bridge” social capital; that is, the gap between two or more employees can be bridged to attain certain goals through a well-configured network of relationships in the MNC’s global operations (Taylor, 2007).

Besides structural holes, the stronger ties in network relationships, the greater the likelihood of creating cognitive social capital (such as sharing norms and common goals) via employee relations, since some barriers such as legal restrictions on compensation and culture have been removed (Taylor, 2007). Moreover, employee relations integrate different goals into the network in terms of the way in which individual learning or individual capital shifts to become an organisational asset (Taylor, 2006). As a result:

H1: The tie strength of social networks (business ties, government ties and managerial ties) is positively associated with organisational performance.

2.7.2 Social Networks and Resource Acquisition

Social capital theory holds that social networks as social capital provide companies with resources such as access to information (Granovetter, 1973; Burt, 1992, 2000), organisational learning (Nahapiet and Ghoshal, 1998; Yli-Renko *et al.*, 2001), and organisational social capital (Leana and Van Buren, 1999; Gabbay and Leenders, 1999), through firms’ strong or weak ties or multiplex ties or structural holes (Brass *et al.*, 1998). The existing social network literature indicates that the strong or weak ties

or structural holes that assist the focal firm to access information, offered by the three types of social networks (business, government and managerial ties) are different. Previous empirical studies found that firms have strong ties or multiplex ties with business partners, which help to access quality, relevant information, as well as the acquisition of business partners' skills and knowledge (Uzzi, 1996; 1997), but weak ties only provide accessing and using private information to gain new jobs (Granovetter, 1973). The strong government ties in a Chinese context provide access to financial resources, policy and human resource, which are controlled by the authorities in China (Chen and Wu, 2011). Managerial ties provide information to employees to exchange knowledge (organisational learning) (Yli-Renko *et al.*, 2001). Business ties and government ties facilitate managerial ties to offer knowledge and skills' learning to the focal firm's employees because structural holes exist in the ego-network (Burt, 1992; Chen and Wu, 2011). This means that there is no direct connection between the focal company's employees and its business partners (or government officials). Hence, it is likely that employees will access information or knowledge through business ties and government ties.

On the other hand, social networks produce individual learning that can be shifted to organisational learning once individual learning goals become the focal firm's goal (Li *et al.*, 2011). Hence, researchers argue that organisational learning and organisational social capital can be simultaneously acquired by the focal firm once the individual learning goals become the organisational goal in a social network (Leana and Van Buren, 1999). Thus the hypothesis is posed:

H2: The tie strength of social networks (business ties, government ties and managerial ties) is positively associated with three modes of resource acquisition – access to information, organisational learning and organisational social capital.

2.7.3 Social Networks and Components of Guanxi

Social capital theory proposes that the three dimensions of social capital (structural, relational and cognitive dimensions) interact and cannot be separated (Nahapiet and Ghoshal, 1998; Tsai and Ghoshal 1998). Trust, emotional commitment, reciprocity, sharing norms and collective goals are relational and cognitive dimensions of social

capital, and the structural dimension of social capital is considered to be the network itself (i.e. the tie strength) (Nahapiet and Ghoshal, 1998). Granovetter (1973) defined the tie strength as the emotional intensity, frequency of interaction, reciprocity and intimacy of a relationship. The tie strength is a long-term personal social relationship in the Chinese context. According to social capital theory, this personal social relationship (the tie strength) is the exchange of favours and gifts (Adler and Kwon, 2002). In other words, the exchange of favours and gifts is the consequence (outcome) of the tie strength within social networks. The exchange of favours and gifts means reciprocity (renqing). Reciprocity includes the obligation of giving, receiving and returning favours or gifts (Wang, 2007; Qian *et al.*, 2007). Trust (xinren) and emotional commitment (ganqing) also include the exchange of favours, as they are a belief or a promise and affection between the exchange parties in fulfilling the obligations in an exchange relationship (Barnes *et al.*, 2011). The completion of the exchange of favours depends upon the quality of trust and emotional commitment between exchange parties under the Chinese hierarchical social relationships of the Guanxi structure (Chen and Chen, 2004; Barnes *et al.*, 2011). Social capital theorists (Nahapiet and Ghoshal, 1998; Putnam, 1993) argue that actors use the tie strength to achieve shared common norms and goals. This means that shared common norms and goals are consequences of the tie strength. Sharing norms refers to sharing common rules and standards or regulations (Tsai and Ghoshal, 1998; Lapinski and Rimal, 2005). Collective goals are any shared common goals (Putnam, 1993). Therefore, sharing norms and collective goals as the cognitive dimension of social capital are consequences of the tie strength. The correlation between the tie strength of the three types of Guanxi (business ties, government ties, and managerial ties) and the five components of Guanxi (trust, emotional commitment, reciprocity, sharing norms and collective goals) depends on the top managers in the focal firm how to build close ties with their business partners, government officials and employees, and the Chinese hierarchy of social relationships.

The social network and social capital literature show that the structural dimension of social capital in terms of social network characteristics such as tie strengths and structural holes, is related to trust, emotional commitment, reciprocity, sharing norms and collective goals (Burt, 1992, 2000; Coleman, 1988). Moreover, empirical studies show that strong ties or close ties are correlated with high levels of trust (Granovetter,

1992; Levin *et al.*, 2004), emotional commitment (Barnes *et al.*, 2011), reciprocity (Yli-Renko *et al.*, 2001), sharing norms and collective goals (Larson, 1992).

Under the Chinese hierarchy of social relationships, Chinese social networks (Guanxi) have different levels of trust (“jiaoqing”, “renqing”, and “qinqing”) (Yeung and Tung, 1996). Reciprocity (renqing) is the middle level of trust, emotional commitment (ganqing) is an emotional intensity and intimacy of (closer) relationship (Chen and Chen, 2004). Scholars argue that, managers have close ties with business partners, government officials and employees, which enable a high level of trust (Chen and Chen, 2004; Wang, 2007). Thus:

H3a: The tie strength of social networks (business ties, government ties and managerial ties) is positively associated with trust.

H3b: The tie strength of social networks (business ties, government ties and managerial ties) is positively associated with emotional commitment.

H3c: The tie strength of social networks (business ties, government ties and managerial ties) is positively associated with reciprocity.

H3d: The tie strength of social networks (business ties, government ties and managerial ties) is positively associated with sharing norms.

H3e: The tie strength of social networks (business ties, government ties and managerial ties) is positively associated with collective goals.

2.7.4 Components of Guanxi and Organisational Performance

The social capital literature explains the effects of components of social networks on organisational performance. Scholars adopting two dimensions of social capital (relational and cognitive dimensions) have argued that trust, emotional commitment, reciprocity, sharing norms and collective goals have positive effects on firm performance (Uzzi, 1996; Wu and Leung, 2005; Li *et al.*, 2008). Most of the empirical studies have directly examined the relationship between these components of social networks and firm performance. Only a few studies, such as that by Barnes *et al.* (2011) argue that trust, emotional commitment and reciprocity play the role of coordination and cooperation, which leads to improved firm performance.

For example, Wu and Leung (2005) argue that all levels of trust are associated with reciprocity (renqing) in business ties, which has positive impacts on organisational performance. Using survey data from Chinese companies in China, they demonstrate that a focal manager's value of reciprocity (renqing) enhances the inter-organisational trust relationship within Guanxi network and improves organisational performance.

For government ties, sharing norms and collective goals are based on reciprocity (renqing) (Wu and Leung, 2005). Empirical social capital studies have demonstrated that this cognitive dimension interacts with the relational dimensions of social capital, and as a result, has a positive impact on firm performance (Liao and Welsch, 2003).

For managerial ties, sharing norms and collective goals enable employees to work together for the benefit of the focal firm (Taylor, 2006). On the other hand, the sharing norms of reciprocity provide for the mutual interests of both employees and the focal firm, which impacts on the MNC performance (Taylor, 2007). Hence, this hypothesis is posed:

H4a: Trust is positively associated with organisational performance.

H4b: Emotional commitment is positively associated with organisational performance.

H4c: Reciprocity is positively associated with organisational performance.

H4d: Sharing norms are positively associated with organisational performance.

H4e: Collective goals are positively associated with organisational performance.

2.7.5 Resource Acquisition and Organisational Performance

Social capital theory proposes that social capital is a set of resources for actors to use in order to achieve their goals (Nahapiet and Ghoshal, 1998); and actors' personal goals become organisational goals, which benefit firms (Gabbay and Leenders, 1999). The social capital literature indicates that firms use business ties, government ties and managerial ties to acquire three forms of resources - information, organisational learning and organisational social capital. Empirical studies have found that these modes of resources can have positive or negative impacts on organisational performance. For example, some empirical studies, such as that by Uzzi (1999), found

that access to information had negative impacts on firm performance in business ties, while others found that access to information had positive effects on firm performance (Uzzi, 1997; Chen and Chiang, 2011). Organisational learning and organisational social capital, have positive impacts on Chinese firm performance in government ties (Li *et al.*, 2011; Zhou *et al.*, 2007).

The main reason why these modes of resource acquisition produce negative effects on firm performance is that access to information as individual knowledge, individual learning or individual goals cannot shift to organisational goals, which lead to corporate social liability (Leana and Van Buren, 1999; Gabbay and Leenders, 1999). However, I believe that individual goals can be shifted to organisational goals since Harrington (2001) has demonstrated that increasing individuals' willingness to engage in decision-making enables individuals' goals to shift to the organisational goal, and such organisational social capital has a positive impact on organisational performance. Thus:

H5: Access to information, organisational learning and organisational social capital within social networks (business ties, government ties and managerial ties) are positively associated with organisational performance.

2.7.6 Components of Guanxi as Mediators in the Relationship between Social Networks and Organisational Performance

The key components of Guanxi (trust, emotional commitment, reciprocity, sharing norms and collective goals) are mediators in the relationship between the three types of social networks (business ties, government ties and managerial ties) and organisational performance. This derives from Nahapiet and Ghoshal's (1998) three dimensions of social capital perspective. The three dimensions of social capital, i.e., the structural dimension (the network itself or the tie strength), the relational dimension (trust, emotional commitment and reciprocity), and the cognitive dimension (sharing norms and collective goals), interact to enable the collective aim (Nahapiet and Ghoshal, 1998; Tsai and Ghoshal, 1998). Social capital theorists (Putnam, 1993; Nahapiet and Ghoshal, 1998) argue that the relational and cognitive dimensions (e.g. trust and sharing norms) can play a mediating role in coordination

and cooperation for mutual benefit in the relationship between social networks and their collective aim. For example, Tsai and Ghoshal (1998) argue that the good quality of social network relationships (e.g. a good relationship involving trust and emotional commitment and reciprocity) enables the exchange and sharing of information or knowledge within social networks, which helps the focal firm to achieve its sale goals (Yli-Renko *et al.*, 2001).

The social network literature indicates that the positive relationship between social networks and organisational performance is significant (Burt, 1992; Li *et al.*, 2008). Empirical studies have found that trust, emotional commitment and reciprocity in social networks play the role of coordination and cooperation, which leads to improved organisational performance (Barnes *et al.*, 2011).

As noted earlier, under the Chinese Confucian collective culture, all individuals and Guanxi networking activities follow social norms as sharing norms in order to reach the collective actions or goals (Chen and Chen, 2004). Moreover, sharing norms and collective goals as the key elements of Chinese collective culture, are in line with Putnam's social capital theory, as well as the cognitive dimension of social capital. Most Chinese social network studies have ignored this cognitive dimension, but empirical studies have found that this dimension has a positive impact on a firm's performance (Uzzi, 1997; Liao and Welsch, 2003). Thus the hypothesis is posed:

H6a: Trust mediates the positive relationship between the tie strength of social networks (business ties, government ties and managerial ties) and organisational performance.

H6b: Emotional commitment mediates the positive relationship between the tie strength of social networks (business ties, government ties and managerial ties) and organisational performance.

H6c: Reciprocity mediates the positive relationship between the tie strength of social networks (business ties, government ties and managerial ties) and organisational performance.

H6d: Sharing norms mediate the positive relationship between the tie strength of social networks (business ties, government ties and managerial ties) and organisational performance.

H6e: Collective goals mediate the positive relationship between the tie strength of social networks (business ties, government ties and managerial ties) and organisational performance.

2.7.7 Resource Acquisition as a Mediator in the Relationship between Social Networks and Organisational Performance

The three forms of resource acquisition (access to information, organisational learning, and organisational social capital) are mediators in the relationship between the three types of social networks (business ties, government ties and managerial ties) and organisational performance. This is based on Nahapiet and Ghoshal's (1998) three dimensions of social capital perspective. The three dimensions of social capital theory propose that the structural dimension (e.g. the tie strength), the relational dimension (such as trust and reciprocity), and the cognitive dimension (such as sharing norms), are a set of resources that actors can access and use to achieve their goals (Nahapiet and Ghoshal, 1998; Tsai and Ghoshal, 1998). For example, social capital theory argues that the strong ties within social networks as social capital help the focal firm to acquire valuable resources such as access to information (Granovetter, 1973; Burt, 1992, 2000), organisational learning (Yli-Renko *et al.*, 2001), and organisational social capital (Gabbay and Leenders, 1999), which have positive effects on organisational performance (Harrington, 2001; Yli-Renko *et al.*, 2001). The focal firm uses norms or product quality as collective goals within social networks to enable the transfer of individual learning to organisational learning (Dyer and Nobeoka, 2000; Dyer and Hatch, 2006; Li *et al.*, 2011), and the transfer of individual capital to organisational social capital (Gabbay and Leenders, 1999), which has a positive effect on organisational performance (Harrington, 2001; Dyer and Hatch, 2006).

Many researchers have directly examined the business ties-performance relationship, but only a few have looked at the mediating effect of resource acquisition on this relationship such as Wang *et al.* (2011). In other words, the limited extant Guanxi studies use resource acquisition as a mediator variable between business ties and organisational performance to test the statistical significance of mediated models.

Wang *et al.* (2011) point out four reasons why resource acquisition can serve as a mediator between business ties and organisational performance:

a) Business ties can offer the focal company to access to valuable knowledge and resources. For instance, managers' close Guanxi ties with supplier executives provide the focal company valuable information and good quality materials and services. Managers' ties with customer executives provide the focal firm with valuable market demand information. Managers' close ties with competitor executives enable information exchange and may offer information regarding competitors' behaviour and actions.

b) Close Guanxi ties encourage the focal firm to exchange key information and valuable resources.

c) Managers' strong Guanxi-based personal ties with business partners might enhance the procedure of external acquisition.

d) Previous studies have suggested that identifying and acquiring external resource (such as financial and technical resources) leads to an improvement in organisational performance.

However, Wang's *et al.* (2011) analysis only focuses on one form of resource acquisition – access to information, and ignores the other two forms – organisational learning and organisational social capital, in terms of how Guanxi, as social capital at the individual level (personal assets) shifts to an organisational asset.

With regard to organisational learning, very little research has addressed the fact that individual learning becomes the organisational learning in two ways. One way is network relationships for network numbers to share or exchange knowledge through the structural and relational dimensions of social capital; because relational social capital such as trust and emotional commitment enable the sharing of knowledge within business ties (Nahapiet and Ghoshal, 1998; Yli-Renko *et al.*, 2011). Another way is that cognitive social capital such as sharing norms as common goals enable individual learning goals to shift to organisational learning goals. Two studies have

examined the relationship between business ties and organisational performance via organisational learning in these two ways. Dyer and Nobeoka (2000) and Dyer and Hatch (2006) argue that Toyota's individual learning becomes organisational learning via Toyota's dense network of strong ties with its suppliers. Toyota's network (ties with its suppliers) is comprised of the supplier association, consultants (i.e. Toyota provides free consultants to its suppliers) and learning team, which share knowledge through network members rather than through individuals. Toyota has sharing norms for network learning in order to achieve the common goal. As a result, individual learning becomes organisational learning, which has a positive impact on Toyota's performance (Dyer and Nobeoka, 2000, Dyer and Hatch, 2006). Similarly, individual capital becomes organisational social capital when individual goals become organisational goals, and business ties become organisational resources. Scholars (e.g. Harrington, 2001; Gabbay and Leeders, 1999) have found that such organisational social capital provides profits for firms.

With regard to government ties, the Chinese government has the power to distribute key resources such as financial and land resources in the Chinese transitional economy (from the planned economy to the market economy) (Peng and Luo, 2000, Chen and Wu, 2011). Chinese managers' Guanxi-based close connections with government officials enhance the focal company's acquisition of three forms of resources: access to information, organisational learning and organisational capital. The existing literature has focused on the following ways in which government ties can be used to obtain the three forms of resources, which lead to improved organisational performance.

First, managers' close ties with government officials including financial institutions can lead to accessing scarce resources and information such as land and various banks loans (Peng and Luo, 2000; Park and Luo, 2001; Child and Tse 2001). For example, a manager's close ties with the local land authorities may lead to obtaining land and licences and the land price being lowered to less than the market price (Child and Tse, 2001). Managers' strong ties with state-owned banks or other state financial institutions can help firms to obtain lower interest rates on loans than other financial channels for loans, if firms are short of financial liquid assets (Li *et al.*, 2011; Chen and Wu, 2011).

Second, managers' close connections with government officials can facilitate a company's access to key information (such as government policy) on different industry reforms, which enhances the company's ability to compete with other companies (Peng and Luo, 2000; Li *et al.*, 2011). Moreover, these close connections can lead to governmental policy supports such as reduced or waived local taxes and fees (Wang *et al.*, 2011).

Third, government ties can facilitate the focal firm to gain legitimacy, enabling the firm to retain a good reputation (Park and Luo, 2001; Chen and Wu, 2011; Wang *et al.*, 2011). Moreover, government ties can enable the focal firm to subdue institutional barriers and shortcomings in the change of rule and regulation (Park and Luo, 2001, Li *et al.*, 2011).

Fourth, strong government ties enable the individual learning or the individual asset to shift to organisational learning or organisational social capital in two ways (Gabbay and Leenders 2001; Lawrence *et al.*, 2005). One way is through learning as collective goals; that is, when individual learning has been collectively accepted and used as organisational knowledge, the individual leaning becomes organisational learning (Grossan *et al.*, 1995). Another way is from a social capital as power perspective, since power is positively related to organisational learning (Atuahene-Gima and Murray 2007), government ties as power can help to build the model of political organisational learning, and this model enables the process of individual learning which in turn is transferred to organisational learning (Lawrence *et al.*, 2005). In other words, ties with government officials as political power enable individual learning to be collectively recognised as organisational knowledge.

Some scholars indicate that government ties as asymmetric ties for resource acquisition impact on firm performance which have different conclusions for the relationship between government ties and organisational performance in a Chinese context, because government officials and the focal firm lack common goals or collective goals from a cognitive dimension of social capital perspective (Chen and Wu, 2011). Chinese government officials have their individual goal, which is to develop their political careers, whereas the focal firm's goal is to achieve financial

returns. As a result, government ties lack long-term cooperation (Sheng *et al.*, 2011). Moreover, Chinese government officials who wish to maximise their short-term interests and benefits may directly command the focal firm to undertake projects with high social returns but low profit returns (*ibid.*). Such a short term-term goal of government ties has less benefit for firm performance (*ibid.*), or may have a negative impact on business performance (Chen and Wu, 2011).

In contrast, Li *et al.* (2011) found that product quality (as a sharing common goal) plays the mediating role for the positive relationship between organisational learning and organisational performance.

Besides these, some scholars (such as Gu *et al.*, 2008; Nie *et al.*, 2011) have argued that government ties may cause corruption and cost a lot of money and time. But others (such as Li *et al.*, 2008) believe that Chinese recent business infrastructure and legislation reforms have reduced the negative impact of government ties on organisational performance.

With regard to managerial ties, employee relations in terms of two and more individual ties and such ties contain different types of resource exchange (Sykes *et al.*, 2009). From this perspective, employees as members of social networks have the ability to acquire information (Ahuja *et al.*, 2003), to contribute to organisational learning (Taylor, 2006), and to develop organisational social capital (Leana and Van Buren, 1999). All of these are linked to organisational performance through trust, sharing norms or sharing value.

One example of employee relations in MNCs is that they are used to build up networks of relationships to create value and profits for firms. Taylor (2007) argues that value (profits) for MNCs is created through linking the three dimensions of social capital relations.

Hence, the hypothesis is posed:

H7: Access to information, organisational learning and organisational social capital mediate the positive relationship between the tie strength of social networks (business ties, government ties and managerial ties) and organisational performance.

2.8 Chapter Summary

In this chapter, I provided both theoretical and empirical reviews of the relationship between social networks, social capital, Guanxi, and organisational performance. In order to develop a theoretical framework that includes several hypotheses as to three types of social networks (business ties, government ties and managerial ties) affecting organisational performance via three forms of resource acquisition: access to information, organisational learning, and organisational social capital, I then analysed the reason why former studies on the relationship between social networks and organisational performance have produced inconsistent findings to identify gaps in the existing literature.

Firstly, I presented the concept of social networks, particularly reflecting an ego-network structure related to this study and theoretical and an empirical discussion of why a focal firm uses social networks as social capital for resource acquisitions. Social networks refer to a set of social relationships in terms of social ties that are used for the exchange of favours (resources) between the focal company and actors in the ego network. Empirical studies have demonstrated that the focal firm uses social ties (such as business ties, government ties and managerial ties) to acquire three forms of resources: access to information, organisational learning and organisational social capital, which influences organisational performance. Social networks have four main characteristics: tie strength, structural holes, density and centrality, which affect the focal firm's ability to obtain these forms of resources.

Secondly, I introduced the concept of social capital theory. Social capital can be considered as a set of resources which actors use to achieve their particular goals within the social networks from both the instrumental-individualist and collective paradigms and definitions of social capital. I differentiated three dimensions of social capital and their components within social networks. The structural dimension of social capital is the network itself, which reflects the social network characteristics

affecting firm performance via the three forms of resource acquisition. The relational dimension of social capital is concerned with the quality of relationships within social networks; it includes trust, norms or emotional commitment and reciprocity components within social networks. The cognitive dimension of social capital is concerned with sharing common understandings within social networks; it includes the sharing norms and collective goals components within social networks. These components of social capital, as well as social networks play a coordination and cooperation role, which leads to improved organisational performance. Empirical studies have examined the impacts of the three dimensions of social capital on firm performance, as either positive or negative effects.

Thirdly, I justified Guanxi as social capital and social networks from a Chinese Confucian culture perspective. Social capital theorists consider that social relationships entail “favours and gifts being exchanged” within social networks. The exchange of favours and gifts include trust (xinren), emotional commitment (ganqing), reciprocity (renqing), sharing norms (social norms or social orders), and collective goals (common goals) as components of Chinese Confucian culture, as well as Guanxi. These components are also the three dimensions of social capital, which affect firm performance in a Chinese context. There are two main differences for these components between Western culture and Chinese culture. In the Chinese low-trust society, Chinese managers build Guanxi connections through blood relationships or through friend-friend relations, whereas Western trust is based on the contractual relationship between actors. Western “renqing” (reciprocity) focuses on the short term, for equality of exchanges in a balanced exchange relationship; while Chinese “renqing” can be repaid in the long run or it is not necessarily to be repaid in equal value of reciprocity between actors in China. Former studies on the impacts of Guanxi networks on organisational performance have also produced mixed results.

Fourthly, I analysed social network studies and their inconsistent findings to find gaps in the existing literature and highlighted the contribution for this study. The gaps are that, most Chinese social network (Guanxi) studies have ignored the cognitive dimension of social capital (sharing norms and collective goals) and the three forms of resource acquisition in terms of how Guanxi at the individual level shifts to social capital at the organisational level.

Finally, I establish a theoretical framework and develop several hypotheses to address these gaps in this study. This theoretical framework includes the key arguments. First, social networks' components: trust (xinren), emotional commitment (ganqing), and reciprocity (renqing), sharing norms and collective goals, play a mediating role in the positive relationship between the three types of social networks and organisaitonal performance. Second, the three forms of resource acquisition: access to information, organisational learning and organisational social capital mediate the positive relationship between the three typs of social networks and organisational performance.

These arguments are subjected to empirical testing in Chinese listed companies and data analysis and evaluation. The following chapter will discuss the detail of measurement of constructs and data collection in this study's research methodology. Data collection includes questionnaire surveys of a sample size of 400 Chinese listed companies and semi-structural interviews of 20 managers in the Chinese listed companies. These data will be used to test the seven hypotheses in the study's conceptual framework.

Chapter 3 Research Methods

3.1 Introduction

This eight-section chapter explains the quantitative and qualitative methods used in this study. Section 3.2 justifies the use in this study of a mixed research method (a quantitative survey and qualitative interviews) by explaining the researcher's philosophical positions and the choice of the data collection and analysis methods. Section 3.3 discusses the selection of the final sample of the 400 Chinese listed companies for the survey and of the 20 interviewees. Section 3.4 describes the design and development of the survey questionnaires and of the interview questions. Section 3.5 discusses the data collection from both the survey and interviews. Section 3.6 discusses the adoption of all the variable measures in this study from the existing literature. Section 3.7 discusses the main stages for the analysis of the data obtained from both the survey and interviews. Finally, section 3.8 summarises this chapter.

3.2 Justification of the Research Methods

The choice of any research method is influenced by the researcher's ontological and epistemological philosophical positions (Blaikie, 2008; Creswell, 2009). This study uses a mixed quantitative and qualitative research method, based on my mixed objective and subjective ontological view of the relationship between Chinese social networks and organisational performance. I view such relationship as being objective because Chinese social networks exist independently of social actors and they may affect the tangible objective of financial and strategic performance (i.e., organisational performance). As noted, the main objective of this study is to examine the relationship between social networks and organisational performance via three modes of resource acquisition in Chinese listed companies. Bryman (2004) suggested that the objective ontological view is termed 'objectivism': "*social phenomena and their meanings have an existence that is independent of social actors. It implies that social phenomena and the categories that we use in everyday discourse have an existence that is independent or separate from actors*" (Bryman, 2004:16). This means that social entities exist independently of social actors and have a reality that is external to them. Following Bryman's (2004) suggestion, I consider 'Chinese social networks (Guanxi)' and

‘organisational performance’ as examples to explain my objectivist ontological position in this study. ‘Guanxi’ is a tangible object with its own objective reality, its social norms and common goals that the focal company individuals (such as employees) and business partners (such as suppliers and customers), who exist independently of social actors, need to follow and obey. Social norms and common goals, as cognitive social capital, enable the focal companies and their business partners to share knowledge (i.e., organisational learning), while the focal companies create organisational social capital, which may affect the tangible objects of financial and strategic performance indicators (i.e., organisational performance).

In terms of this objective position, this paradigm is post-positivist (critical realism); i.e., knowledge is based upon non-falsified hypotheses that is able to be considered as possible facts (Guba and Lincoln, 1994). Post-positivism is a deterministic philosophy in which causes (such as social network components) have effects on organisational performance (Creswell, 2009). Hence, this philosophy reflects the need to identify variables, comprising hypotheses and research questions, to assess the causes that influence the outcomes (organisational performance) (ibid.). Quantitative methods can be used to enable the statistical testing of the strength of the relationship that exists between social networks and organisational performance in the Chinese context.

On the other hand, the ontological view of this relationship is subjective because the focal company and its business partners, employees, and government officials, and the related social phenomena (such as trust, emotional commitment, and reciprocity) are interactive (Burrell and Morgan, 1979). In other words, ‘Guanxi’, as social capital, is constructed by social actors (the focal companies, with their business partners, and employees, and government officials), and social phenomena through business ties, government ties and managerial ties, which are interactive and revised. The subjective view of ‘organisational performance’ is constructed by social actors, including individuals and groups, who determine company goals and strategies, which interact with social actors and can be recreated by them. This means that ‘organisational performance’, as a reality, consists of “multiple realities” (such as organisational goals and social actors). In terms of this position, qualitative methods may assist in providing underlying explanations of the significance or subjective views of the

relationship existing between social networks and organisational performance (Amaratunga *et al.*, 2002).

My epistemological position views the relationship between social networks and organisational performance as a social capital framework; i.e., it is a neo-realist epistemology that considers this capital framework of structures and mechanisms (such as trust, emotional commitment, reciprocity, sharing norms and collective norms) as tentative rather than absolute (Blaikie, 2008), although such relationship, as a social phenomenon, has an existence that is independent and unaffected by researchers. This involves setting up hypothetical models of structures (such as business ties, government ties and managerial ties) and mechanisms to examine this relationship (*ibid.*). This implies testing this social capital framework from a theoretical standpoint.

This epistemology is consistent with objective and subjective ontological views of what is considered as acceptable knowledge in a discipline according to human perceptions and previous experiences (Crotty, 1998). In other words, the epistemology is aimed at answering questions about who is able to be a knower, what can be tested to be knowledge, and what types of things is able to be known (Harding, 1987). In this study, the research issue addresses the focal companies' ability to utilise its three types of social networks (business, government and managerial ties) to acquire resources, and whether or not this ability affects organisational performance. Furthermore, it addresses which social network components enable the focal companies to acquire resources that, may have a positive impact on organisational performance.

Some scholars (e.g. Blaikie, 2008; Neuman, 2000) considered that neo-realist epistemology as the critical version of social realism. In terms of the version of social realism adopted, this study's adopted paradigm is post-positivist critical realism, which posits that all observations are theory-dependent and that the view of the world is based on human perceptions and personal experiences. Moreover, this research paradigm realises that the construction of realities (such as trust, organisational goals, and social actors) is imperfect because human perceptions and observations are fallible, thus requiring multiple measurements and observations (triangulation of

research methods) to explain the relationship between social networks and organisational performance. Hence, this study adopts a mixed research method - a quantitative survey method and a qualitative interview one. This study used a sequential explanatory mixed methods strategy, starting with a quantitative survey in which a social capital conceptual framework was tested, followed by qualitative semi-structured interviews to explain and interpret the results of this survey. This sequential strategy was deemed to be helpful and useful in the event of unexpected positive or negative findings arising from the survey, as the qualitative data could be used to examine any unexpected results in more detail (Creswell, 2009). For example, the qualitative data were used to explain and interpret how and why social networks have positive or negative impacts on the organisational performance of the Chinese listed firms in this study.

Previous social capital and social network analysis studies have mainly used two designs: total network and ego-network studies (Wasserman and Faust, 1994; Marin and Wellman, 2011). This study, in line with the ego-network design, collected data from the focal companies, as mentioned before, ego-network studies (i.e. ego-centric networks) are connected with and focus upon a single node or individual (the ego) (Kadushin, 2012). Conversely, total network studies focus on multiple nodes (large groups of people) (Marin and Wellman, 2011). As noted earlier, the selection of the study design follows from the research question; if the research question is about network phenomena affecting individual entities, then the research uses an ego-network design (Kadushin, 2012). This study is about how the focal companies' (individuals') social networks affect their performance. Additionally, scholars (e.g. Kadushin, 2012) considered that ego-networks as sources of information and access to resources. Hence, this study adopts an ego-network design; it gathers data on the network from the perspective of just one of its nodes (the ego) (Wasserman and Faust, 1994).

The mixed research method has two research designs. One design is a sequential explanatory design, which consists of two stages, the quantitative stage and then the qualitative stage; the other is a sequential exploratory design, beginning with the qualitative stage, which is followed by the quantitative stage (Creswell *et al.*, 2003). Both research designs have their strengths and weaknesses. The strengths of the

sequential explanatory design are as follows: 1) The use of qualitative data can help to explain the unexpected quantitative findings; 2) Quantitative data makes it easier to test hypotheses and theories than qualitative data; and 3) The use of quantitative data first can overcome the weakness of subjective personal views regarding the phenomena in the research (Creswell *et al.*, 2003). The weakness of the sequential explanatory design is that the researcher in the quantitative stage may not regard the phenomena occurring because of a focus of the test of hypotheses at the quantitative stage (Tashakkori and Creswell, 2007). The strength of the sequential exploratory design is that the qualitative stage helps in developing and informing the design of the quantitative stage because the qualitative result can be useful to explain the complex phenomena (Creswell *et al.*, 2003). The weaknesses of the sequential exploratory design are as follows: 1) the qualitative result is more easily affected by the interviewees, and the researcher's personal biases, and as a result, this may influence the objective ontological position for the development of the design of the quantitative stage; and 2) it is more difficult to test hypotheses and theories at the qualitative stage (Nieswandt and McEneaney, 2009).

Based on the above discussion, the present study uses a sequential explanatory design in order to gain a better understanding of the quantitative findings. Moreover, the qualitative data can explain the SEM results, as well as explaining the deleted measurement items (indicators) in the initial measurement model to overcome the weakness of the quantitative stage (Nieswandt and McEneaney, 2009).

3.3 Sample

The data for this research were obtained from 400 Chinese listed companies. To be listed, the issuing shares must be approved either by the Chinese State Council or through the Chinese government authorised securities regulatory authority in the Chinese Stock Exchange of Securities Market. Chinese listed companies have the following common features:

- i) Their total share capital (i.e., their capital investment) is not less than thirty million Chinese RMB (Chinese currency);
- ii) They have been in business for more than three years, with the last three years being profitable;

- iii) They have not been involved in any major violations, issuing no false financial and accounting reports in the last three years.

This study chose Chinese listed companies as a sample for the following main reasons:

- a) Their diverse array of ownership types (state-owned, private, and joint venture), sizes and locations exert different influences on their use of social networks, which may have different effects on their performances (Sun and Chen, 2009).
- b) Chinese listed company information, financial performance data and social network information can be easily accessed from the Chinese Securities Market and Accounting Research (CSMAR) database, which is open to all academics and is more transparent and reliable than others. Due to the Chinese Securities Authority supervision and tight Chinese government monitoring, the financial performance indicators and social network data of Chinese listed companies are more transparent than those of others. The Chinese listed companies' social network data can be considered to be reliable because their annual reports are approved by authorised accountants and are published by Chinese government authorised securities regulatory authorities in the Chinese Stock Exchange of Securities Market.

The sampling criteria used were that each Chinese company must:

- 1) be listed on the Chinese A shares market¹;
- 2) be located in open economic regions (such as Beijing, Shanghai, Shenzhen, Guangdong) and non-open economic regions (such as Chongqing and Sichuan), and
- 3) have used social networks (Guanxi ties) (i.e. the CSMAR database should show the social network information of the company's general or vice-general managers).

The reasons for the first two criteria presented above are as follows: 1) Most Chinese listed firms are in the Chinese A shares market; and 2) The locations of Chinese listed companies make it more convenient to access general managers.

The reasons why the use of "social networks" is used as a sampling criterion are as follows: 1) Not all top managers in Chinese listed firms use social networks in the

¹ A shares can be traded or purchased in Chinese Renminbi (RMB) on the Shanghai and Shenzhen stock markets.

above location, some top managers might not use social networks; and 2) it is based on the main research objective, i.e., the aim of this study was to investigate how top managers in Chinese listed firms use the three types of social networks (business ties, government ties, and managerial ties) to achieve their profit and growth goals via resource acquisition.

The Chinese listed companies' annual reports from the CSMAR database allowed me to assess whether a company's general manager used social networks.

3.3.1 Survey Sample

In 2012, according to the CSMAR database, 2578 Chinese listed companies were listed in the A shares market in China. China's A shares, traded in China's Renminbi (RMB) currency, are issued by Chinese domestic companies on the Shanghai and Shenzhen stock exchanges, and can be subscribed and traded by domestic institutions, organisations or individual (excluding Taiwan, Hong Kong, Macao and other foreign countries' investors). The study focuses on companies listed on the A shares market because the majority of Chinese listed companies was issued in the China's A shares market and traded in RMB currency. Other shares such as B and H ones, although they are also issued by Chinese domestic companies, are subscribed and traded in foreign currencies, and can be traded or purchased by foreign investors including Taiwan, Hong Kong, Macao. B shares are traded in the Shanghai and Shenzhen stock markets, and H shares in the Hong Kong stock market.

For moderately large populations (between 1, 000 and 10, 000), a sampling ratio of about 10% is required for the degree of accuracy (Neuman, 2000). This study's final sample size of 400 is larger than that required for the population of 2578 firms listed in A shares market (258).

The sample was selected using a stratified sampling method for different geographic areas in each industry; i.e., the population was divided into subpopulations on the basis of geographic locations such as Beijing, Shanghai, Shenzhen, Guangdong, Chongqing and Sichuan provinces, and then a random sample was drawn from each geographic location. Table 3.3.1 illustrates the stratified sampling method employed

to select the final sample of 400 Chinese listed companies. Table 3.3.1 also shows the steps for the selection of the sample of 400 Chinese listed companies. The steps were as follows: 1) the total number of Chinese listed companies in Beijing was only 122 out of 2758 Chinese listed companies. Similarly, Shanghai's listed companies in total numbered 152. Shenzhen's listed companies in total numbered 156. Guangdong had 186 listed companies. Chongqing had 35 listed companies and Sichan had 93 listed companies. Thus the sampling frame was 744. 2) 55 out of Beijing's 122 listed companies were randomly selected. 57 out of Shanghai's 152 listed companies were randomly selected. 95 out of Shenzhen's 156 listed companies were randomly selected. 100 out of Guangdong's 186 listed companies were randomly selected. 23 out of Chongqing's 35 listed companies were randomly selected and 70 out of Sichan's 93 listed companies were randomly selected. Thus the final sample comprised 400 companies.

Table 3.3.1 The stratified method employed for the sample of 400 Chinese listed companies

Geographic locations	Subpopulations (the sampling frame 744)			
	N	Percent of 744	Stratified sample	Percent of 400
Beijing Ownership: 49 SOE 89.1% 6 Non-SOE 10.9% Size: 50 Large companies 90.9% 5 SMEs 9.1% Age: ≥10 years 53 companies 96.4% <10 years 2 companies 3.6%	122	16.4	55	13.8
Shanghai Ownership: 50 SOE 87.7% 7 Non-SOE 12.3% Size: 51 Large companies 89.5% 6 SMEs 10.5% Age: ≥10 years 55 companies 96.5 % <10 years 2 companies 3.5%	152	20.4	57	14.2
Shenzhen	156	21	95	23.8

Ownership: 66 SOE 69.5% 29 Non-SOE 30.5% Size: 10 Large companies 10.5% 85 SMEs 89.5% Age: ≥10 years 91 companies 95.8% <10 years 4 companies 4.2%				
Guangdong Ownership: 65 SOE 65% 35 Non-SOE 35% Size: 11 Large companies 11% 89 SMEs 89% Age: ≥10 years 96 companies 96% <10 years 4 companies 4%	186	25	100	25
Chongqing Ownership: 19 SOE 82.6% 4 Non-SOE 17.4% Size: 21 Large companies 91.3% 2 SMEs 8.7% Age: ≥10 years 21 companies 91.3% <10 years 2 companies 8.7%	35	4.7	23	5.7
Sichuan Ownership: 65 SOE 92.9% 5 Non-SOE 7.1% Size: 45 Large companies 64.3% 25 SMEs 35.7% Age: ≥10 years 68 companies 97.1% <10 years 2 companies 2.9%	93	12.5	70	17.5
Total	744	100	400	100

Note: 55 out of 122 Chinese listed companies were randomly selected from the Beijing location, 57 out of 152 from the Shanghai location, and so on. Beijing, Shanghai, Shenzhen, and Guangdong are open economic regions in China, while Chongqing and Sichuan are non-open economic regions. The sample frame contains 616 open and 128 non-open economic regions.

This form of stratified sampling method followed the suggestion made by Neuman (2000); the researcher can control the relative size of each subpopulation and fix the

proportion for each geographic location within a sample. According to Neuman (2000), this guarantees that the final sample represents the population in relation to the geographic location, ownership, size, and age of Chinese listed companies.

As discussed in chapter 2, the location of Chinese companies is a control variable. As companies located in western cities (such as Chongqing) or provinces (such as Sichuan) operate in non-open economic regions, they are more likely to use Chinese social networks than companies located in the east. Companies located in Chinese non-open economic regions need to secure more resources, such as financial and knowledge ones, than those in open economic regions; as a result, they may build stronger ties with Chinese government officials and business partners in order to obtain these, including information (Chen and Wu, 2011) and organisational learning (Li *et al.*, 2011). Hence, the selection of the sample from both non-open and open economic regions will avoid biases and enable the reliability of the data collection.

The sample of 400 listed companies covers different sizes, including small, medium, and large ones. According to the Chinese National Bureau of Statistics (2012)², large companies are defined as those possessing all the following characteristics:

- a) A capital investment of no less than RMB ¥ 400,000,000;
- b) An annual revenue of no less than RMB ¥ 300,000,000;
- c) A number of employees of no less than 2,000.

Companies that do not present the features listed above are considered as small and medium sized enterprises (SMEs).

With regard to the cultural difference between the north and south of China, this was not considered in the study. Due to previous social network studies (e.g. Park and Luo, 2001; Ma, 2010) arguing that firm locations in China's western and eastern economic areas (i.e. non-open and open economic areas) affect the use of social networks, which influences organisational performance, this study used the two economic areas to select the sample. Both the western economic and eastern economic areas include the north (such as Beijing) and south of China (such as

² www.stats.gov.cn

Guangdong) in this study, but this study did not focus on the cultural difference between the north and south of China. This limitation will be discussed in chapter 7.

3.3.2 Semi-structured Interview Sample

The semi-structured interviews were conducted with 20 general managers or deputy general managers from 20 different Chinese listed companies. The 20 interviewed companies were included in the survey. Fifteen of these were state-owned companies located in the east; eleven large companies and four SMEs. The remaining five companies were located in the west; three were large state-owned companies and two were non-stateowned SMEs. Scholars argue that the sample size sufficient for a qualitative method depends upon many factors, such as the research purpose, paradigm, saturation, and resources (Marshall, 1996; Mason, 2010; Baker and Edwards, 2012). The aim of this study is to identify the key cooperation and coordination components of social networks and examine how these components impact organisational performance of Chinese listed companies via their resource acquisitions. As locations, sizes, and ownerships determine how likely companies are to use social networks to obtain resources, the 20 Chinese listed companies selected for the interviews represent cross section of these characteristics. On the other hand, post-positivist critical realism considers multiple participant perspectives (Creswell, 2009); since the 20 interviewees came from different backgrounds and locations, I expected to gain different perspectives or subjective views on how they use of social networks affects their companies' performances, as well as different measurements the latter. Mason (2010) reviewed a number of qualitative studies and found that the most common sample size for these was 20 to 30, depending on the interview time and resources, and on the research aim. My limited time and resources (e.g., money) did not allow me to conduct more than 20 interviewees.

The snowballing sampling approach was adopted in this study to identify or select and access cases for the semi-structured interviews (Neuman, 2000). I accessed to the interviewees in the 20 listed companies through close friends and several senior managers in the listed companies. For example, I asked one interviewee as a general manager to arrange for other Chinese listed company senior managers who had knowledge of Chinese social networks to participate in this study. The 20

interviewees possess knowledge of and skills in Guanxi ties, and also define the strategic objectives of their companies.

3.4 Survey and Interview Instruments

This section describes the design and development of the research tools – the survey questionnaire and interview questions. According to Zikmund (1984:336), a scale is “any series of items which is progressively arranged according to value or magnitude into which an item can be placed according to its quantification”. The scale development process relies on the theoretical conceptualisation of constructs found in the existing literature or on the adaptation of existing scales, to ensure relevance to a study. Specific scales can be devised to enable researchers to measure the variables (ibid.); prior to devising these scales, the survey questionnaire design might be considered.

According to Peterson (2000), a questionnaire development process involves a number of forms of evaluation aimed at enhancing data reliability and validity. Hence, the survey questions on the ties between the focal companies and their internal and external stakeholders, besides other information, were subjected to the following evaluation process. First, two language experts (fluent in both Chinese and English) reviewed the wording of the survey items to ensure clarity, brevity and general correctness. Second, two subject experts evaluated the survey items to assess whether the surveyed managers or senior executives would understand all the questions. Third, the survey was piloted in ten Chinese listed companies. The questionnaire’s wording and construction were fine-tuned based upon the expert feedback and pilot study. For example, in the survey questionnaire, the cooperation and coordination roles played by trust, emotional commitment, reciprocity, sharing norms, and collective goals were classified based on the different meanings given to these key components.

The survey questionnaire contained ten sections. The first three included fifteen items (five each) that measured the tie strength of the independent variables – business ties, government ties and managerial ties. Section one was aimed at determining the total numbers of customers, suppliers, competitors, government officials, and employees with whom the respondents had email, face-to-face (meetings), or telephone contacts

in an average month. Section two was designed to establish how close were the relationships between interviewees and their customers, suppliers, competitors, government officials and employees. Section 3 asked the respondents to indicate how many times in an average month they would contact a key customer, a key supplier, a key competitor, a key government official and a key employee. Sections 4 and 5, included several items aimed at measuring one set of mediating variables – trust (xinren), emotional commitment (ganqing), reciprocity (renqing), sharing norms, and collective goals. Twenty-four items in section 4 addressed the meaning giving to trust, emotional commitment, reciprocity, sharing norms, and collective goals. Section 5 included five subsections of five items each. Sections 5.1 to 5.5 addressed the cooperation and coordination roles played by the mediation variables.

Sections 6, 7 and 8 included 12 items aimed at measuring a set of mediating variables – access to information, organisational learning and organisational social capital. The five items in section 6 dealt with access to information; the respondents were asked to whether they could obtain information about customer needs, new products/services, production information for industry trends, industry policy information, and land or financial resources. Section 7 included four items pertaining to organisational learning; the respondents were asked to what degree their employees learned about their industries; searched for proven methods to solve problems in projects or product development; product development skills and process to their industries, and new skills in new technology and innovation skills in their areas. Section 8 included three items aimed at measuring organisational social capital, i.e., whether managers placed their organisational goals prior to individual goals; whether employees placed their organisational goals before individual goals; whether employees engaged in social networking activities to attain their goals. Section 9 included ten items designed to measure organisational performance. Each respondent was asked to indicate their companies whether meet their companies' profitability and growth objectives, product /firm/brand awareness, and response to competition; in addition to their companies' current performance compared with other companies in the same industry in terms of market share, growth in sales, profitability, quality of product and service, and customer satisfaction. All responses were graded based upon seven point scales, 1 = strongly disagree, and 7 =strongly agree. Thus, a standard Likert-type scale was adopted throughout the survey questionnaire. The remaining items in section 10

addressed the company's basic information about company size, age, location and ownership.

The final version of the survey questionnaire was put in the Qualtrics software to be posted as an online survey link. I assured the respondents about data confidentiality, provided them with a brief of this study's purposes or objectives, and sent a request to participate (see Appendix A: a survey questionnaire covering letter). The final English language version of the survey questionnaire is shown in Appendix B, and its Chinese translation is presented in Appendix C.

With regard to the semi-structured interviews, they were conducted in Chinese as all the managers had this, rather than English, as their first language. As I had done for the survey questionnaire, before the interviews, I provided a covering letter related to the study's objectives and the purpose of the interviews (see Appendix D). The interview questions focuses on the key themes of the three types of social networks (business, government and managerial ties), organisational performance, the relational dimensions of social capital (trust, emotional commitment, and reciprocity), the cognitive dimensions of social capital (sharing norms and collective goals), and three forms of resource acquisition (access to information, organisational learning and organisational social capital), and on how they are linked. For example, the interviewees were asked: *'What are your purposes of using business ties? How does the good rust relationship enable the cooperation and coordination between your company and business partners (or government officials or employees) to help your company to acquire resources such as access to information, organisational learning and organisational social capital?'* The semi-structured interview questions are shown in Appendix E, and their Chinese translations are presented in Appendix F.

The questions asked during the interviews were mainly open-ended, and were used to explore the "what" or "how" or "why" to explain the relationship between social networks and organisational performance in conjunction with the survey findings.

3.5 Data Collection

3.5.1 Survey

The pilot study was conducted in September 2013. The online survey was conducted from July 2014 to December 2014. The access strategies employed for the survey were : 1) directly contacting the 744 Chinese listed companies (the sampling frame) by sending covering letters with the online survey link; 2) calling senior managers through Guanxi connections (friends or relatives who knew them ; and 3) using a snowballing method.

The pilot study was conducted in ten Chinese listed companies. Survey questionnaires were sent to five companies located in Chongqing (in China's western economic area) and five Shenzhen's companies (in China's eastern economic area) to ask their general managers to answer the survey questionnaire.

The full online survey was posted by means of the Qualtrics software in July 2014. The data collection for the online survey was conducted in two stages. First, in order to obtain an adequate response rate, the online survey link with its covering letter was sent to all the Chinese listed companies' email addresses to ask general managers to answer the questionnaires in July 2014. Second, after one month, not having received a sufficient number of responses (only 100), I used my Guanxi connections or the snowballing method to try to increase the response rate. The survey was completed within six months with 454 responses. A response rate of 61.02% was higher than I had expected. Some responses were missed data (see table 3.3.1). Therefore, after removing those responses, 400 responses remained as the sample for this study's survey analysis.

In survey sampling, non-response bias may occur if the results from the final sample of respondents do not represent the initial sample of the research (Lindner *et al.*, 2001). Miller and Smith (1983) suggested some methods (e.g. comparing respondents to non-respondents, and comparing early to late respondents) to handle non-response bias in survey research when the non-response rate is greater than 50%. There were no late responses in this study because the responses (454) from the survey were

gained within six months. Previous studies (e.g. Lindner *et al.*, 2001; Born and Miller, 1999) suggest that if the response rate is greater than 50% in social science research, no additional follow-ups (such as non-response bias) are tested. As noted, the response rate was 61.02%; thus I did not test the non-response bias.

3.5.2 Semi-structured Interviews

Before starting with the full semi-structured interviews and in order to test my interview protocol, a pilot round was conducted in September 2013 with senior managers from five listed companies in Chongqing and Shenzhen who had Guanxi experience. Prior to the interviews, I sent the questions with the covering letter to the pilot interviewees as requested. After the pilot round, based upon respondent feedback, some questions were changed. For example, the word 'good' was added to the trust or emotional commitment or reciprocity relationship interview questions: "Do you think that the 'good' trust or emotional commitment or reciprocity relationship enables the cooperation and coordination between your company and business partners (or government officials or employees) to help your company to acquire resources such as access to information, organisational learning and organisational social capital?" Considering my resource limitations (e.g. with regard to travel costs), the full round of 20 interviews was conducted in the UK via Skype or telephone from December 2014 to March 2015. These were also conducted to explore why the three types of social networks (business, government and managerial ties) were not significantly positively associated with trust, sharing norms and collective goals, and the positive relationship between trust (or emotional commitment or sharing norms) and organisational performance was not significant, as had emerged from the survey results, which had not supported the hypotheses.

The arranged time for each interview was of 40 minutes. To enable the interviewees to completely understand the questions, at the beginning of each interview, I explained the meaning of the key terms used, such as business ties, government ties, managerial ties, social capital, Guanxi, Chinese Confucian culture and its components (trust, emotional commitment etc.), access to information, organisational learning, organisational social capital and so on.

There are two ways in which interview responses can be stored for later analysis: if the interviewee agrees, the interview can be recorded by means of a digital device; otherwise, written notes need to be taken. Since none of the interviewees agreed to be recorded, all the responses had to be written down while interviewing for the later analysis. Due to ethical and anonymity concerns, the personal details of the respondents cannot be disclosed. The interviewee profiles are listed in Table 3.5.2.

Table 3.5.2 Interviewee profiles

Interviewees	Gender	Age	Position	Company Location
1	Male	52	General Manager	Shenzhen
2	Male	48	Vice-general manager	Shenzhen
3	Male	50	General Manager	Shenzhen
4	Male	45	Vice-general manager	Shenzhen
5	Male	42	Vice-general manager	Shenzhen
6	Male	46	General manager	Chongqing
7	Male	53	General manager	Chongqing
8	Male	43	Vice-general manager	Chongqing
9	Male	45	General manager	Chongqing
10	Male	54	General manager	Chongqing
11	Male	46	Vice-general manager	Guangdong
12	Male	48	General manager	Guangdong
13	Male	45	Vice-general manager	Guangdong
14	Male	44	Vice-general manager	Guangdong
15	Male	55	General manager	Beijing
16	Male	58	General manager	Beijing
17	Male	48	Vice-general manager	Beijing
18	Male	45	Vice-general manager	Beijing
19	Male	46	Vice-general manager	Beijing
20	Male	41	Vice-general manager	Beijing

Table 3.5.2 shows that the interview sample comprised all male participants. I used Guanxi personal relationships to find these male participants. Nobody among my Guanxi ties, which I used to find my interviewees, knew females who were general or

vice-general managers in Chinese listed companies. Thus, I only selected males for the interview sample. A difference in views might exist between females and males, which could potentially affect the qualitative findings (the potential bias). The limitation of this will be discussed in chapter 7.

3.6 Measures

All the measures used in this study had been tested and validated by previous studies. All of the items measured were grounded on a seven-point Likert scale, with 1 indicating strong disagreement and 7 showing strong agreement. These measured items are discussed below and an assessment of their validity is presented later.

3.6.1 Independent Variables - Business ties, government ties and managerial ties

Following Granovetter's (1973) definition of tie strength as relating to contact frequency, intimacy, and intensity, the present study used 15 items (in sections 1 to 3 of the survey questionnaire) to measure the tie strength of business ties, government ties and managerial ties. Five items were used to measure the frequency of contact; the respondents were asked to indicate with how many customers, suppliers, government officials, and employees in total they had face to face/telephone/email contact in an average month. Five items were used to measure the intimacy (or closeness) of the relationships between managers and internal or external stakeholders; this was done to indicate how close or friendly their relationships were with customers, suppliers, competitors, government officials, and employees. The remaining five items were used to measure the intensity of the relationships; the respondents were asked how many times in an average month they contacted key (repeat) customers, suppliers, competitors, government officials, and employees. All these items are related to ties strengths (Brass *et al.*, 1998; Chen and Wu, 2011, Barnes *et al.*, 2011), as reflected in the existing social capital literature.

3.6.2 Trust (Xinren)

In section 4 and subsections 5.1 to 5.5 of the survey, ten items were used to measure trust and to address the role it plays in cooperation and coordination. Five items ask

respondents if they agree that trust is linked to promises, honesty, company confidence or competence, which are measures of trust widely used in the literature, especially that related to Chinese social networks (Wu and Leung, 2005; Barnes *et al.*, 2011; Nie *et al.*, 2011). Five items measured the extent to which trust plays a role of cooperation and coordination to facilitate the focal companies in obtaining three forms of resources (access to information, organisational learning and organisational social capital) taken from the research of Moran (2005), Gu *et al.*(2008) and Nie *et al.*(2011).

3.6.3 Emotional Commitment (Ganqing)

Based on Barnes *et al.* (2011), in section 4 of the survey, emotional commitment (ganqing) is measured by five items on feelings of brotherhood, ganqing agreements, highly intimate ganqing relationships, non-intimate ganqing and common feelings. Five items in section 5 of the survey addressed how ganqing enhances cooperation and coordination, aiding the focal companies in acquiring the three forms of resources listed above.

3.6.4 Reciprocity (Renqing)

Based upon Yli-Renko *et al.*(2001), Barnes *et al.* (2011), Chen & Wu (2011), nine items were used to measure reciprocity (renqing). Doing a favour, returning a favour, li shang wang lai (a process relating to the obligation of giving, receiving and returning gifts) and exchanging of favours were the four items used to measure reciprocity in section 4 of the survey. In Chinese culture, not returning a renqing (favour) is considered bad Guanxi, which damages the relationship between a company and its business partners (Barnes *et al.*, 2011) or with government officials (Chen & Wu, 2011). Five items measure the extent to which renqing enables the focal companies to cooperate and coordinate with other business partners, government officials and employees in order to obtain the three forms of resources.

3.6.5 Sharing Norms and Collective Goals

In sections 4 and 5 of the survey, consistent with the definition and measurement offered by Putnam (1993), Tsai and Ghoshal (1998), Lapinski and Rimal (2005) and Li *et al.* (2011), 20 items were used to measure sharing norms and collective goals. Sharing norms were measured by five items; i.e., rules or regulations at the collective level, sharing common rules and standards or regulations, the industry's rule standards, social rules and social culture. Collective goals were measured by questions related to sharing goals and common goals, sharing social orders and norms, industry rules and standards, product quality and innovation, and governmental policies. Ten items measured the extent to which sharing norms and collective goals play a role in cooperation and coordination.

3.6.6 Access to Information

In section 6 of the survey, a five-item scale was used to measure the extent to which the focal companies and their employees can access to information about customer needs, new products/services, production information for industry trends, industry policy information, and land or financial resources (financial capital and bank loans). The questions were derived from Yli-Renko *et al.* (2001), and Chen & Wu (2011).

3.6.7 Organisational Learning

In section 7 of the survey, consistent with the works of Atuahene-Gima & Murray (2007) and Li *et al.* (2011), four items were adopted to measure organisational learning. Four items measured the extent to which employees continually seek opportunities to learn more about their industry, employees continually search for proven methods to solve problems in projects or product development, employees keep learning more about product development skills and process about their industry to attain their goals, and employees keep learning about new skills in new technology and innovation skills in the field where the focal company had no previous experience.

3.6.8 Organisational Social Capital

In section 8 of the survey, in line with the definition and measurement provided by Gabby & Leenders (1999), Leana & Van Buren (1999), and Harrington (2001), three items were used to measure organisational social capital. The first measured the extent to which managers consider their organisational goals prior to individual ones. The second measured the extent to which employees consider their organisational goals before individual ones. The third is concerned with the extent to which employees engage in social networking activities to attain their goals in terms of how individual goals shift to organisational ones.

3.6.9 Dependent Variable -Organisational Performance

In line with Peng & Luo (2000); Chen & Wu (2011); Chung (2011) and Sheng *et al.* (2011), five items were used to measure financial performance, i.e. market share, growth in sale, profitability, quality of product and service and customer satisfaction, and five items were used to measure organisational strategic performance, i.e., whether the company has met its profitability objectives and its growth objectives in the past three years, whether the company has increased product/firm awareness and brand awareness, and whether it has responded to competitive pressure to gain advantages. Organisational performance, as a dependent variable, is measured by return on assets (ROA), return on equity (ROE) and market share. These items are financial performance indicators that were widely used to measure organisational performance in prior studies (Peng & Luo, 2000; Li *et al.*, 2011). These items are objective firm performance measures, which can be obtained from the CSMAR database of Chinese listed companies' 2012 annual reports. However, according to Li *et al.* (2011:170), previous research has shown that researchers have widely adopted subjective scales and that “*there are high correlations between subjective and objective firm performance measures*”. Hence, subjective scales were employed to measure financial and strategic performance.

3.6.10 Control Variables

Company sizes, ages, company head office locations, and ownerships were controlled for the latent impact on firm performance of Chinese social networks (Peng and Luo, 2000; Park and Luo, 2001). As noted earlier, the selected listed companies were

divided into two size groups companies (i.e. large companies and SMEs), based upon their capital investments, annual revenues, and numbers of employees. Therefore, company size was operated as a dummy variable by coding 1 for large companies and 0 for SMEs.

For the company age variable, Guanxi has more effects on the organisational performance of younger companies than on that of older companies (Park and Luo, 2001; Li and Sheng, 2011). However, Chinese listed companies are required to have a history of at least three-years of profitability, thus the 400 sample companies were categorised into two groups: the younger companies (with less than ten years) and older companies (with ten years or more). The older companies were coded as 1, and the younger ones were coded as 0.

According to Park and Luo (2001), company locations were categorised into China's western and eastern economic areas because Guanxi has different effects on the organisational performance of companies located in each. In this study, the eastern economic area was represented by companies located in the Guangdong province and in the cities of Beijing, Shanghai and Shenzhen; while the western economic area was represented by companies located in the Sichuan province and in the city of Chongqing. Company location, as a dummy variable, was coded 1 for the eastern economic area and 0 for the western ones.

According to the CSMAR database, Chinese listed companies can be categorised under three types of ownerships: state-owned, private, and joint venture. However, Park and Luo (2001) indicated that they can be divided into just two types (non-state-owned and state-owned companies) because non-state-owned companies make more use of Guanxi than state-owned ones, and private (including foreign sole) and joint venture (foreign and Chinese joint companies) companies can both be considered as being non-state-owned. Hence, in this study, ownership is divided into state-owned and non-state-owned companies, which can be regarded as a dummy variable by coding 1 for non-state-owned companies and 0 for state-owned ones.

Table 3.6.10 provides a summary of this study's survey measures.

Table 3.6.10 – Survey Measures

Type of variable	Variable	Factor Name	Number of Items in which sections (see Appendix B – Survey Questionnaires)	Name of Manifest Variable after Parcelling	Source
Independent variable	Tie Strength (business ties)	Socialnet	tieb1a, tieb1b, tieb1c, tieb2a, tieb2b, tieb2c, tieb3a, tieb3b, tieb3c.		Granovetter (1973)
	Tie Strength (government ties)	Socialnet	tie1d, tie2d, tie3d		Chen & Wu (2011)
	Tie Strength (managerial ties)	Socialnet	tie1e, tie2e, tie3e		Brass <i>et al.</i> (1998)
Mediator	Trust	Trustco	Section 4 (mtrust1, mtrust2, mtrust3, mtrust4) Section 5.1-5.5 (trustcoa, trustcob, trustcoc, trustcod, trustcoe)		Wu & Leung (2005)
	Emotional Commitment	Comm	Section 4 (mec1, 2, mec3, mec4, mec5) and Section 5.1-5.5 (eccoa, eccob, eccoc, eccod, eccoe)		Barnes <i>et al.</i> (2011)
	Reciprocity	Reciprocity or Recityco	Section 4 (mry1, mry2, mry3, mry4) and Section 5.1-5.5 (rycoa, rycob, rycoc, rycod, rycoe)		Barnes <i>et al.</i> (2011)
	Sharing norms	Norm	Section 4 (msn1, ms2, ms3, ms4, ms5) and Section 5.1-5.5 (sncoa, sncob, sncoc, sncod, sncoe)		Tsai & Ghoshal (1998), Lapinski & Rimal (2005)
	Collective goals	Collectgoa	Section 4 (mcg1, mcg2, mcg3, mcg4, mcg5) and Section 5.1-5.5 (cgcoa, cgcob, cgcoc, cgcod, cgcoe)		Putnam (1993), Li <i>et al.</i> (2011)
Mediator	Access to Information	Acquisition	Section 6 (ainfo1, ainfo2, ainfo3, ainfo4, ainfo5)		Yli-Renko <i>et al.</i> (2001), Chen & Wu

					(2011)
	Organisational Learning	Acquisition	Section 7(ol1, ol2, ol3, ol4)		Atuahene-Gima & Murray (2007), Li <i>et al.</i> (2011)
	Organisational Social Capital	Acquisition	Section 8 (os1, os2, os3)		Gabby & Leenders (1999), Leana & Van Buren (1999)
Dependent variable	Strategic dimension of Organisational Performance	Performance	Section 9.1(sop1, sop2, sop3, sop4, sop5)	SO	Chung (2011), Chen & Wu (2011), Sheng <i>et al.</i> (2011)
	Financial dimension of Organisational Performance	Performance	Section 9.2 (fop1, fop2, fop3, fop4, fop5)	F1, F2	Peng & Luo (2000)
Control variable	Company Location		Section 10c (location)		Park & Luo (2001)
	Company Ownership		Section 10d (owner)		Peng & Luo (2000), Sheng <i>et al.</i> (2011)
	Company Age		Section 10b (age)		Park & Luo (2001)
	Company Size		Section 10a (size)		Park & Luo (2001)

3.7 Data Analysis

The data analysis in this study was performed by means of both quantitative and qualitative methods. For the quantitative data analysis method, I used the AMOS 21 software to carry out the structural equation modelling (SEM) and test the hypotheses. The qualitative data analysis involved coding the semi-structured interview data and analysing it by means of the Qualrus software.

3.7.1 The Quantitative Data Analysis

The quantitative data analysis followed the SPSS data input and output process, followed by testing the hypothesis by performing SEM through using the AMOS 21 software. SEM is a combination of a measurement model (confirmatory factor analysis, CFA) and of a confirmation of the factor structure of the variables (a structural model). SEM is beneficial in testing mediating hypotheses as it can identify and remove measurement errors and test all paths in the structural model (Baron and Kenny, 1986).

As suggested by scholars (Jöreskog and Sörbom, 1979; Brown, 2006; Henson and Roberts, 2006; Gaskin, 2014a), who argued that researchers can perform an exploratory factor analysis (EFA) prior to performing a measurement model (CFA) to corroborate the model, the analysis was performed in three stages. During the first, an EFA was performed through applying the maximum likelihood factor extraction method and a direct oblimin rotation by using SPSS. The purpose of the EFA was to produce a pattern matrix to show how many factors needed to illustrate the relationships within a set of items, to then transfer such pattern matrix to AMOS21 to perform a measurement model (CFA).

During the second stage, a CFA was performed in AMOS 21 by using the pattern matrix (i.e., a 12-factor model). Firstly, it was necessary to test whether the constructs within the 12-factor (also called an initial measurement model) showed sufficient reliability and validity. The significance of factor loadings and average variance extracted (AVE) was used to evaluate the measure's convergent validity; the composite reliability (CR) was adopted to appraise the reliability of the constructs of each factor for the measurement model (Anderson and Gerbing, 1988). The initial measurement model was not satisfactory because the AVE did not meet the benchmark for some constructs and standardised loadings for some items. This initial measurement model needed to be improved. Then, the final measurement model with model fit statistics was performed to meet the requirement of CR and AVE with the best model fit. This was necessary to remove the validity issues and the lower standardised loadings of items in the measurement model. As a result, the final measurement model included 35 items within eight constructs.

During the third stage, it was necessary to create a structural model by using the 35 items in the final measurement model in order to test the hypotheses as presented in chapter 2. The model fit statistics for the structural model were provided to check whether the significance of the model fit data met the requirement of best model fit. With regard to testing the mediating hypotheses, Bootstrapping and Sobel's z-statistic test approaches were used as suggested by Hayes (2009). The results of the quantitative data analysis will be presented in chapter 4.

3.7.2 The Qualitative Data Analysis

The qualitative data analysis followed three steps: 1) creating a thematic framework (a list of codes); 2) coding; and 3) analysing (Mile and Huberman, 1994; Ritchie, *et al.*, 2003). The theme guide used to create the thematic framework (a list of codes) was based upon the research objectives and research questions (Mile and Huberman, 1994). The main objective of this study is to examine how social networks affect access to information, organisational learning and organisational social capital in Chinese listed companies, and how each, in turn, affects organisational performance. Hence, a main theme of 'tie strength' as a code for the measurement of business ties, government ties, and managerial ties was created in the index (see table 3.7.2). Similarly, other main themes (such as resource acquisition and organisational performance) were developed in the thematic framework (see table 3.7.2). Moreover, the main research question of this study is concerned with uncovering the key cooperation and coordination components of the three types of social networks mentioned above. Previous studies have found that trust (*xinren*), emotional commitment (*ganqing*), reciprocity (*renqing*), sharing norms, and collective goals being key elements of social capital (*Guanxi*), and the three forms of resource acquisition have different effects on organisational performance. Hence, all these components are sub-themes in this thematic framework. This is presented in Table 3.7.2, in which the first and second columns contain the main categories (main-themes) and the sub-categories (sub-themes). It can be seen that this index (a list of codes) is in line with the theoretical framework as presented in section 2.6.

The second stage involved coding. Prior to this, I had translated the Chinese interview transcript into English and then asked a language expert (fluent in both English and Chinese) to read and verify my translation. I read and understood its meaning in the context of the interview as a whole before coding. Then I used the Qualrus software to code each segment of the interview text according to the listed codes.

The final stage was the data analysis. Following the code list, I used Qualrus to assist in analysing the relationship between social networks (business ties, government ties, and managerial ties) and organisational performance, to explain the quantitative results gleaned from the different views expressed by the interviewees. The detailed list of codes is presented in Table 3.7.2.

Table 3.7. 2 A list of codes

1.	Tie strength
1.1	Business ties
1.2	Government ties
1.3	Managerial ties
2.	Components of Guanxi (relational and cognitive dimensions of social capital)
2.1	Trust (xinren)
2.2	Emotional commitment (ganqing)
2.3	Reciprocity (renqing)
2.4	Sharing norms and collective goals
3.	Resource acquisition
3.1	Access to information
3.1.1	Customer needs
3.1.2	New product/service
3.1.3	Production information
3.1.4	Policy information
3.2	Organisational learning
3.2.1	Industry learning
3.2.2	Product development skills
3.2.3	New skills in new technology & innovations
3.3	Organisational social capital
3.3.1	Company goals before individual goals
3.3.2	Engage social networks to attain goals
4.	Organisational Performance
4.1	Market share

4.2	Growth in sales
4.3	Profitability
4.4	Quality of product and service
4.5	Customer satisfaction
4.6	Profit growth objectives
4.7	Product/firm awareness
4.8	Brand awareness
4.9	Gain competitive advantages

3.8 Chapter Summary

In this chapter, I discussed the research philosophy, both the quantitative and qualitative data collection and the analysis methods, and analysis tools used in this study. The quantitative research method involved the survey of a sample of 400 Chinese listed companies. The qualitative research method saw the conduction of semi-structured interviews with a sample of 20 respondents, each from a Chinese listed company. I choose such a mix of research methods (the survey and semi-structured interviews), because this study focuses on how Chinese companies use social networks as social capital to acquire three forms of resources and achieve their profit growth objectives, and the quantitative and qualitative approaches provide subjective and objective views of the relationship that exists between social networks and organisational performance via these forms of resource acquisition.

For the survey, all of the variables were measured adopting a seven-point Likert scale, with 1 denoting a strong disagreement and 7 showing a strong agreement. All the measurement items were taken from previous studies and had been validated by researchers. Table 3.6 provided a summary of the survey measures for this study. After collecting the data, I used AMOS 21 to perform SEM and test these hypotheses as presented in chapter 2.

For the qualitative data analysis, I developed a thematic framework (a list of codes) based on this study's objectives and research questions; this is consistent with the theoretical framework presented in section 2.6. Following this list, I used the semi-structured interview data to explain the quantitative results. The next three chapters will present and discuss the results of the data analysis.

Chapter 4 Hypotheses Testing and Empirical Findings for the Survey

4.1 Introduction

The aim of this chapter is to create a structural equation model (SEM) to test the hypotheses presented in chapter 2. This chapter is comprised of ten sections. Section 4.2 offers a profile of the respondents in a sample size of 400. Section 4.3 measures the normal distribution of the data by obtaining the values for skewness and kurtosis. Section 4.4 presents descriptive statistics of each construct. Section 4.5 shows the performance of a meaningful exploratory factor analysis. Section 4.6 presents how the measurement model is evaluated – reliability, convergent and discriminant validity, as well as providing model fit statistics for the final measurement model. Section 4.7 used each construct in the final measurement model to build a structural model to see whether or not it supported the hypotheses. Section 4.8 presents two approaches (i.e. bootstrapping and the Sobel test approaches) to test the mediating hypotheses. Section 4.9 presents the impact of the control variables for all of the hypothesised models. Section 4.10 provides a summary of the findings to answer the research questions.

4.2 Profile of Respondents

Descriptive statistics including frequencies and standard deviations are used to describe the characteristics of the sample (Pallant, 2007). The senior managers represented Chinese listed companies that responded to the survey. In other words, a sample of 400 Chinese listed companies responded to the survey in this study, and these companies' size, age, location and ownership were the nominal variables. Means and standard deviations do not make sense for nominal variables to describe the characteristics of the 400 companies (Pallant, 2007). However, frequencies can be used to describe the profile of the 400 Chinese listed companies. For example, the frequencies for company size present how many large companies and how many small-medium companies are presented within the sample. The following four tables present the frequencies for company size, age, location and ownership for the sample of the 400 Chinese listed companies.

Table 4.2.1 Company size

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	SMEs	212	53.0	53.0	53.0
	Large	188	47.0	47.0	100.0
	Total	400	100.0	100.0	

Table 4.2.1 shows that there are 212 small-medium Chinese listed companies (53 percent) and 188 large Chinese listed companies (47 percent) in the sample, providing a total of 400 respondents.

Table 4.2.2 Company age

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	<10 years	16	4.0	4.0	4.0
	> or =10 years	384	96.0	96.0	100.0
	Total	400	100.0	100.0	

From Table 4.2.2, it can be seen that 16 of the Chinese listed companies (4 percent) have operated for less than 10 years and 384 of the Chinese listed companies (96 percent) have operated for 10 years or more.

Table 4.2.3 Company location

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Chinese western economic areas	93	23.3	23.3	23.3
	Chinese eastern economic areas	307	76.8	76.8	100.0
	Total	400	100.0	100.0	

Table 4.2.3 shows that 93 of the Chinese listed companies (23.3 percent) are located in Chinese western economic areas and 307 (76.8 percent) are located in Chinese eastern economic areas.

Table 4.2.4 Company ownership

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid state-owned companies	314	78.5	78.5	78.5
Non-state-owned companies	86	21.5	21.5	100.0
Total	400	100.0	100.0	

Table 4.2.4 indicates that 314 of the Chinese listed companies (78.5 percent) are state-owned, and 86 (21.5 percent) are non-state-owned companies.

4.3 Skewness and Kurtosis

Skewness and kurtosis values are adopted to measure the normal distribution of the data while performing a CFA (Gravetter and Wallnau, 2004). Skewness measures the symmetry of the distribution contrasted to a normal distribution, and kurtosis measures the peakedness (a positive value) or flatness (a negative value) of a distribution (Hair *et al.*, 2010). Based on West *et al.* (1995), if the absolute value of the skewness is equal to or more than two and the absolute value of the kurtosis is equal to or greater than seven, then the variable is not normally distributed and cannot be used to perform a CFA.

Table 4.2 in Appendix G shows the descriptive statistics for the 400 cases including the values of skewness and kurtosis. From Table 4.2, variables of tieb2a (kurtosis=10.489), tieb2b (skewness=-2.705, kurtosis=10.686), mec3 (skewness=-2.570, kurtosis=9.360), mry4 (kurtosis=17.230), sop4 (skewness=-2.465, kurtosis=9.246), and sop5 (skewness=-2.568, kurtosis=10.477), do not meet the requirements for CFA as suggested by West *et al.* (1995). The outliers for the variables of these cases were replaced with their mean scores. However, after replacing the mean score, the values of skewness and kurtosis for the above 6 variables still did not meet the benchmark as noted. These variables were therefore not used to perform a CFA. Otherwise, they would affect the later model of fit (West

et al. 1995). Thus, the total number of variables for structural equation modelling in this study, was 84 which including four control variables.

4.4 Descriptive Statistics of Each Construct

This section provides the descriptive statistics of each construct, i.e., a summary of information such as the mean, standard deviation, and variance. There are eight constructs (i.e. social networks, trust, emotional commitment, reciprocity, sharing norms, collective goals, resource acquisition and organisational performance), within the survey study.

Social networks

Table 4.4.1 Social Networks: Descriptive Statistics

Variables (items) with statements	Mean	SD	Variance
tie1a: the total number of customers with which you have contacted in an average month.	6.05	.651	.424
tie1b: the total number of suppliers with which you have contacted in an average month.	5.66	.603	.364
tie1c: the total number of competitors with which you have contacted in an average month.	4.05	.763	.582
tie1d: the total number of government officials with which you have contacted in an average month.	5.42	.878	.771
tie1e: the total number of employees with which you have contacted in an average month.	6.15	.603	.363
tie2c: my relationships with competitors are like friends or family members or old classmates.	4.52	.604	.365
tie2d: my relationships with government officials are like friends or family members or old classmates.	5.65	.636	.404
tie2e: my relationships with employees are like	5.90	.586	.343

friends or family members or old classmates.			
tieb3a: how many times in an average month that you have contacts with a key repeat customer.	5.02	.679	.461
tieb3b: how many times in an average month you have contacts with a key repeat supplier.	4.61	.794	.630
tieb3c: how many times in an average month you have contacts with a key repeat competitor.	2.98	.798	.636
tie3d: how many times in an average month you have contacts with a key repeat government official.	4.48	.878	.771
tie3e: how many times in an average month you have contacts with a key repeat employee.	5.09	.608	.370

Note: SD is standard deviation. Each variable was measured on a 7-point scale.

The construct of social networks in Table 4.4.1 includes 13 variables (i.e. tieb1a, tieb1b, tieb1c, tie1e, tie1d, tieb2c, tie2d, tie2e, tieb3a, tieb3b, tieb3c, tie3d and tie3e). Table 4.4.1 provides information about each variable such as mean, standard deviation and variance. For example, the variable ‘*contact customers (tieb1a)*’, it has information from 400 respondents from Chinese listed companies, the mean is 6.05, the standard deviation is 0.651 and the variance is 0.424.

Trust

Table 4.4.2 Trust: Descriptive Statistics

Variables (items) with statements	Mean	SD	Variance
mtrust1: the extent to which you agree that trust is trustworthy.	6.08	.510	.260
mtrust 2: the extent to which you agree that trust is the firm’s confidence.	5.94	.654	.428
mtrust3: the extent to which you agree that trust	6.04	.497	.247

is a promise of support or cooperation			
mtrust4: the extent to which you agree that trust is integrity (perceptions of honesty and truthfulness in exchange).	5.98	.430	.185
mtrust5: the extent to which you agree that trust is competence (perceptions of competence in ongoing interaction).	5.94	.656	.430
trustcoa: the extent to which you agree that the trust relationship with your company's customers plays the role of cooperation and coordination.	6.16	.465	.217
trustcob: the extent to which you agree that the trust relationship with your company's suppliers plays the role of cooperation and coordination.	5.99	.568	.323
trustcoc: the extent to which you agree that the trust relationship with your company's competitors plays the role of cooperation and coordination.	5.70	.593	.352
trustcod: the extent to which you agree that the trust relationship with your company's government officials plays the role of cooperation and coordination.	6.02	.464	.215
trustcoe: the extent to which you agree that the trust relationship with your company's employees plays the role of cooperation and coordination.	6.09	.486	.237

Note: SD is standard deviation. Each variable was measured on a 7-point scale.

The construct of trust in Table 4.4.2 is comprised of 10 variables (i.e. mtrust1, mtrust2, mtrust3, mtrust4, mtrust5, trustcoa, trustcob, trustcoc, trustcod and trustcoe). Table 4.4.2 includes information about each variable for this construct such as mean, standard deviation and variance. For instance, the variable '*trust is trustworthy*

(*mtrust1*)', it has information from 400 respondents from Chinese listed companies, the mean is 6.08, the standard deviation is 0.51 and the variance is 0.26.

Emotional Commitment

Table 4.4.3 Emotional Commitment : Descriptive Statistics

Variables (items) with statements	Mean	SD	Variance
mec1: the extent to which you agree that emotional commitment is a brotherhood feeling.	5.94	.573	.328
mec2: the extent to which you agree that emotional commitment is a qanqing agreement.	5.91	.625	.391
mec4: the extent to which you agree that emotional commitment is a non-intimate qanqing that has common feeling.	5.31	.907	.823
mec5: the extent to which you agree that emotional commitment as a common feeling becomes more cooperative and coordinative.	6.01	.490	.241
eccoa: the extent to which you agree that the emotional commitment relationship with your company's customers plays the role of cooperation and coordination.	6.15	.465	.216
eccob: the extent to which you agree that the emotional commitment relationship with your company's suppliers plays the role of cooperation and coordination.	6.06	.490	.240
eccoc: the extent to which you agree that the emotional commitment relationship with your company's competitors plays the role of cooperation and coordination.	5.68	.662	.438
eccod: the extent to which you agree that the emotional commitment relationship with your company's government officials plays the role of cooperation and coordination.	5.94	.526	.277

eccoe: the extent to which you agree that the emotional commitment relationship with your company's employees plays the role of cooperation and coordination.	6.08	.482	.232
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Note: SD is standard deviation. Each variable was measured on a 7-point scale.

The construct of emotional commitment in Table 4.4.3 is comprised of nine variables (i.e. mec1, mec2, mec4, mec5, eccoa, eccob, eccoc, eccod and eccoe). Table 4.4.3 includes information about each variable, such as mean, standard deviation and variance. For instance, the variable '*Emotional commitment is a brotherhood feeling (mec1)*', it has information from 400 respondents from Chinese listed companies, the mean is 5.94, the standard deviation is 0.573 and the variance is 0.328.

Reciprocity

Table 4.4.4 Reciprocity : Descriptive Statistics

Variables (items) with statements	Mean	SD	Variance
mry1: the extent to which you agree that reciprocity is doing a favour for cooperation and coordination.	5.86	.457	.209
mry2: the extent to which you agree that reciprocity is a process of the obligation of giving, receiving, and returning gifts(called "li shang wang lai").	5.86	.470	.221
mry3: the extent to which you agree that reciprocity is the exchange of favours.	5.85	.445	.198
rycoa: the extent to which you agree that the reciprocity relationship with your company's customers plays the role of cooperation and coordination.	6.12	.492	.242
rycob: the extent to which you agree that the	5.85	.603	.363

reciprocity relationship with your company's suppliers plays the role of cooperation and coordination.			
rycoc: the extent to which you agree that the reciprocity relationship with your company's competitors play the role of cooperation and coordination.	5.65	.538	.289
rycod: the extent to which you agree that the reciprocity relationship with your company's government officials plays the role of cooperation and coordination.	5.98	.453	.205
rycoe: the extent to which you agree that the reciprocity relationship with your company's employees plays the role of cooperation and coordination.	6.07	.457	.208

Note: SD is standard deviation. Each variable was measured on a 7-point scale.

The construct of reciprocity in Table 4.4.4 includes eight variables (i.e. mry1, mry2, mry3, rycoa, rycob, rycoc, rycod and rycoe). Table 4.4.4 provides information for each variable, such as mean, standard deviation and variance. For example, the variable '*Reciprocity is doing a favour (mry1)*', it has information from 400 respondents from Chinese listed companies, the mean is 5.86, the standard deviation is 0.457 and the variance is 0.209.

Sharing Norms

Table 4.4.5 Sharing Norms : Descriptive Statistics

Variables (items) with statements	Mean	SD	Variance
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msn1:the extent to which you agree that sharing norms are rules or regulations at the collective level.	5.82	.444	.197
msn2: the extent to which you agree that sharing norms are the common rules and standards or regulation.	5.78	.607	.369
msn3: the extent to which you agree that your industry's rules and standards are sharing norms.	5.97	.548	.300
msn4: the extent to which you agree that social rules are sharing norms.	5.81	.669	.448
msn5: the extent to which you agree that social culture is the sharing norm.	5.88	.678	.460
sncoa: the extent to which you agree that sharing norms with your company's customers plays the role of cooperation and coordination.	6.07	.413	.171
sncob: the extent to which you agree that sharing norms with your company's suppliers plays the role of cooperation and coordination.	6.00	.459	.211
sncoc: the extent to which you agree that sharing norms with your company's competitors plays the role of cooperation and coordination.	5.78	.486	.236
sncod: the extent to which you agree that sharing norms with your company's government officials plays the role of cooperation and coordination.	5.96	.440	.193
sncoe: the extent to which you agree that sharing norms with your company's employees plays the role of cooperation and coordination.	6.00	.448	.200

Note: SD is standard deviation. Each variable was measured on a 7-point scale.

The construct of sharing norms in Table 4.4.5 includes ten variables (i.e. msn1, msn2, msn3, msn4, msn5, sncoa, sncob, sncoc, sncod and sncoe). Table 4.4.5 provides the information for each variable, such as mean, standard deviation and variance. For instance, the variable ‘*Sharing norms are rules or regulations at the collective level (msn1)*’, it has information from 400 respondents from Chinese listed companies, the mean is 5.82, the standard deviation is 0.444 and the variance is 0.197.

Collective Goals

Table 4.4.6 Collective Goals: Descriptive Statistics

Variables (items) with statements	Mean	SD	Variance
mcg1:the extent to which you agree that sharing goals and common goals are your collective goals.	5.89	.579	.336
mcg2: the extent to which you agree that sharing social orders and norms are collective goals.	5.89	.551	.304
mcg3: the extent to which you agree that your industry’s rules and standards are collective goals.	5.86	.628	.395
mcg4: the extent to which you agree that the product’s quality and innovation are collective goals.	5.98	.450	.203
mcg5:the extent to which you agree that the government’s policies are collective goals.	5.68	.857	.734
cgcoa: the extent to which you agree that collective goals with your company’s customers plays the role of cooperation and coordination.	6.16	.438	.191
cgcob: the extent to which you agree that collective goals with your company’s suppliers plays the role of cooperation and coordination.	6.03	.514	.264
cgcoc: the extent to which you agree that collective goals with your company’s	5.72	.559	.312

competitors plays the role of cooperation and coordination.			
cgcod: the extent to which you agree that collective goals with your company's government officials plays the role of cooperation and coordination.	5.99	.493	.243
cgcoe: the extent to which you agree that collective goals with your company's employees plays the role of cooperation and coordination.	6.04	.411	.169

Note: SD is standard deviation. Each variable was measured on a 7-point scale.

The construct of collective goals in Table 4.4.6 includes ten variables (i.e. mcg1, mcg2, mcg3, mcg4, mcg5, cgcoa, cgcob, cgcoc, cgcod and cgcoe). Table 4.4.6 provides the information for each variable, such as mean, standard deviation and variance. For example, the variable '*Collective goals are sharing goals and common goals (mcg1)*', it has information from 400 respondents from Chinese listed companies, the mean is 5.89, the standard deviation is 0.579 and the variance is 0.336.

Resource Acquisition

Table 4.4.7 Resource Acquisition: Descriptive Statistics

Variables (items) with statements	Mean	SD	Variance
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ainfo1: I can obtain information about customer needs.	5.96	.491	.241
ainfo2: I can obtain information about new products/services.	5.94	.517	.267
ainfo3: I can obtain information about production information for industry trends.	5.91	.480	.230
ainfo4: I can obtain information about industry policy information.	5.87	.474	.225
ainfo5: I can obtain information about land or financial resources (financial capital and bank loans).	5.88	.481	.231
ol1: I continually seek opportunities to learn more about my industry.	5.94	.494	.244
ol2: I continually search for proven methods to solve problems in projects or product development.	5.93	.488	.238
ol3: I keep learning more about product development skills and processes about our industry in order to attain our goals.	5.91	.505	.255
ol4: I keep learning more about new skills in new technology and innovation skills in the area that we have no prior experience.	5.92	.477	.227
os1: I put our company's goals before individuals goals.	5.87	.553	.306
os2: My company's employees put our company's goals before individual goals.	5.84	.572	.327
os3: My company's employees engage in social networks' activities to attain their goals.	5.91	.505	.255

Note: SD is standard deviation. Each variable was measured on a 7-point scale.

The construct of resource acquisition in Table 4.4.7 includes 12 variables (i.e. ainfo1, ainfo2, ainfo3, ainfo4, ainfo5, ol1, ol2, ol3, ol4, os1, os2 and os3). Table 4.4.7 provides the information for these variables, such as mean, standard deviation and variance. For example, for the variable ‘*Access to information about customer needs (ainfo1)*’, it has information from 400 respondents from Chinese listed companies, the mean is 5.96, the standard deviation is 0.491 and the variance is 0.241.

Organisational Performance

Table 4.4.8 Organisational Performance: Descriptive Statistics

Variables (items) with statements	Mean	SD	Variance
os1: my company has met its profitability objectives (e.g. profit 2012).	5.58	.640	.410
os2: my company has met its growth objective in the past three years.	5.44	.770	.593
os3: my company has increased product/firm awareness.	5.83	.424	.180
fop1: market share	5.24	.908	.824
fop2: growth in sales	5.35	.905	.820
fop3: profitability	5.39	.857	.735
fop4: quality of product and service	5.78	.524	.274
fop5: customer satisfaction	5.83	.493	.243

Note: SD is standard deviation. Each variable was measured on a 7-point scale.

The construct of organisational performance in Table 4.4.8 includes eight variables (i.e. sop1, sop2, sop3, fop1, fop2, fop3, fop4 and fop5). Table 4.4.8 provides the information for these variables, such as mean, standard deviation and variance. For example, the variable ‘*my company has met its profitability objectives (sop1)*’, it has

information from 400 respondents from Chinese listed companies, the mean is 5.58, the standard deviation is 0.64 and the variance is 0.41.

4.5 Exploratory Factor Analysis

Scholars (e.g. Jöreskog and Sörbom, 1979; Brown, 2006; Henson and Roberts, 2006; Gaskin, 2014a) argue that researchers can perform exploratory factor analysis (EFA) prior to performing CFA to confirm the model. They strongly suggest performing an EFA prior to creating a measurement model, for at least three reasons: (a) An EFA is used for cleaner structural equation modelling; (b) The EFA can identify problematic variables more easily than the CFA since it is not based on a prior theory for each construct (Hair *et al.*, 2010); (c) The EFA can determine how strongly each item relates to the factor (Brown, 2006). EFA refers to an estimation of the factor loading in relation to how many factors are required to illustrate the relationships among a set of items (Henson and Roberts, 2006; Lyytinen and Gaskin, 2014). CFA refers to the performing items load, as predicted on the expected number of factors, based on pre-established theory (Brown, 2006; Lyytinen and Gaskin, 2014). Hence, this study employed EFA before performing CFA, to confirm the model. The following subsections present different steps for data analysis.

Exploratory factor analysis (EFA) refers to estimation of the factor loading in relation to how many factors needed to indicate the relationship among a set of items (Lyytinen and Gaskin, 2014). Gaskin (2014a) has strongly suggested that there is a need to perform an EFA prior to creating a measurement model, for at least two reasons: (a) an EFA is used for cleaner structural equation modelling; (b) the EFA can identify problematic variables more easily than the CFA, because it is not based on a prior theory for each construct (Hair *et al.*, 2010). CFA refers to a performing items load, as predicted on the expected number of factors, based on pre-established theory (Lyytinen and Gaskin, 2014).

Performing a meaningful EFA involved the following two steps. The first step was to perform an initial EFA, with a maximum likelihood factor extraction method³ and a direct oblimin rotation. Following the guideline of Hair *et al.* (2010: 117), it was considered that the significant factor loadings were 0.30 for the sample size of 400 in the present study. All items (80 items) were presented in the pattern matrix (see Table 4.5.1 Pattern Matrix I in Appendix G). Table 4.5.2 in Appendix G illustrates that the Extraction Sums of Squared Loadings were greater than 50% (54.649), illustrating that the majority of the variance could be explained by a single factor.

The second step was to perform an EFA with parcelling. Parcelling is used for latent variable analysis techniques such as EFA and SEM (Little *et al.*, 2002). A parcel is defined as ‘*an aggregate-level indicator comprised of the sum (or average) of two or more items, responses, or behaviors*’ (Little *et al.*, 2002, p152). Using parcels as indicators has higher reliability than using single items. It also reduces the measurement error and the number of measured variables in a model, and as a result, models with parcels as indicators have a better fit than models with items (Coffman and MacCallum, 2005; Little *et al.*, 2013). Thus, items fop2 (financial performance: growth in sales) and fop5 (financial performance: customer satisfaction) were assigned to parcel F1; items fop3 (financial performance: profitability) and fop4 (financial performance: quality of product and service), were assigned to parcel F2; items sop2 and sop3 were assigned to parcel SO (see Table 4.5.3 Pattern Matrix). Items with a low factor loading (<.30) were deleted. As a result, 10 items (i.e. tie2d, tieb2c, tie2e, msn2, ms3, trustcoc, eccoc, rycoc, sncoc and cgcoc) were deleted for the analysis. Table 4.5.3 indicates a very clean factor structure showing the convergent and discriminant validity of a factor loading of more than 0.3 without cross-loadings between factors (Hair *et al.*, 2010). Hence, the final twelve-factor model was produced with the remaining 64 items and three parcels (F1, F2 and SO) (see Table 4.5.3 and Figure 4.5.1 A twelve-factor model in Appendix H).

³ There are three factoring methods, i.e., principal component analysis, principal axis factoring and maximum likelihood. The maximum likelihood approach can provide Model fit estimate and is used in AMOS for CFA and structural modelling (Gaskin, 2014a)

Table 4.5.3 Pattern Matrix

	Factor											
	1	2	3	4	5	6	7	8	9	10	11	12
F1	.925											
F2	.901											
fop1	.890											
SO	.759											
sop1	.722											
tieb3c		-.909										
tieb1c		-.851										
tieb1d		-.463										
tieb3a		.834										
tieb1a		.725										
tieb3b		.653										
tieb1b		.570										
tie3e		.553										
tie1e		.456										
tie3d		.405										
rycoe			.810									
rycoa			.779									
rycob			.677									
rycod			.664									
msn5				.900								
msn4				.887								
msn1				.690								
trustcoe					-.834							
trustcoa					-.798							
trustcob					-.686							
trustcod					-.635							
ainfo4						.766						
ainfo5						.757						
ol2						.756						
ol4						.754						
ol3						.698						
ainfo3						.695						
os3						.668						
os1						.657						
ainfo2						.649						
os2						.598						
ol1						.564						

ainfo1					.361								
mcg3						.739							
mcg2						.686							
mcg4						.641							
mcg1						.633							
mcg5						.459							
mec1							.703						
Mec4							.653						
mec2							.652						
mec5							.634						
eccob										-.852			
eccoa										-.807			
eccoe										-.765			
eccod										-.442			
mtrust3											.738		
mtrust4											.656		
mtrust2											.627		
mtrust1											.573		
mtrust5											.516		
cgcoa												.653	
sncoa												.644	
cgcob												.633	
sncoe												.624	
cgcod												.619	
sncob												.614	
cgcoe												.591	
sncod												.458	
mry2													.658
mry1													.644
mry3													.615

4.6 Confirmatory Factor Analysis

Following the recommendations made by Brown (2006) and Gaskin (2014a), the final twelve-factor model (i.e. Table 4.5.3 Pattern Matrix moved to AMOS21), was used to perform a CFA (a measurement model). It was necessary to follow a procedure to assess the measurement model's reliability, as well as the convergent and discriminant validity of this study's main constructs prior to testing a structural model (Anderson

and Gerbing, 1988). Hence, according to the suggestions made by Anderson and Gerbing (1988) and Hair *et al.* (2010), I used the composite reliability (CR) to assess the reliability for the construct of each factor in a measurement model. The average variance extracted (AVE), standardised factor loadings and P-value were used to evaluate convergent validity (Fornell and Larcker 1981). Maximum Shared Variance (MSV) and Average Shared Variance (ASV), were used to assess discriminant validity (Hair *et al.*, 2010).

Gaskin's (2012) Stats Tools Package in Microsoft Excel was used to calculate the values of CR, AVE, MSV and ASV (see Tables 4.6.1 and 4.6.3) from the output of AMOS in this study. This also gained a factor correlation matrix with the square root of the AVE (see Table 4.6.4) for a measurement model. There were two steps to perform a satisfactory CFA. The first step was to perform an initial measurement model. The initial results of CFA were presented in Table 4.6.1 and Table 4.6.2.

Table 4.6.1 Validity and Reliability for the initial measurement model

Factor: variables (items)	CR	AVE	MSV	ASV
Collectgoa: cgcoa, cgcob, cgcod, cgcoe, sncoa, sncob, sncod, sncoe	0.837	0.395	0.150	0.036
Performance: F1, F2, fop1, SO, sop1	0.954	0.806	0.269	0.048
Socialnet: tie1d, tieb3a, tieb1a, tieb3b, tieb1c, tieb1b, tie3e, tie1e, tie3d, tieb3c	0.901	0.483	0.269	0.032
Recityco: rycoa, rycob, rycod, rycoe	0.839	0.569	0.150	0.028
Norm: ms1, msn4, msn5	0.859	0.673	0.036	0.009
Trustco: trustcoe, trustcoa, trustcob, trustcod	0.835	0.560	0.129	0.016
Acquisition: ainfo1, ainfo2, ainfo3, ainfo4, ainfo5, ol1, ol2, ol3, ol4, os1, os2, os3	0.921	0.497	0.249	0.042
Goal: mcg1, mcg3, mcg2, mcg4, mcg5	0.786	0.427	0.099	0.019
Commit: mec1, mec2, mec4, mec5	0.766	0.451	0.035	0.013
Comm: eccob, eccoa, eccoe, eccod	0.841	0.576	0.129	0.032
Trust: mtrust1, mtrust2, mtrust3, mtrust4, mtrust 5	0.765	0.397	0.026	0.007
Reciprocity: mry1, mry2, mry3	0.756	0.509	0.099	0.024

Note: CR is composite reliability; AVE is average variance extracted; MSV is Maximum Shared Variance; ASV is Average Shared Variance. The red colour indicates the AVE validity concern for each factor.

Table 4.6.2 Results of the initial measurement model

Factor Name	Measurement items(Variable name)	Standardised loading	CR	AVE	MSV	ASV
Performance	(organisational performance)		0.954	0.806	0.247	0.048
	Growth in sales and customer satisfaction (F1)	0.983***				
	Profitability, and quality of product and service (F2)	0.966***				
	Market share (fop1)	0.905***				
	My company has met its growth objectives and has increased product/firm awareness (SO)	0.830***				
	My company has met its profitability objectives (sop1)	0.790***				
Socialnet	(social networks)		0.901	0.483	0.269	0.032
	You have contacted how many governmental officials in an average month (tie1d, government ties)	0.809***				
	The total number of times in an average month you have contacts with a key repeat customer (tieb3a, business ties)	0.799***				
	You have contacted how many customers in an average month (tieb1a, business ties)	0.688***				
	The total number of times in an average month you have contacts with a key repeat supplier (tieb3b, business ties)	0.794***				
	You have contacted how many competitors in an average month (tieb1c, business ties)	0.690***				
	You have contacted how many suppliers in an average month (tieb1b, business ties)	0.664***				
	The total number of times in an average month you have contacts with a key repeat employee (tie3e, managerial ties)	0.528***				
	You have contacted how many employees in an average month (tie1e, managerial ties)	0.457***				
	Total number of times in an average month you have contacts with a key repeat governmental official (tie3d, government ties)	0.708***				
	Total number of time in an average month you have contacts with a key repeat competitor (tieb3c, business ties)	0.724***				
Recityco	(reciprocity)		0.839	0.569	0.150	0.028
	Reciprocity with employees play the role of cooperation & coordination (rycoe)	0.834***				
	Reciprocity with customers play the role of cooperation & coordination (rycoa)	0.842***				
	Reciprocity with suppliers play the role of cooperation & coordination (rycob)	0.664***				
	Reciprocity with governmental officials play the role of cooperation & coordination (rycod)	0.657***				
Norm	(sharing norms)		0.859	0.673	0.036	0.009
	Social culture is the sharing norm (msn5)	0.894***				
	Sharing norms are social rules (msn4)	0.876***				
	Sharing norms are rules or regulations at the collective level (msn1)	0.672***				
Trustco	(trust)		0.835	0.560	0.129	0.016
	Trust with employees plays the role of cooperation & coordination (trustcoe)	0.818***				
	Trust with customers plays the role	0.813***				

of cooperation & coordination (trustcoa) Trust with suppliers plays the role)	0.704***				
of cooperation & coordination (trustcob) Trust with governmental officials plays the role)	0.645***				
of cooperation & coordination (trustcod)					
Acquisition (resource acquisition)		0.921	0.497	0.249	0.042
Access to information about land or financial resources (ainfo5)	0.689***				
I continually search for proven methods to solve problems in projects or product development(ol2)	0.760***				
I keep learning new skills in new technology and innovation skills in the field where our company had no previous experience (ol4)	0.743***				
Access to Information about industry policy information (ainfo4)	0.718***				
Access to Information about production information for industry trends (ainfo3)	0.760***				
I keep learning more about product development skills and processes about their industry (ol3)	0.772***				
I put our company's goals before individual goals(osl)	0.658***				
My company's employees engage in social network activities to attain their goals (os3)	0.744***				
Access to Information about new products/services (ainfo2)	0.766***				
My company's employees put our company's goals before individual goals(os2)	0.651***				
I continually seek opportunities to learn more about their industry (ol1)	0.633***				
Access to information about customer needs(ainfo1)	0.520***				
Goal (collective goals)		0.786	0.427	0.099	0.019
Collective goals are your industry's rules and standards (mcg3)	0.742***				
Collective goals are social orders and norms(mcg2)	0.652***				
Collective goals are the product's quality and innovation (mcg4)	0.716***				
Collective goals are sharing goals and common goals (mcg1)	0.628***				
The government's policies are collective goals(mcg5)	0.503***				
Commit (emotional commitment)		0.766	0.451	0.035	0.013
Emotional commitment is a brotherhood feeling(mec1)	0.751***				
Emotional commitment is a non-intimate qanqing that has common feeling (mec4)	0.643***				
Emotional commitment is a qanqing agreement (mec2)	0.623***				
Emotional commitment is cooperative feeling(mec5)	0.663***				
Trust (trust)		0.765	0.397	0.026	0.007
Trust is a promise (mtrust3)	0.728***				
Trust is integrity (mtrust4)	0.652***				
Trust is confidence (mtrust2)	0.653***				
Trust is trustworthy (mtrust1)	0.552***				
Trust is competence (mtrust5)	0.548***				
Collectgoa (collective goals)		0.837	0.395	0.150	0.036
Collective goals with customers plays the role of cooperation & coordination (cgcoa)	0.689***				
Sharing norms with customers plays the role of cooperation & coordination(sncoa)	0.643***				

Collective goals with suppliers plays the role of cooperation & coordination(cgcob)	0.658***				
Sharing norms with employees plays the role of cooperation & coordination (sncoe)	0.656***				
Collective goals with governmental officials plays the role of cooperation & coordination(cgcod)	0.674***				
Sharing norms with suppliers plays the role of cooperation & coordination (sncob)	0.597***				
Collective goals with employees plays the role of cooperation & coordination (cgcoe)	0.620***				
Sharing norms with governmental officials plays the role of cooperation & coordination (sncod)	0.458***				
Reciprocity (reciprocity)		0.756	0.509	0.099	0.024
Reciprocity is returning a favour (mry2)	0.770***				
Reciprocity is doing a favour (mry1)	0.718***				
Reciprocity is li shang wang lai (mry3)	0.648***				
Comm (emotional commitment)		0.841	0.576	0.129	0.032
Emotional commitment with suppliers plays (eccob) the role of cooperation & coordination	0.823***				
Emotional commitment with customers plays the role of cooperation & coordination (eccoa)	0.812***				
Emotional commitment with employees plays the role of cooperation & coordination (eccoe)	0.827***				
Emotional commitment with governmental officials plays the role of cooperation & coordination (eccod)	0.531***				

Note: ***p<0.001, CR is composite reliability; AVE is average variance extracted; MSV is Maximum Shared Variance; ASV is Average Shared Variance.

Convergent validity requires that all the standardised factor loadings should be statistically significant and greater than 0.5 and that an AVE of greater than 0.5 is needed for a satisfactory measurement model (Malhotra, 2010; Hair *et al.*, 2010). Tables 4.6.1 and 4.6.2 indicated that convergent validity concerns exist in this initial measurement model. This is because the AVE for six of the constructs, (i.e. Collectgoa, Socialnet, Acquisition, Goal, Commit and Trust) being less than 0.50 and the standardised loadings for the items of tie1e (0.457) and sncod (0.458) are less than 0.50. Therefore, this measurement model with twelve constructs was not acceptable or satisfactory. It needed to be improved. This initial measurement model was refined through deleting the lower standardised loadings with validity issues of the items (such as tie1e and sncod) in order to meet the requirement of satisfactory convergent validity.

The second step was to perform a final measurement model with model fit statistics. From Tables 4.6.1 and 4.6.2, it can be seen that six factors (constructs) including 44 items were involved in validity issues, the Collectgo factor (eight items); the Socialnet

factor (ten items); the Acquisition factor (12 items); the Goal factor (five items); the Commit factor (four items) and the Trust factor (five items). Hence there is a need to delete the lower standardised loadings of these items. In order to improve this initial measurement model to provide satisfactory convergent validity, the 32 items in the six factors were deleted. As a result, 35 items, including three parcels (i.e. F1, F2 and SO), remained within eight constructs in the final measurement model (see Table 4.6.3 and Table 4.6.5).

Table 4.6.3 Validity and Reliability for the final measurement model

Factor: variables	CR	AVE	MSV	ASV
Collectgoa: cgcoa, cgcoe, cgco	0.773	0.533	0.112	0.035
Performance: F1, F2, fop1, SO, sop1	0.951	0.798	0.281	0.070
Socialnet: tie1d, tieb3a, tieb3b, tieb1b, tie3e, tie3d, tieb3c	0.876	0.510	0.203	0.040
Recityco: rycoa, rycob, rycod, rycoe	0.839	0.570	0.073	0.023
Norm: msn1, msn4, msn5	0.858	0.672	0.012	0.005
Trustco: trustcoa, trustcob, trustcod, trustcoe	0.835	0.560	0.129	0.023
Acquisition: anifo2, ainfo3, ainfo5, ol3, os3	0.861	0.557	0.281	0.063
Comm: eccoa, eccob, eccod, eccoe	0.840	0.575	0.129	0.045

Note: CR is composite reliability; AVE is average variance extracted; MSV is Maximum Shared Variance; ASV is Average Shared Variance.

Table 4.6.4 Factor correlation matrix with square root of the AVE on the diagonal

Collectgoa	Performance	Socialnet	Recityco	Norm	Trustco	Acquisition	Comm
0.730							
0.027	0.893						
-0.045	0.450	0.714					
0.199	-0.041	-0.178	0.755				
-0.082	0.022	-0.052	-0.032	0.820			
0.115	0.030	-0.076	0.107	0.020	0.749		
0.334	0.530	0.136	-0.029	-0.110	-0.019	0.746	
0.269	0.015	-0.119	0.270	-0.102	0.359	0.125	0.758

Table 4.6.5 Results of the final measurement model

Factor Name	Measurement items(Variable name)	Standardised loading	CR	AVE	MSV	ASV
Performance	(organisational performance)		0.951	0.798	0.281	0.070
	Growth in sales and customer satisfaction (F1)	0.988***				
	Profitability, and quality of product and service(F2)	0.964***				
	Market share (fop1)	0.903***				

My company has met its growth objectives and has increased product/firm awareness(SO)	0.817***				
My company has met its profitability objectives(sop1)	0.775***				
Socialnet (social networks)		0.876	0.510	0.203	0.040
You have contacted how many governmental officials in an average month (tie1d, government ties)	0.795***				
The total number of times in an average month you have contacts with a key repeat customer (tieb3a, business ties)	0.746***				
The total number of times in an average month you have contacts with a key repeat supplier (tieb3b, business ties)	0.862***				
You have contacted how many suppliers in an average month (tieb1b, business ties)	0.713***				
The total number of times in an average month you have contacts with a key repeat employee (tie3e, managerial ties)	0.537***				
The total number of times in an average month you have contacts with governmental official (tie3d, government ties)	0.690***				
The total number of times in an average month you have contacts with a key repeat competitor (tieb3c, business ties)	0.679***				
Recityco (reciprocity)		0.839	0.570	0.073	0.023
Reciprocity with employees plays the role of cooperation & coordination (rycoe)	0.837***				
Reciprocity with customers plays the role of cooperation & coordination (rycoa)	0.840***				
Reciprocity with suppliers plays the role of cooperation & coordination (rycob)	0.660***				
Reciprocity with governmental officials plays the role of cooperation & coordination (rycod)	0.662***				
Norm (sharing norms)		0.858	0.672	0.012	0.005
Social culture is the sharing norm (msn5)	0.888***				
Sharing norms are social rules (msn4)	0.882***				
Sharing norms are rules or regulations at the collective level (msn1)	0.671***				
Trustco (trust)		0.835	0.560	0.129	0.023
Trust with employees plays the role of cooperation & coordination (trustcoe)	0.820***				
Trust with customers plays the role of cooperation & coordination (trustcoa)	0.812***				
Trust with suppliers plays the role of cooperation & coordination (trustcob)	0.701***				
Trust with governmental officials plays the role of cooperation & coordination (trustcod)	0.647***				
Acquisition (resource acquisition)		0.861	0.557	0.281	0.063
Access to information about land or financial resources (ainfo5)	0.609***				
Access to Information about production information for industry trends (ainfo3)	0.811***				
I keep learning more about product development skills and processes about their industry (ol3)	0.712***				
My company's employees engage in social network activities to attain their goals (os3)	0.761***				

Access to Information about new products/services (ainfo2)	0.818***				
Collectgoa (collective goals)		0.773	0.533	0.112	0.035
Collective goals with customers plays the role of cooperation & coordination (cgcoa)	0.811***				
Collective goals with governmental officials plays the role of cooperation & coordination(cgcod)	0.694***				
Collective goals with employees plays the role of cooperation & coordination(cgcoe)	0.678***				
Comm (emotional commitment)		0.841	0.575	0.129	0.045
Emotional commitment with suppliers plays the role of cooperation & coordination	0.826***				
Emotional commitment with customers plays the role of cooperation & coordination (eccoa)	0.815***				
Emotional commitment with employees plays the role of cooperation & coordination (eccoe)	0.824***				
Emotional commitment with governmental officials plays the role of cooperation & coordination (eccod)	0.525***				

Note: ***p<0.001, CR is composite reliability; AVE is average variance extracted; MSV is Maximum Shared Variance; ASV is Average Shared Variance.

From Tables 4.6.3 and 4.6.5, the CR for all factors was greater than the benchmark of 0.70 (range from 0.773 to 0.951), indicating that the measures of these items have good reliability, and there are no reliability issues (Malhotra, 2010).

In Tables 4.6.3 and 4.6.5, the AVE for each construct was more than 0.50. The result for the final measurement model showed that each standardised loading was greater than 0.5 and the P-value was less than 0.05 (see Table 4.6.5), illustrating the measure's sufficient convergent validity (ibid.). In Tables 4.6.3 and 4.6.5, the MSV and ASV for each factor was less than their AVE, indicating adequate discriminant validity (Hair *et al.*, 2010). Besides the MSV and ASV, to achieve discriminant validity, the square root of the AVE must be less than any correlation with another factor. Table 4.6.4 shows that all of these factors met this criterion.

How this model fitted the correlation between the variables in the dataset was examined after assessing this measurement model's reliability and validity. The measurement models overfit was examined using popular indices: the ratio of Chi-square to degrees of freedom (Chi-square/df); the comparative fit index (CFI); the root mean square error of approximation (RMSEA); the p close fit (PCLOSE); the

standardised root mean square residual (SRMR) and the p-value (Hu and Bentler, 1999; Hair *et al.*, 2010). Table 4.6.6 presents the model fit statistics for the final measurement model.

Table 4.6.6 Model fit statistics for the final measurement model

Metric	Observed value	Idea Threshold
Chi-square/df (CMIN/df)	1.671	Between 1 and 3
CFI	0.959	>0.95
RMSEA	0.041	<0.060
PCLOSE	1.000	>0.050
SRMR	0.0555	<0.080
P - value	0.001	<0.05

According to Hu and Bentler (1999), a ratio of Chi-square/df ranging between one and three is deemed acceptable; the value of CFI exceeds 0.95 if the model is to fit the data really well. A value of RMSEA equal to or less than 0.06 means a good fit, and from 0.08 to 0.1 indicates a mediocre fit. PCLOSE is greater than 0.05 indicating an exact fit; SRMR is less than 0.08 meaning a good fit. The P-value is less than 0.05 meaning a significant fit. Table 4.6.6 shows the model fit indices for the final measurement model: Chi-square/df =1.671; CFI = 0.959; RMSEA = 0.041; PCLOSE = 1.000; SRMR = 0.0555 and P-value =0.001, all indicating a satisfactory model fit for the data collected. Therefore, the items in each construct were reliable indicators in this measurement model, which was used to test the structural relationship. In other words, eight constructs including 35 items including parcels in the final measurement model were used to build hypothesised models in a structural model according to the conceptual framework as presented in Chapter 2.

4.7 The Structural Model

As noted in Chapter 3, a structural equation model (SEM) comprises of a measurement model (CFA) and a structural model. A measurement model indicates the relationship between latent variables (i.e. constructs and their indicators). A structural model indicates the causal hypotheses of relationships among the latent variables. Hence, this section uses the constructs and their indicators as shown in the

final measurement model, to perform structural equation modelling, to test hypotheses H1, H2, H3a-e, H4a-e and H5, to answer the research questions in this present study. The structural model is shown in Figure 4.7.1 in Appendix H, which indicated how social networks influenced organisational performance via three forms of resource acquisition (access to information, organisational learning and organisational social capital) and key components of social capital (trust, emotional commitment, reciprocity, sharing norms and collective goals).

Table 4.7.1 Model fit statistics for the structural model

Metric	Observed value	Idea Threshold
Chi-square/df (CMIN/df)	1.837	Between 1 and 3
CFI	0.951	>0.95
RMSEA	0.046	<0.060
PCLOSE	0.959	>0.050
SRMR	0.0539	<0.080
P - value	0.001	<0.05

According to Hu and Bentler (1999), the results for the structural model in Table 4.7.1 show an adequate model fit with the data: Chi-square/df = 1.837; $p < 0.001$; comparative fit index (CFI) = 0.951; root mean square error of approximation (RMSEA) = 0.05; P close fit (PCLOSE) = 0.959 and the standardised root mean square residual (SRMR) = 0.0539. Table 4.7.2 shows the results of the hypotheses testing in this study.

Table 4.7.2 Results of hypothesised models

Hypothesised models	Path	Standardised path coefficient	p value	results
H1	Socialnet → Performance	0.340	***	Accepted
H2	Socialnet → Acquisition	0.132	0.024	Accepted
H3a	Socialnet → Trustco	0.085	NS	Rejected
H3b	Socialnet → Comm	0.125	0.026	Accepted
H3c	Socialnet → Recityco	0.183	0.001	Accepted
H3d	Socialnet → Norm	0.052	NS	Rejected
H3e	Socialnet → Collectgoa	0.038	NS	Rejected
H4a	Trustco → Performance	0.063	NS	Rejected
H4b	Comm → Performance	0.019	NS	Rejected
H4c	Recityco → Performance	0.081	0.041	Accepted
H4d	Norm → Performance	0.079	NS	Rejected
H4e	Collectgoa → Performance	0.129	0.007	Accepted
H5	Acquisition → Performance	0.481	***	Accepted

Note: *** $p < 0.001$, NS is not significant ($p > 0.05$).

The results of the structural model in Table 4.7.2 indicate that the relationship between the tie strength of social networks (business ties, government ties and managerial ties) and organisational performance was significant. Therefore this provides support for Hypothesis 1 ($\beta = 0.34$, $p < 0.001$), as the standardised regression weight was 0.34. Hypothesis 2 predicted that the tie strength of social networks was significantly associated with three modes of resource acquisition: access to information; organisational learning and organisational social capital, in Table 4.4.1 ($\beta = 0.132$, $p = 0.024$), as the standardised regression weight was 0.132.

The tie strength of social networks was not significantly associated with trust ($\beta = 0.085$, non-significant), thus rejecting Hypothesis 3a. Similarly, the relationship between the tie strength of social networks and sharing norms was not significant ($\beta = 0.052$, non-significant), thus rejecting Hypothesis 3d. The tie strength of social

networks was not significantly associated with collective goals ($\beta = 0.038$, non-significant), hence rejecting Hypothesis 3e. However, the tie strength of social networks was significantly associated with emotional commitment ($\beta = 0.125$, $p=0.026$), thus supporting Hypothesis 3b, as the standardised regression weight was 0.125. The tie strength of social networks was significantly associated with reciprocity ($\beta = 0.183$, $p=0.001$), thus supporting Hypothesis 3c.

The results showed that the tie strength of social networks was significantly associated with emotional commitment (supported of Hypothesis 3b) and reciprocity (supported of Hypothesis 3c), which demonstrates that the purpose of the use of the personal social relationship (i.e. the exchange of favours or gifts) was achieved, according to the definition of the personal social relationship, reciprocity and emotional commitment from the social capital perspective (Adler and Kwon, 2002; Barnes *et al.*, 2011). The personal social relationship (the tie strength) is defined as the exchange of favours and gifts (Adler and Kwon, 2002). Reciprocity refers to the exchange of favours and gifts. Emotional commitment refers to affection between exchange parties and a commitment obligation in the exchange relationship (Barnes *et al.*, 2011). The results indicated that the tie strength of social networks was not significantly associated with trust (not supported of Hypothesis 3a), which showed that the two exchange parties (the focal firm and its business partners or government officials or its employees) did not promise to fulfil obligations in the exchange relationship (i.e. trust); the purpose of using the personal social relationship was not achieved. This is because the completion of the exchange of favours relies upon the quality of the trust in relationships between the exchange parties under the Chinese hierarchical social relationships of the Guanxi structure (Chen and Chen, 2004; Barnes *et al.*, 2011). Similarly, the results showed that the tie strength of social networks was not significantly associated with sharing norms (not supported of Hypothesis 3d) and collective goals (not supported of Hypothesis 3e), which indicated that the use of the personal social relationship did not enable the achievement of shared common norms and goals. Social capital theorists (Nahapiet and Ghoshal, 1998; Putnam, 1993) argue that actors use the tie strength to achieve shared common norms and goals. However, the use of the tie strength of social networks to achieve common norms and goals depends on whether top managers use the personal social relationship to achieve their individual goals or organisational goals. If they use social

networks to achieve their individual goals, as a result, the shared common norms and goals will not be achieved.

The three modes of resource acquisition (i.e. access to information, organisational learning and organisational social capital), within social networks (business ties, government ties and managerial ties), were significantly associated with organisational performance ($\beta = 0.481$, $p < 0.001$), thus supporting Hypothesis 5, as the standardised regression weight was 0.481.

Trust was not significantly associated with organisational performance ($\beta = 0.063$, non-significant), thus rejecting Hypothesis 4a. Emotional commitment was not significantly associated with organisational performance ($\beta = 0.019$, non-significant), thus rejecting Hypothesis 4b. Sharing norms were not significantly associated with organisational performance ($\beta = 0.079$, non-significant), thus rejecting Hypothesis 4d. However, reciprocity was significantly associated with organisational performance ($\beta = 0.081$, $p < 0.05$), thus supporting Hypothesis 4c, as the standardised regression weight was 0.081. Collective goals were significantly associated with organisational performance ($\beta = 0.129$, $p < 0.05$), thus supporting Hypothesis 4e, as the standardised regression weight was 0.129.

4.8 Mediating Hypotheses Testing

Following Hayes' (2009) suggestion, two approaches to test the mediating hypotheses were followed (refer to Chapter 2), i.e., Bootstrapping and Sobel's z-statistic test approaches. With regard to the Bootstrapping approach, according to Baron and Kenny (1986) and Gaskin (2014b), the guidelines for testing the mediating effects are presented as follows:

a) For no mediation effects:

- If the indirect effect is not significant;
- If the direct effect of mediators on outcome variables such as organisational performance is insignificant or if the direct effect of independent variables such as social networks on mediators to outcome variables such as organisational performance is insignificant.

b) For indirect effects

- Both direct effects are not significant, but the indirect effect is significant.

c) For full mediation

- Given that the direct effects are significant prior to adding the mediator
- If indirect is significant and direct (with mediator) is not significant

d) For partial mediation - If the direct (with mediator) and indirect effects are significant.

Table 4.8.1 presents the findings for the mediations of resource acquisition, reciprocity, trust, emotional commitment, sharing norms and collective goals based on the results of the bootstrap analyses from AMOS. Table 4.8.1 shows that both the direct effect with the mediator ($\beta = 0.491$, $p = 0.002$) and the indirect effect ($\beta = 0.445$, $p = 0.005$), were significant for the mediating role of resource acquisition. Thus resource acquisition (i.e. access to information, organisational learning and organisational social capital) has a partial mediating effect in the relationship between social networks (business ties, government ties and managerial ties) and organisational performance. Reciprocity also has a partial mediating effect in the relationship between social networks and organisational performance, since both the direct effect and the indirect effect with it, were significant. Trust, emotional commitment, sharing norms and collective goals did not mediate the relationship between social networks and organisational performance. This is due to the fact that both the direct effect and the indirect effect with them were insignificant. The following discussion explains both the direct and indirect effects from the results of the bootstrap analyses.

Table 4.8.1 Summary of Findings

Relationship or Hypothesis	Standardised Direct Effect without Mediator	Standardised Direct Effect with Mediator	Standardised Indirect Effect	Conclusion
H7: Socialnet - Acquisition - Performance	0.38 (0.001)	0.491(0.002)	0.445(0.005)	Sig(partial mediation) H7 Accepted
H6c: Socialnet - Reciprocity - Performance	0.38(0.001)	0.089(0.04)	0.18(0.001)	Sig(partial mediation) H6c Accepted
H6d: Socialnet - Norm - Performance	0.38(0.001)	0.045(NS)	-0.13(NS)	No mediation H6d Rejected
H6e: Socialnet - Collectgo - Performance	0.38(0.001)	0.040(NS)	-0.09(NS)	No mediation H6e Rejected

Performance				
H6a:Socialnet -Trustco - Performance	0.38(0.001)	0.035(NS)	-0.13(NS)	No mediation H6a Rejected
H6b:Socialnet-Comm - Performance	0.38(0.001)	0.018(NS)	-0.05(NS)	No mediation H6b Rejected

Note: Standardised path coefficient shown; NS is not significant ($p>0.05$).

The results showed that reciprocity is a mediator in the relationship between the three types of social networks and organisational performance (supported of Hypothesis 6c), but trust, emotional commitment, sharing norms and collective goals did not mediate this relationship (not supported of Hypotheses 6a, 6b, 6d and 6e). Social capital theorists (Putnam, 1993; Nahapiet and Ghoshal, 1998; Tsai and Ghoshal, 1998) argue that the relational and cognitive dimensions (e.g. trust, reciprocity and sharing norms) of social capital can play a mediating role in coordination and cooperation for mutual benefit in a relationship. But whether these dimensions of social capital can play a mediating role in this relationship depends upon the quality of the trust and emotional commitment in relationships and whether the exchange parties can achieve the exchange of favours under the Chinese hierarchical social relationships of the Guanxi structure (Chen and Chen, 2004; Barnes *et al.*, 2011). As noted earlier, the personal social relationship was not used to achieve the exchange of favours and shared common norms and goals, and thus trust, emotional commitment, sharing norms, and collective goals did not play a mediating role in this relationship.

The results showed that the three forms of resource acquisition (access to information, organisational learning, and organisational social capital) mediate the relationship between the three types of social networks (business ties, government ties and managerial ties) and organisational performance (supported of Hypothesis 7), which is in line with social capital theory. Social capital theory (Nahapiet and Ghoshal, 1998) proposes that social networks as social capital are a set of resources that actors can access and use to achieve their goals (Nahapiet and Ghoshal, 1998; Tsai and Ghoshal, 1998). This theory argues that strong ties within social networks as social capital assist the focal firm to acquire valuable resources such as access to information (Granovetter, 1973; Burt, 1992, 2000), organisational learning (Yli-Renko *et al.*, 2001), and organisational social capital (Gabbay and Leenders, 1999), which have positive effects on organisational performance (Harrington, 2001; Yli-

Renko *et al.*, 2001). On the other hand, the focal firm uses product quality or norms as collective goals within social networks to enable the transfer of individual learning to organisational learning (Dyer and Nobeoka, 2000; Dyer and Hatch, 2006; Li *et al.*, 2011), and the transfer of individual goals to organisational goals (Gabbay and Leenders, 1999), which positively affect organisational performance (Harrington, 2001; Dyer and Hatch, 2006). In other words, the three forms of resource acquisition mediate the relationship between the three types of social networks and organisational performance in terms of how social networks at the individual level can be transferred to the organisational one.

Direct effects

Table 4.8.1 also shows the results of bootstrapping: the significance of the direct effects; both with mediators and without mediators. The result of the bootstrap analyses, regarding the significance of direct effects without mediators, was the same for Hypotheses 7 and 6a-e ($\beta = 0.38$, $p = 0.001$), i.e., the relationship between social networks and organisational performance was significant, as the standardised regression weight was 0.38. The result of bootstrapping with regard to the significance of direct effects with the mediator '*resource acquisition*' (acquisition), was that the direct effect of social networks on resource acquisition was significant and the direct effect of resource acquisition on organisational performance was also significant ($\beta = 0.491$, $p=0.002$), as the standardised regression weight was 0.491. Similarly, for the mediator of reciprocity (recityco), the direct effect of social networks on reciprocity was significant and the direct effect of reciprocity on organisational performance was also significant ($\beta = 0.089$, $p=0.04$), as the standardised regression weight was 0.089.

However, both the direct effect of social networks on trust (trustco) and the direct effect of trust on organisational performance were insignificant ($\beta = 0.035$, non-significant). Similarly, both the direct effect of social networks on sharing norms (norm) and the direct effect of sharing norms on organisational performance, were not significant ($\beta = 0.045$, non-significant). The direct effect of social networks on collective goals was not significant ($\beta = 0.04$, non-significant), although the relationship between collective goals and organisational performance was significant (Hypothesis 4e), as noted before. The direct effect of emotional commitment on

organisational performance was insignificant ($\beta = 0.018$, non-significant), although social networks were significantly associated with emotional commitment (Hypothesis 3b), as discussed earlier.

Indirect effects

Table 4.8.1 provides the results of bootstrapping the significance of the indirect effects in this study. The result of the bootstrap analysis of the indirect effect on the relationship between social networks and organisational performance, via resource acquisition was significant ($\beta = 0.445$, $p=0.005$), as the standardised regression weight was 0.445. Similarly, the indirect effect on the relationship between social networks and organisational performance, via reciprocity was significant ($\beta = 0.18$, $p=0.001$), as the standardised regression weight was 0.18.

However, the result of the bootstrap analyses of the indirect effect on the relationship between social networks and organisational performance, through trust was insignificant ($\beta = -0.13$, non-significant). The indirect effect on the relationship between social networks and organisational performance, through emotional commitment was not significant ($\beta = -0.05$, non-significant). The indirect effect on the relationship between social network and organisational performance, through sharing norms was insignificant ($\beta = -0.13$, non-significant). The indirect effect on the relationship between social networks and organisational performance, through collective goals was not significant ($\beta = -0.09$, non-significant).

Sobel's Test

Besides the Bootstrapping approach, I applied the Sobel's z-value test (Sobel, 1982) to assess the significance of resource acquisition as a mediator in the positive relationship between the tie strength of social networks and organisational performance. If the z-value exceeds 1.96 ($p<0.05$), the mediating role of resource acquisition is significant. The z-value for the indirect relationship of resource acquisition between social networks and organisational performance was found to be 2.226 ($p=0.026$). Thus, Hypothesis 7 was supported.

Table 4.8.1 indicates that the direct effect without the mediator ($\beta =0.38$, $p=0.001$) and the indirect effect ($\beta =-0.18$, $p=0.001$) were significant for the mediator of

reciprocity, and the direct effect with the mediator was significant ($\beta = 0.089$, $p = 0.04$). Hence, reciprocity has a partial mediating effect in the relationship between social networks (business ties, government ties and managerial ties) and organisational performance. The Sobel's z-value for the indirect relationship between social networks and organisational performance for reciprocity was 2.004 ($p = 0.045$), which exceeds 1.96 ($p < 0.05$). Based on the results of the Bootstrapping and Sobel's z-value, Hypothesis 6c was supported.

Table 4.8.1 illustrates that trust, emotional commitment, sharing norms and collective goals were not significant for both direct effects with the mediator and indirect effects ($p > 0.05$) based on the result of the Bootstrapping. Thus, demonstrating that Hypotheses 6a, 6b, 6d and 6e were rejected (Hayes, 2009). If the mediating role of these variables does not firstly meet the criteria of the results of the Bootstrap analyses (Baron and Kenny, 1986), then it is not necessary to use the Sobel's z-value test for later analyses (Hayes, 2009). Hence, I will not use the Sobel's z-value to test these mediators as the findings of the Bootstrapping have demonstrated that these mediating hypotheses are rejected.

4.9 Control Variable Effects for All Hypothesised Models

Regarding the effect of the control variables for all of the hypothesised models, all of the control variables tested are shown in Figure 4.7.1 in Appendix H. Company size was correlated with organisational performance within social networks ($\beta = 0.26$, $p < 0.001$), as the standardised regression weight was 0.26. The relationship between location and organisational performance was significant within social networks ($\beta = 0.098$, $p < 0.05$), as the standardised regression weight was 0.098. Company age was not significantly correlated with organisational performance within social networks ($\beta = 0.043$, non-significant). The relationship between ownership and organisational performance was not significant within social networks ($\beta = 0.038$, non-significant).

4.10 Summary of Findings to Answer Research Questions

Table 4.10.1 provided a summary of the findings to answer the four research questions as presented in Chapter 1. Hypothesis 1: *'The tie strength of social networks*

(business ties, government ties and managerial ties) is positively associated with organisational performance’ was supported in answer to research question one.

Hypothesis 2: *‘The tie strength of social networks (business ties, government ties and managerial ties) is positively associated with three modes of resource acquisition – access to information, organisational learning and organisational social capital*’ was supported in answer to research question two.

Hypothesis 3a: *‘The tie strength of social networks (business ties, government ties and managerial ties) is positively associated with trust*’ was not supported in answer to research question four.

Hypothesis 3b: *‘The tie strength of social networks (business ties, government ties and managerial ties) is positively associated with emotional commitment*’ was supported in answer to research question four.

Hypothesis 3c: *‘The tie strength of social networks (business ties, government ties and managerial ties) is positively associated with reciprocity*’ was supported in answer to research question four.

Hypothesis 3d: *‘The tie strength of social networks (business ties, government ties and managerial ties) is positively associated with sharing norms*’ was not supported in answer to research question four.

Hypothesis 3e: *‘The tie strength of social networks (business ties, government ties and managerial ties) is positively associated with collective goals*’ was not supported in answer to research question four.

Hypothesis 4a: *‘Trust is positively associated with organisational performance*’ was not supported in answer to research question four.

Hypothesis 4b: *‘Emotional commitment is positively associated with organisational performance*’ was not supported in answer to research question four.

Hypothesis 4c: *'Reciprocity is positively associated with organisational performance'* was supported in answer to research question four.

Hypothesis 4d: *'Sharing norms are positively associated with organisational performance'* was not supported in answer to research question four.

Hypothesis 4e: *'Collective goals are positively associated with organisational performance'* was supported in answer to research question four.

Hypothesis 5: *'Access to information, organisational learning and organisational social capital within social networks (business ties, government ties and managerial ties) are positively associated with organisational performance'* was supported in answer to research question three.

Hypothesis 6a: *'Trust mediates the positive relationship between the tie strength of social networks (business ties, government ties and managerial ties) and organisational performance'* was not supported in answer to research question four.

Hypothesis 6b: *'Emotional commitment mediates the positive relationship between the tie strength of social networks (business ties, government ties and managerial ties) and organisational performance'* was not supported in answer to research question four.

Hypothesis 6c: *'Reciprocity mediates the positive relationship between the tie strength of social networks (business ties, government ties and managerial ties) and organisational performance'* was supported in answer to research question four.

Hypothesis 6d: *'Sharing norms mediate the positive relationship between the tie strength of social networks (business ties, government ties and managerial ties) and organisational performance'* was not supported in answer to research question four.

Hypothesis 6e: *'Collective goals mediate the positive relationship between the tie strength of social networks (business ties, government ties and managerial ties) and organisational performance'* was not supported in answer to research question four.

Hypothesis 7: *‘Access to information, organisational learning and organisational social capital mediate the positive relationship between the tie strength of social networks (business ties, government ties and managerial ties) and organisational performance’* was supported in answer to research question one.

Table 4.10.1 Summary of findings and research questions

Research Questions	Hypotheses	Findings
1) Do Chinese listed companies use their social networks such as business ties, government ties, and managerial ties to obtain resources such as information, organisational learning and organisational social capital in order to achieve their collective aims? If so, what is the relationship between social network and organisational performance? Do the three forms of resource Acquisition mediate the relationship?	Hypothesis 1 Hypothesis 7	Supported Supported
2) Do business ties, government ties and managerial ties positively facilitate access to information, organisational learning and organisational social capital?	Hypothesis 2	Supported
3) Does the acquisition of resources such as information, organisational learning and organisational social capital result in positive organisational performance?	Hypothesis 5	Supported
4) What are the key coordination components of social networks that have positive effects on the organisational performance of listed companies in China?	Hypothesis 3a Hypothesis 3b Hypothesis 3c Hypothesis 3d Hypothesis 3e Hypothesis 4a Hypothesis 4b Hypothesis 4c Hypothesis 4d Hypothesis 4e Hypothesis 6a Hypothesis 6b Hypothesis 6c Hypothesis 6d Hypothesis 6e	Not supported Supported Supported Not supported Not supported Not supported Not supported Supported Not supported Supported Not supported Not supported Supported Not supported Not supported

4.11 Chapter Summary

In this chapter, I developed an SEM to test the hypotheses as presented in chapter 2. The SEM comprises of two components, i.e., a measurement model (CFA) and a structural model. Composite Reliability (CR), AVE, MSV and ASV for the assessment of the final measurement model indicated that it had sufficient reliability, and convergent and discriminant validity without any of these issues. Furthermore this measurement model resulted in an acceptable best model fit. Therefore, I used all of the constructs from this measurement model to create a structural model to test the hypotheses.

The findings from the output of this structural model in AMOS demonstrated that the ties strength of social networks (business ties, government ties and managerial ties), was significantly associated with organisational performance, which supports Hypothesis 1. The evidence from this structural model supported Hypothesis 2, i.e. the tie strength of social networks was significantly associated with three modes of resource acquisition – access to information, organisational learning and organisational social capital. The ties strength of social networks was significantly associated with emotional commitment and reciprocity, supporting Hypotheses 3b and 3c. However, the relationship between the ties strength of social networks and trust, or sharing norms, or collective goals was insignificant. Thus Hypotheses 3a, 3d and 3e were rejected.

The three modes of resource acquisition within social networks were significantly associated with organisational performance, thus supporting Hypothesis 5.

Reciprocity and collective goals were significantly associated with organisational performance, thus supporting Hypotheses 4c and 4e. However, the relationship between trust or emotional commitment or sharing norms and organisational performance, was not significant, thus rejecting Hypotheses 4a, 4b and 4d.

With regard to the control variables' impact on organisational performance, the findings indicated that company size and location have significant impacts on

organisational performance, but the company age and ownership have no impact on organisational performance within social networks.

The findings of the Bootstrapping and Sobel's z-value test indicate that the three forms of resource acquisition and reciprocity mediate the positive relationship between the tie strength of social networks (business ties, government ties and managerial ties) and organisational performance, thus supporting Hypotheses 7 and 6c.

The results of the Bootstrapping show that trust, emotional commitment, sharing norms and collective goals do not mediate the positive relationship between the tie strength of social networks and organisational performance, thus rejecting Hypotheses 6a, 6b, 6d and 6e.

The next chapter will present the qualitative results through the analysis of the data collected from the semi-structured interviews.

Chapter 5 The Qualitative Findings

5.1 Introduction

This chapter presents the qualitative results from analysing the data collected from the semi-structured interviews. This chapter includes five sections. Section 5.2 explains the purpose for Chinese listed companies using social networks, such as business ties (ties with business partners), government ties (ties with government officials), and managerial ties (ties with employees), and how they meet their profitability and growth objectives. Section 5.3 explains the mediating role of three modes of resource acquisition: access to information, organisational learning and organisational social capital. Section 5.4 explains how reciprocity mediates the positive relationship between social networks and organisational performance, and why trust, emotional commitment, sharing norms, and collective goals do not mediate the positive relationship between social networks and organisational performance for Chinese listed companies. Finally, section 5.5 provides a summary of this chapter.

5.2 Purpose of Using Social networks and Organisational Performance

5.2.1 Business Ties

The quantitative results indicated that the three types of social networks are positively associated with organisational performance. With regard to this result, the majority of the interviewees stated that the three purposes of using business ties are: 1) To access information such as industry policy information and production information, organisational learning and organisational social capital as resources; 2) To achieve their companies' profit and growth goals; 3) To expand their companies' operating scales, as well as to influence organisational performance. As previous studies, such as that of Peng & Luo (2000), have found, the top managers in a focal firm have a close relationship or stronger contacts with top managers of other companies (i.e. business partners). This has a positive impact on the company's performance. My findings from the interview data support this argument. For example, managers within their firms use business ties to achieve their particular goals, such as business needs

and long-term business benefits in order to reduce their costs. This then has a positive effect on organisational performance.

Several general managers explained that they used business ties to maximise their companies' benefits and business needs in order to reduce their operating costs. The following quotations illustrate how they used business ties to influence organisational performance:

“We keep in regular contact with our customers to find out what they want in order to maximise our enterprise's benefit; in particular, the real estate industry is more competitive than other industries in China. Our company has regular contact with our suppliers, so we incur a lower cost for the construction material, which reduces the operating cost for our industry.”

(Interviewee 1, 52 years old, Shenzhen)

“We use business ties for our company's business needs. [...] We keep stronger ties with our customers in order to get further business from them, as well as feedback in order to satisfy customers' needs. [...] We keep strong ties with our suppliers to get the materials for our products on time and secure a long-term supply, as a result, we have long term benefits from our customers and suppliers.”

(Interviewee 6, 46 years old, Chongqing)

“For our business benefits, we keep stronger contact with our customers as our friends so they provide long term business benefits and feedback for our company. We have stronger ties with our suppliers as our friends in order to gain the good quality and lower price of materials for our company on time to reduce the cost [...] part of competitors are our friends so we could access valuable information such as production and price of products before we launch our new products.”

(Interviewee 7, 53 years old, Chongqing)

The above quotations show that these top managers keep regular and close contact with their business partners (customers, suppliers, and competitors) for the benefit of their business (such as reducing costs and satisfying customers' needs), which has led to an improvement in their firm's performance. This explains why and how the tie strength of business ties is positively associated with organisational performance (supported of Hypothesis 1).

The views presented above are in line with the view of social capital theorists such as Nahapiet and Ghoshal (1998), who consider social networks as resources for actors' use in order to reach certain goals.

5.2.2 Government ties

Governmental officials have different levels of power or status (Brass *et al.*, 1998) and the relationship between managers in the focal firm and governmental officials is hierarchical (Peng and Luo, 2000; Chen and Wu, 2011). Chinese government officials in different governmental departments have different levels of power to allocate valuable resources to different companies in their industries (*ibid.*). Previous research has found that power as social capital is positively associated with resource acquisition, such as organisational learning (Atuahene-Gima and Murray, 2007), which in turn, has a positive impact on organisational performance (Li *et al.*, 2011). My results indicated that the power of Chinese governmental departments influences Chinese listed companies in two main ways: 1) Projects approval; 2) Resource acquisition such as land, bank loans and funding. The following statements show how the power of government influences the approval of projects and organisational effectiveness.

“For the real estate industry, there are at least ten superior administrative governmental departments, such as the construction committee, the planning bureau, the housing authority, the property management bureau and the environmental protection bureau. As these governmental departments have different powers to allocate resources such as lands to different Chinese companies and to issue approval documents to Chinese firms to develop their projects, I keep a close relationship with the officials in these governmental departments so that I can get the approval documents to develop our company’s projects within three working days to reduce the cost of our projects.”

(Interviewee 6, 46 years old, Chongqing)

“For the manufacturing industry, our new or reformed projects need to be approved by at least ten superior governmental departments, such as the Chinese planning development committee, the planning bureau and the environmental protection bureau. Firstly, we need to submit our project proposal to Chinese planning development committee to get the approval document from this committee. Secondly, our project needs to the planning bureau to get another approval document from this bureau[...]Since these governmental departments have different powers to issue different approval documents for our projects, we have some friends in these governmental departments and keep regular contact with them in order to get all the approval documents for our project to save on costs.”

(Interviewee18, 45 years old, Beijing)

The above quotations indicate that top managers keep close or regular contact with different officials in the different superior Chinese governmental departments to gain

project approval in order to save time and costs, which has led to organisational effectiveness in different industries. This explains why the tie strength of government ties is positively associated with organisational performance (supported of Hypothesis 1).

The Chinese government possesses land, and Chinese state-owned banks and other state financial institutions own financial resources and funding. Despite three decades of reforms in China, officials at different levels of the Chinese government, or in industrial bureaus, commercial administration, state banks or state financial institutions, still have the power to allocate such resources to different companies in various industries. Such power affects Chinese listed firms' ability to obtain these valuable resources.

Prior researchers (such as Chen and Wu, 2011) stated that top managers in their firms build good relationships with Chinese government officials, which facilitate accessing valuable resources such as lands and bank loans that influence firm performance. My findings with regard to the purpose of using government ties in Chinese listed firms, is to acquire valuable resources such as land, bank loans and the innovation funding, which has a positive impact on organisational performance. The following quotations explain my findings.

“We have regular contact with officials in different governmental departments in China so that we could buy land from the Chinese government, which is a much cheaper price for land than buying from other real estate development companies to reduce our operating cost [...] we keep regular contact with officials in Chinese state-owned banks such as Chinese construction bank in order to get long-term lower interest rate loans. This is because we need more bank loans to develop our real estate project when our project is approved. As a result, our development of real estate projects could make a big profit.” (Interviewee 3, 50 years old, Shenzhen)

“I keep regular contact with Chinese government officials in order to get the innovation funding for our new products and the financial support from the Chinese development bank so that we can launch our new products as soon as possible to make profits [...]” (Interviewee 17, 48 years old, Beijing)

The quotations presented above illustrate how the tie strength of government ties positively affects organisational performance (supported of Hypothesis 1), i.e. top managers keep regular contact with Chinese government officials to acquire more

valuable resources such as bank loans and land , and innovation funding, which has led to great profits for their firms. This explanation is also linked to the findings (supported of Hypotheses 2 and 7), i.e. the tie strength of government ties is positively associated with resource acquisition, and the tie strength of government ties is positively associated with organisational performance via resource acquisition.

Overall, the interviewees indicated that they used government ties to help their firms to facilitate their project approvals in terms of resource acquisition, as well as to acquire valuable resources such as land, bank loans and innovation funding, which led to improved organisational performance. Section 5.3 will further discuss the detail of resource acquisition.

5.2.3 Managerial Ties

Managerial ties refer to senior executives in the focal firm who have connections with employees (Atuahene-Gima and Murray, 2007). Since structural holes exist between employees and suppliers or customers or government officials in an ego network (Burt, 1992; Wasserman and Faust, 1994), managerial ties may facilitate access to information, organisational learning and organisational social capital from suppliers, customers and governmental officials. This is achieved through bridging the gap between two and more employees (Taylor, 2007). In line with this characteristic of an ego-network, the majority of the interviewees agreed that they used managerial ties to access information, organisational learning and organisational social capital. My findings suggest that the purpose of use managerial ties is to utilise the three modes of resource acquisition (access to information, organisational learning and organisational social capital) by bridging social capital through employees' motivation, support and innovation. Bridging social capital, means bridging all the information, knowledge or policy from the focal firm's business partners and governmental officials for the employees to share and exchange, in order to achieve the focal firm's goals (ibid.). Two of the interviewees stated that they use managerial ties to motivate their employees to work hard and increase their innovation. They stated:

"[...]apart from the employment relationship with my employees, I keep regular contact with my employees through meetings, telephone or emails each month in

order to improve the employees' motivation to work and their ability for innovation. The employees' ability to innovate comes from learning through acquiring knowledge or information technology from our business partners. Some of our employees have good relationships with governmental officials so we know the preferential policy within our industry and this reduces the cost."

(Interviewee 16, 58 years old, Beijing)

"I keep a close relationship with my employees through face-face meetings and telephone or emails in order to motivate them to work hard and to innovate [...] Their innovation comes from learning knowledge and technology from our business partners [...] the knowledge and technology then become our social capital helping us to reach our profit growth."

(Interviewee 10, 54 years old, Chongqing)

The above quotes indicate that top managers keep regular contact or close relationships with their employees to motivate their employees to work hard and gain knowledge and technology skills to achieve their profit growth goals in terms of how managers use managerial ties to achieve their organisational goals. This is an explanation of the result of the survey (supported of Hypothesis 1).

Another interviewee considered that employees' support is social capital for the long-term benefit of his company. He said:

"I keep the regular contact with my employees in order to get employees' support so that our company could keep the long-term stable for the development, as well as we could gain the long-term benefit [...]"

(Interviewee 1, 52 years old, Shenzhen)

The quote presented above explains the reason why the top manager uses his close ties with employees to achieve the long-term benefit. This explains why the tie strength of managerial ties is positively associated with organisational performance (supported of Hypothesis 1).

Overall, I found that employees' motivation, innovation and support are social capital within an ego-network for the manager's use to achieve the organisational goal, which is consistent with social capital theory, as noted by Nahapiet and Ghoshal (1998).

5.2.4 Organisational Performance

Organisational performance includes financial and strategic performance (Chung, 2011). However, the interviewees responded that their companies' strategic

performance could not be separated from their financial performance (such as market share, growth in sales, quality of product and service, and customer satisfaction). The majority of the interviewees indicated that their companies met their profitability and growth objectives through using managerial ties, government ties and business ties in four aspects: 1) Encouraging their employees for innovation; 2) Strengthening exchanges and cooperation between their industry and business partners; 3) Learning from their business partners and other companies; 4) Obtaining advanced technology with the funding support. First, they believed that their companies had met the profitability and growth objectives via encouraging their employees to innovate in all aspects such as product, ideas and technology innovation. One of them said:

“We set up our profitability and growth objectives each year. We assign these objectives to each department’s target for the department manager who is responsible for innovative employees’ ideas and product innovation. [...]The department manager might use employees’ ideas and technological innovation to achieve department sales targets [...]” (Interviewee 10, 54 years old, Chongqing)

The above quote indicates that top managers use managerial ties to motivate employees to have ideas and instigate product innovation to achieve their profit and growth goals. This explains how the focal firm meets its goals via managerial ties (supported of Hypothesis 1).

Another interviewee said that they used an incentive system to encourage employee innovation in order to meet organisational targets within their expected time. He said:

“We encourage our employees to innovate our product and technology, to design new products in order to meet our profit and growth within three years. So we created the incentive system to motivate our employees’ innovation [...]”
(Interviewee 5, 42 years old, Shenzhen)

The quote presented above explains how top managers meet their organisational goals via managerial ties (supported of Hypothesis 1), i.e. to create an incentive system and encourage their employees to innovate in terms of products and technology.

Second, the majority of interviewees illustrated that they strengthened exchanges and cooperation between their industry and business partners to meet their profit and growth objectives. One of them pointed out:

“We invited our business partners to attend our industry seminars or conferences to exchange ideas and knowledge in the same industry. We also cooperated and coordinated with our business partner in order to meet our profit and growth goals for the long-term benefit” (Interviewee 6, 46 years old, Chongqing)

The quote presented above shows how top managers meet their organisational profit and growth goals via business ties (supported of Hypothesis 1), i.e. through exchanging ideas and knowledge in their industry via seminars or conferences.

Third, most of the interviewees indicated that they and their employees have learnt from their business partners and other companies to meet their profit and growth objectives. They explained:

“We regularly attend other companies’ conferences and the industry exchange conference, to learn from our business partner to learn priority industry information and to meet our growth goals.”
(Interviewee 7, 53 years old, Chongqing)

“We regularly attend social network activities such as the real estate business conference and industry social activities to learn from other companies within the industry to meet our profit goal” (Interviewee 3, 50 years old, Shenzhen)

The quotes presented above illustrate how top managers meet their organisational profit and growth goals via business ties (supported of Hypothesis 1), i.e. to attend conferences and industry social activities to learn from their business partners.

Fourth, the majority of interviewees considered that they have obtained advanced technology from their business partners, as well as gaining funding from government officials to support their technology and to meet their profit and growth objectives. They stated:

“We have obtained advanced technology from our business partner. We had no such advanced technology before. We need such advanced technology to reform our product and old technology in order to improve the quality of our product and to meet our growth goal [...]”
(Interviewee 18, 45 years old, Beijing)

“We acquired advanced technology from our supplier and funding from the government in order to improve our technology and innovation knowledge and skills in this area and to meet our profit objectives.”

(Interviewee 16, 58 years old, Beijing)

The quotes presented above show how top managers meet their organisational profit and growth goals via business ties and government ties (supported of Hypothesis 1), i.e. they acquire advanced technology skills from their business partners, and obtain funding from the Chinese government. This is also linked to the findings, i.e. business ties and government ties are positively associated with resource acquisition (supported of Hypothesis 2), and business ties and government ties are positively associated with organisational performance via resource acquisition (supported of Hypothesis 7).

Overall, the Chinese listed companies use the four aspects of managerial, business and government ties to achieve their profit and growth objectives. This is in line with the argument that innovation, learning and technology are valuable sources for actors to access in order to reach their goals (Gabby and Leenders, 1999; Nahapiet and Ghoshal, 1998).

5.2.4.1 Five Ways to Gain Competitive Advantages

With regard to the interview question on how their company gains product, firm or brand awareness in order to get competitive advantages, the majority of the interviewees indicated that their companies used five ways to gain product or brand awareness: a) A strategic decision competitiveness; b) Good quality of products and services; c) Establishing a broad strategic alliance; d) Innovation competitiveness; e) Cultural competitiveness.

Firstly, strategic decision competitiveness is used to resolve their companies' problem in making the right decision when they face a competitive market environment and their competitors. One of them explained:

“Strategic decision competitiveness means that our enterprise identifies pitfalls in development and market opportunities, as well as having the ability to respond in a timely and effective way to environmental change.”

(Interviewee 16, 58 years old, Beijing)

The quote presented above provides further evidence on how top managers meet their organisational strategic goals (supported of Hypothesis 1), i.e. to use strategic decision competitiveness when they face environmental change.

Secondly, a good quality of products and services is considered as resources for the focal firm's reputation, in terms of the brand and a strong corporate culture. My results show that a "brand" is a resource as social capital for the focal firm to use in order to gain a competitive advantage. Not only is this positively related to a good quality of product and service, but it is also related to the strong corporate culture.

The interviewees regarded:

"due to brand competitiveness, brand needs to be on quality, but the quality is just not a brand. It is also a strong corporate culture. A brand, once formed, is a direct resource. It therefore constitutes an important part of corporate culture."

(Interviewee 19, 46 years old, Beijing)

"We have used our company name as our brand name. We have a good reputation for our brand since our customers have satisfied our products and services. [...]we got such information via a survey of investigation after selling our products."

(Interviewee 8, 43 years old, Chongqing)

The quotes presented above further explain how top managers use brand and a strong corporate culture as a set of resources to meet their organisational strategic goals (supported of Hypothesis 1), i.e. good quality products and services are used as a brand and a strong corporate culture. Lin (2001) argued that corporate reputation including brand is a set of resources that can be used as social capital to achieve collective action.

Thirdly, a strategic alliance is a different dimension of social capital alliance, which is considered as a strategic resource for the company (Tsai and Ghoshal, 1998). The results show that the focal firm established a broad strategic alliance such as information inflow, knowledge exchange and technology. This was obtained through business ties in order to gain competitive advantages. One of them explained:

"We have built the broad strategic alliance with our business partners in order to facilitate knowledge exchange, valuable information inflow[...]We have obtained advanced technology from our suppliers within our strategic alliance."

(Interviewee 11, 46 years old, Guangdong)

The quote presented above explains how top managers use strategic alliances as resources to meet their organisational strategic goals (supported of Hypothesis 1), i.e. to acquire information, knowledge, and advanced technology via business ties. This is

also linked to the findings, i.e. business ties are positively associated with resource acquisition (supported of Hypothesis 2), and business ties are positively associated with organisational performance via resource acquisition (supported of Hypothesis 7).

Fourthly, it is similar to the company that meets its profit and growth objectives, the results show that the focal firm used innovation competitiveness in all fields, such as product and technology innovation through business ties and managerial ties. One of them indicated:

“In order to keep the reputation of our brand, we enhanced employees’ innovation such as their ideas for planning a new project or designing a new product [...] We also keep a good relationship with our business partners which enables product and technology innovation”
(Interviewee 1, 52 years old, Shenzhen)

The quote presented above further explains how top managers meet their organisational strategic goals (supported of Hypothesis 1) via business ties and managerial ties, i.e. to motivate employees to innovate in terms of designing a new product.

Fifthly, the result indicated that cultural competitiveness, as a form of corporate culture competitiveness, involves sharing common values (i.e. a cognitive dimension of social capital) to achieve the common goal through business ties, government ties and managerial ties. They considered:

“Cultural competitiveness is a special form of corporate culture competitiveness for sharing common values at the collective level[...] for example, we considered the value of customer first and customer service as the core concept of our corporate culture. So all employees should have this common value as our collective goal [...] In order to reach this collective goal, we need to coordinate and integrate our employees and external stakeholders such as our business partners [...]”
(Interviewee 18, 45 years old, Beijing)

“We and our business partners have the collective culture as our collective goal [...]so we could achieve our common goal such as meeting the benchmark of the our industry and so on [...]”
(Interviewee 4, 45 years old, Shenzhen)

The quotes presented above further explain how top managers meet their organisational strategic goals (supported of Hypothesis 1) via business ties,

government ties and managerial ties, i.e. by putting customers first as the core concept of their corporate culture, as well as their collective goal.

However, another interviewee disagreed with this view, because Chinese collective culture depends on the quality of relationships between the focal company and their business partners, governmental officials or employees, (i.e., trust, emotional commitment and reciprocity). He argued:

“I do not think that Chinese collective culture as our collective goal was able to achieve the common goal if the quality of relationships, such as trust being a risk.”
(Interviewee 2, 48 years old, Shenzhen)

The quote presented above explains why they use the Chinese collective culture as their collective goals cannot achieve the common goal, i.e. trust is a risk in the quality of relationships between the focal firm and their business partners, government officials, and employees. This explains the results regarding the tie strength of the three types of social networks, which are not positively associated with collective goals (not supported of Hypothesis 3e) because the existence of risk regarding trust in relationships, as the relational dimension of social capital (such as trust) is correlated with the cognitive dimension of social capital (such as collective goals) (Tsai and Ghoshal, 1998).

Cultural competitiveness is considered as a form of corporate culture competitiveness that involves sharing common values at the collective level. The sharing of common values depends upon what is considered as the core concept of corporate culture for a Chinese company. If the firm considers the values of “customers first” and “customer service” as the core concepts of its corporate culture, then the focal firm and its business partners, government officials and employees need to share this common value. Hence cultural competitiveness is considered as a cognitive dimension of social capital, according to the definition of this dimension of social capital, given by Nahapiet and Ghoshal (1998). As noted before, Chinese traditional culture contains trust, emotional commitment, reciprocity, sharing norms and collective goals. These components of Chinese culture as components of social networks, whether they achieve the common goal or not, will be further discussed in section 5.4.2.

5.3 The mediating Role of Resource Acquisition

The quantitative result indicates that the three forms of resource acquisition (i.e. access to information, organisational learning and organisational social capital) play a mediating role in the positive relationship between social networks and organisational performance for Chinese listed companies. Considering this result, the following subsections present how the three modes of resource acquisition mediate social networks and organisational performance.

5.3.1 Access to Information

All of the interviewees agreed that access to information is about knowing/understanding customer needs, new products/services, production information for their industry trends, and policy information. Hence, the interview questions were concerned with the sources of information and how they gain access to this information.

Previous researchers such as Wang *et al.* (2011), argued that access to this information mediates the relationship between business ties and organisational performance, because managers' ties with customers and executives can provide information, and managers' close ties with competitors can enhance the exchange of information. My results are consistent with this argument, i.e., the majority of the interviewees indicated that sources of information that are related to customer needs are acquired from the market investigations through business ties, and exchange information through managerial ties. They said:

“ We keep a regular contact with our customers [...] sources of information about customer needs are obtained from a survey or questionnaire before developing new products or projects, via customers [...]”

(Interviewee 6, 46 years old, Chongqing)

“We gained access to this information from meetings with customers, through individuals exchanging information with each other, and through communicating with competitors and the media.”

(Interviewee 11, 46 years old, Guangdong)

The quotes presented above explain how top managers keep in regular contact with their business partners to obtain customer needs information, and how they exchange information via managerial ties. This explains how top managers use business ties and managerial ties to access information (supported of Hypothesis 2), i.e. they acquire customer needs information via a survey of customers or through communication with competitors and the media, and the exchange of information through individuals.

My results show that government ties play a significant role because the majority of the interviewees considered that new products/services, production information for their industry trends and policy information were all acquired from government ties in order to gain competitive advantages, which led to improved organisational performance. They asserted:

“We acquired new products/service information from the superior Chinese governmental department in our industry and through a weekly statistics bulletin [...] the production information regarding industry trends is acquired from the higher authorities of Chinese government. We also paid attention to the effect on our industry of other industries according to the domestic and international experience in our industry of development. As a result, we could get such information faster than others in order to gain our competitive advantages, as well as to save costs.”
(Interviewee 7, 53 years old, Chongqing)

“ We gained this information from Chinese governmental file notices, official telephone calls and messages, and official websites [...]so we could get the information faster than other companies to save our time and cost[...].”
(Interviewee 9, 45 years old, Chongqing)

“We obtained policy information from Chinese government announcements, our industry associations’ announcements and seminars, the internal strategic development department of collection through Chinese government officials, electronic media and conferences [...]thus we could change our competitive strategies to reach our profit goals” (Interviewee4, 45 years old, Shenzhen)

The quotes presented above explain how top managers acquire new products/services, production information for their industry trends and policy information via government ties (supported of Hypothesis 2), which leads to the cost saving or the achievement of their profit goals (supported of Hypothesis7). That is, top managers

acquire such information through different channels from Chinese governmental departments, file notices and announcements.

Overall, all of the information is acquired from three types of social networks: 1) sources of information about knowing /understanding customer need are from business ties and managerial ties; 2) sources of new products/services, production information for their industry trends, and policy information, which come from government ties.

5.3.2 Organisational learning

With regard to the interview question on how the interviewees and their employees learn more about their industry, product development skills and processes in their industry, compared with other companies in the same industry; I found that the majority of the interviewees considered that there were two approaches for doing this.

One method is that they take an active interest in new technologies within their industry and increase their investment in scientific research funding. This method is linked to government ties, i.e., organisational learning is done through government ties (Li *et al.*, 2011). One of them said:

“[...]Thus, I need to keep in regular contact with government officials in order to know about scientific funding for investments in a research project as the government has the power to allocate funding for these projects.”

(Interviewee 2, 48 years old, Shenzhen)

The quote presented above explains how top managers acquire funding for organisational learning through government ties (supported of Hypothesis 2), i.e. top managers keep in regular contact with government officials to find out about scientific funding.

The other method is that they cooperate with universities and their business partners in order to obtain experts and exchange talented people. This means that knowledge at an individual level can be obtained through business ties and employee ties. This is then transferred to organisational learning via exchanging experts or talented people

(i.e. sharing knowledge), as experts or talented people can be considered as knowledge, according to social capital theory (Tsai and Ghoshal, 1998; Yli-Renko *et al.*, 2001). They explained:

“ We keep a close relationship with our business partners in order to obtain and exchange experts, as well as exchanging knowledge through both employees within our company and business partners.” (Interviewee 5, 42 years old, Shenzhen)

“[...]We keep a good relationship with universities in order to obtain talented persons to serve our company, as well as cooperate with them to develop new projects [...]” (Interviewee 7, 53 years old, Chongqing)

The quotes presented above explain how top managers acquire knowledge at the individual level as organisational learning in terms of how individual knowledge can be transferred to organisational learning via business ties and managerial ties (supported of Hypothesis 2). That is, top managers keep close or good relationships with business partners and universities to obtain and exchange experts, and cooperate with them to develop new projects to achieve their organisational learning goals (i.e. the exchange of knowledge with both employees and business partners).

With regard to the interview question, *“how do you and your employees learn about new skills in new technology and innovation skills in the area where you had no previous experiences?”* I found that the majority of the interviewees indicated there are four ways of doing this through managerial ties and external ties.

Firstly, they sent their employees out to study both at university and within experienced companies, because they need to use external stakeholders for training their employees to become useful talented people within their companies. One of them explained:

“ We build a good relationship with universities and other experienced companies in order to use them to train our employees, e.g. sending our employees to their organisations for studying [...]” (Interviewee 1, 52 years old, Shenzhen)

The quote presented above explains how top managers acquire knowledge as organisational learning via business ties and external ties (e.g. universities) (supported of Hypothesis 2), i.e. they build good relationships with universities in order to send

their employees to study there and they use other experienced companies to train their employees to achieve organisational learning (e.g. new technology and innovation skills).

Secondly, they carried out a range of training for their employees, because the employees felt the skills and technology were new for them. They explained:

“ We keep a regular contact with our employees , so we know our employee and what they need to improve their skills and technology, because they had no experience before[...]we provided different training for them”

(Interviewee 19, 46 years old, Beijing)

“[...]We need our employees master the new skills and new technology faster to make their work effective in achieving our profit growth. So we carried out internal and external training for them[...]”

(Interviewee 16, 58 years old, Beijing)

The quotes shown above explain how top managers use managerial ties to transfer employee learning to organisational goals (supported of Hypothesis 7), i.e. they keep in regular contact with their employees and provide different types of training to their employees to improve their knowledge and skills , which leads to the achievement of profit growth (supported of Hypothesis 5).

Thirdly, they encouraged their employees to be innovative (within their industry areas of ideas, technology and products), and to put into practise what they have learnt, as they face new skills and technology challenge. One of them explained:

“We keep a good relationship with our employees in order to encourage their innovation for our product [...]compared with the new technology , we need to find out what the problems are for our technology [...]how could we make our technology effective via innovation[...]”

(interviewee 18, 45 years old, Beijing)

The quote presented above explains how top managers use managerial ties to achieve their organisational learning objectives via innovation (supported of Hypothesis 7), i.e. they maintain good relationships with their employees to innovate in terms of products and technology in order to make their technology effective to achieve their organisational goals (supported of Hypothesis5).

Fourthly, they visited experienced companies or went to the market scene to exchange knowledge for learning. One of them said:

[...]We also keep the regular contact with experienced companies in order to exchange knowledge and learn from each other. In order to know a lot about our product development, we often visit the market scene to exchange ideas for learning.”
(Interviewee 6, 46 years old, Chongqing)

The quote shown above explains how top managers use business ties to achieve their organisational learning objectives via the exchange of knowledge and ideas (supported of Hypothesis 7), i.e. they keep in the regular contact with experienced firms to exchange knowledge and ideas to achieve their organisational goals (supported of Hypothesis5).

Overall, the above four methods demonstrate that new technology and innovation skills is organisational learning which is acquired through external ties with other stakeholders such as universities and experienced companies. For example, exchanging knowledge (organisational learning), via indirect ties within a social network to attain their learning objectives (Yli-Renko *et al.*, 2001).

5.3.3 Organisational Social Capital

With regard to the interview question, “*how do you and your employees put your company’s goals prior to individual goals?*” The results show that the majority of the interviewees (15 interviewees), used three methods to put their company’s goals before their individual goals, which led to social capital at an individual level, transferring to organisational social capital.

Firstly, they enhanced the sense of ownership of the employee in their companies. They promoted small part stock shares, to their employees and let employees engage their management, so the employees felt that they were owners of their companies. One of them explained:

“ In order to make our employees work hard, we issued original shares to our employees if they wanted to buy. So they became the owners of our company [...]the original shares could not be traded for at least 10 years at the share market even if they left our company [...] We also keep regular contact with our

employees to ask them whether they have any ideas to improve our management level [...]so employees' goals are possible to transfer to our company's goal .”
(Interviewee 3, 50 years old, Shenzhen)

The quote presented above explains how top managers use managerial ties to transfer the individual goal to the organisational goal in terms of how social networks at the individual level can be transferred to the organisational one (supported of Hypothesis 7), i.e. they keep in regular contact with their employees and offer a small stock option to employees to enhance their sense of the ownership.

Secondly, they put the organisational annual performance indicator and linked it with the assessment of employees' performance by strengthening incentives for employees. This can motivate the enthusiasm of employees and encourage their innovation. It is similar to the first method, letting employees feel that they are real owners of their companies. Thus, employees' performance becomes organisational social capital. One of them said:

“The organisational annual performance indicator and incentive system are linked to the performance of employees. We do this to let employees feel that they are the owners of the company, as well as encouraging their innovation, so employees' performance at the individual level becomes organisational social capital.”
(Interviewee 18, 45 years old, Beijing)

The above quote explains how top managers transfer individual social capital to organisational social capital through managerial ties, i.e. the organisational annual performance indicator and incentive system are linked to the assessment of the performance of employees. This is an explanation from the survey result (supported of Hypothesis 7), i.e. managerial ties is positively associated with organisational performance via one form of resource acquisition (organisational social capital) in terms of how individual social capital can be transferred to organisational social capital.

However, previous researchers such as Harrington (2001) argued that transferring individual social capital to organisational social capital relies on relational dimensional social capital such as trust and reciprocity between the focal firm and employees. Consistent with this argument, five interviewees considered that the

transfer of individual social capital to organisational social capital depends on trust and reciprocity between the focal firm and its employees. Two of them stated:

“The reality is not like giving an incentive (money) to employees that can encourage their performance and innovation. It is difficult to operate in this reality. Because transferring the performance of employees to organisational social capital relies on xinren (trust) and renqing (reciprocity) between our company and employees.” (Interviewee 11, 46 years old, Guangdong)

“Xinren being a risk. As a risk exists to our company and employees, the individual goal becomes difficult to transfer to an organisational goal[...] Sometimes employees do not care about incentives[...]they did not want to work hard even if we gave money(incentives) to them ” (Interviewee 2, 48 years old, Shenzhen)

The above quotes explain how the quality of the relational dimension of social capital affects the transfer of individual capital to organisational social capital in managerial ties, which hinders the achievement of the organisational goal, i.e. trust is a risk, and there is a lower level of trust in relationships between firms and employees. This explains the survey finding, i.e. trust does not mediate the relationship between managerial ties (at the individual level) and organisational performance (not supported of Hypothesis 6a), because trust presents risks.

Thirdly, individual annual performance indicators are also linked to elevating employees' performance and their salaries in terms of bonuses, which enhances scientific management. One of them explained:

“Each year we need to elevate our employees' performance in line with their positions or raise their salary according to their performance. That is to say, employees' pay is linked to organisational performance. This is a means of scientific management. This way could make our employees' goals become an organisational goal when their pay is linked to organisational performance.” (Interviewee 12, 48 years old, Guangdong)

The above quote explains how top managers transfer individual goals to the organisational one through managerial ties, i.e. individual annual performance indicators are linked to the assessment of employees' performance, which leads to reaching the organisational goal (supported of Hypothesis 5). This also explains how managerial ties at the individual level can be transferred to the organisational one

(supported of Hypothesis 7), i.e. through the link between individual annual performance and the assessment of employees' performance.

With regard to how their employees engage in social network activities to attain their goals, my results show, that the majority of the interviewees considered that they used three types of social activities to establish social network activities in order to achieve their goals. For example, they attended industry exchange conferences to exchange knowledge through business ties; essentially using their companies' websites to email to employees, business partners and government officials. The exchange of information, knowledge and ideas as well as; reading time sensitive information come from business ties and government ties. One of them explained:

“ We often email internal departments and external business partners and governmental officials for the exchange of information and knowledge, and to read timely information from web chat groups in our departments and external business partners [...]”
(Interviewee 4, 45 years old, Shenzhen)

The above quote explains how top managers transfer individual goals to the organisational one through the three types of social networks (business ties, government ties and managerial ties), i.e. via exchanging information and knowledge, which leads to the achievement of the organisational goal (supported of Hypothesis 5). This also explains how the three types of social networks at the individual level can be transferred to the organisational one (supported of Hypothesis 7), i.e. through the exchange of information and knowledge.

Besides these results, I found that their individual capital (such as personal knowledge and ideas) could transfer to organisational capital through knowledge, ideas and information exchanges, as well as through encouraging employees' capacity for hard work and innovation. In addition, they considered employees to be utmost important in terms of specialities and skills (i.e. people-oriented). They stated:

“ We often attend and hold industry conferences to exchange ideas and knowledge, so we can learn from each other. Our personal knowledge and ideas can be transferred to organisational social capital through these exchanges.”
(Interviewee 17, 48 years old, Beijing)

“We often create a relaxed atmosphere for employees, being people- oriented [...] encourage employees to carry out all aspects of capacity such as innovation [...] to achieve our organisational goal.” (Interviewee 8, 43 years old, Chongqing)

The above quote explains how top managers transfer individual goals to the organisational one through business ties and managerial ties, i.e. via exchanging knowledge and innovation, which leads to reaching the organisational goal (supported of Hypothesis 5). This also explains how business ties and managerial ties at the individual level can be transferred to the organisational one (supported of Hypothesis 7), i.e. through innovation and the exchange of knowledge.

Overall, the above quotations demonstrate that their subjective views are in line with the view of transferring individual goals to the organisational goal through the exchange of knowledge via indirect ties (i.e. conferences), in order to reach their organisational goals (Gabbay and Leenders, 1999). This also demonstrates how individual social capital (personal knowledge or ideas), transfers to organisational social capital.

5.4 The Mediating Role of Components of Social Capital

The quantitative findings illustrated that reciprocity as the relational dimension of social capital mediates the positive relationship between social networks and organisational performance. Trust, emotional commitment, sharing norms and collective goals do not mediate a positive relationship between social networks and organisational performance. Hence, the subsections will explain these findings.

5.4.1 The Relational Dimension of Social Capital

In this subsection, I found that the main reason why the tie strength of social networks is not positively associated with trust is that trust involves risk. In addition, I found two main reasons why trust and emotional commitment are not positively associated with organisational performance: a) Trust and commitment exist risks; b) Not all members of the social network are relatives, friends and classmates. The details of which will be discussed below.

As noted before, trust (xinren), emotional commitment (ganqing), and reciprocity (renqin), are the relational dimensions of social capital from the Chinese traditional cultural perspective, and they are also the components of social networks. Previous research, such as that conducted by Barnes *et al.* (2011), argues that trust, emotional commitment and reciprocity determine how the focal Chinese firm cooperates with business partners or governmental officials in order to obtain valuable sources (Chen and Wu, 2011), which influence organisational performance (Nie *et al.*, 2011).

In response to the interview questions, “*what are the factors which determine how your company cooperates with your customers, suppliers and competitors?*”; “*What are the factors which determine how your company cooperates with government officials?*”; and “*What are the factors which determine how your company cooperates with employees?*” My results indicated that, 12 interviewees considered that trust, emotional commitment, reciprocity, sharing norms and collective goals determine how they cooperate with business partners, government officials and employees. The results are in line with the prior studies such as Barnes *et al.* (2011) and Chen and Wu (2011). One of interviewees said:

“ Trust is to give support and understanding to each other[...]emotional commitment should be sublimated the friendship between our company and business partners or government officials or our employees [...]reciprocity is mutual benefits[...]Industry norms are actually sharing norms[...]we have a lot collective goals such as maximising the benefit of our different stakeholders. So we considered that these determine how we cooperate and coordinate with our business partners, government officials and our employees.”

(Interviewee 5, 42 years old, Shenzhen)

The above quote explains the role of cooperation and coordination of trust, emotional commitment, reciprocity, sharing norms, and collective goals through a short analysis of their definitions to determine how firms cooperate with their business partners, government officials and employees. In other words, this explains why these components of social capital play a mediating role in the relationship between the three types of social networks (business, government and managerial ties) and the organisational goal (the outcome of performance) based on the mutual benefits (the exchange of favours) (supported of Hypothesis 6c, not supported of Hypotheses 6a, 6b,

6d and 6e). This is because the personal social relationship involves an exchange of favours based on social capital theory (Adler and Kwon, 2002).

My result also showed that the remaining eight interviewees indicated that resources such as, social relations, human resources, finance and information, determine how they cooperate with business partners, government officials and employees. In other words, these factors are components of social capital, since social capital is considered as a set of resources (Tsai and Ghoshal, 1998). One of them explained:

“[...]the industry trend needs, competitiveness, and our companies’ expansion, requires us to have social relations between our companies, business partners and government officials in order to get human resources, finance and information[...]we consider that social relationships, human resources, finance and information determine how we cooperate with our business partners, government officials and our employees.” (Interviewee 17, 48 years old, Beijing)

The above quote explains why resources determine how firms cooperate with their business partners, government officials and employees based on social capital theory, as noted earlier, i.e. the industry trend needs, competitiveness, and firms’ expansion. In other words, this also explains why resource acquisition plays a mediating role in the relationship between the three types of social networks (business, government, and managerial ties) and organisational performance (supported of Hypothesis 7).

A good relationship (i.e. trust, emotional commitment and reciprocity), potentially enhances the cooperation and coordination between a company and its business partners, government officials or employees. This can help the focal company to acquire resources, such as access to information, organisational learning and organisational social capital. My results show that the majority of the interviewees considered these good relationships, as mutual relationships, which enhanced the focal firm’s ability to gain more resources than any other firm. This is due to the fact that resource scarcity exists in China, so the focal firm needs to obtain external resources such as land and bank loans in order to reduce the risks and to achieve its financial and strategic goals with the use of these relationships (Chen and Wu, 2011; Wang *et al.*, 2011). One of them explained:

“This is an idea, a mutual relationship; our company tries to create these good relationships. The above relationships are good, so the company gets more sources; it is faster to get more sources than other companies who want to get such sources.”
(Interviewee 11, 46 years old, Guangdong)

The above quote shows that good quality relationships (involving trust, emotional commitment and reciprocity) help the focal firm to acquire more resources faster than others. This explains why reciprocity can assist the focal firm to acquire more resources to achieve its goals and the others (such as trust and emotional commitment) do not play this role. This is because reciprocity is related to a good quality relationship as it can provide mutual benefit to each party, whereas trust presents risks as noted earlier (supported of Hypothesis 6c, not supported of Hypotheses 6a, 6b, 6d and 6e).

On the other hand, the relational and cognitive dimensions of social capital are correlated to reach the common goal (Tsai and Ghoshal, 1998; Liao and Welsch, 2003). My findings support this argument, i.e. the majority of interviewees considered that trust, emotional commitment and reciprocity are correlated to sharing norms and collective goals, which enabled their companies, to achieve their common goals. One of them explained:

“ Good relationships of xinyen (trust), ganqing (emotional commitment) and renqin (reciprocity) as mutually beneficial relations, together with shared norms and collective goals can enhance the company's cohesion and help a business survive any difficulties. We usually pay attention to the development of cooperative relationships with our business partners, government officials and employees. Our company must have the courage to take certain social responsibilities and develop healthy competition, correctly handle the relationship between government officials, as well as treating, and caring for employees, and enhancing the sense of ownership of employees, to improve the ability for independent innovation of employees; all these are our common goals.”
(Interviewee 18, 45 years old, Beijing)

The above quote indicates how good relationships such as trust, emotional commitment and reciprocity interact with sharing norms and collective goals to enable reaching the common goal through the three types of social networks, i.e. the focal firm mutually cooperates with business partners, correctly handles its relationship with government officials, cares for its employees, and enhances the

sense of ownership of employees. In other words, this is how individual social networks can be transferred to the organisational goal (supported of Hypothesis 4e).

Apart from these findings, I found that the majority of the interviewees considered that, reciprocity plays a mediating role in the relationship between social networks and organisational performance, due to the fact that reciprocity can benefit each other. One of them regarded:

“[...]reciprocity is huhui, i.e. helping each other while building a close relationship with business partners, government officials and employees.”
(Interviewee 2, 48 years old, Shenzhen)

The above quote explains why reciprocity mediates the relationship between the three types of social networks (business, government, and managerial ties) and organisational performance. Individuals can help each other and provide mutual benefits to achieve the collective aim. This explains the result of the survey (supported of Hypothesis 6c).

Regarding the quantitative results, the tie strength of social network is not positively associated with trust, my results show that ten interviewees considered that the tie strength of social networks is not associated with trust, and five interviewees considered that the tie strength of social networks is not positively associated with trust, sharing norms and collective goals, because trust poses a risk. Trust has risks because managers do not completely trust their business partners, government officials and employees for cooperation and coordination. As noted earlier, trust, sharing norm and collective goals are correlated with each other, and as a result, the tie strength of social network is not positively associated with sharing norms and collective goals. One of them explained why the three types of social networks are not positively associated with trust. That is to say:

“Trust is a risk, to trust others means that I must bear the risk of harm to other acts, and I may be vulnerable to assume the risk of harm in Guanxi network. Because there is a risk, I cannot absolutely trust business partners, government officials and employees. Therefore, there is a limited degree of trust within social networks.”
(Interviewee 2, 48 years old, Shenzhen)

The above quote explains why trust does not mediate the relationship between the three types of social networks (business, government and managerial ties) and organisational performance. This is because trust involves risks. The limited trust between top managers and their business partners, government officials and employees, can hinder the focal firm in achieving its goals. This explains the result of the survey (not supported of Hypothesis 6a).

With regard to the quantitative findings in the present study, trust and emotional commitment are not positively associated with organisational performance. My results illustrated that twelve interviewees considered that, trust and emotional commitment are not significantly associated with organisational performance. Eight interviewees considered that trust and emotional commitment are not positively associated with organisational performance, because trust and emotional commitment pose risks and not all of the members within the social network are friends, classmates and relatives. As a result, they might be not positively associated with organisational performance. This is because in China, trust is based on the hierarchy of a social relationship from a traditional Chinese cultural perspective (Wang, 2007) and there are different levels of trust (such as a middle level and a lowest level “jiaoqing”) (Chen and Chen, 2004), one of them asserted:

“Only if there is real trust, to have confidence in easy communication, if trust is jianqing, then trust is weakened in Guanxi [...] This weak trust poses risks. Risks are not possible for positive association with our firm’s performance.”
(Interviewee 4, 45 years old, Shenzhen)

The above quote explains why trust is not positively associated with organisational performance, i.e. because of the existence of risk in terms of the trust involved in the relationships within social networks. This explains the result of the survey in the study (not supported of Hypothesis 4a).

Similarly, I found the existence of risks for an emotional commitment relationship between the focal company and its business partners, governmental officials and its employees, and as a result, emotional commitment is not positively associated with organisational performance, because fifteen interviewees commented the “ganqing” (emotional commitment) relationship is not a good relationship. If not all of the

members within the social networks are relatives, friends and classmates, emotional commitment risks exist. This is because, relatives are the highest level of trust, friends and schoolmates are the middle level of trust (Chen and Chen, 2004). One of them regarded:

“ Yes, a good ganqing relationship can make the whole team work properly to reach the common goal. But the problem is that it is impossible and unrealistic to make the entire team establish a good ganqing relationship, because not all of the members of the entire team are all friends, classmates and relatives. For example, I have connections with officials in Chinese governmental departments, but the officials are not my friends, classmates and relatives. Since a good ganqing relationship is based on friendship, or a classmate and relative relationship in China, it is unrealistic to establish a completely good ganqing relationship, just a partially good ganqing relationship within a social network. However, I can use the partially good ganqing relationship to enhance the team’s work. ”

(Interviewee 14, 44 years old, Guangdong)

The above quote explains why emotional commitment is not positively associated with organisational performance, i.e. because not all members within social networks are friends, classmates and relatives in terms of the emotional commitment relationship. This is because the emotional commitment relationship is based on feelings of brotherhood, the ganqing agreement (Barnes *et al.*, 2011). This explains the finding of the survey in the study (not supported of Hypothesis 4b).

Overall, the interviewees explained the reasons why the tie strength of social networks is not positively associated with trust and why trust and emotional commitment are not positively associated with organisational performance, i.e. the existence of risks and that not all of the members in a social network are relatives, friends and schoolmates. This is consistent with the traditional Chinese cultural perspective (Yeung and Tung, 1996; Chen and Chen, 2004).

5.4.2 The Cognitive Dimension of Social Capital

As noted before, sharing norms and collective goals are cognitive dimensions of social capital. Previous research, such as that of Liao and Welsch (2003), found that the ties strength of social networks is positively associated with this cognitive dimension. Regarding the quantitative results, i.e. the tie strength of social network is

not being positively associated with sharing norms and collective goals, my results show that ten interviewees considered that the tie strength of social networks is not associated with sharing norms and collective goals. Five interviewees considered that the tie strength of social networks is not positively associated with sharing norm and collective goals. This is because sharing norms and collective goals depended on the quality of relationships such as trust. The results did not support the previous empirical findings, such as Liao and Welsch (2003), but this is in line with traditional Chinese culture as noted in section 5.4.1. The following quotations explain why the three types of social networks are not positively associated with sharing norms and collective goals.

“[...]If we have a limited trust with our business partners, government officials and our employees, it is very difficult to adopt our collective actions such as sharing norms (our industry norms) or our collective goals[...].”

(Interviewee 3, 50 years old, Shenzhen)

“ sharing norms and collective goals must be linked with the quality of relationships of xinyen (trust) and renqin (reciprocity) , which can work properly within business ties, government ties and managerial ties, otherwise, they do not work.”

(Interviewee 13 , 45 years old, Guangdong)

The above quotes indicate why the three types of social networks (business, government, and managerial ties) are not positively associated with sharing norms and collective goals, i.e. the limited trust within social networks, which hinders their collective actions. This explains the findings of the survey (not supported of Hypotheses 3d and 3e).

The above quotations show that this is consistent with the argument in the existing literature that the relational and cognitive dimensions of social capital are correlated (Tsai and Ghoshal, 1998).

Previous studies, such as Wu and Leung (2005) and Li *et al.* (2008) found that sharing norms have positively impacted on organisational performance. With regards to the quantitative results of this study, sharing norms are not positively associated with organisational performance. My findings have established the reasons why sharing norms are not positively associated with organisational performance, i.e., the majority of interviewees (15 interviewees) considered that different industries have different

rules and regulations, and as a result, sharing norms are not positively associated with their firms' performance. One of them explained:

“[...] for the real estate industry, we think of our industry norms as sharing norms in this industry, but social culture is not our sharing norm. Different industries have different rules and regulations, so each industry has its sharing norms. As a result, different sharing norms in different industries should not be positively correlated to different companies' performance in different industries.”

(Interviewee 5, 42 years old, Shenzhen)

The above quotes explain why sharing norms are not associated with organisational performance (not supported Hypothesis 4e), i.e. different industries have different rules and regulations and the social culture is not their sharing norms.

5.5 Chapter Summary

In this chapter, I presented the qualitative findings to explain the quantitative results from the interview data. Firstly, the majority of the interviewees indicated that they used three types of social networks (business, government and managerial ties) to access to information, organisational learning and organisational social capital in order to achieve their companies' profits and growth goals.

Secondly, the majority of the interviewees explained the role of mediating access to information, organisational learning and organisational social capital in terms of how these resources at an individual level transfer to an organisational level. For example, obtaining knowledge or technological skills from business ties transfers to organisational learning via exchanging experts or talented persons; the annual performance indicator links with the assessment of the performance of employees.

Thirdly, the majority of the interviewees considered that trust, emotional commitment, reciprocity, sharing norms and collective goals determine how they cooperate with business partners, government officials and employees. They also indicated that trust, emotional commitment and sharing norms are not positively associated with organisational performance due to the existence of risks. Reciprocity

mediates the positive relationship between social networks and organisational performance because of *huhui* – help and benefits for each other.

The next chapter will discuss the findings and compare them with social capital theory and empirical evidence in the existing literature, to explain why and how these findings are different or similar to the previous research.

Chapter 6 Discussions

6.1 Introduction

The purpose of this chapter is to discuss how and why my findings are different from, or consistent with, the existing literature and social capital theory. It is comprised of five sections. Section 6.2 discusses how and why the significant relationship between the tie strength of the three types of social networks (business ties, government ties and managerial ties) and organisational performance is consistent with previous studies and social capital theory. Section 6.3 presents how and why the three modes of resource acquisition (access to information, organisational learning and organisational social capital) mediate the positive relationship between the tie strength of social networks (business ties, government ties and managerial ties) and organisational performance, which is consistent with the existing literature and social capital theory. Section 6.4 firstly discusses how and why reciprocity mediates the positive relationship between the tie strength of social networks (business ties, government ties and managerial ties) and organisational performance, and the findings are compared with the existing literature and social capital theory. It then discusses why trust, emotional commitment, sharing norms and collective goals do not mediate the positive relationship between the tie strength of social networks (business ties, government ties and managerial ties) and organisational performance according to the findings, this is then compared with the existing literature. Section 6.5 provides a summary of this chapter.

6.2 Social Networks and Organisational Performance

It was found that the positive association of the relationship between the tie strength of the three types of social networks (business ties, government ties and managerial ties) and organisational performance was significant (supported of hypothesis 1); this is similar to the result of previous studies, such as those by Peng and Luo (2000), Rowley *et al.* (2000), Park and Luo (2001) and Taylor (2007). These previous studies found that managers have close relationships (strong ties), with managers of business partners, government officials (Peng and Luo, 2000) and employees (Taylor, 2007), which have positive impacts on firm performance such as sales and profit growth. There are two main reasons for this positive direct relationship between social

networks and organisational performance: 1) Social networks as social capital provide resources that actors can use to achieve certain goals as proposed by social capital theory; 2) The characteristics of social networks such as tie strength and density are associated with organisational performance. As noted before, Rowley *et al.* (2000) have demonstrated that strong and weak ties or dense and sparse networks are positively correlated with organisational performance through information transfer in steel and semiconductor industries in the US.

With regard to this quantitative finding, the qualitative result indicated that the Chinese listed companies use four aspects of social networks: a) Encouraging their employees to innovate; b) Strengthening exchanges and cooperation between their industry and business partners; c) Learning from their business partners and other companies; d) Obtaining advanced technology with the funding support from the Chinese government, to reach their profitability and growth objectives. This is consistent with social capital theory (Bourdieu, 1985; Putnam, 1993; Gabbay and Leenders, 1999; Nahapiet and Ghoshal, 1998). Social capital theorists, including both Bourdieu (1985) who coined the individual paradigm, and Putnam (1993) and Nahapiet and Ghoshal (1998) who coined the collective paradigm, consider social networks as a set of resources (e.g. innovation, learning and technology) that actors can use to achieve certain goals. For example, prior studies such as that by Park and Luo (2001) found that Chinese firm's use business ties to cooperate and exchange favours (e.g. knowledge and technology), with their business partners and use government ties to access valuable resources (e.g. land and bank loans), in order to achieve sales and profit growth.

Similarly, the qualitative result with regard to using business ties, government ties and managerial ties supports the finding of Park and Luo (2001), Peng and Luo (2000) and social capital theory. It was found that managers use business ties to achieve particular goals (e.g. to access information, meet business needs and achieve long-term business benefits) and to reduce their costs, which supports the finding of Peng and Luo (2000). That is to say, top managers use business ties to access information, which results in increasing their firm's market share and the return on their assets.

For the purpose of using government ties, it was found that Chinese listed companies use government ties to gain project approvals and valuable resources (e.g. land and funding), which is in line with the finding of Chen and Wu (2011). For example, managers have strong ties with Chinese government officials to access valuable resources such as land and bank loans, which results in a positive effect on firm performance.

It was found that managers in Chinese listed companies use managerial ties to acquire resources such as access to information, organisational learning and organisational social capital through employees' motivation, support and innovation. Social capital theorists (such as, Gabbay and Leenders, 1999; Nahapiet and Ghoshal, 1998) consider that employees' motivation, innovation and support are social capital for actors to use within social networks to achieve their goals. Section 6.3 will discuss the mediating role of resource acquisition.

In line with the notion of social capital theory, which shows that products and services, a strategic alliance, innovation and culture, act as social capital for actors to use to achieve their goals (Nahapiet and Ghoshal, 1998). It was found from the qualitative analysis that Chinese listed firms use five methods to gain competitive advantage through business ties, government ties and managerial ties. These five methods are: 1) Strategic decision competitiveness; 2) Good quality products and services; 3) Establishing a broad strategic alliance; 4) Innovation competitiveness; 5) Cultural competitiveness. Based on social capital theory, these methods are social capital that Chinese listed companies use to achieve their organisational goals, such as competitive advantage within social networks.

The five methods are related to the concept of social capital based on the content of each method and the definition of social capital. Based on social capital theory, Lin (2001) argued that social capital includes strategic decisions, good quality products and services, a broad strategic alliance, innovation and cultural competitiveness, as they are intangible assets of the focal firm. The focal firm can use these intangible assets to achieve its goals (such as the competitive advantage goal) through social networks (*ibid.*). This further explains how the focal firm use intangible assets as

resources via social networks to achieve their strategic goals (supported of Hypotheses 1 and 7) as discussed in the qualitative findings.

For example, strategic decisions are a strategic resource that the focal firm can use to make the right decision when it identifies pitfalls in development and market opportunities through business ties. Similarly, a strategic alliance is a strategic resource that a company can use since it is a different dimension of social capital alliance (Tsai and Ghoshal, 1998). For example, a broad strategic alliance means that information inflow, knowledge exchange and technology are obtained by the focal firm, through its business ties to achieve its goal.

According to the concept of social capital, good quality products and services, innovation, and cultural competitiveness, are not only a set of resources, but also a cognitive dimension of social capital. The qualitative result also showed that good quality products and services are considered as resources for a Chinese listed companies' reputation. Brand is a resource as social capital which is related to a good quality of products and services and a strong corporate culture. These resources as social capital for Chinese listed companies are used to gain a competitive advantage. Lin (2001) considers that social capital is a set of resources (e.g. reputation, innovation and corporate culture) that actors use to carry out actions within social networks. Hence, the qualitative results are consistent with the notion of social capital theory. On the other hand, cultural competitiveness is a form of corporate culture competitiveness that involves sharing common values at the collective level. Nahapiet and Ghoshal (1998) defined sharing common values as the cognitive dimension of social capital. Sharing common values facilitate actors' actions to work together beyond their self interests and help combining or exchanging intellectual capital such as knowledge, in order to achieve their organisational goals (Nahapiet and Ghoshal, 1998; Tsai and Ghoshal, 1998).

6.3 The Mediating Role of Resource Acquisition

In this section, I discuss how and why; according to my findings, the three forms of resource acquisition (access to information, organisational learning and organisational social capital), mediate the positive relationship between the tie strength of social

networks (business ties, government ties and managerial ties) and organisational performance, which is consistent with the existing literature and social capital theory.

6.3.1 Social Networks and Resource Acquisition

The present study found that there is a significant positive relationship between the tie strength of three types of social networks (business ties, government ties and managerial ties) and three forms of resource acquisition (access to information, organisational learning and organisational social capital), (supported of hypothesis 2). The result is consistent with the previous studies: Granovetter (1973), and Davidsson and Honig (2003) found that both strong and weak ties provide access to information; Dyer and Nobeoka (2000), Li *et al.* (2011), and Atuahene-Gima and Murray (2007) found that strong ties are positively correlated with organisational learning; and Gabbay and Leeders (1999) argue that strong ties are associated with acquiring organisational social capital. This finding is also in line with social capital theory, i.e. social capital as resources are for actors to use in order to achieve their goals (Nahapiet and Ghoshal, 1998).

Social Networks and Access to Information

Strong ties are close connections between individuals, as opposed to loose connections (Davidsson and Honig, 2003). Granovetter (1973) argues that strong ties can offer access to information. It is appropriate for companies to use strong ties to acquire resources, such as information to achieve their goals (Davidsson and Honig, 2003). Since most Chinese listed companies in the investigation (96 percent) in the present study have been operating their business for at least 10 years, they keep close connections (i.e. strong ties), with business partners, government officials and employees in order to have fast access to information compared with other companies, according to the qualitative result.

The qualitative result shows that information regarding sources of information on knowing /understanding customer needs comes from business ties and managerial ties, which is consistent with the suggestion of Sheng *et al.* (2011). This information is acquired through business ties and managerial ties due to the existence of

information asymmetry. The qualitative finding also shows that information regarding new products/services, production information for industry trends and policy information is acquired from government ties. This is in line with the argument of Chen and Wu (2011) that the focal firm obtains this information via government ties, because information asymmetry exists and the information is not available in the market due to the fact that the Chinese government has the power to plan different industries' policies.

Social Networks and Organisational Learning

The qualitative result shows that there are two ways in which employees in Chinese listed companies learn more about their industry, product development skills and processes compared with other companies in the same industry. The first way is that they take an active interest in new technologies in their industry and increase their investment in scientific research funding through government ties. This is in line with the argument of Li *et al.* (2011), i.e. the focal Chinese firm has strong ties with government officials and can obtain more resources such as funding from the Chinese government for its innovation learning. The second way is that they obtain knowledge at an individual level via business ties and managerial ties. This is consistent with social capital theory, because knowledge can be considered as social capital that actors acquire to reach their goals (Tsai and Ghoshal, 1998; Yli-Renko *et al.*, 2001). This way is also consistent with the finding of Dyer and Nobeoka (2000), i.e. Toyota acquires organisational learning and knowledge sharing through its dense network of strong ties with its business partners such as its suppliers. Atuahene-Gima and Murray (2007) argue that government ties can enhance political organisational learning, as well as enable the process of individual learning, which is transferred to organisational learning through managerial ties.

The qualitative result regarding the way in which Chinese listed companies acquire organisational learning such as new technology and innovation skills through managerial ties and external ties (ties with other stakeholders such as universities and experienced companies), is consistent with findings, which suggest that knowledge exchange (such as new technology and innovation) can be obtained via indirect ties within a social network (Yli-Renko *et al.*, 2001).

Social Networks and Organisational Social Capital

The qualitative result shows that Chinese listed companies use three methods to transfer individual social capital to organisational social capital through managerial ties: 1) Through enhancing the sense of the ownership of employees by promoting small part shares (stocks) for employees; 2) Through the organisational annual performance links with the assessment of employees' performance, in order to enable employees' performance to become organisational performance; 3) Individual annual performance indicators are linked to assessing employees' performance and salaries to enhance scientific management. This result is consistent with the arguments of Harrington (2001) and the collective paradigm of social capital theorists, (Putnam, 1993; Nahapiet and Ghoshal, 1998). Harrington (2001) argues that the focal firm increases both the quantity of instrumental ties at the individual level and individuals' willingness to engage in decision making, which leads to individual social capital (individuals goals), shifting to organisational social capital (the organisational goal). Organisational performance is linked to employees' performance and the ownership of employees means encouraging employees' willingness to engage in decision making.

Collective social capital theorists (such as Nahapiet and Ghoshal, 1998) argue that social capital includes both individual and organisational social capital. Individual social capital can be transferred to organisational social capital, because different dimensions of social capital interact to achieve the collective goal (Putnam, 1993; Tsai and Ghoshal, 1998).

The qualitative results indicate that employees in Chinese listed companies attend social network activities to achieve their goals. For example, attending industry exchange conferences to exchange knowledge is through business ties. They also use email to keep contact with other employees, business partners and government officials as well as reading timely information via business ties and government ties. Therefore their individual capital (e.g. person knowledge and ideas) can shift to organisational social capital via knowledge, ideas, information exchange and innovation. These results are in line with the argument of Gabby and Leenders (1999),

who state that individual social capital transfers to organisational social capital through the exchange of knowledge (or ideas) and information via business ties or indirect ties (e.g. conferences), as well as with the collective social capital, as noted above.

Overall, both quantitative and qualitative results show that Chinese listed companies acquire three forms of resources (information, organisational learning and organisational social capital), through the structural dimension of social capital (i.e. business ties, government ties and managerial ties). The results are consistent with social capital theory: social networks are social capital as a set of resources that actors can access to achieve their goals (Nahapiet and Ghoshal, 1998; Tsai and Ghoshal, 1998).

6.3.2 Resource Acquisition and Organisational Performance

Consistent with previous studies such as those of Uzzi (1997), Chen and Chiang (2011), Dyer and Nobeoka (2000), Dyer and Hatch (2006), Li *et al.* (2011) and Harrington (2001), which have found that the three forms of resource acquisition (access to information, organisational learning and organisational social capital), are associated with firm performance, it was found that access to information, organisational learning and organisational social capital within social networks (business ties, government ties and managerial ties), are positively associated with organisational performance (supported of hypothesis 5). The following subsections will discuss this together with the qualitative results.

6.3.2.1 Access to Information and Organisational Performance

Uzzi (1997) and Chen and Chiang (2011) found that access to information has positive effects on organisational performance because the high level of trust needed for the cooperation and exchange of information between the focal companies and their business partners. However, Uzzi (1999) investigated the bank-firm (bank-client) relationship and found that the strong bank-firm ties are correlated with lower costs of capital, this relationship is therefore negative. A possible explanation for the findings of Uzzi (1999) being inconsistent with the result for hypothesis 5, is that the

strong bank-firm relationship enabled the bankers to put “their personal social capital at the bank on the firm’s behalf” (Uzzi, 1999:490).

Besides these, other studies such as Burt (1992) have found that structural holes help actors to access information, which results in a positive impact on organisational performance. These results are therefore in line with hypothesis 5.

The qualitative result regarding the positive relationship between accessing information and organisational performance, showed that the managers of Chinese listed companies use business ties to access information for business needs and long-term business benefit in order to reduce their companies’ costs. This result is in line with the social capital theory (Nahapiet and Ghoshal, 1998), as noted earlier: business ties as social capital that actors can use to achieve their goals (e.g. business needs and to reduce their costs).

The qualitative results showed that the managers of Chinese listed companies use government ties to access information, such as policy information and to obtain valuable resources (i.e. land, bank loans and innovation funding), which leads to improved organisational performance. This result is in line with the suggestion of Wang *et al.* (2011), which suggests Chinese firm’s managers use government ties to access information or valuable resources that improve a firm’s performance.

The qualitative result indicates that the manager of Chinese listed companies use managerial ties to access information by bridging social capital through employees’ motivation, support and innovation, which improves organisational performance. This result is in line with the suggestion of Taylor (2007). Due to the existence of structural holes between the focal firm’s business partners (or government officials) and employees (Burt, 1992; Wasserman and Faust, 1994), Taylor (2007) suggests that bridging all information, knowledge or policy from its business partners and governmental officials for its employees to exchange or share; can help a firm in reaching its profitability and growth objectives.

Overall, the qualitative results show that Chinese listed companies know how to use business ties , government ties and managerial ties to access information in order to

reach their organisational goals (e.g. profit and growth goals), which improved their performance. The results are in line with social capital theory as noted above.

6.3.2.2 Organisational Learning and Organisational Performance

The results supporting hypothesis 5 indicate a positive association between organisational learning and organisational performance, which is in line with the findings of Dyer and Nobeoka (2000), Dyer and Hatch (2006) and Li *et al.* (2011): organisational learning has a positive impact on firm performance because individual learning can be transferred to organisational learning via the exchange of knowledge and innovation between business ties, government ties or managerial ties.

Dyer and Nobeoka (2000) and Dyer and Hatch (2006) found that Toyota's individual learning was transferred to organisational learning through Toyota's dense network of its suppliers, consultants and learning team in order to share knowledge, which resulted in a positive impact on its performance. Similarly, Li *et al.* (2011) found that organisational learning is positively associated with a company's financial performance through innovation for the long-term and productivity for the short-term within social networks (social ties), in a Chinese context.

The qualitative results show that Chinese listed companies use four methods to learn new skills in new technology and innovation within the area of organisational learning. For example, they send their employees out to study both at universities and with innovative experienced firms, which operate various training courses for their employees. Thus, Chinese listed companies encourage their employees to innovate within their industry areas with regards to ideas, technology, products and practices as they face new challenges in skills and technology. Additionally they are, visiting experienced companies or they are going to the market scene to exchange knowledge for learning in order to achieve their profit and growth goals. This qualitative result is in line with the finding of Li *et al.* (2011) as noted, i.e., organisational learning is positively associated with the company's financial performance through long-term innovation. This is also consistent with social capital theory as noted earlier, i.e., social networks act as social capital through which actors can acquire organisational learning to achieve their profit and growth goals.

6.3.2.3 Organisational Social Capital and Organisational Performance

The results which support hypothesis 5, regarding the positive association between organisational social capital and organisational performance is consistent with the findings of Harrington (2001), which shows organisational social capital has a positive impact on organisational performance because the fact that individual goals can be shifted to the organisational goal.

Organisational social capital theorists such as Gabbay and Leenders (1999), consider that organisational social capital includes corporate social assets and liability. When individual goals cannot shift to organisational goals, organisational social capital becomes corporate liability (Leana and Van Buren, 1999; Gabbay and Leenders, 1999). Hence, the most important thing is how individual goals can be transferred to organisational goals, which leads to improved organisational performance. As discussed earlier, the qualitative result indicates that Chinese listed companies use different ways to lead the transfer of individual social capital to organisational social capital. For example, offering small parts of stock shares to help develop employees' sense of ownership, linking employee performance goals with organisational goals, encouraging knowledge and ideas or information exchanges. Encouraging employees' capacity for sharing work and innovation, is in line with the findings of Harrington (2001). These are ways of transferring individual social capital to organisational social capital, which lead to improved organisational performance. This is consistent with the argument of Leana and Van Buren (1999), which is: high effective work practice such as employee engagement and management-labour cooperation lead to improved firm performance. For example, encouraging individuals' willingness to engage in decision making (i.e. individual goals become the organisational goal or social capital), and such organisational social capital, have a positive impact on organisational performance (Harrington, 2001).

On the other hand, the qualitative result also indicates that the transfer of individual goals to organisational goals relies on trust and reciprocity between the focal firm and its employees. This result is consistent with the argument of Harrington (2001), i.e., the transfer of individual social capital to organisational social capital depends upon

the relational dimension of social capital (e.g. trust and reciprocity). Trust or reciprocity and organisational performance will be discussed in section 6.4.

6.3.3 Resource Acquisition Mediates the Relationship between Social Networks and Organisational Performance

The quantitative findings from the survey show that access to information, organisational learning and organisational social capital mediate the positive relationship between the tie strength of social networks (business ties, government ties and managerial ties) and organisational performance (supported of hypothesis 7). The result is in line with the findings of Wang *et al* (2011) that access to information plays a mediating role in the relationship between social networks and organisational performance. This result is also consistent with the findings of Yli-Renko *et al.* (2001) that knowledge acquisition (organisational learning) mediates the relationship between social networks and firm performance, and the suggestion of Leana and Van Buren (1999) that organisational social capital plays a mediating role in the relationship between social network and organisational performance. The following subsections will discuss these with the qualitative results.

6.3.3.1 The Mediating Role of Access to Information

The qualitative result regarding the mediating role of access to information in the relationship between social networks and organisational performance indicates that Chinese listed companies acquire valuable information in relation to customer needs from a market investigation through business ties, and an exchange of information through managerial ties. This result is in line with the finding of Wang *et al.* (2011).

Wang *et al.* (2011) found that two types of social networks (i.e. business and government ties), positively influence organisational performance through resource acquisition (a focus on valuable information such as financial and intangible resources), for Chinese firms. Since information asymmetries and resource scarcity exists in China, managers build strong ties with the top managers of their suppliers to access effective information and quality materials and services. Managers have close ties with the managers of their customers and competitors in order to acquire valuable

market demand information and information regarding competitors' behaviour and actions to facilitate information exchange (ibid.).

The qualitative result in this present study also shows that Chinese listed companies' access to information acts as a mediator between government ties and organisational performance due to new products/services, production information regarding industry trends and policy information is acquired from government ties in order to gain a competitive advantage, which results in an improvement in organisational performance. This result is consistent with the findings of Wang *et al.* (2011).

Due to the Chinese government still having power to allocate key resources such as financial resources to different companies in different industries (Chen and Wu, 2011), managers' close ties with government officials can provide them with access to valuable resources or information such as financial capital or government policy, which results in reduced costs or fees and therefore an improvement in organisational performance (Wang *et al.*, 2011).

6.3.3.2 The Mediating Role of Organisational Learning

Yli-Renko *et al.* (2001) found that knowledge acquisition (organisational learning), plays a mediating role in the relationship between the structural dimension of social capital (such as network ties and social interaction) and knowledge exploitation for competitive advantage for entrepreneurial high-technology ventures in the UK, due to the structural dimension of social capital being associated with organisational learning, which results in benefiting product development and sales cost efficiency. The qualitative finding in the present study regarding the mediating role of organisational learning in the relationship between social networks and organisational performance is similar to the finding of Yli-Renko *et al.* (2001). For example, Chinese listed companies acquire new technology and innovation skills such as knowledge, through external ties with other stakeholders, such as universities and experienced companies in order to exchange knowledge, which leads to improved firm performance.

The qualitative findings demonstrate that Chinese listed companies' employees, including their managers, take an active interest in new technologies within their industry and increase their investment in scientific research funding through government ties. In so doing, they learn more about their industry, product development skills and processes within their industry, which leads to an improvement in their performance. This finding is in line with the argument of Li *et al.* (2011), i.e. managers have close ties with government officials in order to obtain funding for their organisational learning, such as product development skills and technology, which results in a positive impact on organisational performance.

The qualitative finding from the interviews also shows that the way in which knowledge is transferred at an individual level to organisational learning is through exchanges between experts or talented persons (i.e. sharing knowledge), via business ties and managerial ties, which leads to improved firm performance. This finding is consistent with the findings of Dyer and Nobeoka (2000), and Dyer and Hatch (2006), because they found that the transfer of Toyota's individual learning to organisational learning, through knowledge within Toyota's dense network of its suppliers, had a positive effect on its performance.

These findings are also consistent with social capital theory, i.e., technology and innovation skills and knowledge are considered as resources (i.e. social capital), is for actors to use to achieve the focal firm's profit and growth objectives (Tsai and Ghoshal, 1998).

6.3.3.3 The Mediating Role of Organisational Social Capital

The quantitative results regarding organisational social capital, mediates the positive relationship between the tie strength of social networks (business ties, government ties and managerial ties) and organisational performance, which is consistent with the suggestion of Leana and Van Buren (1999).

Leana and Van Buren (1999) suggest that social networks act as social capital at an individual level. Individual social capital becomes organisational social capital once individual goals shift to organisational goals, which leads to improved organisational

performance. This suggestion is consistent with the concept of social capital theory, i.e. social networks as social capital include both individual social capital and organisational social capital (Nahapiet and Ghoshal, 1998; Gabbay and Leenders, 1999).

Based on the concept of social capital theory (Nahapiet and Ghoshal, 1998; Putnam, 1993), individual social capital can be shifted to organisational social capital when individual goals become organisational goals (i.e. organisational social capital). With regard to how individual goals become organisational goals in terms of how individual social capital can be transferred to organisational social capital, which leads to improved organisational performance, the qualitative results in the present study have answered this. The qualitative result in the present study shows that Chinese listed companies use different methods to transfer individual social capital to organisational social capital through business ties, government ties and managerial ties, as noted in sections 6.3.1 and 6.3.2.

For example, there were five ways in which the individual social capital is shifted to organisational social capital through managerial ties: 1) Enhancing the sense of the ownership of the employees by offering small part stock shares ; 2) Through linking the organisational annual performance indicator to the assessment of employees' performance; 3) Through the linking of individual annual performance indicators to bonuses; 4) Encouraging employees' capacity for hard work and innovation; 5) By being people-oriented. Chinese listed companies use three methods of attending social network activities to transfer their individual social capital to organisational social capital. For instance, they attend industry exchange conferences to exchange knowledge via business ties, as well as often use their companies' websites and email to contact employees, business partners and government officials. Thus they exchange information, knowledge, ideas, and gain timely information via business ties, government ties and managerial ties. Such organisational social capital (e.g. the exchange of knowledge, ideas and information, shares and innovation), has a positive impact on organisational performance, which is demonstrated by the quantitative findings. This is consistent with the findings of Harrington (2001), as noted earlier.

6.4 The Mediating Role of Components of Social Capital

In this section, I discuss how and why, according to my findings, reciprocity mediates the positive relationship between the tie strength of social networks (business ties, government ties and managerial ties) and organisational performance, which is consistent with the existing literature and social capital theory. I then discuss why, according to my findings: trust, emotional commitment, sharing norms and collective goals do not mediate the positive relationship between the tie strength of social networks (business ties, government ties and managerial ties) and organisational performance, as well as the link to the existing literature.

6.4.1 Relational Dimension of Social Capital

6.4.1.1 The Mediating Role of Reciprocity

Reciprocity was found to mediate the positive relationship between the tie strength of social networks (business ties, government ties and managerial ties) and organisational performance (supported of hypothesis 6c), as well as being positively associated with both the tie strength of social networks (business ties, government ties and managerial ties) and organisational performance (supported of hypotheses 3c and 4c). These quantitative findings are consistent with the existing literature (such as Wu and Leung, 2005; Barnes *et al.*, 2011), which states that reciprocity determines cooperation and coordination in social networks, leading to improved firm performance.

Reciprocity plays the role of cooperation and coordination between the focal company and its business partners or Chinese government officials from the Chinese Confucian collective culture perspective (Park and Luo, 2001; Barnes *et al.*, 2011), which is consistent with social capital theory (Adler and Kwon, 2002). Reciprocity is one of the elements of Chinese Confucian culture, as well as one component of social capital; it means to exchange favours within social networks (Devies *et al.*, 1995; Chen, 2009). The exchange of favours follows the rule of reciprocity. In other words, repaying a favour that one party has previously received (called “li shang wang lai” between two exchange parties in China) (Wang, 2007). Wu and Leung (2005) argue

that the manager's value of reciprocity can enable improving the firm's performance in the context of Chinese small-medium sized enterprises (SMEs) via network ties. Due to the inequality of power in Chinese society (e.g. Chinese government officials have the power to distribute resources such as bank loans), some companies might have new knowledge and more technology skills than others (Chen and Wu, 2011; Wang *et al.*, 2011). Therefore managers can use close ties with other top managers of business partners or government officials through the rule of reciprocity to achieve their goals, such as profitability and growth objectives (Wu and Leung, 2005).

Consistent with these findings, scholars such as Wu and Leung (2005) and Barnes *et al.* (2011), state that reciprocity determines cooperation and coordination in social networks, leading to improved organisational performance. The qualitative results in the present study indicate that reciprocity determines how Chinese listed companies cooperate with their customers, suppliers and competitors, government officials and employees. It also shows that Chinese listed companies use this role of cooperation and coordination in order to achieve their goals, such as gaining more resources than other firms and acquiring the three forms of resources (i.e. access to information, organisational learning and organisational social capital). The main reasons for this are that the existence of resource scarcity in China and the inequality of power in Chinese society. Therefore, the focal firm needs to obtain external resources to reduce its risks or costs, in order to achieve its financial and strategic goals by using reciprocity (Chen and Wu, 2011).

In supporting the finding that the relational and cognitive dimensions of social capital are interactive in reaching the common goal (Tsai and Ghoshal, 1998; Liao and Welsch, 2003), reciprocity was found to be correlated with sharing norms and collective goals to achieve the common goal. This finding is also consistent with collective social capital theory, i.e. social capital as reciprocity, facilitates cooperation and collective action in order to achieve the common goal (Putnam, 1993). This is due to the fact that Chinese companies, their business partners, government officials and their employees have the same collective goal under the guidelines of the Chinese Confucian collective culture (Park and Luo, 2001).

In line with the finding of Wang (2007) and Barnes *et al.* (2011), that the exchange of favours is the rule of reciprocity that can lead to improved organisational performance; the qualitative finding in the present study illustrates that reciprocity mediates the positive relationship between social networks and organisational performance. This is due to the fact that reciprocity can benefit and help companies in Chinese social networks. This fact is also in line with the manager's value of reciprocity, i.e. favours should be reciprocated, exchanges should be mutually beneficial and renqin (reciprocity) is a debt that should be repaid (i.e. helping each other), according to Wu and Leung (2005).

6.4.1.2 Social Networks and Trust

In the existing literature, empirical studies such as those of Levin *et al.* (2004) and Nie *et al.* (2011) show that social networks are positively associated with trust. However, unexpectedly, this study found that the tie strength of social networks (business ties, government ties and managerial ties) was not significantly associated with trust (not supported of hypothesis 3a). This finding is inconsistent with the existing literature. There are two possible explanations for this inconsistent finding. Firstly, the close ties between the focal company and its business partners, government officials and employees include different levels of trust (Yeung and Tung, 1996). The highest level of trust is based upon kinships and family members, the middle level of trust is amongst friends, schoolmates and colleagues, and the lowest level of trust is rooted in unfamiliar persons within a guanxi network (Chen and Chen, 2004). The close ties in business ties, government ties and managerial ties might include unfamiliar persons and yield the lowest level of trust, and as a direct result, the relationship between the tie strength of social networks is not significant. As Granovetter (1992) argued, strong ties are only correlated to a high level of trust. Consistent with this, the qualitative finding indicates that the lowest level of trust exists in business ties, government ties and managerial ties because not all members of social networks are friends, schoolmates and relatives.

Second, the tie strength of social networks might include the self-interested goal in the trust personal relationship (Uzzi, 1997). Social networks are a web of personal relationships (Granovetter, 1985; Burt, 1992), which include the trust in personal

relationships (Putnam, 1995). The managers in the focal firm and other firm's might use their trust in personal relationships to achieve their self-interest goals (Chen and Wu, 2011). As a result of this, the tie strength of social networks is not associated with trust, due to the trust in personal relationships involving risk (for example, they do not trust each other to achieve the common goal) (i.e. one of the qualitative findings in the present study).

6.4.1.3 Social Networks and Emotional Commitment

Consistent with the existing literature (Burt, 1992), which states that characteristics of social networks such as tie strength and structural holes are associated with emotional commitment, it was found that the relationship between the tie strength of social networks (business ties, government ties and managerial ties) and emotional commitment was significant (supported of hypothesis 3b). This is in line with the Chinese traditional hierarchy of social relationships, such as qinqing (father-son, brother-brother), husband-wife and friend-friend, qanqing touzi (non-intimate of common feelings) (Wang, 2007). Qinqing (i.e. direct family members) and qanqing tozi are two types of emotional commitment within the Guanxi network (ibid.). The intimate (i.e. qinqing) and common feelings (i.e. qanqing touzi) are very closed with emotional intensity and intimacy of relationships within social networks (Granovetter, 1973). Emotional intensity and the intimacy of relationships represent close ties in social networks; this means that the tie strength of social networks is positively associated with emotional intensity and the intimacy of relationships (ibid.).

On the other hand, emotional commitment (ganqing) shows the good quality of a relationship since it equates to an emotionally intense and intimate (closer) relationship (Chen and Chen, 2004). The tie strength of social networks is usually associated with good quality relationships such as emotional commitment (Brass *et al.*, 1998; Scott, 2000). For example, Barnes *et al.* (2011) found that the focal firm uses the good ganqing relationship within social networks to enable the team to work together for cooperation and coordination in order to achieve its goal. In line with the finding, the present study's qualitative results indicate that Chinese listed companies'

managers use a good quality of relationships through business ties, government ties and managerial ties in order to achieve their goals.

6.4.1.4 Trust , Emotional Commitment and Organisational Performance

The existing literature indicates that trust and emotional commitment are positively associated with organisational performance and as well as being mediators of the relationship between social networks and organisational performance (Wu and Leung, 2005; Barnes *et al.*, 2011). It was surprising to find that hypothesised the positive association between trust or emotional commitment and organisational performance was insignificant (not supported of hypotheses 4a and 4b). It was also found that the mediating role of trust and emotional commitment in a positive relationship, between the tie strength of social networks (business ties, government ties and managerial ties) and organisational performance was insignificant (not supported of hypotheses 6a and 6b).

Four main reasons may explain why my findings are different from that in the literature. Firstly, according to social capital theory, social networks as social capital at an individual level, can be transferred to social capital at an organisational level (or collective assets and goods), depending on the equal exchange of favours, such as knowledge and information sharing at a high level of trust in relationships within social networks (Li *et al.*, 2011). As discussed earlier, the trust relationship between the focal firm and its business partners, government officials and employees, has different levels of trust rooted in the hierarchy of social relationships such as ruler-subject and friend-friend (Yeung and Tung, 1996; Wang, 2007). In line with this suggestion, the qualitative findings indicate that the existence of risk in the relationships between Chinese listed companies and their business partners, (or government officials or employees) and the lowest level of trust and emotional commitment, were the main reasons why trust and emotional commitment were not positively associated with organisational performance and did not play a mediating role in the positive relationship between social networks (business ties, government ties and managerial ties) and organisational performance. For example, due to the ruler-subject relationship between the focal firm and government officials there is an

unbalanced exchange within government ties that results in negative effects on Chinese firm performance (Nie *et al.*, 2011).

Secondly, trust and emotional commitment did not play the role of cooperation and coordination in the relationship between Chinese listed companies and their business partners (or government officials or their employees), this is because of the existence of risk and the lower level of trust and emotional commitment within business ties, government ties and managerial ties, according to the qualitative result. Barnes *et al.* (2011) found that trust and emotional commitment determine cooperation and coordination in business ties, which leads to improved firm performance. Besides this, Emotional commitment determines the cooperation and coordination based on the two parties' common positive feeling that they want to cooperate to sort out their problems and reach their common goals, which leads to improved organisational performance (*ibid.*). However, if risk and the lowest level of trust and emotional commitment exist in business ties, government ties and managerial ties, it is impossible for firms to achieve their common or collective goals (Wang, 2007). In other words, the lowest level of trust and emotional commitment within Chinese social networks has a negative impact on organisational performance (Chung, 2011).

Thirdly, the risk and the lowest level of trust and emotional commitment exists with social networks and this reflects the fact that the focal firm and its business partners, government officials and employees have self-interest goals; as a result, trust and emotional commitment might not be associated with firm performance and play the mediating role in their social relationships (Brass *et al.*, 1998, Uzzi, 1996).

Fourthly, trust and emotional commitment are not positively correlated with common or collective goals due to the existence of risk in business ties, government ties and managerial ties, according to the qualitative result. The existing literature shows that the relational dimension of social capital (such as trust and emotional commitment), is positively associated with the cognitive dimension of social capital (such as common goals and collective goals) (Tsai and Ghoshal, 1998; Liao and Welsch, 2003). However, the existence of risk in the trust and emotional commitment relationships within social networks (business ties, government ties and managerial ties), that might hinder emotional commitment is positively associated with the common goal. This is,

due to other parties such as the focal firm's business partners not supporting and achieving the common goal (Tsai and Ghoshal, 1998). In other words, the existence of risk in the trust and emotional commitment relationships might obstruct the positive relationship between social networks and organisational performance.

6.4.2 Cognitive Dimension of Social Capital

6.4.2.1 Trust Affects the Relationship of Social Networks and Sharing Norms or Collective Goals

It was unexpected to find that the positive association between the tie strength of social networks (business ties, government ties and managerial ties) and sharing norms or collective goals was insignificant (not supported of hypotheses 3d and 3e). These findings are inconsistent with the findings in the existing literature, that the structural dimension of social capital, such as social interaction ties (tie strength), is positively associated with the cognitive dimension of social capital (Tsai and Ghoshal, 1998; Liao and Welsch, 2003).

The qualitative findings indicate that the main reason why the tie strength of social networks is not positively associated with sharing norm and collective goals, is that sharing norms and collective goals depend upon the quality of relationships (e.g. trust). This is in line with the findings of Tsai and Ghoshal (1998), that the relational and cognitive dimensions of social capital are correlated. Due to the existence of risk of trust relationships in business ties, government ties and managerial ties, according to the qualitative finding; sharing norms and collective goals (the cognitive dimension of social capital) and trust (the relational dimension of social capital) are correlated (Tsai and Ghoshal, 1998). This leads to the conclusion that the positive association between the tie strength of social networks and sharing norms or collective goals is insignificant. In other words, the existence of risk in trust relationships might hinder the positive association between the tie strength of social networks (business ties, government ties and managerial ties) and sharing norms or collective goals, but it is not a significant factor.

On the other hand, characteristics of social networks such as tie strength and structural holes are associated with the quality of relationships such as trust (Brass *et al.*, 1998;

Scott, 2000). However, the tie strength at the individual level includes different individual goals (Gabbay and Leenders, 1999). For instance, Chinese government officials have their individual goals of developing their political careers and the focal firm's goal is to reach its financial and strategic objectives (Chen and Wu, 2011; Sheng *et al.*, 2011). If they have self-interest goals without a common goal or the exchange of favours between the two parties are not equal, it is very difficult for the focal firm to adopt sharing norms and collective goals according to the qualitative result of the present study. Thus it is not possible for the tie strength of social networks to be positively associated with sharing norms and collective goals.

6.4.2.2 Sharing Norms and Organisational Performance

It was unexpected to find that the positive association between sharing norms and organisational performance was insignificant (unsupported of hypothesis 4d), and that sharing norms did not significantly mediate the positive relationship between the tie strength of social networks (business ties, government ties and managerial ties) and organisational performance (unsupported of hypothesis 6d). These findings are inconsistent with previous studies (such as Tsai and Ghoshal, 1998; Liao and Welsch, 2003), which found that the cognitive dimension of social capital (such as sharing norms), is positively associated with firm performance and plays a mediating role in the positive relationship between the structural dimension of social capital (such as the tie strength and structural holes) and firm performance.

There are two main explanations for these findings being inconsistent with the existing literature. Firstly, the main reason is that sharing norms cannot generate norms of reciprocity. The qualitative results indicate the reasons why sharing norms are not positively associated with organisational performance, that is, different Chinese industries have different rules and regulations and it is impossible for Chinese listed companies to share norms (i.e. rules and regulations) within their industries. As a direct result, the positive relationship between sharing norms and organisational performance becomes insignificant. This reflects the fact that norms at both the individual level (i.e. different rules and standards in different industries) and at the collective level (the same industry rules and regulations) cannot generate norms of reciprocity for social networks to achieve common or collective goals (Carrol and

Teo, 1996; Gargiulo and Benassi, 2000). Scholars, (e.g. Gargiulo and Benassi, 2000; Reimer *et al.*, 2008) argue that if the collective norms (sharing norms) can produce norms of reciprocity to achieve the collective goal, then the positive relationship between the structural dimension of social capital and firm performance via sharing norms, is significant.

Another possible explanation is that sharing norms can be considered as both relational and cognitive dimensions of social capital (Putnam, 1993). Since the quality of the relational dimension of social capital, such as trust and emotional commitment, including risk and sharing norms, depends on the relationship dimension of social capital (i.e. trust), according to the qualitative results, sharing norms are not positively associated with organisational performance for Chinese listed companies.

6.4.2.3 Collective Goals and Organisational Performance

Consistent with the finding of Liao and Welsch (2003), that the cognitive dimension of social capital (such as collective goals), is positively associated with organisational performance, it was found that the positive association between collective goals and organisational performance was significant (supported of hypothesis 4e). This is also in line with social capital theory and the Chinese Confucian collective culture.

Liao and Welsch (2003) found that the cognitive dimension of social capital is positively associated with firm performance in the American context, due to American firm's gaining mutual benefits from the greater the cognitive dimension of social capital. Similarly, collective goals provide more social capital, such as knowledge or information sharing for Chinese listed companies to gain mutual benefits within social networks, which leads to improvements in their performance, according to the findings in the present study. This is in line with the argument of social capital theorists (such as Putnam, 1993; Tsai and Ghoshal, 1998), i.e. collective goals are the cognitive dimension of social capital that can facilitate the cooperation and coordination of actions within social networks. This cooperation and coordination of actions in social networks leads to improving the focal firm's performance (Tsai and Ghoshal, 1998).

Similarly, the Chinese Confucian collective culture holds that people's actions within Guanxi networks contribute towards collectivism in the social community (Chen and Chen, 2004). In other words, collective goals within Guanxi networks encourage employees to work together to benefit the focal firm (Taylor, 2006).

However, it was unexpected to find that collective goals did not significantly mediate the positive relationship between the tie strength of social networks (business ties, government ties and managerial ties) and organisational performance (unsupported of hypothesis 6e). This finding is inconsistent with the existing literature (such as Tsai and Ghoshal, 1998; Liao and Welsch, 2003), which argues that the cognitive dimension of social capital mediates the positive relationship between the structural dimension of social capital and firm performance. There are two possible explanations for this finding. Firstly, different individual goals exist in the tie strength of business ties, government ties and employees (Gabbay and Leenders, 1999). It is very difficult to transfer individual goals to collective goals or organisational goals due to the existence of risk in the trust relationships of business ties, government ties and managerial ties as noted by the qualitative findings.

Secondly, the existence of risk in trust relationships in the tie strength of social networks hinders collective goals from playing the role of cooperation and coordination in business ties, government ties and managerial ties. The existing literature argues that collective goals only play the role of cooperation and coordination in social networks, which leads to an improvement of the focal firm's performance (Tsai and Ghoshal, 1998).

6.5 Chapter Summary

In this chapter, I have discussed how and why both the quantitative and qualitative findings are different from the existing literature and social capital theory. Firstly, there is a significant relationship between social networks (business ties, government ties and managerial ties) and organisational performance, which is consistent with the existing literature and social capital theory, since Chinese listed companies use social networks as social capital in order to achieve certain goals.

Secondly, it was found that three forms of resource acquisition (access to information, organisational learning and organisational social capital) play a mediating role in the positive relationship between the tie strength of social networks (business ties, government ties and managerial ties) and organisational performance, which is consistent with most of the empirical findings in the existing literature and social capital theory. The main reason for the mediating role of the three forms of resource acquisition, is because social networks as social capital at the individual level (individual goals), can be transferred to social capital at the organisational level (the positive effect on organisational performance). This is done by exchanging information, ideas, experts, knowledge, ownership of shares and innovation in business ties and managerial ties, as well as obtaining funding from government ties, which is inconsistent with the notion of social capital theory.

Thirdly, consistent with the existing literature and social capital theory, it was found that reciprocity played a mediating role in the positive relationship between the tie strength of social networks (business ties, government ties and managerial ties) and organisational performance, due to reciprocity determined cooperation and coordination in business ties, government ties and managerial ties.

Fourthly, it was surprising to find that trust, emotional commitment, sharing norms and collective goals did not play a mediating role in the positive relationship between the tie strength of social networks (business ties, government ties and managerial ties) and organisational performance, which is inconsistent with the existing literature. The main reasons why these findings are different from the existing literature are: 1) Trust, emotional commitment, sharing norms and collection goals pose a risk to the trust relationships of business ties, government ties and managerial ties; 2) Individual goals cannot be transferred to common goals, because of the risk to the trust relationships within social networks ; 3) These components of social capital (trust, emotional commitment, sharing norms and collection goals), do not determine cooperation and coordination in business ties, government ties and managerial ties, due to the risk to trust relationships within social networks.

The next chapter will provide conclusions and discuss the contributions and limitations of the present study, to point out the implications of the findings for theory and practice.

Chapter 7 Conclusion

7.1 Introduction

This chapter provides conclusions to the whole study in relation to the four research objectives. First, I summarise the findings in relation to each objective. Second, besides justifying how the four research objectives have been achieved, I discuss the findings related to each objective. Third, I discuss the theoretical, methodological and practical contributions made by the whole study. Fourth, I point out the implications of the findings of this study for both theory and practice. Fifth, I discuss the main limitations of this study, which lead to relevant recommendations for future research. Finally, I provide the conclusions of this study.

7.2 The Findings in Relation to Each Research Objective

In this section, I summarise the findings obtained from the empirical chapters (i.e. chapters 4, 5 and 6), as well as the justification for how these research objectives have been achieved. Figure 7.2 provides a summary of the relationships found between the three types of social networks (business, government and managerial ties) and organisational performance via three forms of resource acquisition (access to information, organisational learning and organisational social capital) and components of social capital, such as reciprocity, from the survey and qualitative data. In Figure 7.2, the black arrows indicate that there is a significant positive association relationship between two variables; conversely, the red arrows indicate that the positive association relationship between two variables is not significant. For example, in Figure 7.2, the first black arrow shows that there is a positive association relationship between the three types of social networks and organisational performance; the first red arrow on the left shows that the positive association relationship between the three types of social networks and trust is not significant.

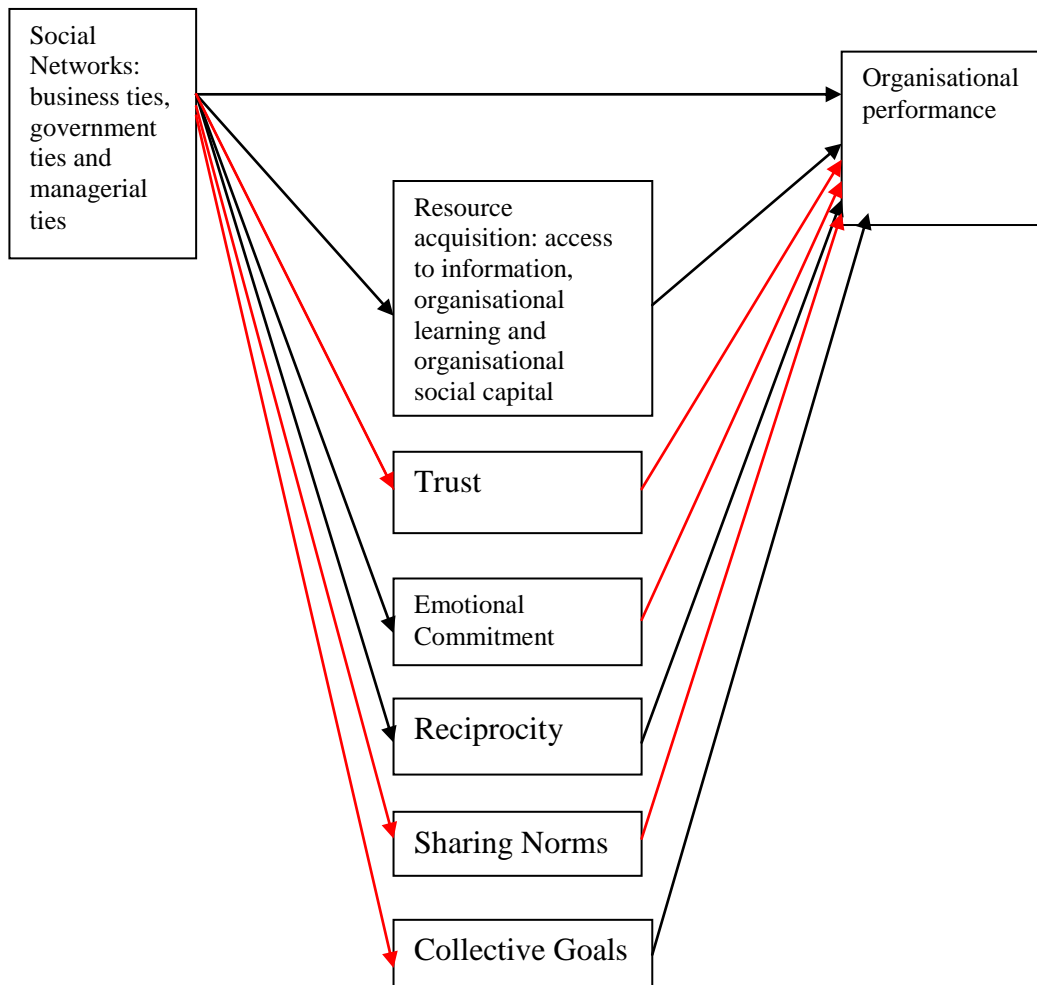


Figure 7.2: A summary of the significance of the relationships between social networks and organisational performance via resource acquisition and components of social capital

(Black arrow = significant positive association relationship, red arrow = positive association relationship not significant)

Additionally, the qualitative findings indicate that Chinese listed companies used the three types of social networks to acquire the three modes of resources in order to achieve their profits and growth goals. These three forms of resource acquisition mediate the positive relationship between social networks and organisational performance of Chinese listed companies in terms of how these resources at an individual level transfer to the organisational level, which improves organisational performance.

The qualitative findings also show that trust, emotional commitment, reciprocity, sharing norms and collective goals determine how Chinese listed companies

cooperate with business partners, government officials and employees, besides showing that, due to the benefit it brings to all actors (i.e. the focal Chinese listed firm, its business partners, government officials and employees), reciprocity plays a mediating role in the positive relationship between social networks and organisational performance. However, trust, emotional commitment and sharing norms are not positively associated with organisational performance because of the existence of risks.

Overall, the findings obtained from the survey (see Figure 7.2) are the same as those from the interviews.

7.2.1 Social Networks Influence Organisational Performance via Resource Acquisition (Research Objective 1)

The first objective of this study was to examine how social networks (business ties, government ties and managerial ties) influence organisational performance via three forms of resource acquisition (i.e. access to information, organisational learning and organisational social capital) in the achievement of Chinese listed companies' collective aims. This objective includes examining the direct relationship that exists, in Chinese listed companies, between the three types of social networks and organisational performance, with the mediation of the three forms of resource acquisition in the positive relationship between the three types of social networks and organisational performance. These relationships were examined by analysing the data collected through the survey (chapter 4) and the semi-structured interviews (chapter 5).

The survey tested social capital theory, which states that the three types of social networks (business, government and managerial ties) are considered as a set of resources (i.e. social capital) that the actors can use to achieve their goals, which has a positive impact on organisational performance. The results of the survey show that the positive association relationship between the three types of social networks and organisational performance is significant and that three forms of resource acquisition (access to information, organisational learning and organisational social capital) mediate this positive association.

The findings from the interviews were used to explain the survey results, i.e. why this positive association is significant and how the three forms of resource acquisition mediate it. The positive association relationship is significant as the Chinese listed companies meet their profitability and growth objectives by using managerial ties, government ties and business ties in four aspects: 1) to encourage their employees to innovate, 2) to strengthen exchanges and cooperation with their industry and business partners, 3) to learn from their business partners and other companies, and 4) to obtain advanced technology with funding support. Chinese listed companies use the three types of social networks to acquire the three forms of resources by transferring individual level social networks to the organisational level via the exchange of information, the sharing of knowledge and ideas, and innovation, all of which leads to improved organisational performance. This means that the positive association between social networks and organisational performance in Chinese listed companies was demonstrated through the acquisition of the three forms of resource (i.e. partial mediation).

This use of the three types of social networks by Chinese listed companies acquire the three forms of resources in order to achieve their profit and growth goals, demonstrates that these resources are not possessed or controlled by the companies, which, in turn, is in line with social capital theory. The interview study also explained the five methods (i.e. strategic decision competitiveness, good quality products and services, broad strategic alliances, innovation competitiveness and cultural competitiveness) used to gain competitive advantage in business ties, government ties and managerial ties, which is consistent with social capital theory as noted in chapter 6. The theoretical contributions made by this study in relation to this research objective are discussed in section 7.3.1.

7.2.2 The Social Networks-Resource Acquisition Relationship (Research Objective 2)

The second research objective of this study was to examine how the three types of social networks (business ties, government ties and managerial ties) impact on the acquisition of the three forms of resources (access to information, organisational learning and organisational social capital). In order to achieve this research objective,

the survey study examined how regularly and closely Chinese listed companies keep in contact with business partners, government officials and employees to obtain information, organisational learning and organisational social capital. The interview study then investigated which forms of resources are linked to which types of social networks, and the ways in which Chinese listed companies the three forms of resources.

Besides this, the interview study also investigated how sources of information related to customer needs are obtained from market investigation through business ties, how exchange information is obtained through managerial ties, and how new products/service, production information and policy information are acquired through government ties. The interview study also examined whether, and in what ways, managers and employees took an active interest in new technological development related to their industry and increased their investment in scientific research funding for organisational learning through government ties; and whether, and how, they cooperated with universities and business partners to acquire experts and exchange talented persons for organisational learning. No previous research had examined these issues.

According to social capital theory (Tsai and Ghoshal, 1998), knowledge exchange (such as new technology and innovation) can be acquired through indirect ties within a social network (Yli-Renko *et al.*, 2001). The interview study investigated the way in which Chinese listed companies acquire organisational learning through managerial ties and external ties (connections with universities and experienced firms).

These investigations yielded an understanding of how Chinese listed companies acquire the three modes of resources (access to information, organisational learning and organisational social capital) from the three types of social networks (business ties, government ties and employee ties). In relation to this research objective, this study makes contributions to social capital theory, as is discussed in section 7.3.1.

7.2.3 The Resource Acquisition-Organisational Performance Relationship (Research Objective 3)

The third research objective of this study was to examine how the three forms of resource acquisition (access to information, organisational learning and organisational social capital) impact on organisational performance. With regard to this research objective, this study contributes to the social capital literature by examining, for the first time through both survey and interview analyses, whether the three forms of resource acquisition have a positive impact on the organisational performance of Chinese listed companies. Furthermore, the interview study in this thesis explains the main reason why these forms of resource acquisition have a positive impact on organisational performance, i.e. how individual capital can be transferred to organisational social capital through the exchange of information, knowledge and ideas, and innovation.

In the social capital literature, most studies (e.g. Uzzi, 1996; Li *et al.*, 2011; Harrington, 2001) have shown the existence of a positive relationship between resource acquisition (access to information, organisational learning and organisational social capital) and organisational performance; conversely, others (e.g. Uzzi, 1999) have shown the existence of a negative one. However, none of these studies has indicated the main reason why the resource acquisition-organisational performance relationship is either positive or negative and what makes this relationship positive within social networks.

Collective social capital theorists (such as Putnam, 1993; Nahapiet and Ghoshal, 1998) consider social capital to include both individual and organisational social capital. Such social capital also includes organisational liability and assets (Gabbay and Leenders, 1999). Since individual social capital can be transferred to organisational social assets once individual goals become organisational ones (*ibid.*), companies have to find ways to effect such a transfer, which leads to improved organisational performance. As presented in chapters 4 and 5, through the survey and interview analyses, this thesis demonstrates that Chinese listed companies have found ways to transfer individual goals to organisational goals regarding the three forms of resource acquisition, which had a positive impact on their performance. These ways

are the exchange of information, knowledge, ideas, and innovation. Employees engage in social network activities, such as attending industry exchange conferences, and promoting small quantities of stocks (shares) to employees to enhance their sense of the ownership, through linking together the annual organisational performance with the assessment of employee performance, and by linking annual individual performance indicators with the elevation of employee performance, as noted before.

7.2.4 The Components of Social Capital in the Relationship between Social Networks and Organisational Performance (Research Objective 4)

The fourth research objective of this thesis was to identify the key coordination and cooperation components of the three types of social networks (business, government and managerial ties) and examine the impact of these components have on the organisational performance of Chinese listed companies. The results of the analyses of the data collected through the survey and the interviews show that reciprocity mediates the positive relationship between the three types of social networks and organisational performance. However, the mediation effected by trust, emotional commitment, sharing norms and collective goals on the positive relationship between the three types of social networks and organisational performance was found not to be significant, due to the risks that exist in trust and emotional commitment relationships. The details of the contributions will be discussed in the following sections.

7.2.4.1 The Mediating Role of Reciprocity

Reciprocity significantly mediates the positive relationship between the three types of social networks (business ties, government ties and managerial ties) and organisational performance. The positive associations that exist between reciprocity and both the three types of social networks and organisational performance are the mediating processes and pathways of reciprocity. These are consistent with social capital theory, as discussed in chapter 6. In relation to the above research objective, this study makes several contributions to the social capital and social networks literature related to social capital theory, as discussed below.

Firstly, reciprocity was positively associated both with the tie strength of the three types of social networks and with organisational performance, which demonstrates that the focal company keeps regular contacts and a close relationship with business partners, Chinese government officials, and employees; this, provides all the parties involved with mutual benefits, which, in turn, have a positive effect on organisational performance. This is consistent with the view of reciprocity as an exchange of favours, and with the rule of reciprocity in the notion of social capital theory (Adler and Kwon, 2002); a view that is also shared from the Chinese Confucian collective culture perspective (Park and Luo, 2001). The concept of social capital states that reciprocity, being its relational dimension, includes the exchange of favours and gifts in social relations (Adler and Kwon, 2002). This is consistent with the definition of reciprocity (i.e. “li shang wang lai”, “returning a favour”) found in Chinese Confucian collective culture (Wang, 2007). Under the rule of reciprocity, to achieve its profit and growth goals, the focal company can acquire valuable information from its business partners and financial and land resources or project approvals from government officials, who, in turn, will achieve their state’s economic and political goals. This is demonstrated by the interview study, i.e., the fact that reciprocity in Chinese social networks can provide mutual benefits.

Secondly, the survey study in this thesis demonstrated that reciprocity mediates the positive relationship between the tie strength of the three types of social networks and organisational performance. Very few studies have examined this in the social networks literature. This demonstration reflects the fact that reciprocity governs cooperation and coordination between the focal company, its business partners, and Chinese government officials from the Chinese Confucian collective culture perspective (Barnes *et al.*, 2011), which is consistent with social capital theory, as discussed in chapter 6. Within the framework of Chinese Confucian collective culture, individuals and social network activities are guided by social norms in order to achieve collective goals (Chen and Chen, 2004). In other words, the rule of reciprocity interacts with collective goals, promoting cooperation and coordination within Chinese social networks, leading to improved organisational performance. The interview study demonstrated this, with regard to the ways in which Chinese listed companies cooperate with their customers, suppliers and competitors, government officials and employees. Chinese listed companies also use this role of cooperation

and the coordination of reciprocity to achieve their financial and strategic goals, such as gaining more resources than other companies to reduce risks and costs.

On the other hand, this implies that the relational and cognitive dimensions of social capital are associated with reaching the common goal (Tsai and Ghoshal, 1998; Liao and Welsch, 2003). This is also in line with collective social capital theory, as discussed in chapter 6, i.e. reciprocity as social capital facilitates cooperation and collective actions to achieve the common goal (Putnam, 1993).

7.2.4.2 Trust in the Social Networks-Organisational Performance Relationship

Trust was not found to be a mediator of the positive relationship between the three types of social networks (business, government and managerial ties) and organisational performance; and both positive associations, those between the three types of social networks and trust, and those between trust and organisational performance, were found not to be significant through the survey and interview analyses. These findings of the interview study suggest that the lowest level of trust does not play a role in cooperation and coordination in business ties, government ties and managerial ties due to the existence of risk in the trust relationships between Chinese listed companies and their business partners (or government officials or employees). The findings were inconsistent with the social network literature, as Levin *et al.* (2004) and Barnes *et al.* (2011) found that social networks are positively correlated with trust and lead to improved firm performance. Strong ties are only associated with a high level of trust within social networks (Granovetter, 1992), which determines cooperation and coordination with those networks, and results in positive firm performance (Barnes *et al.* 2011). However, the existence of risk in the trust relationship within social networks and the fact that not all members of social networks are friends, schoolmates and relatives was shown in the findings from the interview analysis, strong ties in business ties, government ties and managerial ties might not be positively associated with the lowest level of trust, and therefore not result in improved firm performance. Besides this, government officials and employees have self-interest goals; thus, trust might neither be associated with firm performance nor play a mediating role in social networks (Brass *et al.*, 1998, Uzzi, 1996).

The findings indicate that this study contributes to the relational dimension of social capital from the traditional Chinese culture perspective. This study used the hierarchy of social relationship to indicate why the above positive association relationships were not significant. No Chinese social network studies have examined this. From this perspective, the notion of traditional Chinese culture includes the hierarchy of social relationships, such as ruler-subject, father-son, and friend-friend (Yeung and Tung, 1996; Wang, 2007). These social relationships involve different levels of trust (Yeung and Tung, 1996), with the highest level of trust occurring among kinships and family members, the middle level of trust among friends, schoolmates and colleagues, and the lowest level of trust reserved for unfamiliar persons (Chen and Chen, 2004). As noted in the findings, not all members of social networks are friends, schoolmates and relatives; thus, the lowest level of trust relationship exists in social networks. Close or stronger ties in social networks were not positively associated with a level of trust suited to the achievement of collective goals.

The findings also indicate that this study contributes to the identification of conditions that allow social capital at the individual level to be transferred to the organisational level (or organisational assets) from the trust relationships found in business ties, government ties and managerial ties. No previous research had examined this. The findings suggest that these conditions require an equal exchange of favours, such as the sharing of knowledge and information, with a high level of trust in relationships within social networks (Li *et al.*, 2011); such conditions enable individual assets to be transferred to organisational assets.

7.2.4.3 Emotional Commitment in the Social Networks-Organisational Performance Relationship

The positive association between the three types of social networks (business ties, government ties and managerial ties) and emotional commitment was found to be significant. This finding reflects the hierarchy of social relationships stemming from traditional Chinese culture within Chinese social networks, such as *Qinqing* (i.e. direct family members) and *qanqing touzi* (the common feeling within personal relationships) (Wang, 2007). *Qinqing* and *qanqing tozi* are degrees of emotional

commitment within the Guanxi network (ibid.). They represent the emotional intensity and the intimacy of relationships; in other words, the tie strength of social networks is positively associated with emotional intensity and intimacy in relationships (Granovetter, 1973).

However, through the survey and interview analyses, the positive association between emotional commitment and organisational performance was found not to be significant, and emotional commitment did not significantly mediate the positive relationship between the tie strength of the three types of social networks and organisational performance. The interview study then found that the reason why these relationships were not significant was due to the existence of risk in emotional commitment in business ties, government ties and managerial ties.

The findings suggest that emotional commitment does not play a role of cooperation and coordination to reach common goals. The existing literature suggests that the relational dimension of social capital (such as emotional commitment) is positively associated with its cognitive dimension (such as common goals and collective goals) (Tsai and Ghoshal, 1998; Liao and Welsch, 2003). But the existence of risk in the emotional commitment relationships in business ties, government ties and managerial ties hinders the positive association of emotional commitment with the common goal, and other parties, such as the focal firm's business partners, do not have a common positive feeling about cooperating with each other to achieve their common goals (Tsai and Ghoshal, 1998). Due to emotional commitment a part in cooperation and coordination based on the two parties' common positive feeling that they wish to cooperate to achieve their common goals, this leads to improved firm performance (Barnes *et al.*, 2011). In other words, the existence of risk in the emotional commitment relationship impedes emotional commitment from acting as a mediator in the positive relationship between social networks and organisational performance.

7.2.4.4 Sharing Norms in the Social Networks-Organisational Performance Relationship

Through the survey and interview analyses, sharing norms were not found to mediate the positive relationship between the three types of social networks (business ties,

government ties and managerial ties) and organisational performance, and both the positive associations between the three types of social networks and sharing norms, and those between sharing norms and organisational performance were found not to be significant. The result of the interviews shows that the main reason for the relationships not being significant was that different Chinese industry sectors have different rules and regulations, which makes it impossible for Chinese listed companies to find common normative ground among different industry sectors. No previous Chinese social network research has examined whether, or how, this cognitive dimension of social capital exerts an influence upon organisational performance.

The findings indicate that this study contributes to the research on those conditions that enable norms both at the individual level (i.e. different rules and standards in different industries) and those at the collective level (the same industry rules and regulations) within social networks to achieve common or collective goals. This literature suggests that norms at the individual or collective levels produce rules of reciprocity in social networks to achieve common or collective goals (Carrol and Teo, 1996; Gargiulo and Benassi, 2000). It is not possible for Chinese listed companies to share norms (i.e. rules and regulations) across their industry sectors due to the business, government and managerial ties being unable to generate norms of reciprocity, as different Chinese industry sectors abide by different rules and regulations.

On the other hand, the interview analysis shows that the various rules and regulations found in different Chinese industry sectors reflect their respective different individual goals and the tie strength of social networks at the individual level includes different individual goals (Gabbay and Leenders, 1999). For example, the individual goals of Chinese government officials are linked to developing their political careers, while the focal firm's goal is to achieve its profit and growth objectives (Sheng *et al.*, 2011). If there are no shared individual goals or the exchange of favours between the two parties is not equal, it is very difficult for the focal company to adopt the sharing of norms to achieve collective goals, which results in the sharing of norms not being significantly positively associated with organisational performance.

7.2.4.5 Collective Goals in the Social Networks-Organisational Performance Relationship

The results of the interviews show that collective goals depend on the quality of relationship features, such as trust. Due to the existence of risk in trust relationship in business ties, government ties and managerial ties, shown in the interviews, and to the fact that the literature (Tsai and Ghoshal, 1998; Liao and Welsch, 2003) shows that the relational dimension of social capital (such as trust) is correlated with the cognitive dimension of social capital (such as collective goals) (Tsai and Ghoshal, 1998), it was found that the three types of social networks were not positively associated with collective goals, and, as a result, collective goals did not play a mediating role in the positive relationship between the three types of social networks and organisational performance. No previous Chinese social network studies had examined this cognitive dimension of social capital (collective goals) in the positive relationship between social networks and organisational performance.

Besides these findings, the survey analysis yielded that collective goals were positively associated with organisational performance. Collective goals provide more social capital, such as the sharing of knowledge or information, for Chinese listed companies to obtain mutual benefits in business ties, government ties and managerial ties, which enables them to improve their performances, as was shown by the interview analysis in this thesis. This finding implies that this thesis contributes to social capital theory in relation to Chinese Confucian collective culture. Social capital theory proposes that collective goals, as the cognitive dimension of social capital, can facilitate the cooperation and coordination of actions within social networks (Putnam, 1993; Tsai and Ghoshal, 1998). This action in social networks can lead to improving the focal company's performance (Tsai and Ghoshal, 1998). Similarly, Chinese Confucian collective culture poses that people's actions within Guanxi networks contribute towards collectivism in the social community (Chen and Chen, 2004). This means that collective goals within Guanxi networks encourage employees to cooperate with each other and coordinate their actions to work together to benefit the effectiveness of the focal firm's performance (Taylor, 2006).

7.3 Contributions

7.3.1 Theoretical Contributions

This study makes the following theoretical contributions to the social network and social capital literature. First, this study contributes to the development of a conceptual framework on the relationship between social networks and organisational performance by conceptualising and testing the mediating effects on the relationship of two sets of variables. No previous studies had adopted two sets of mediating variables to create such a conceptual model. Prior studies only considered one form of resource acquisition such as organisational learning (Li *et al.*, 2011; Yli-Renko *et al.*, 2001), or the relational dimension of social capital, such as trust, emotional commitment and reciprocity (Barnes *et al.*, 2011) to examine the relationship. This study tested the effects of two sets of mediating variables, one comprising three forms of resource acquisition (access to information, organisational learning and organisational social capital) and the other made up of five components of social networks (trust, emotional commitment, reciprocity, sharing norms and collective goals), on the positive relationship between social networks and organisational performance in Chinese listed companies.

Second, this study is the first to examine the influence of Nahapiet and Ghoshal's (1998) three dimensions of social capital (i.e. structural, relational and cognitive dimensions) on organisational performance in the Chinese context through survey and interview analyses. This study identifies the tie strength of social networks (business ties, government ties and managerial ties), as the structural dimension of social capital; trust, emotional commitment and reciprocity as the relational dimension of social capital; and sharing norms and collective goals as the cognitive dimension of social capital, and examines how these dimensions influence organisational performance. No previous research in Chinese social networks literature has used the three dimensions of social capital to examine how Chinese social networks influence organisational performance. Most Chinese social network studies (e.g. Barnes *et al.*, 2011; Chen and Wu, 2011) had only used one dimension of social capital (either the relational or the structural dimension). No Chinese social network studies had hitherto

examined how the cognitive dimension of social capital influences organisational performance.

Third, this study makes a contribution to the understanding of three types of Chinese social networks studies – business ties, government ties and managerial ties, including how internal and external stakeholders influence organisational performance in the Chinese context. In the Chinese social networks literature, most studies have examined the relationship between Guanxi and organisational performance by addressing only one type of Guanxi (such as business ties) (Chung, 2011). Few studies have addressed two or more types of Guanxi (business ties and government ties) (Chen and Wu, 2011). The main reasons why it is important to examine two or more types of Guanxi is that previous studies have yielded mixed results in the relationship between different types of social networks and organisational performance (as discussed earlier) and the existence of information symmetry and resource scarcity force the focal firm to have two or more types of social networks in the Chinese context. As noted before, resources are scarce in China, and Chinese government officials hold varying powers to allocate key resources to different companies in different industries; as a result, government ties might influence firm performance. No Chinese social network studies had addressed managerial ties, i.e. how the focal firm's ties with its internal stakeholders (such as its employees) impact organisational performance.

Besides these above, the study contributes to social capital theory in the following ways. First, it examines the positive relationship between three types of social networks (business ties, government ties and managerial ties) and organisational performance through three forms of resource acquisition (access to information, organisational learning and organisational social capital). Most previous studies (such as Peng and Luo; 2000; Park and Luo 2001) had only examined the direct relationship between two types of social networks (business ties and government ties) and organisational performance from the perspective of the components of traditional Chinese culture (such as trust and reciprocity) (i.e. a relational dimension of social capital perspective). They had not examined social networks as resources (i.e. social capital) that actors use to achieve their collective aims and the three forms of resource acquisition (access to information, organisational learning and organisational social

capital) as mediators in the positive relationship between the three types of social networks and organisational performance. According to social capital theory (Nahapiet and Ghoshal, 1998), social networks (e.g. business ties) are considered as social capital that generates a set of valuable resources (such as information, knowledge, assets, reputation and power) that actors can access to achieve their goals or positive outcomes. Indeed, both strong and weak ties within social networks directly affect firm performance (Rowley *et al.*, 2000).

The survey study used the tie strength of three types of social networks, i.e. the emotional intensity, frequency of interaction and intimacy of a social network relationship, as examined in previous studies (e.g. Granovetter, 1973; Brass *et al.*, 1998), to measure how both strong and weak ties within social networks influence organisational performance in the Chinese context. The interview study in this thesis showed that Chinese listed companies keep strong ties with their business partners, government officials and employees in order to acquire valuable resources such as information, organisational learning and organisational social capital to achieve their profit and growth goals. This thesis's interview study also examined how Chinese listed companies achieve their profits and growth goals, i.e., Chinese listed companies use five methods (i.e. strategic decision competitiveness, good quality products and services, establishing a broad strategic alliance, innovation competitiveness and cultural competitiveness) to gain a competitive advantage in business ties, government ties and managerial ties. These five methods constitute social capital, as discussed in chapters 5 and 6. No prior research had examined this.

Second, this study contributes to the understanding of how Chinese social networks (business ties, government ties and managerial ties) at the individual level (individual social capital) transfer to organisational social capital via three forms of resource acquisition (access to information, organisational learning and organisational social capital), which have a positive effect on organisational performance. Previous Guanxi studies had been limited to only examining the Guanxi-organisational performance relationship through access to information or organisational learning (Li *et al.*, 2011); they had not addressed organisational social capital. In other words, they have not examined how Guanxi at the individual level (i.e. personal assets) transfer social capital to the organisational level (i.e. organisational assets) (Zhang and Zhang,

2006). The interview study in this thesis thus examined how individual capital can shift to organisational social capital through the exchange of knowledge, ideas, information and innovation within business ties, government ties and managerial ties.

Third, this study contributes to the structural dimension of social capital and structural holes of social networks in terms of how the tie strength of the three types of social networks (business ties, government ties and managerial ties) and structural holes provide information, organisational learning and organisational social capital. As noted before, most Chinese social network research has examined the social networks-resource acquisition relationship with a focus on the traditional Chinese culture perspective. No prior research has addressed structural holes (i.e. indirect ties) in the Guanxi-resource acquisition relationship. Both the survey and interview studies in the thesis examined why structural holes (i.e. managerial ties), through business and government ties, had a positive effect on access to information, organisational learning and organisational social capital, which is consistent with Burt's (1992) structural holes theory, i.e., structural holes help actors to access information. Since structural holes (no connections) exist between the focal firm's business partners (or government officials) and employees (Wasserman and Faust, 1994), the survey and interview studies investigated how employees in Chinese listed companies acquire sources (i.e. information, organisational learning and organisational social capital) through business ties and government ties.

Fourth, this study contributes to organisational social capital in terms of how individual or group goals become organisational ones (Gabbay and Leenders, 1999). No previous Chinese social network research had examined this. This study's survey and interview studies examined how managers in Chinese listed companies put organisational goals before their own individual ones, i.e., they enhance their employees' sense of the ownership in their firms by offering small part stock shares, by linking the organisational annual performance indicators to the assessment of employee performance to boost employees motivation and encourage innovation initiatives, and by linking individual annual performance indicators to the elevation employee performances and salaries in terms of bonuses. This is consistent with the view that individual capital becomes organisational social capital once individual goals become organisational ones (Gabbay and Leenders, 1999).

Fifth, this study contributes to the understanding of why the relationship dimension of social capital, i.e. trust and emotional commitment, does not mediate the positive relationship between three types of social networks (business ties, government ties and managerial ties) and organisational performance. The existing literature suggests that trust and emotional commitment determine cooperation and coordination in social networks, which leads to improved firm performance (Barnes *et al.* 2011). However, this study suggests that the lowest level of trust and poor quality of emotional commitment do not play a role of the cooperation and coordination in business ties, government ties and managerial ties, and that trust and emotional commitment are not positively associated with organisational performance due to the existence of risk in trust and emotional commitment relationships in business ties, government ties and managerial ties, which hinders the focal firm's efforts towards the achievement of its organisational goals, such as those of profit and growth.

Sixth, this study contributes to the understanding of how the cognitive dimension of social capital, such as sharing norms and collective goals, influences the relationship between three types of social networks (business ties, government ties and managerial ties) and organisational performance. The existing literature suggests that the structural dimension of social capital is positively correlated with its cognitive dimension (Tsai and Ghoshal, 1998). However, this study suggests that the tie strength of the three types of social networks, as a structural dimension of social capital is not positively associated with sharing norms and collective goals, and that these do not mediate the positive relationship between the tie strength of the three types of social networks and organisational performance; this is because different Chinese industries have different rules and regulations and collective goals rely on the quality of relationships, i.e. trust. This suggests that norms at both the individual (i.e. different rules and standards in different industry sectors) and collective level (the rules and regulations in the same industry sector) produce norms of reciprocity within social networks to achieve common or collective goals (Carrol and Teo, 1996; Gargiulo and Benassi, 2000).

7.3.2 Methodological Contributions

In this subsection, I discuss the methodological contributions in relation to the survey and interview studies of this research, since no previous Chinese social network studies have used a qualitative or mixed (both quantitative and qualitative) research method to investigate the relationship between Chinese social networks and organisational performance.

Firstly, the survey study focused on exploring the relationship between three types of social networks (business ties, government ties and managerial ties) and organisational performance via two sets of mediating variables through a structural equation model (SEM) analysis. The hypothesised relationships were tested through a SEM with latent variables to reduce measurement errors (Hair *et al.*, 2010). To increase the reliability of the measurement, the survey used at least three items to measure each variable. The survey data was collected from a sample of 400 Chinese listed companies. This number of 400 empirical tests was important to reach the statistical significant. No Chinese social networks studies had employed 400 empirical tests in a SEM analysis to examine the Guanxi-firm performance relationship via two sets of mediating variables. To enhance the validity of the findings, the survey responses were obtained from senior managers in Chinese listed companies who had used the three types of social network (business ties, government ties and managerial ties).

Secondly, this study did not only use the survey and interview studies to investigate how the three types of social networks influence organisational performance in the Chinese context via two sets of variables, it also employed the interview study to explain the results of the survey study, such as why these types of social network influence organisational performance through three forms of resource acquisition (access to information, organisational learning and organisational social capital) and components of social capital (trust, emotional commitment, reciprocity, sharing norms and collective goals). No previous social network studies had used a qualitative research approach to explain their survey results. The study used the qualitative result to explain the survey result and thus makes a contribution to the understanding of how

Chinese listed companies use social networks to achieve their goals such as profit and growth ones. The use of a qualitative approach to explain the survey results on how the three forms of resource acquisition mediate the relationship between the three types of social networks and organisational performance contributes to our understanding how Chinese social networks at the individual level are transferred to the organisational level. Besides this advantage, qualitative findings are used to explain the main reason why trust, emotional commitment, sharing norms and collective goals do not play a mediating role in the relationship between the three types of social networks and organisational performance, which contributes to our understanding of the existence of risk in trust and emotional commitment relationships within social networks from the traditional Chinese culture perspective. The interview data were collected from 20 senior managers in 20 Chinese listed firms. They all had experience in the use of three types of social network (business ties, government ties and managerial ties), which ensured the reliability and validity of the results.

7.3.3 Practical Contributions

This study makes a practical contribution with regard to how the three types of social networks (business ties, government ties and managerial ties) can be used to achieve organisational goals or improve organisational performance in terms of how social networks at the individual level can be transferred to the organisational level, i.e. managers use their close ties with business partners, government officials and employees for the exchange of information, knowledge and ideas, and for innovation; they encourage employees to engage in social network activities; they promote small parts of stocks to employees to enhance their sense of company ownership; and they link organisational annual performance indicators with employee performance. Based on the above, I suggest that managers in Chinese listed companies use each dimension of social capital (structural, relational and cognitive dimensions) to access information, organisational learning and organisational social capital within social networks through the exchange of information, knowledge and ideas, and innovation to achieve their profit and growth objectives.

Beside this, based on the findings, it was shown that trust, emotional commitment, sharing norms and collective goals do not mediate the positive relationship between the three types of social networks and organisational performance due to the existence of risk in trust and emotional commitment within social networks. I suggest that managers in Chinese listed companies integrate three dimensions of social capital (structural, relational and cognitive dimensions) to build the highest level of trust and emotional commitment into relationships within social networks to instigate cooperation in solving problems in order to achieve common goals and mutual benefits for all stakeholders.

7.4 Implications for Theory and Practice

The aim of this study was to conceptualise and explore the relationship between three types of social networks (business ties, government ties and managerial ties) and organisational performance. This was done by conceptualising and examining the mediating effect of the social networks-organisational performance relationship via three forms of resource acquisition (access to information, organisation learning and organisational social capital) and components of social networks (such as trust, emotional commitment, reciprocity, sharing norms and collective goals) by using social capital theory to develop a conceptual framework through analyses of survey and interview data obtained from Chinese listed companies.

The first implication of this study is that the three forms of resource acquisition mediate the positive relationship between the three types of social networks and organisational performance; this can be significant for future studies on these topics. Because it provides direction for future research to further address how Chinese social networks at the individual level are transferred to the organisational one and how to motivate and innovate employees through the exchange of information, knowledge and ideas from the three dimensions of social capital perspective (structural, relational and cognitive dimensions).

From a practical perspective, by using social networks as resources (social capital) that actors can use to achieve their goals, the focal firm's managers use business ties, government ties and managerial ties in the structural dimension of social capital (i.e.

keeping regular contact with business partners, government officials and employees) to acquire three forms of resources (access to information, organisational learning and organisational social capital) to achieve their profit and growth goals. This is because information is not publicly available for the focal firm's use. Besides this, resources are scarce in China and Chinese government officials hold varying powers to allocate and distribute valuable resources, such as land and financial ones, to different firms in different industries.

The second implication of this study is that it identifies reciprocity as a mediator in the positive relationship between three types of social networks and organisational performance. The thesis suggests that reciprocity plays a role of cooperation and coordination between the focal firm and its business partners, Chinese government officials or its employees to achieve its profit and growth goals or improve its performance under the guidance of Chinese Confucian collective culture. This is, due to the fact that reciprocity, e.g. an exchange of favours, can provide mutual benefits in Chinese social networks. Other variables such as trust, emotional commitment, sharing norms and collective goals did not play a mediating role in the positive relationship between social networks and organisational performance; this was because of the risk that exists in trust and emotional commitment relationships. The implication for future research is to remove the variables of trust and emotional commitment and further examine whether the variables of sharing norms and collective goals mediate the positive relationship between the three types of social networks and organisational performance in the Chinese context.

From a practical perspective, the relational dimension of social capital interacts with its cognitive dimension to achieve the common goal, based on a high level of trust and good quality emotional commitment. The focal firm's managers use an equal exchange of favours, such as the sharing of information and knowledge, to build a high level of trust and a good quality of emotional commitment relationships within social networks to achieve their profit and growth goals, as well as to improve organisational performance. In practice, the focal firm's managers can use norms of reciprocity in business ties, government ties and managerial ties to benefit each other in order to achieve the common goal.

Besides the above practical implications, there are two practical implications in relation to the findings. Firstly, the findings from the interviews suggest that to achieve organisational goals, top managers would need to use close ties within social networks via the innovation of employees, the exchange of information, ideas and knowledge, encouraging employees to engage in social network activities, promoting a small part of their stock shares to employees, and linking organisational or individual performance to the assessment of employees' performance. This is based on the finding that the above ways are used to achieve organisational goals in terms of how social networks (individual level) can be transferred to the organisational level. This is also because of the transfer of individual goals to the organisational goals through the exchange of information and knowledge via indirect ties (e.g. conferences within business ties) (Gabbay and Leenders, 1999). Encouraging individuals' willingness to engage in decision making or social network activities via managerial ties can enable individual goals to the organisational goal (Harrington, 2001).

Secondly, the findings suggest that top managers would need to build a high level of trust in the relationships between the focal firm and its business partners, government officials and employees in order to exchange favours (such as resources). This is based on the finding that the tie strength of the three types of social networks (business, government and managerial ties) is not positively associated with trust, sharing norms and collective goals because of the existence of risks in trust relationships within the three types of social networks. This means that the purpose of the use of the personal social relationship is not achieved because of the limited trust within social networks. As the use of the personal social relationship is the exchange of favours (Adler and Kwon, 2002).

7.5 Limitations and Recommendations

This study has six main theoretical and methodological limitations, which yield three recommendations for future research.

Limitation 1: in its semi-structured interview analysis, this study has not investigated how the three dimensions of social capital (structural, relational and cognitive dimensions) are integrated to improve organisational performance in the Chinese

context, since risks exist in the relational dimension of social capital (such as trust) within the three types of social networks (business ties, government ties and managerial ties). Previous researchers such as Tsai and Ghoshal (1998) argued that the three dimensions of social capital interact; however, how they are integrated to achieve common goals in social networks has not been yet examined in the social capital literature.

Recommendation 1: further research could consider interviewing senior managers to get their views on how the three dimensions of social capital (structural, relational and cognitive dimensions) integrate to reduce risk in trust relationships within the three types of social networks, as well as to achieve organisational or common goals.

Limitation 2: the survey data collection lacked longitudinal data. The survey data were gathered at a single moment in time, in 2014. Ideally, a study should incorporate longitudinal data to investigate how the relationship between social networks and organisational performance changes over time. Longitudinal data enables researchers and research users to determine how the three types of social networks influence organisational performance in the Chinese context today and how they will change in the future. The main reason why a study needs to determine how the relationship between social networks and organisational performance changes over time is that the three types of social networks might have either positive or negative effects on organisational performance today and in the future, which influences the decisions made by managers in Chinese companies on how to use the three types of social networks to achieve organisational goals. An observational study tests the theory and how the variable relationships change over time; observations made at a single moment in time do not highlight changes (Ployhart and Vandenberg 2010). In other words, the survey data in this thesis, which were collected at a single moment in time, might not represent how the collected data may change in 2015 and 2016, which would affect any test of the relationship between the three types of social networks and organisational performance in the near future.

Recommendation 2: further research could gather longitudinal survey data, for instance, three times at six months intervals (Ployhart and Vandenberg 2010). Besides

this, longitudinal research would enable researchers to compare the longitudinal data to determine if and how the variable relationships change over time (ibid.).

Limitation 3: this study has not considered that external factors, such as environmental ones and changes in Chinese government policies, might affect the positive relationship between the three types of social networks and organisational performance in the Chinese context. Previous studies, such as those by Gu *et al.* (2008) and Wang *et al.* (2011), argued that these external factors affect the social networks-organisational performance relationship; which may prove not to be linear if it affected by external factors.

Recommendation 3: through survey and interview studies, future research could investigate how external factors affect the positive relationship between the three types of social networks and organisational performance. For example, environmental factors include market, industry, and technology changes. Policy changes include project approval, tax, use of land, and bank loan policy changes. The survey study could use these external factors as moderator variables in the positive relationship of the three types of social networks and organisational performance, while the interview study could interview senior managers in Chinese companies to get their views on how these external factors affect this positive relationship.

Limitation 4: this study only considered the components of social capital (such as trust and reciprocity) as mediators (dependent variables) in the relationship between social networks and organisational performance. It did not consider that these components of social capital may act as moderators or independent variables, and they might affect the positive relationship between social networks and organisational performance. Some studies have used trust as an independent variable which is correlated with organisational learning (Atuahene-Gima and Murray 2007).

Recommendation 4: further research could consider the components of social capital (such as trust and reciprocity) as moderators or independents to test the relationship between social networks and organisational performance.

Limitation 5: this study used a sequential explanatory design. It started with the quantitative stage, which followed by the qualitative stage. In other words, it focused on hypothesis testing first and it might have missed considering the complex phenomena for the relationship between social networks and organisational performance (Tashakkori and Creswell, 2007).

Recommendation 5: further research could consider the sequential exploratory design, starting with the qualitative stage, followed by the quantitative stage. This may guide the design of the quantitative stage because the qualitative findings could be useful to explain the complex phenomena (Creswell *et al.*, 2003).

Limitation 6: the sample of this study was from western economic and eastern economic areas and the interviewees were all male. Hambrick and Mason (1984) argued the characteristics of top managers (such as age and gender) may affect the organisational outcome (such as strategic choice and performance). Thus, the selection of male participants and no female participants might potentially affect the results of this study. On the other hand, the cultural difference between the north and south of China may affect top managers' use of social networks, which may also lead to a difference in the organisational outcome. For example, the culture in the south of China focuses more on business (money) than the north of China. In the south of China, top managers might use social networks more for business or employment relationships than friendship relationships with their business partners, government officials and employees. This study did not examine the cultural difference between the north and south of China with regard to the relationship between social networks and organisational performance.

Recommendation 6: further research could consider the cultural difference between the north and south of China and select a survey sample from the north and south of China, as well as selecting females to participate in the interviews.

7.6 Conclusions

This study makes a significant contribution to the social networks and social capital literature by exploring the relationship between three types of social networks

(business ties, government ties and managerial ties) and organisational performance in the Chinese context. It does so by examining the mediatory effects of three forms of resource acquisition (access to information, organisational learning and organisational social capital) and five components of social capital (trust, emotional commitment, reciprocity, sharing norms and collective goals), by using both survey and semi-structured interview analyses. Its first significant contribution is to the understanding of how the three modes of resource acquisition mediate the positive relationship between the three types of social networks and organisational performance in Chinese listed companies. Consistent with social capital theory, as is often noted, through research objective 1, it was found that the focal company keeps regular and close contact with its business partners, government officials and employees in order to acquire three forms of resources (access to information, organisational learning and organisational social capital) to achieve its profit and growth goals, which has a positive effect on organisational performance. In relation to research objective 1, this study contributes to the understanding of how the three types of Chinese social networks at an individual level (individual social capital) transfer to organisational social capital via the three forms of resource acquisition, which leads to improved organisational performance, i.e. the exchange of information, knowledge and ideas, and innovation.

In relation to research objectives 2 and 3, it is concluded that the three types of social networks are positively associated with the three forms of resource acquisition, and that these forms of resource acquisition are positively associated with organisational performance. This supports social capital theory, as noted, i.e. the three types of social networks act as the structural dimension of social capital (i.e. a set of resources) for actors to use to achieve their goals, which has a positive effect on organisational performance (Tsai and Ghoshal, 1998).

Finally, this study contributes significantly to the social networks and social capital literature from the Chinese Confucian collective culture perspective by demonstrating that reciprocity, as the relational dimension of social capital, mediates the positive relationship between the three types of social networks and organisational performance. The three types of social networks are positively associated with emotional commitment; and collective goals as the cognitive dimension of social

capita, are positively associated with organisational performance. However, this study also finds that trust and emotional commitment, as the relational dimension of social capital, do not mediate the positive relationship between the three types of social networks and organisational performance, due to the fact that risks exist in trust and emotional commitment relationships within social networks. Besides these, sharing norms and collective goals, as the cognitive dimension of social capital, do not mediate the positive relationship between the three types of social networks and organisational performance, due to different Chinese industries having different rules and regulations and collective goals relying on the quality of relationships, such as that determined by trust.

This study also concludes that the lowest level of trust and poor quality emotional commitment do not determine cooperation and coordination in business ties, government ties, and managerial ties. Trust and emotional commitment are not positively associated with organisational performance, due to the existence of risk in trust and emotional commitment relationships within social networks, which hinders the focal firm in achieving its organisational goal, such as those of profit and growth.

Overall, this study contributes three dimensions of social capital (structural, relational and cognitive dimensions) to the Chinese social networks literature. In terms of practice, the focal firm's managers use each dimension of social capital to achieve certain goals. Future research should focus on how to integrate these three dimensions of social capital in order to achieve common goals based on social capital theory, as well as how to use each dimension of social capital to improve organisational performance.

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Appendices:

Appendix A – A Survey Questionnaire Covering Letter

Date 2013

Dear Sir/Madam

The PhD thesis title : Social Networks and Organisational Performance: The Mediating Effects of Social Capital and Resource Acquisition

I am asking for your help with my thesis as I am undertaking for my PhD degree at Royal Holloway, University of London, UK. You are invited to participate in this study as you are a member of Chinese listed companies. Your responses are most important parts of my PhD thesis. Without your help, it will not be possible to complete my PhD thesis.

The objectives of this study are to identify the key cooperation and coordination components of social networks and examine how these components impact on access to information, organisational learning and organisational social capital, as well as social networks impact on organisational performance, through an investigation of how Chinese listed companies' use of social networks (Guanxi) impact on their performance.

I can confirm that your all responses will be confidential and just used for academic purposes. Your personal and company information with your responses will not be disclosed. This questionnaire will take only 10-20 minutes to complete. It would be greatly appreciated if you could respond all these questions and return the completed questionnaire within the next two days.

If you have any questions, please contact me or my supervisor, Dr Tsai.

Thank you very much for your kind help and friendly co-operation. I look forward to receiving your valuable responses very soon.

Yours sincerely

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The Chinese vision of this letter is as follows:

日期 2013

尊敬的先生/女士:

我的博士论文题目:用社会资本理论分析社会网络(关系)对中国企业公司业绩的影响

我写信来请求您对我的博士论文有关中国上市公司如何使用社会网络(关系)影响企业公司的业绩表现的调查研究的帮助.我是在英国伦敦大学皇家霍洛威学院进行我的博士研究论文.您已被选为本次调查的中国上市公司之一.您会收到一份调查问卷,希望您能在百忙中抽出10-20分钟完成这份问卷.您对这份调查问卷的回答是我的博士论文的重要的一部分,也是对我的博士研究论文的贡献.我将不胜感激您回答所有这些问题.没有您的帮助,我是不可能完成我的博士论文.

我的博士论文研究的目的是鉴定社会网络(关系)合作与协调的组成(比如信任和人情,共享规则及目标)如何对企业公司三种获取资源即是获取信息,企业学习和企业社会资本的影响,从而影响企业公司业绩比如公司财务表现.并检查这些社会网络(关系)组成是如何影响获取信息,企业学习和企业社会资本,以及社会网络(关系)对企业公司业绩的影响.这些通过调查中国上市公司如何使用社会网络(关系)影响企业公司的业绩表现来分析出研究结论.

我可以保证您所有的回答将被保密,仅用于学术目的.您的个人和公司信息与你的回答将不会被披露.如果您能在两天内把您所回答的这份调查问卷邮寄或电子邮件给我,我将十分感谢.

如果您有任何问题有关我的研究,请联系我或我的博士导师蔡博士.非常感谢您的善意帮助和友好合作.我期待着很快收到您的宝贵的回答和评论。

Appendix B – Survey Questionnaires

Please read each question and tick the box to choose one answer that represents your ideas and experiences.

1. Please indicate the total number of customers, suppliers, competitors, government officials and employees with which you have contacted by emails or face to face (meetings) or telephone in an average month.

Total number	0-5	6-10	11-15	16-20	21-25	26-30	31+
Customers	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7
Suppliers	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7
Competitors	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7
Government Officials	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7
Employees	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7

2. Please indicate which of the following statements about the quality of relationship between you and your company's customers, suppliers, competitors, government officials and employees, please tick one box in each row.

	Strongly disagree	Slightly Disagree	Dis-agree	Neutral	Slightly agree	Agree	Strongly agree
My relationships with customers are like friends or family members or old classmates.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7
My relationships with suppliers are like friends or family members or old classmates.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7
My relationships with competitors are like friends or family members or old classmates.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7
My relationships with government officials are like friends or family members or old classmates.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7
My relationships with employees are like friends or family members or old classmates .	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7

3. Please indicate the total number of times in an average month that you have contacts with a key customer, a key supplier, a key competitor, a key government official, and a key employee by emails or face to face (meetings) or telephone, please tick the box below your appropriate response:

Total number	0-5	6-10	11-15	16-20	21-25	26-30	31+
A key customer	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7
A key supplier	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7
A key competitor	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7
A key government Official	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7
A key Employee	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7

4. Please indicate the extent to which you agree with each of the following statements about the meaning of trust (xinren), emotional commitment (qanqing), reciprocity (renqing), and sharing norms and collective goals in your Guanxi network.

	Strongly disagree	Slightly disagree	Dis-agree	Neutral	Agree	Slightly disagree	Strongly agree
Trust is trustworthy.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7
Trust is the firm's confidence .							
Trust is a promise of support or cooperation.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7
Trust is integrity (perceptions of honesty and truthfulness in exchange) .	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7
Trust is competence (perceptions of competence in ongoing interaction) .	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7
Emotional commitment is a brotherhood feeling .	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7

Emotional commitment is a qanqing agreement.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7
Emotional commitment is the most intimate qanqing relationship.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7
Emotional commitment is a non-intimate qanqing that has common feeling.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7
Emotional commitment as common feelings become more cooperative and coordinative.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7
Reciprocity is doing a favour for cooperation and coordination.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7
Reciprocity is returning a favour.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7
Reciprocity is a process of the obligation of giving, receiving, and returning gifts (called “ li shang wang lai”).	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7
Reciprocity is the exchange of favours.							
Sharing norms are rules or regulations at the collective level	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7
Sharing norms are sharing the common rules and standards or regulations.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7
Your industry’s rules and standards are sharing norms	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7
Social rules are sharing norms	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7
Social culture is the sharing norm.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7
Sharing goals and common goals are your collective goals.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7
Sharing social orders and norms are collective goals.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7
Your industry’s rules and standards are collective goals.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7
The product’s quality and innovation are collective goals	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7
The government’s policies are collective goals.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7

5.1 Please indicate the extent to which you agree with the following relationships or goals with your company’s **customers** play the role of cooperation and coordination.

	Strongly	Slightly	Dis-	Neutral		Slightly	Strongly
--	----------	----------	------	---------	--	----------	----------

	disagree	disagree	agree		Agree	disagree	agree
Trust	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7
Emotional commitment	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7
Reciprocity	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7
Sharing norms	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7
Collective goals	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7

5.2 Please indicate the extent to which you agree with the following relationships or goals with your company's **suppliers** play the role of cooperation and coordination.

	Strongly disagree	Slightly disagree	Dis-agree	Neutral	Agree	Slightly disagree	Strongly agree
Trust	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7
Emotional commitment	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7
Reciprocity	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7
Sharing norms	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7
Collective goals	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7

5.3. Please indicate the extent to which you agree with the following relationships or goals with your company's **competitors** play the role of cooperation and coordination.

	Strongly disagree	Slightly disagree	Dis-agree	Neutral	Agree	Slightly disagree	Strongly agree
Trust	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7
Emotional commitment	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7
Reciprocity	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7
Sharing norms	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7
Collective goals	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7

5.4 Please indicate the extent to which you agree with the following relationships or goals with your company's **government officials** play the role of cooperation and coordination.

	Strongly disagree	Slightly disagree	Dis-agree	Neutral	Agree	Slightly disagree	Strongly agree
Trust	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7
Emotional commitment	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7
Reciprocity	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7
Sharing norms	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7
Collective goals	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7

5.5 Please indicate the extent to which you agree with the following relationships or goals with your company's **employees** play the role of cooperation and coordination.

	Strongly disagree	Slightly disagree	Dis-agree	Neutral	Agree	Slightly disagree	Strongly agree
Trust	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7
Emotional commitment	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7
Reciprocity	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7
Sharing norms	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7
Collective goals	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7

6. Please tick the box below the response that represents your experiences about access to information.

I can obtain information about:	Strongly disagree	Slightly disagree	Dis-agree	Neutr al	Agree	Slightly disagree	Strongly agree
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Customer needs	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7
New products/services	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7
Production information for industry trends	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7
Industry policy information	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7
Land or financial resources (financial capital and bank loans)	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7

7. Please tick the box below the response that represents your thoughts and experiences about organisational learning.

	Strongly disagree	Slightly disagree	Dis-agree	Neutral	Agree	Slightly disagree	Strongly agree
I continually seek opportunities to learn more about our industry.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7
I continually search for proven methods to solve problems in projects or product development	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7
I keep learning more about product development skills and process about our industry in order to attain our goals.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7
I keep learning more about new skills in new technology and innovation skills in the area that we have no prior experience.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7

8. Please tick the box below the response that represents your thoughts and experiences about organisational social capital.

	Strongly disagree	Slightly disagree	Dis-agree	Neutral	Agree	Slightly disagree	Strongly agree
I put our company's goals before individual goals.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7
My company's employees put our company's goals before individual goals.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7
My company's employees engage in social networks' activities to attain their goals.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7

9. 1 Please tick the box below for the correct response about your organisational performance.

	Strongly disagree	Slightly disagree	Dis-agree	Neutral	Agree	Slightly disagree	Strongly agree
My company has met its profitability objectives (e.g. profit 2012).	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7
My company has met its growth objectives in the past three years.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7
My company has	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7

increased product/ firm awareness.							
My company has increased brand awareness.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7
My company has responded to competition pressure to get competitive advantages.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7

9.2 Please indicate your company's current performance compared with other companies in the same industry (please tick one box in each row).

	Much worse than average	Slightly worse than average	Below average	About average for this industry	Slightly better than average	Better than average	Much better than average
Market share	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7
Growth in sales	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7
Profitability	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7
Quality of product and service	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7
Customer satisfaction	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7

10. This section asks your company's basic information about company size, age, location and ownership.

- How many full-time employees work for your company in 2012?
- In which year did you company start operating business?
- In which city and province is your company's head office or main office located?
- What is your company's ownership? (Please tick only one box below).

<input type="checkbox"/> State-owned	<input type="checkbox"/> Private
<input type="checkbox"/> Joint venture	<input type="checkbox"/> Other

Thank You For Completing This Survey.

Appendix C – Chinese Translation of Survey Questionnaires

请仔细阅读每个问题，并勾选框选择一个答案，以表示你的想法和经验。

1. 请注明您用见面或电话或电子邮件等方式联络客户，供应商，竞争对手，政府官员和公司员工平均每月人数总和。

人数总和	0-5	6-10	11-15	16-20	21-25	26-30	31+
客户	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7
供应商	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7
竞争对手	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7
政府官员	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7
公司员工	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7

2. 请指出您下面关于您和贵公司的客户，供应商，竞争对手，政府官员和公司员工之间的关系陈述，请选择下面的每行中适当的一个答案：

	强烈反对	有点不同意	不同意	中立	有点同意	同意	强烈同意
我与客户的关系像朋友或家庭成员，或老同学的关系	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7
我与供应商的关系像朋友，或家庭成员，或老同学的关系	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7
我与竞争对手的关系像朋友，或家庭成员，或老同学的关系	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7
我与政府官员的关系像朋友，或家庭成员，或老同学	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7

的关系							
我与公司员工的关系像朋友,或家庭成员,或老同学的关系	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7

3.

请指出您同一关键客户,一关键供应商,一主要竞争对手,一关键的政府官员,以及一关键公司员工通过电子邮件或见面(会议)或电话联络平均每月的次数.请选择下面的每行中适当的一个答案:

每月的次数	0-5	6-10	11-15	16-20	21-25	26-30	31+
一关键客户	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7
一关键供应商	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7
一主要竞争对手	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7
一关键的政府官员	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7
一关键公司员工	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7

4. 以下是关于信任,情感承诺,互惠(人情)关系以及共享的规范和集体目标的含意.

请选择下面的每行中适当的一个答案.

	强烈反对	有点不同意	不同意	中立	有点同意	同意	强烈同意
信任是值得信赖的	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7
信任是企业的信心	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7
信任是支持或合作的承诺	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7
信任是诚信(诚实和真诚互换的感知)	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7
信任是能力(在持续互动的能力的看法)	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7
情感承诺是兄弟的感觉	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7
情感承诺是感情的协议	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7
情感承诺是最亲密的感情关系	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7
情感承诺是一种非亲密有共同的感受	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7
情感承诺是感情合作的承诺	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7
互惠(人情)是给予帮助合作和协调	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7
互惠(人情)是返回别人给予的帮忙	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7
互惠是给予,收受,并返回礼物的一种义务的过程(称礼尚往来)	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7
互惠是人情的交换	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7
共享的规范是集体的规则或法规	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7
共享的规范是分享共同的规则和标准或法规	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7
您的行业规则和标准是共享的规范	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7
社会规则是共享的规范	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7
社会文化是共享的规范	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7
共享的目标和共同目标是集体目标	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7
共享的社会秩序和规范是集体目标	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7
您的行业规则和标准是集体目标	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7
产品的质量和创新是集体目标	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7
政府的政策是集体目标	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7

5.1您公司与客户的哪种关系或目标能发挥合作和协调作用.请选择下面的每行中适当的一个答案.

	强烈反对	有点不同意	不同意	中立	有点同意	同意	强烈同意
信任	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7
情感承诺	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7
互惠(人情)	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7
共享的规范	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7
集体目标	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7

5.2您公司与供应商的哪种关系或目标能发挥合作和协调作用.请选择下面的每行中适当的一个答案.

	强烈反对	有点不同意	不同意	中立	有点同意	同意	强烈同意
信任	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7
情感承诺	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7
互惠(人情)	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7
共享的规范	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7
集体目标	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7

5.3 您公司与竞争对手的哪种关系或目标能发挥合作和协调作用. 请选择下面的每行中适当的一个 答案.

	强烈反对	有点不同意	不同意	中立	有点同意	同意	强烈同意
信任	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7
情感承诺	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7
互惠(人情)	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7
共享的规范	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7
集体目标	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7

5.4 您公司与政府官员的哪种关系或目标能发挥合作和协调作用. 请选择下面的每行中适当的一个 答案.

	强烈反对	有点不同意	不同意	中立	有点同意	同意	强烈同意
信任	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7
情感承诺	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7
互惠(人情)	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7
共享的规范	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7
集体目标	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7

5.5 您公司与公司员工的哪种关系或目标能发挥合作和协调作用. 请选择下面的每行中适当的一个 答案.

	强烈反对	有点不同意	不同意	中立	有点同意	同意	强烈同意
信任	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7
情感承诺	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7
互惠(人情)	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7
共享的规范	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7
集体目标	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7

6. 请选择下面的每行中适当的一个 答案, 以表达您获取哪方面信息.

我能获取的信息是:	强烈反对	有点不同意	不同意	中立	有点同意	同意	强烈同意
客户的需要	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7
新产品/服务	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7
生产信息行业的发展趋势	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7
行业政策信息	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7
土地或财务资源(如财务资本和银行贷款)	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7

7. 请选择下面的每行中适当的一个 答案, 以表达您关于企业与员工学习这方面的经验.

	强烈反对	有点不同意	不同意	中立	有点同意	同意	强烈同意
我继续寻找机会学习了解更多关于我们的行业.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7
我继续探讨已验证的方法来解决项目或产品开发的问题	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7
我一直坚持学习了解更多对我们行业有帮助的产品开发能力和工艺.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7
我一直坚持学习了解更多我们还没有经验的新技能, 新技术和创新能力.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7

8. 请选择下面的每行中适当的一个 答案, 以表达您关于企业社会资本这方面的想法和经验.

	强烈反对	有点不同意	不同意	中立	有点同意	同意	强烈同意
我把我们公司的目标放在个人的目标之前.							
我公司员工把我们公司的目标放在个人的目标之前.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7
我公司的员工参与社会网络(关系)活动, 以达到他们的目标.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7

9.1 请选择下面的每行中适当的一个 答案, 以表达您公司业绩表现.

	强烈反对	有点不同意	不同意	中立	有点同意	同意	强烈同意
我公司已达到其盈利能力(如2012年的利润)	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7

我公司已达到其近三年的利润增长目标.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7
我公司增加产品或商号知名度	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7
我公司增加品牌知名度	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7
我公司有应对竞争压力以获得竞争优势	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7

9.2 请您比较一下在同一行业与其他公司的业绩您公司现行的表现 (请选择下面的每行中适当的一个 答案).

	大部分低于平均水平	有点低于平均水平	低于平均水平	这个行业的平均水平	有点高于平均水平	高于平均水平	远远高于平均水平
市场份额	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7
销售增长	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7
盈利	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7
产品和服务的质量	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7
客户满意程度	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7

10. 本节是问贵公司的基本信息比如公司规模, 年龄, 地理位置和所有权。

- 贵公司在2012年有多少全职员工?
- 贵公司是在哪一年开始经营业务?
- 在哪个城市和省份是贵公司的总部或主要办公地点?
- 贵公司的所有权是什么? (请在下面的方框内打勾)

<input type="checkbox"/> 国有	<input type="checkbox"/> 私有(民营)
<input type="checkbox"/> 合资企业	<input type="checkbox"/> 其他

感谢您完成此调查。

Appendix D – A Semi-structured Interview Covering Letter

Date 2013

Dear Sir/Madam

Ref: the PhD thesis title: Social Networks and Organisational Performance: The Mediating Effects of Social Capital and Resource Acquisition

I am writing to invite you to participate in my PhD research project as titled above. I am a PhD candidate at Royal Holloway, University of London, UK. You have been selected as an interviewee of Chinese listed companies' managers. You may receive a copy of the semi-structured interview questions before starting the interview. Your answer is an important part of my PhD thesis.

The objectives of this study are to indentify the key cooperation and coordination components of social networks and examine how these components impact on access to information, organisational learning and organisational social capital , as well as social networks impact on organisational performance, through an investigation of how Chinese listed companies' use of social networks (Guanxi) impact on their performance.

I can confirm that your all responses will be confidential and just used for academic purposes. Your personal and company information and responses will not be disclosed. Each interview will take about 30 minutes. It would be greatly appreciated that you respond all these questions.

If you have any questions, please contact me or my supervisor, Dr Tsai.

Thank you very much for your kind help and friendly co-operation. I look forward to interviewing and getting your high valued responses very soon.

Yours sincerely

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Supervised by :
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The Chinese version of this letter is shown below:

日期 2013

尊敬的先生/女士:

我的博士论文题目:用社会资本理论分析社会网络(关系)对中国企业公司业绩的影响

我写信来请求您对我的博士论文有关中国上市公司如何使用社会网络(关系)影响企业公司的业绩表现的调查研究的帮助.我是在英国伦敦大学皇家霍洛威学院进行我的博士研究论文.您已被选为本次访问的中国上市公司经理之一.您在访问前会收到一份调查问卷.我们将进行的面访所需时间大约30分钟.希望您在百忙中抽出30分钟来安排面访时间.您对这份调查问卷的回答是我的博士论文的重要的一部分, 也是对我的博士研究论文的贡献.我将不胜感激您回答所有这些问题.

我的博士论文研究的目的是鉴定社会网络(关系)合作与协调的组成(比如信任和人情,共享规则及目标)如何对企业公司三种获取资源即是获取信息,企业学习和企业社会资本的影响,从而影响企业公司业绩比如公司财务表现.并检查这些社会网络(关系)组成是如何影响获取信息, 企业学习和企业社会资本,以及社会网络(关系)对企业公司业绩的影响.这些通过调查中国上市公司如何使用社会网络(关系)影响企业公司的业绩表现来分析出研究结论.

我可以保证您所有的回答将被保密,仅用于学术目的.您的个人和公司信息与你的回答将不会被披露。

如果您有任何问题有关我的研究,请联系我或我的博士导师蔡博士.
非常感谢您的善意帮助和友好合作.

我期待着很快与您见面访问而得到您对中国上市公司如何使用社会网络(关系)
影响企业公司的业绩表现宝贵的回答和评论。

Appendix E – Semi-structured Interview Questions

Company and Interviewee Background Information

Company name:

Industrial sector:

Gender of the interviewee:

Age of the interviewee:

Interview date

Start time

End time

Location

Audio recorder used: 1 Yes 0 No

Control Variables

1. Please briefly describe your company. What are its product and services?
2. How many full-time employees are employed in your company?
3. In which year did your company start operating business?
4. In which city, province is your company's head office or main office located?
5. What is your company's ownership? (state-owned, private, joint venture , other)

Social Networks - Business Ties, Government Ties and Managerial Ties

1. Do you use social networks such as business ties (ties with business partners), government ties (ties with government officials), and managerial ties (ties with employees)?
2. What are your purposes of using business ties (ties with business partners)?
3. What are your purposes of using government ties (ties with government officials)?
4. What are your purposes of using managerial ties (ties with employees)?
5. What are the factors which determine how your company cooperate with your customers?
6. What are the factors which determine how your company cooperate with your suppliers?

7. What are the factors which determine how your company cooperate with your competitors?

8. What are the factors which determine how your company cooperate with your government officials?

9. What are the factors which determine how your company cooperate with your employees?

Mediators – Elements of Social Networks

Trust (Xinren) , Emotional Commitment (Ganqing), Reciprocity (Renqing), Sharing Norms and Collective Goals

1. Do you think that the good trust relationship enables the cooperation and coordination between your company and business partners (or government officials or employees) to help your company to acquire resources such as access to information, organisational learning and organisational social capital? Yes No
If yes, how? If not, why?

2. Do you think that the good ganqing relationship enables the cooperation and coordination between your company and business partners (or government officials or employees) to help your company to acquire resources such as access to information, organisational learning and organisational social capital? Yes No
If yes, how? If not, why?

3. Do you think that the good reciprocity relationship enables the cooperation and coordination between your company and business partners (or government officials or employees) to help your company to acquire resources such as access to information, organisational learning and organisational social capital? Yes No
If yes, how? If not, why?

4. Do you think that sharing norms enable the cooperation and coordination between your company and business partners (or government officials or employees) to help your company to acquire resources such as access to information, organisational learning and organisational social capital? Yes No
If yes, how? If not, why?

5. Do you think that collective goals enable the cooperation and coordination between your company and business partners (or government officials or employees) to help your company to acquire resources such as access to information, organisational learning and organisational social capital? Yes No
If yes, how? If not, why?

Mediators – Three Forms of Resource Acquisition (access to information, organisational learning and organisational social capital)

1. Does your company and employees access to information about customer needs?
Yes No
If yes:
What are the sources of the information?
How do you get access to the information?

2. Can your company and employees obtain information about new products/services?
Yes No
If yes:
What are the sources of the information?
How do you get access to the information?

3. Can your company and employees obtain information about production information for industry trends? Yes No
If yes:
What are the sources of the information?
How do you get access to the information?

4. Can your company and employees obtain information about policy information?
Yes No
If yes:
What are the sources of the information?
How do you get access to the information?

5. Do you and your employees learn more about your industry compared with other companies in the same industry? Yes No
If yes, please explain how and why?

6. Do you and your employees learn more about product development skill and process about your industry compared with other companies in the same industry ?
Yes No
If yes, please explain how and why?

7. Do you and your employees learn about new skills in new technology and innovation skills in the area where you had no previous experiences? Yes No
If yes, please explain why and how?

8. Do you put your company's goals prior to individual goals? Yes No
If yes, how ? If not, why?

9. Do your company's employees put your company's goals prior to individual goals?
Yes No
If yes, how ? If not, why?

10. Do your company's employees engage in social networks' activities to attain their goals? Yes No
If yes, how ? If not, why?

Organisational Performance

1. Has your company met its profitability and growth objectives (e.g. profit growth from 2001 to 2011)? Yes No
Please explain how and why?

2. Has your company gained product or firm or brand awareness in order to gain competitive advantages? Yes No
If yes, how? If not, why? Please explain.

3. Does your company have expansion to other industrial sectors? Yes No
If yes, how? If not, why? Please explain.

4. According to my research findings, the three types of social networks (business ties, government ties and managerial ties) are not positively associated with trust, sharing norms and collective goals. Do you agree with that? Why do you think that the three types of social networks (business ties, government ties and managerial ties) are not positively associated with trust, sharing norms and collective goals? Please explain.

5. According to my research findings, trust, emotional commitment and sharing norms are not positively associated with organisational performance. Do you agree with that? Why do you think that trust, emotional commitment and sharing norms are not positively associated with organisational performance? Please explain.

Appendix F- Chinese Translation of Semi-structured Interview Questions

公司基本资料

回答者:

公司名称:

访问日期

开始时间

结束时间

地点

录音: 1是 0否

控制变量

1.请简要介绍一下贵公司。其产品和服务是什么?

2.有多少全职员工在你的公司工作?

- 3.您的公司在哪一年开始经营业务？
- 4.贵公司的总部或主要办公地点位于在哪个城市，省？
- 5.贵公司的所有权是什么？（国有，民营，合资，其他）

社会网络 -

与客户，供应商，竞争对手的关系，与政府官员关系和与公司员工的关系

- 1.请问您使用社会网络比如商业关系（即与客户，供应商，竞争对手的关系），与政府官员的关系，与公司员工的关系吗？
2. 请问您使用商业关系的目的是什么？（即与商业客户，供应商和竞争对手的关系）
3. 请问您使用政府官员的关系的目的是什么？
4. 请问您使用公司员工的关系的目的是什么？
5. 请问什么因素决定贵公司与客户合作？
6. 请问什么因素决定贵公司与供应商合作？
7. 请问什么因素决定贵公司与竞争者合作？
8. 请问什么因素决定贵公司与政府官员合作？
9. 请问什么因素决定贵公司与公司员工合作？

中介变量 - 社会网络关系组成元素-信任,情感的承诺（感情），互惠（人情），共享规范和集体目标

- 1.您认为良好的信任关系可以增强您公司与客户，供应商，竞争者，政府官员和公司员工之间的合作和协调,以帮助您公司取得资源比如信息获取，企业学习和公司企业的社会资本? 是 否
如果是的话，信任关系怎么能帮助您的公司获得三种形式的资源（信息获取，企业学习和公司企业的社会资本）？
如果不是，为什么？
- 2.您认为好的感情关系可以增强您公司与客户，供应商，竞争者，政府官员和公司员工之间的合作和协调,
以帮助您公司取得资源比如信息获取，企业学习和公司企业的社会资本? 是 否
如果是的话，怎么样？如果不是，为什么？
- 3.您认为良好的人情关系可以增强您公司与客户，供应商，竞争者，政府官员和公司员工之间的合作和协调,以帮助您公司取得资源比如信息获取，企业学习和公司企业的社会资本? 是 否
如果是的话，怎么样？如果不是，为什么？
- 4.您认为共享规范可以增强您公司与客户，供应商，竞争者，政府官员和公司员工之间的合作和协调,以帮助您公司取得资源比如信息获取，企业学习和公司企业的社会资本? 是 否

如果是的话，怎么样？如果不是，为什么？

5.您认为集体的目标可以增强您公司与客户，供应商，竞争者，政府官员和公司员工之间的合作和协调,以帮助您公司取得资源比如信息获取，企业学习和公司企业的社会资本? 是 否

如果是的话，怎么样？如果不是，为什么？

中介变量 -三种形式的资源获取（信息获取，企业学习和企业的社会资本）

1.请问您的公司和员工获得客户需要的信息？是 否

如果是的话：

信息的来源是什么？

您怎么获得的信息吗？

2. 您的公司和员工可以获取有关新产品/服务的信息？是 否

如果是的话：

信息的来源是什么？

您怎么获得的信息吗？

3.请问您的公司和员工取得信息生产信息行业的发展趋势？是 否

如果是的话：

信息的来源是什么？

您怎么获得的信息吗？

4. 您的公司和员工可以获取有关政策信息？是 否

如果是的话：

信息的来源是什么？

您怎么获得的信息吗？

5. 您和您的员工比同行业中的其他公司学习了解更多的关于您的行业吗？是 否

如果是的话，哪几个其他公司？请解释如何和为什么？

6.您和您的员工比同行业中的其他公司学习了解更多关于您的行业有关产品的开发技能和过程？是 否

如果是的话，哪几个其他公司？请解释如何和为什么？

7.您和您的员工学习您们以前没有经验的领域,学习了解更多新技能，新技术和创新能力？是 否 如果是，请解释为何以及如何？

8. 您把公司的目标放在个人目标之前? 是 否

如果是的话，怎么样？如果不是，为什么？请解释一下。

9. 贵公司员工把公司的目标放在个人目标之前? 是

否如果是的话，怎么样？如果不是，为什么？请解释一下。

10. 贵公司的员工是否参与社会网络关系的活动，以达到自己的目标吗？是否如果是的话，怎么样？如果不是，为什么？请解释一下。

公司的业绩表现

1. 请问贵公司已达到其盈利能力和增长目标（例如2001年至2011年的利润增长）？是否 请解释如何和为什么？

2. 请问贵公司是否获得产品或者商号或者品牌意识以获得竞争优势？是否如果是的话，怎样取得这些竞争优势？如果不是，为什么？请解释一下。

3. 贵公司是否有扩展到其他工业部门？是否如果是的话，怎么样？如果不是，为什么？请解释一下。

4. 根据我的研究结果发现三种网关系（即与客户，供应商，竞争对手，政府官员和公司员工的关系）与信任，共享规范和集体目标的关系不是正相关联，请问您是否同意这种关系不是正相关联？请解释为什么三种社会网络关系（即与客户，供应商，竞争对手，政府官员和公司员工的关系）与信任，共享规范和集体目标不是正相关联？

5. 根据我的研究结果发现信任，情感，共享规范与公司业绩无正相关联，请问您是否同意这种关系不是正相关联？请解释为什么信任，情感，共享规范与公司业绩无正相关联？

Appendix G – A list of tables

Table 4.2 Descriptive Statistics

	N	Minimu m	Maximu m	Mean	Std. Deviation	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
tieb1a	400	4	7	6.05	.651	-.159	.122	-.258	.243
tieb1b	400	4	7	5.66	.603	-.518	.122	.262	.243
tieb1c	400	1	5	4.05	.763	-1.034	.122	2.214	.243
tie1d	400	1	7	5.42	.878	-1.776	.122	5.006	.243
tie1e	400	4	7	6.15	.603	-.352	.122	.842	.243
Tieb2a	400	4	7	5.96	.305	-1.677	.122	10.489	.243
Tieb2b	400	3	7	5.84	.424	-2.705	.122	10.686	.243
tieb2c	400	2	6	4.52	.604	.427	.122	.030	.243
tie2d	400	3	6	5.65	.636	-1.949	.122	3.829	.243

tie2e	400	4	7	5.90	.586	-.583	.122	1.507	.243
tieb3a	400	2	7	5.02	.679	-.411	.122	2.678	.243
tieb3b	400	1	7	4.61	.794	-1.173	.122	3.859	.243
tieb3c	400	1	5	2.98	.798	-.649	.122	.843	.243
tie3d	400	1	7	4.48	.878	-1.061	.122	3.184	.243
tie3e	400	3	7	5.09	.608	.087	.122	2.269	.243
mtrust1	400	4	7	6.08	.510	-.219	.122	2.318	.243
mtrust2	400	3	7	5.94	.654	-1.077	.122	3.789	.243
mtrust3	400	4	7	6.04	.497	-.043	.122	1.596	.243
mtrust4	400	4	7	5.98	.430	-.493	.122	4.152	.243
mtrust5	400	4	7	5.94	.656	.006	.122	-.525	.243
mec1	400	4	7	5.94	.573	-.730	.122	2.321	.243
mec2	400	3	7	5.91	.625	-1.235	.122	4.205	.243
mec3	400	4	7	5.90	.442	-2.570	.122	9.360	.243
mec4	400	4	7	5.31	.907	.288	.122	-.673	.243
mec5	400	4	7	6.01	.490	-.617	.122	3.888	.243
mry1	400	4	7	5.86	.457	-1.937	.122	5.643	.243
mry2	400	4	7	5.86	.470	-1.889	.122	5.413	.243
mry3	400	4	7	5.85	.445	-1.518	.122	3.810	.243
mry4	400	4	7	5.98	.264	-1.911	.122	17.230	.243
msn1	400	4	7	5.82	.444	-.591	.122	1.355	.243
msn2	400	4	7	5.78	.607	-.723	.122	1.109	.243
msn3	400	4	7	5.97	.548	-.663	.122	2.585	.243
msn4	400	4	7	5.81	.669	-.407	.122	.409	.243
msn5	400	4	7	5.88	.678	-.288	.122	.165	.243
mcg1	400	3	7	5.89	.579	-1.389	.122	4.756	.243
mcg2	400	4	7	5.89	.551	-.865	.122	2.492	.243
mcg3	400	4	7	5.86	.628	-.803	.122	1.611	.243
mcg4	400	4	7	5.98	.450	-.407	.122	3.406	.243
mcg5	400	1	7	5.68	.857	-.775	.122	1.722	.243
trustcoa	400	5	7	6.16	.465	.528	.122	.733	.243
trustcob	400	5	7	5.99	.568	-.002	.122	.117	.243
trustcoc	400	3	7	5.70	.593	-1.889	.122	3.207	.243
trustcod	400	4	7	6.02	.464	-.062	.122	2.371	.243
trustcoe	400	5	7	6.09	.486	.235	.122	1.013	.243
eccoa	400	5	7	6.15	.465	.489	.122	.895	.243
eccob	400	5	7	6.06	.490	.138	.122	1.120	.243
eccoc	400	3	7	5.68	.662	-1.738	.122	2.971	.243
eccod	400	4	7	5.94	.526	-.691	.122	2.677	.243
eccoe	400	5	7	6.08	.482	.209	.122	1.171	.243
rycoa	400	5	7	6.12	.492	.254	.122	.820	.243
rycob	400	4	7	5.85	.603	.007	.122	-.199	.243
rycoc	400	4	6	5.65	.538	-1.193	.122	.425	.243

rycod	400	4	7	5.98	.453	-.409	.122	3.303	.243
rycoe	400	5	7	6.07	.457	.266	.122	1.661	.243
sncoa	400	4	7	6.07	.413	.271	.122	3.790	.243
sncob	400	4	7	6.00	.459	-.156	.122	2.488	.243
sncoc	400	4	7	5.78	.486	-1.925	.122	3.443	.243
sncod	400	4	7	5.96	.440	-.756	.122	4.351	.243
sncoe	400	5	7	6.00	.448	.022	.122	2.040	.243
cgcoa	400	5	7	6.16	.438	.751	.122	1.091	.243
cgcob	400	4	7	6.03	.514	-.057	.122	1.258	.243
cgcoc	400	3	7	5.72	.559	-1.883	.122	3.775	.243
cgcod	400	5	7	5.99	.493	-.017	.122	1.153	.243
cgcoe	400	5	7	6.04	.411	.287	.122	2.877	.243
ainfo1	400	4	7	5.96	.491	-.482	.122	2.575	.243
ainfo2	400	5	7	5.94	.517	-.086	.122	.707	.243
ainfo3	400	5	7	5.91	.480	-.241	.122	1.148	.243
ainfo4	400	4	7	5.87	.474	-.509	.122	1.438	.243
ainfo5	400	5	7	5.88	.481	-.320	.122	.937	.243
ol1	400	4	7	5.94	.494	-.765	.122	3.272	.243
ol2	400	5	7	5.93	.488	-.178	.122	1.098	.243
ol3	400	4	7	5.91	.505	-.284	.122	1.154	.243
ol4	400	5	7	5.92	.477	-.227	.122	1.256	.243
os1	400	5	7	5.87	.553	-.053	.122	.084	.243
os2	400	4	7	5.84	.572	-.077	.122	.033	.243
os3	400	4	7	5.91	.505	-.284	.122	1.154	.243
sop1	400	3	7	5.58	.640	-.907	.122	.585	.243
sop2	400	3	7	5.44	.770	-.881	.122	-.126	.243
sop3	400	4	7	5.83	.424	-1.751	.122	3.507	.243
sop4	400	4	7	5.91	.329	-2.465	.122	9.246	.243
sop5	400	3	7	5.87	.393	-2.568	.122	10.477	.243
fop1	400	3	7	5.24	.908	-.472	.122	-.329	.243
fop2	400	3	7	5.35	.905	-.504	.122	-.471	.243
fop3	400	3	7	5.39	.857	-.747	.122	-.155	.243
fop4	400	3	7	5.78	.524	-1.776	.122	4.191	.243
fop5	400	3	7	5.83	.493	-1.987	.122	5.826	.243
Valid N (listwise)	400								

Table 4.5.1 Pattern Matrix I

	Factor												
	1	2	3	4	5	6	7	8	9	10	11	12	13
fop2	.989												
fop4	.951												
sop2	.931												
fop1	.890												
fop5	.861												
fop3	.851												
sop1	.722												
sop3	.587												
tieb3c		-.883											
tieb1c		-.825	.864										
trustcoc													
trustcoe				.848									
trustcoa				.789									
trustcob				.683									
trustcod				.647									
msn5					.884								
msn4					.856								
msn1					.699								
msn3													
msn2													
ol4						.749							
ainfo4						.748							
ol2						.747							
ainfo5						.746							
ainfo3						.729							
ol3						.713							
ainfo2						.684							
os3						.681							
os1						.672							
os2						.616							
ol1						.546							
ainfo1						.383							
sncoa							.699						
sncob							.669						
sncoe							.659						
cgcob							.634						
cgcoa							.612						

cgcod						.573							.314
cgcoe						.518							
sncod						.497							
rycoe						.388							
rycoa						.363						-0.307	
tieb3a							.823						
tieb1a							.716						
tieb3b							.673						
tieb1b							.581						
tie3e							.534						
tie1d							.471						
tie1e							.446						
tie3d							.417						
tie2e													
mcg3													
mcg2													
mcg4													
mcg1													
mcg5													
eccob													
eccoe													
eccoa													
eccod													
rycod													
mtrust3													
mtrust2													
mtrust4													
mtrust1													
mtrust5													
sncoc													
mec1													
mec4													
mec5													
mec2													
rycob													
eccoc													
mry2													
mry3													
mry1													
cgcoc													
tieb2c													
tie2d													
rycoc													

Table 4.5.2 Total Variance Explained

Factor	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total
1	9.981	14.897	14.897	8.154	12.171	12.171	6.768
2	6.353	9.482	24.379	5.552	8.286	20.457	3.996
3	4.253	6.347	30.726	3.790	5.656	26.113	5.528
4	3.789	5.655	36.381	3.684	5.499	31.612	3.261
5	3.322	4.959	41.340	2.683	4.004	35.616	2.539
6	2.601	3.882	45.222	2.607	3.891	39.507	2.723
7	2.510	3.747	48.969	1.787	2.668	42.175	7.567
8	2.276	3.396	52.365	1.825	2.724	44.898	3.218
9	2.066	3.083	55.448	1.745	2.605	47.503	2.323
10	1.862	2.779	58.227	1.964	2.932	50.434	2.355
11	1.742	2.600	60.827	1.638	2.445	52.880	3.135
12	1.528	2.280	63.107	1.186	1.770	54.649	4.202
13	1.307	1.951	65.059				
14	1.122	1.675	66.733				
15	.970	1.448	68.181				
16	.936	1.397	69.578				
17	.905	1.351	70.929				
18	.851	1.270	72.199				
19	.795	1.187	73.386				
20	.762	1.137	74.522				
21	.745	1.112	75.634				
22	.713	1.065	76.699				
23	.669	.998	77.697				
24	.661	.987	78.684				
25	.630	.940	79.624				
26	.623	.930	80.554				
27	.606	.904	81.458				
28	.563	.840	82.298				
29	.552	.823	83.121				
30	.530	.790	83.912				
31	.509	.759	84.671				
32	.499	.744	85.415				

33	.481	.718	86.133			
34	.473	.705	86.839			
35	.465	.693	87.532			
36	.456	.681	88.213			
37	.445	.664	88.877			
38	.441	.658	89.535			
39	.418	.624	90.159			
40	.394	.588	90.747			
41	.376	.561	91.308			
42	.362	.541	91.848			
43	.349	.521	92.370			
44	.341	.508	92.878			
45	.332	.495	93.373			
46	.322	.481	93.854			
47	.314	.468	94.322			
48	.301	.449	94.771			
49	.290	.433	95.204			
50	.285	.425	95.629			
51	.269	.401	96.030			
52	.255	.381	96.411			
53	.235	.350	96.762			
54	.227	.339	97.101			
55	.221	.329	97.430			
56	.214	.320	97.750			
57	.207	.309	98.059			
58	.189	.283	98.342			
59	.183	.274	98.615			
60	.170	.253	98.869			
61	.157	.235	99.103			
62	.144	.215	99.318			
63	.121	.181	99.500			
64	.118	.176	99.675			
65	.097	.145	99.820			
66	.086	.128	99.949			
67	.034	.051	100.000			

Appendix H – A list of figures

Figure 4.5.1 A Twelve Factor Model

