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UNIVERSITE DE PAU ET DES PAYS DE L'ADOUR
École Doctorale 481 Sciences Sociales et Humanités
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***The impact of guanxi on supply chain
management***

Pour l'obtention du titre de
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Abstract

This thesis aims to investigate *guanxi*'s impact on supply chain management. As a first step, we historically review *guanxi*'s evolution and discuss its impacts on business performance. Next, by using data from qualitative interviews and a quantitative survey collected from Chinese buyers in France, this thesis creates a *guanxi* measurement scale for Sino-Franco buyer-supplier relationship, and reveals that *guanxi*'s positive impact on supply chain performance is mediated by supply chain collaboration. Furthermore, through draw on the survey data of 200 Chinese manufacturers with overseas business, this thesis demonstrates that the mediated relationship between *guanxi* and supply chain performance is moderated by individual culture. Our research results not only empirically prove *guanxi*'s importance in the international market, but also uncover that the effectiveness of different types of *guanxi* that depends on the partner's cultural orientation.

Keywords: *Guanxi*, Supply Chain Management, Buyer-supplier relationship, Culture.

Résumé

Cette thèse vise à étudier l'impact du *guanxi* sur la gestion de la chaîne d'approvisionnement. Dans un premier temps, nous examinons historiquement l'évolution de *guanxi* et discutons ses impacts sur les performances de l'entreprise.

Ensuite, en utilisant des données d'entretiens qualitatifs et une enquête quantitative auprès d'acheteurs chinois en France, nous créons une échelle de mesure *guanxi* pour la relation acheteur-fournisseur Sino-Française et montrons que l'impact du *guanxi* sur la performance de la chaîne d'approvisionnement est positif. De plus, grâce aux données d'enquête de 200 fabricants chinois exerçant des activités à l'étranger, nous démontrons que la relation médiatisée entre le *guanxi* et la performance de la chaîne d'approvisionnement est modérée par la culture individuelle. Nos résultats de recherche non seulement prouvent empiriquement l'importance du *guanxi* sur le marché international, mais révèlent également que l'efficacité des différents types de *guanxi* dépend de l'orientation culturelle du partenaire.

Mots-clés: *Guanxi*, Gestion de la chaîne d'approvisionnement. Relation acheteur-fournisseur, Culture.

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General Introduction

In recent decades, with the acceleration of globalization, companies have realized the importance of building collaborative relationships with key supply chain partners to increase their competitive advantages. Supply chain collaboration (SCC) involves firms seeking external assistance through collaborative relationships with supply chain partners, aiming to improve joint performance under a common goal (Cao & Zhang, 2011; Ramanathan & Gunasekaran, 2014; Soosay & Hyland, 2015). It is believed that, through collaborative working, individual companies can gain comparative advantages that they could not achieve alone (Allred et al., 2011; Cao & Zhang, 2011).

Previous studies have emphasized the collaborative processes among supply chain partners, defining SCC in various ways. This cross-organizational construct is characterized by joint actions and shared outcomes to decrease total costs and better satisfy customers. Joint actions refers to collaboration in decision making, planning, forecasting, replacement, problem-solving, knowledge creation, and even performance measurement (Daugherty, 2011; Ramanathan & Gunasekaran, 2014). These joint actions are based on sharing behaviors, such as information and resource sharing (Cao & Zhang, 2011; Adams et al., 2014; Scholten & Schilder, 2015). Additionally, collaborating companies share responsibility for joint actions, with costs, risks, and benefits shared to align individual companies' incentives in pursuit of a common goal. However, these process-oriented definitions are limited. First, these collaborative activities are found not only in SCC but also in similar inter-organizational structures, such as supply chain integration and supply chain alliance. Second, the basis of these activities in SCC is the collaborative relationship among supply chain partners, rather

than unified control and a high degree of formalization under contracts, thus differentiating SCC from other inter-firm collaborative forms (Cao & Zhang, 2011; Ralston et al., 2017). Therefore, recent studies have focused more on collaborative relationships, characterized by mutual understanding, willingness to cooperate, affective and volitional attitudes, etc. (Fawcett et al., 2012; Richey et al., 2012).

Firms are motivated to pursue SCC with their supply chain partners for two main reasons. First, companies have internal needs to increase productive efficiency, decrease costs, and improve both financial and marketing performance (Cao & Zhang, 2011; Ramanathan & Gunasekaran, 2014). Second, when facing external customers' variable requirements and demand uncertainty, companies need to build a more flexible and reliable supply chain to better serve customers' needs (Cao & Zhang, 2011; Fawcett et al., 2012). It is believed that collaborative activities and relationship engagement can increase process efficiency, flexibility, business synergy, quality, and innovation, in turn improving business performance (Cao & Zhang, 2011).

SCC can undoubtedly generate comparative advantages. Theoretically, it could be explained by related theories such as resource-based theory (Barney, 1991), extended resource-based theory (Lavie, 2006), the relational view (Dryer & Singh, 1998), and social interdependence theory (Johnson, 2003). The latter sees SCC from the perspective of interactions between the goals of independent companies. According to Johnson (2003), the ways in which participants' goals are structured determine how they interact, which in turn affects outcomes. Sharing the global vision is the prerequisite of SCC. Once participants' goals are positively related, positive outcomes

can be expected. According to the resource-based view (RBV) and the extended resource-based view (ERBV), firms' competitive advantages are derived from strategic resources that are rare, valuable, non-substitutable, and difficult-to-imitate (Barney, 1991). The RBV posits that a company's fully owned or controlled resources, such as equipment, materials, employees, and technologies, can create unique competitive advantages. Since a collaborative relationship can itself be considered a strategic resource, building SCC with key business partners can provide further competitive advantages (Soosay & Hyland, 2015). Additionally, through SCC, a company can focus more on its core activities, thereby amplifying its resource-based competitive advantages (Cao & Zhang, 2011).

Unlike the RBV, which only considers resources within the company, the ERBV recognizes resources generated from collaborative relationships with partners. According to Lavie (2006), competitive advantages can be gained from not only a company's internal resources (internal rent) but also resources shared with (appropriated relational rent) and leaked by (inbound spillover rent) partners. Therefore, through SCC, a company can gain access to outside resources that could increase its competitive advantages. Instead of focusing on an individual company, the relational view takes a pair or network of firms as the unit of analysis. Its creators, Dryer & Singh (1998), contend that a company can achieve competitive advantages through developing exchange relationships (relational rent). This relational rent can be generated by investment in relation-specific assets, knowledge exchange, combining complementary skills, and reduced transaction costs through effective governance

mechanisms (Dryer & Singh, 1998). Since relational rent is embedded in the exchange relationship, some competitive advantages cannot be attained without engaging in collaborative relationships with supply chain partners.

The positive outcomes derived from SCC have been empirically evidenced in previous studies. SCC helps to improve a company's performance in three respects: financial performance, productivity, and customer satisfaction. First, by establishing SCC, a company is expected to achieve better financial performance, with growth in sales, return on investment (ROI), profitability, return on assets (ROA), and even market share (Nyaga et al., 2010; Allred et al., 2011; Cao & Zhang, 2011; Ramanathan & Gunasekaran, 2014). Second, SCC can boost a company's productivity in terms of new product development (NPD), better quality, lower manufacturing and inventory costs, more accurate forecasting, and shorter cycle and lead times (Mishra & Shah, 2009; Zacharia et al., 2009; Nyaga et al., 2010; Allred et al., 2011; Fawcett et al., 2012). Third, pursuing SCC can enhance customer satisfaction through better logistics service performance, increased on-time deliveries, and higher responsiveness (Nyaga et al., 2010; Allred et al., 2011).

In practice, however, such advantages are rarely realized. While the advantages of SCC are well recognized in both academic and industrial fields, only a small proportion of companies have successfully formed high-level SCC with their partners and obtained competitive advantages (Fawcett et al., 2012; Fawcett et al., 2015). Few collaborations among supply chain partners realize their full potential (Cao & Zhang, 2011). Competitive advantages can only be achieved when all partners cooperate;

otherwise, successful SCC is not feasible. Although technological problems impede information sharing and other joint processes to some extent, human behavior is the most difficult element of SCC (Fawcett, 2012). Consequently, establishing a collaborative relationship between buyer and supplier is the key to effective SCC.

As outlined above, the core of SCC is engaging in collaborative relationships with key supply chain partners. The competitive advantages generated through SCC are mainly derived from relational rents in the exchange relationship, rather than unified control of the whole process. Therefore, collaborative buyer-supplier relationships (BSRs) have been regarded as the cornerstone of successful SCC. BSRs are a key source of efficiency, flexibility, and strategic resources, and can decrease opportunistic behaviors (Nyaga et al., 2010; Chen et al., 2011; Song et al., 2012). However, these relational advantages are difficult to achieve due to both structural and cultural impediments (Fawcett et al., 2012; Soosay & Hyland, 2015). First, companies can be resistant to engaging in relationships because they fail to fully understand the importance of collaboration (Ramanathan & Gunasekaran, 2014; Fawcett et al., 2015). Many tend to focus more on short-term financial performance instead of long-term operational efficiency or product innovation (Ralston et al., 2017). Second, many companies are unwilling to cooperate because they lack trust in one another, which is the foundation of BSRs (Fawcett et al., 2012; Ramanathan & Gunasekaran, 2014; Fawcett et al., 2015; Soosay & Hyland, 2015; Ralston et al., 2017). Such distrust is partly caused by transactional relationship thinking: companies see the benefits that

accrue to supply chain partners as losses to themselves (Ralston et al., 2017). With this perspective, companies cannot realistically work toward the same goal, nor apply unified performance measurement (Fawcett et al., 2012; Fawcett et al., 2015). In addition, miscommunication and misunderstanding can also lead to conflicts and distrust among supply chain partners (Cao & Zhang, 2011). Lack of trust will result in opportunistic behaviors, eventually leading to the breakdown of SCC.

With the acceleration of globalization, BSRs are facing new challenges. In recent years, an increasing number of European companies have begun sourcing from far-eastern emerging countries (especially China) to enjoy lower costs. According to the latest data from the European Commission, China was the biggest exporter to the EU from 2013 to 2017, with the EU's Chinese imports increasing at an average annual rate of 7.55%, which is much higher than the global rate (the annual increasing rate of the imports into the EU from the rest of the world) of 2.44%. In 2017, the value of EU imports from China reached EUR 374.82 billion, accounting for more than 20% of the total EU imports value. Since Sino-Western trade is becoming increasingly frequent, it is ever more important to overcome the challenges of a relationship between a buyer and supplier with different political, social, and cultural backgrounds. These background differences undoubtedly increase the difficulty of generating trust between suppliers and buyers. Before considering how to build a successful cross-cultural BSR, it is essential to have a good understanding of how BSRs work in Chinese society.

With their society founded on Confucian principles, Chinese people rely heavily on a relational approach to managing their business relationships (Chen et al., 2011). A

central tenet of BSRs in Chinese society is the culturally shaped concept known as *guanxi*, which be simply translated as “an interpersonal relationship.” It originally concerned family relationships, referring only to pure emotional ties among family members (Hwang, 1987). However, in modern times, it has also become central to the relationships established between acquaintances and strangers in commercial society. *Guanxi* has evolved from emotional ties toward utilitarian ties, eventually becoming a mix between these two (Hwang, 1987). In recent management publications, *guanxi* has been defined as a reciprocal and emotional relationship between partners based on exchanging favors (Yang, 1994; Davies et al., 1995). In this context, favors can include not only specific things such as money, goods, or services, but also include abstract concepts, such as opportunities and affectional care.

Exchanges in the *guanxi* relationship should respect the rules of reciprocity and empathy (Wang, 2007). Reciprocity means that when someone does you a favor, you are obliged to return it when necessary. If you fail to return a favor when needed by your *guanxi* partner, you not only lose face (social reputation) but also personal credit, leading to the end of this *guanxi* relationship (Yen et al., 2011). Furthermore, since reciprocation is not expected to be immediate and the favor exchanged cannot be calculated precisely, the *guanxi* exchange is a long-term process (Hwang, 1987). Therefore, it is recommended to return more favors than you owe in order to maintain a good and long-term *guanxi* relationship. In addition, the empathy rule of *guanxi* exchange means that a partner should consider the other’s point of view and provide a favor at an appropriate time without this being requested. Having empathy towards

others is an important quality in a high-context culture such as Chinese society (see Wang, 2007).

In today's business world, people establish *guanxi* with others for business purposes (investment, opportunities, rare resources, etc.) or to solve commercial problems. Consequently, *guanxi* is regarded as Chinese-style BSR, and is often compared with relationship marketing in BSR research (Abramson & Ai., 1997; Wang, 2007; Metters et al., 2010). *Guanxi* indeed shares many commonalities with relationship marketing in terms of trust-building, cooperation, a collaborative approach to disagreement, and developing networks of importance connections (Abramson & Ai, 1997). Nonetheless, *guanxi*'s working mechanism totally differs from that of Western relationship marketing. First, as a product of Confucianism, *guanxi* possesses strong Chinese cultural characteristics (Yang, 1994; Metters et al., 2010). Since Chinese society is relational and the country's legal system is underdeveloped (Lee & Humphreys, 2007), *guanxi* exchange in China is founded on morality and social norms, rather than legality and rules (Xin & Pearce, 1996; Wang, 2007). Based on the rules of reciprocity and empathy, *guanxi* exchange is unequal, long-term oriented, and based largely on mutual unspoken understanding (Wang, 2007). Furthermore, since modern *guanxi* is derived from family relationships, it distinguishes ingroup members from outgroup members, which are treated totally differently (Zhuang et al., 2010). Unlike relationship marketing, which is open to any partners, *guanxi* exchange occurs more between ingroup members (Wang, 2007).

The second main difference is that *guanxi* involves a very personal relationship.

Compared to relationship marketing, which is entirely based on instrumental reciprocity, *guanxi* is characterized by more affection towards partners (Chen et al., 2013). Sometimes, this affectional attachment is valued more than the utilitarian aspect of the *guanxi* relationship (Wang, 2007). In the Chinese commercial environment, friendship between business partners is established before the commercial relationship. This is related to trust-building in Chinese society. In a low-trust society like China, people only trust persons with whom they are familiar, such as family members or close friends (Fukuyama, 1995; Luo, 2011). In China, commercial trust is not based on written agreements or legal contracts (system trust) but on a partner's personal credit, according to their historical moral reputation (personal trust; Wang, 2007; Luo, 2011; Chen et al., 2013). Hence, unlike under system rules, the oral commitment of someone at a higher social level may be considered more reliable. Although *guanxi* mainly refers to interpersonal relationships, it could also work at an organizational level (Zhuang et al., 2010; Chen et al., 2013). It is believed that through building and maintaining *guanxi* between each company's representatives and top managers, a BSR between two companies can be developed (Zhuang et al., 2010). BSR outcomes can be aggregated through interpersonal *guanxi* (Chen et al., 2013). Through frequent *guanxi* interactions and favor exchanges between companies' boundary spanning personnel, a collaborative BSR can be formed.

The main objective of this thesis is to investigate *guanxi*'s impact on supply chain management (SCM). To form a deeper understanding of this process, the following sub-

questions are considered in each chapter successively:

1. What is the role of *guanxi* in modern business society?
2. How should Sino-Franco buyer-supplier *guanxi* be measured?
3. How does *guanxi* influence supply chain performance in the French market?
4. How does culture impact the relationship between *guanxi* and supply chain performance?

The concept of *guanxi* has existed in China for thousands of years, yet it was not until the late 1970s that *guanxi* research first appeared in Western management publications. Since then, research attention has greatly increased, especially in recent years, against the background of China's rapid economic growth and increasing foreign investment in China. Especially over the last forty years, the *guanxi* concept has fundamentally evolved from clanship to today's Chinese-style BSR. Therefore, it is essential to **review the historical development of *guanxi* and update our understanding of its modern meaning** (Chapter 1).

With the further improvement of China's economy and production capacity, Chinese companies are increasingly investing in overseas markets to develop sales and acquire new assets. Chinese foreign direct investment (FDI) reached USD 128 billion in 2015, behind only the U.S. and Japan (World Investment Report 2016, United Nations Conference on Trade and Development). According to the Statistical Bulletin of China's Outward Foreign Direct Investment (retrieved October 1, 2016), by the end of 2015, China's FDI in France had reached USD 5.7 billion. Accompanying Chinese investment in Western markets is the spread of *guanxi* culture. Since *guanxi* is deeply

rooted in Chinese culture, Chinese people are subconsciously guided by *guanxi* exchange rules when establishing their BSRs, even when dealing with foreign partners: based on past experiences, they assume that this approach will also be effective in different contexts. However, this poses obvious challenges when dealing with people who may be unfamiliar with Chinese culture. Cultural differences can be a key impediment to achieving relational advantages and SCC performance (Cannon et al., 2010). People of different cultural backgrounds may have different understandings of and reactions to the same behavior. Therefore, a significant challenge for international operational management is that what works in one environment may not in other circumstances (Metters et al., 2010). Most previous studies of *guanxi* have only considered the Chinese market, where both buyers and suppliers share the same culture. However, with Chinese firms increasingly spreading overseas, **it needs to be established whether *guanxi* is still important when dealing with foreign suppliers who may not be familiar with *guanxi* culture.**

This thesis will focus on the French market because it is one of China's main overseas investment markets. To empirically investigate *guanxi*'s functions in the French market, we need to determine how to measure Sino-Franco buyer-supplier *guanxi*. Although there are many different ways of measuring *guanxi*, most are based on conceptual models or general investigations, and only a few studies have developed an empirically valid *guanxi* scale. Of the existing *guanxi* scales, none is appropriate for our research for two main reasons. First, they measure *guanxi* at the individual level, such as co-worker *guanxi* (Chen & Peng, 2008) or supervisor-subordinate *guanxi* (Chen

et al., 2009), and so are unsuitable for measuring organizational-level buyer-supplier *guanxi*. Second, most have been developed in studies that only consider *guanxi* among Chinese people. French culture differs significantly from Chinese culture (Hofstede, 2001). Hence, the ways of interaction between Chinese and French are influenced by both Chinese and French cultures (Hakansson & Ford, 2002). We aim to fill this gap by **creating an empirically valid *guanxi* measurement scale for Sino-Franco BSRs** (Chapter 2).

When testing *guanxi*'s influences on business performance, many previous studies used financial performance or market performance as key indicators (Gu et al., 2008; Zhuang et al., 2010; Cao et al., 2014). However, very few studies have explored whether *guanxi* can improve supply chain performance (SCP) from an operational perspective. *Guanxi* undoubtedly plays a key role in building SCC with Chinese partners. Therefore, we **examine *guanxi*'s importance in the French market by investigating how *guanxi* impacts on SCC** (Chapter 3).

Finally, we broaden the study's scope by considering *guanxi*'s effects in the global environment. As *guanxi* relationships become increasingly international in this age of globalization, it is essential to understand how culture impacts on the concept. Although *guanxi* is regarded as combining utilitarian and affectional dimensions (Hwang, 1987), very few empirical studies have separately tested *guanxi*'s functions. When dealing with supply chain partners from different cultural backgrounds, it is very salient to identify which strategy (emotional or utilitarian) is more effective in particular circumstances. While trust is the universal foundation of collaborative relationships

(Fawcett et al., 2017), its generation is influenced by culture (Ueltschy et al., 2007). In some cultures, trust is based on cognition, whereas in others it is based on affection (McAllister, 1995; Chua et al., 2009). Consequently, we assume that the appropriate *guanxi* strategy (emotional or utilitarian) depends on the supply chain partner's cultural background. We aim to **investigate the moderating role of culture on the effects of *guanxi* practice** (Chapter 4).

To fill the above-mentioned gaps, we undertook a series of empirical studies in both the French and Chinese markets. This thesis is structured in four chapters. The first chapter, “*Guanxi* Culture: How it Affects the Business Model of Chinese Firms” (Zhang & Hong, 2017), historically reviews *guanxi*'s evolution, exploring the background to its formation, how it is practiced, the exchange mechanism, its main characteristics, and (most importantly for our purposes) its impacts on business performance. The second chapter, “Measuring *Guanxi* in Sino-Franco Buyer-Supplier Relationships” creates an empirically valid *guanxi* measurement scale for Sino-Franco BSRs, using qualitative interview findings and quantitative survey data collected from Chinese firms operating in France and Chinese people working there. This research also discusses the role of *guanxi* in Sino-Franco relationships, elucidating how French-based Chinese buyers evaluate the quality of their *guanxi* with French suppliers. The third chapter, “*Opening the black box of the Guanxi-SCC relationship: the case of Sino-Franco buyer-supplier guanxi*” achieves two key objectives: it empirically proves the importance of *guanxi* in Sino-Franco relationships, while also revealing *guanxi*'s indirect influence on SCP through the mediating effect of three different SCC dimensions: vision sharing,

resource-based collaboration, and process-based collaboration. Finally, the fourth chapter, “The moderating role of culture in the relationship between *guanxi* and supply chain performance,” shows that the buyer’s individual-level culture moderates the influence of both emotional *guanxi* and instrumental *guanxi* on SCP. By analyzing data collected from 200 Chinese buyers in the manufacturing industry, our results indicate that the mediated relationship between expressive *guanxi* and SCP through affect-based trust is stronger for collectivist buyers, whereas the mediated relationship between instrumental *guanxi* and SCP through cognition-based trust is stronger for individualist buyers.

Introduction en Français

Au cours des dernières décennies, avec l'accélération de la mondialisation, les entreprises ont pris conscience de l'importance de nouer des relations de collaboration avec leurs principaux partenaires de la chaîne logistique afin d'accroître leurs avantages concurrentiels. Lorsque les entreprises outrepassent les frontières de leur organisation et recherchent à l'extérieur d'autres entités afin de travailler dans un objectif commun, alors émerge la collaboration entre les partenaires de la chaîne d'approvisionnement et qui peut aller jusqu'à la collaboration entre les chaînes d'approvisionnement (Supply Chain Collaboration, SCC) (Cao et Zhang, 2011; Ramanathan et Gunasekaran, 2014; Soosay et Hyland, 2015). Il semble que grâce au travail en collaboration, les entreprises peuvent tirer parti des synergies de la SCC et ainsi atteindre un niveau de compétitivité qu'elles ne pouvaient réaliser seules (Allred et al., 2011; Cao et Zhang, 2011).

La SCC a été définie de différentes manières au cours des dernières années. Ce concept inter-organisationnel se caractérise par des actions conjointes et des résultats partagés dans le but de réduire le coût total et de mieux satisfaire les clients. Des recherches antérieures ont mis l'accent sur le processus de collaboration entre les partenaires de la chaîne d'approvisionnement. Ces activités de collaboration comprennent des actions conjointes et des comportements de partage. Les actions conjointes font référence à des activités, notamment la prise de décision, la planification, la prévision, le remplacement, la résolution de problèmes, la création de connaissances et même la mesure du rendement qui sont réalisées ensemble, conjointement (Daugherty, 2011; Ramanathan et Gunasekaran, 2014). Ces actions conjointes sont basées sur des comportements de partage, à savoir le partage d'informations et le

partage des ressources (Cao et Zhang, 2011; Adams et al., 2014; Scholten et Schilder, 2015). En outre, le partage des responsabilités des actions menées conjointement, qui correspond au partage des coûts, des risques et des avantages (par exemple l’alignement des incitations), lie les entreprises individuelles à un objectif commun. Cependant, ces définitions orientées processus ont leurs limites. Premièrement, ces activités de collaboration existent non seulement en SCC, mais également dans d’autres structures inter-organisationnelles similaires telles celles répondant aux stratégies d’intégration de la chaîne logistique et d’alliance dans la chaîne logistique. Deuxièmement, la mise en place de ces activités dans le cadre de la SCC n’arrive que lorsque la relation de collaboration entre les partenaires de la chaîne d’approvisionnement remplace peu à peu les procédures de contrôle unifié, très formalisées, de type contractuelle, des relations commerciales. Or cet aspect est primordial car il différencie la SCC des autres formes de collaboration interentreprises (Cao et Zhang, 2011; Ralston et al., 2017). Par conséquent, les études récentes se concentrent davantage sur les relations de collaboration caractérisées par la compréhension mutuelle, les éléments affectifs et la motivation intrinsèque à coopérer de manière volontaire. (Fawcett et al., 2012; Richey et al., 2012).

Les entreprises sont intéressées à mettre en place des éléments de SCC avec leurs partenaires de la chaîne d'approvisionnement pour deux raisons principales. En premier lieu, les entreprises ont besoin d'accroître leur efficacité productive, de réduire les coûts et d'améliorer les performances financières et les performances marketing de la société par l'intermédiaire de la SCC (Cao et Zhang, 2011; Ramanathan et Gunasekaran, 2014).

Dans un deuxième temps, face aux exigences variables des clients externes et à l'incertitude de la demande, les entreprises sont obligées d'établir une relation de collaboration plus flexible et fiable pour mieux répondre aux besoins exprimés par leurs clients (Cao et Zhang, 2011; Fawcett et al., 2012). Grâce à l'engagement relationnel des activités de collaboration et aux synergies ainsi opérées, l'efficacité des processus, la flexibilité, la qualité et l'innovation commerciale peuvent être améliorés. (Cao et Zhang, 2011).

Il ne fait aucun doute que la réalisation complète d'une SCC peut générer des avantages comparatifs. Théoriquement, cela s'explique par des théories connexes telles que la théorie basée sur les ressources (Barney, 1991), la théorie basée sur les ressources étendues (Lavie, 2006), la vision relationnelle (Dryer et Singh, 1998) et la théorie de l'interdépendance sociale (Johnson, 2003). Cette dernière considère la SCC du point de vue des interactions entre les différents objectifs des entreprises la constituant. Selon Johnson (2003), la manière dont les objectifs des participants sont structurés détermine leur interaction, ce qui a une incidence sur les résultats. Le partage d'une vision globale est la condition préalable de la SCC. Une fois leurs objectifs liés ensemble, des résultats bénéfiques peuvent être attendus. La théorie basée sur les ressources (RBV) et la théorie basée sur les ressources étendues (ERBV) indiquent que les avantages concurrentiels des entreprises découlent d'éléments stratégiques présentant de la rareté, de la valeur, et étant non substituables et difficiles à imiter (Barney, 1991). La théorie RBV estime que les ressources entièrement détenues ou contrôlées par l'entreprise, telles que les équipements, les matériaux, les employés et les technologies, peuvent créer des

avantages concurrentiels certains. Étant donné que la relation de collaboration elle-même correspond à la nature des ressources stratégiques, la mise en place de la SCC avec des partenaires commerciaux clés offre des avantages concurrentiels (Soosay et Hyland, 2015). En outre, par le biais du SCC, les sociétés, prise individuellement, se concentre davantage sur leurs activités principales, de sorte que les avantages compétitifs basés sur les ressources sont amplifiés (Cao et Zhang, 2011). Contrairement à la théorie RBV, qui considère les ressources limitées au sein de l'entreprise, la ERBV considère également les ressources générées par la relation de collaboration entre les partenaires. Selon Lavie (2006), non seulement les ressources internes de l'entreprise (rente interne) peuvent offrir des avantages compétitifs, mais aussi les ressources partagées (rente relationnelle correspondante) et les ressources collatérale (rente entrante) des partenaires. Par conséquent, par le biais de la SCC, l'entreprise peut avoir accès à des ressources extérieures, ce qui permet d'accroître ses avantages concurrentiels. Au lieu de se concentrer sur une entreprise, la vision relationnelle s'étend au-delà des limites de l'organisation et prend pour objectif la recherche de paires ou de réseaux d'entreprises. Dryer et Singh (1998) estiment que le développement de la relation d'échange (rente relationnelle) permet d'aller chercher plus d'avantages concurrentiels pour les sociétés. Cette rente relationnelle peut être générée par l'investissement dans des actifs spécifiques à la relation, par l'échange de connaissances et par la combinaison de coûts de transaction complémentaires et inférieurs résultant de mécanismes de gouvernance efficaces (Dryer et Singh, 1998). Étant donné que la rente relationnelle est intégrée à la relation d'échange, elle explique

bien que certains avantages concurrentiels ne peuvent être atteints seuls, mais uniquement par la collaboration avec les partenaires de la chaîne d'approvisionnement.

Les résultats positifs obtenus par la SCC ont également été empiriquement prouvés dans des études antérieures. La SCC contribue à améliorer les performances de l'entreprise sur trois aspects notamment: la performance financière, la performance en matière de productivité et la satisfaction du client. Premièrement, en créant un mode de fonctionnement basé sur la SCC, les sociétés devraient avoir de meilleures performances financières, notamment grâce à la croissance des ventes, au retour sur investissement (ROI), à l'amélioration de ce dernier et de la marge de rentabilité, au meilleur rendement des actifs et même à la croissance des parts de marché (Nyaga et al., 2010; Allred et al., 2011; Cao et Zhang, 2011; Ramanathan et Gunasekaran, 2014). Deuxièmement, par le biais de la SCC, on devrait pouvoir faire croître la productivité, comme par exemple en ce qui concerne le développement de nouveaux produits, la gestion de la qualité, les coûts de fabrication et de stockage, des prévisions plus précises, des cycles et des délais plus courts (Mishra et Shah, 2009; Zacharia et al., 2009; Nyaga et coll., 2010; Allred et coll., 2011; Fawcett et coll., 2012). Troisièmement, la satisfaction des clients pourrait également être améliorée grâce à une meilleure performance des services logistiques, à une diminution des délais de livraison et à une plus grande réactivité (Nyaga et al., 2010; Allred et al., 2011).

Cependant, la situation actuelle dans la vie réelle des entreprises n'est pas aussi positive que cela. Même si les avantages de la SCC sont bien reconnus dans les domaines académiques et industriels, seule une petite partie des entreprises ont réussi à

former une SCC de haut niveau avec leurs partenaires et à obtenir des avantages compétitifs (Fawcett et al., 2012; Fawcett et al., 2015). La plupart des SCC ne parviennent pas à atteindre leur plein potentiel (Cao et Zhang, 2011). Des avantages compétitifs ne peuvent être obtenus que lorsque tous les partenaires coopèrent. Dans le cas contraire, le succès de la SCC est plus une illusion qu'un plan réalisable. Même si les problèmes technologiques entravent dans une certaine mesure l'information et les autres processus communs, la question du comportement humain est la partie la plus difficile (Fawcett, 2012). Par conséquent, l'établissement d'une relation de collaboration entre l'acheteur et le fournisseur est la clé de la création du SCC.

Comme nous en avons déjà discuté, le cœur de la SCC est l'engagement de relations de collaboration avec les principaux partenaires de la chaîne d'approvisionnement. Les avantages concurrentiels générés par la SCC sont principalement dérivés des rentes relationnelles dans la relation d'échange plutôt que du contrôle unifié de l'ensemble du processus. Par conséquent, les relations acheteurs-fournisseurs ont été considérées comme la pierre angulaire du succès de la SCC. Cette relation est la clé pour obtenir des avantages compétitifs tels que : efficacité et flexibilité, ressources stratégiques et diminution des comportements opportunistes (Nyaga et al., 2010; Chen et al., 2011; Song et al., 2012). Cependant, ces avantages relationnels ne sont pas faciles à atteindre en raison d'obstacles structurels et culturels (Fawcett et al., 2012; Soosay et Hyland, 2015). Premièrement, les entreprises sont réticentes à s'engager dans la relation en raison du manque de compréhension de l'importance de la

collaboration (Ramanathan et Gunasekaran, 2014; Fawcett et al., 2015). Elles se concentrent davantage sur la performance financière à court terme plutôt que sur l'efficacité opérationnelle à long terme ou l'innovation de produits (Ralston et al., 2017).

Deuxièmement, de nombreuses entreprises ne sont pas disposées à coopérer en raison du manque de confiance sur lequel reposent les relations acheteurs-fournisseurs (Fawcett et al., 2012; Ramanathan et Gunasekaran, 2014; Fawcett et coll., 2015; Soosay et Hyland, 2015; Ralston et al., 2017). La méfiance est en partie causée par la réflexion sur les relations transactionnelles: les entreprises considèrent que les avantages supplémentaires des autres partenaires de la chaîne d'approvisionnement sont des pertes pour elles-mêmes (Ralston et al., 2017). Dans ce cas, les entreprises ont du mal à atteindre le même objectif, sans parler de la difficile mise en application de mesure unifiée pour coordonner l'ensemble (Fawcett et al., 2012; Fawcett et al., 2015). De plus, une mauvaise communication et un malentendu peuvent également mener à des conflits et à de la méfiance entre les partenaires de la chaîne d'approvisionnement (Cao et Zhang, 2011). Le manque de confiance se traduit par des comportements opportunistes et peut mener à la rupture de la SCC. En outre, avec l'accélération de la mondialisation, les relations acheteurs-fournisseurs sont confrontées à de nouveaux défis. Ces dernières années, un nombre croissant d'entreprises européennes se sont approvisionnées depuis les pays émergents asiatiques (en particulier la Chine) et ont ainsi bénéficié de coûts plus faibles. Selon les dernières données de la Commission européenne, la Chine détient la première position en tant que pays importateur pour l'UE au cours des cinq dernières années (2013-2017), avec un taux d'accroissement annuel moyen des importations de

7,55%, bien supérieur au taux mondial de 2,44%. En 2017, la valeur des importations chinoises a ainsi atteint 374,82 milliards d'euros, ce qui représente plus de 20% de la valeur totale des importations de l'UE. Le commerce sino-occidental devenant de plus en plus fréquent, et la gestion des relations entre acheteurs et fournisseurs avec un contexte politique, social et culturel différent, devient un problème crucial à résoudre. Ces différences augmentent sans aucun doute les difficultés liées à la confiance entre les fournisseurs et les acheteurs. Avant de répondre à la question de savoir comment construire avec succès une relation interculturelle de ce type, il est essentiel de bien comprendre comment ces relations acheteurs-fournisseurs fonctionnent en premier lieu dans la société chinoise.

Dominés par la culture confucéenne, les Chinois s'appuient fortement sur une approche relationnelle pour gérer les affaires commerciales (Chen et al., 2011). Dans la société chinoise, il existe un concept culturel associé à la relation acheteur-fournisseur, appelé « *guanxi* ». Le *guanxi* peut être, de façon simple, traduit par «relation interpersonnelle». Ce concept est axé sur les relations familiales et concerne le lien affectif entre membres de la famille (Hwang, 1987). Cependant, à l'époque moderne, cette notion fondée sur des modèles familiaux s'établit également entre connaissances plus ou moins proches et étrangers dans la société commerciale. Le *guanxi* a évolué d'un lien émotionnel vers un lien utilitaire et devient ainsi un concept liant l'émotion humaine dans le monde commercial (Hwang, 1987). Dans les publications récentes du domaine de la gestion, il est défini comme une relation réciproque et émotionnelle fondée sur l'échange de faveurs entre partenaires *guanxi* (Yang, 1994; Davies et al.,

1995). La faveur échangée dans la relation *guanxi* ne concerne pas seulement des éléments spécifiques tels que l'argent, les biens ou les services, mais inclut également des concepts abstraits tels que les opportunités, les soins affectifs, etc. L'échange dans la relation *guanxi* doit respecter les règles de la réciprocité et de l'empathie (Wang, 2007). La réciprocité signifie que lorsque quelqu'un vous fait une faveur, vous êtes obligé de la retourner si nécessaire. Si vous ne parvenez pas à la rendre lorsque votre partenaire *guanxi* a besoin, vous perdez non seulement la face (votre réputation sociale) mais également votre crédit personnel, ce qui mène à la fin de votre relation *guanxi* (Yen et al., 2011). De plus, comme on ne s'attend pas à ce que la faveur *guanxi* soit rendue immédiatement et que sa valeur ne peut pas être calculée avec précision, l'échange de faveur dans la relation *guanxi* est un processus sans fin (Hwang, 1987). Par conséquent, il est recommandé de retourner plus de faveurs que ce que vous deviez afin de maintenir une bonne relation à long terme. En tant qu'autre règle de l'échange *guanxi*, la règle de l'empathie signifie que le partenaire *guanxi* doit considérer le problème du point de vue de l'autre et donner son aide au bon moment sans être averti. Avoir de l'empathie envers les autres est une qualité importante dans une culture à contexte fort telle que la société chinoise (Wang, 2007).

Dans le monde des affaires d'aujourd'hui, les gens établissent des relations commerciales avec d'autres pour des intérêts commerciaux (investissements, opportunités commerciales, ressources rares, etc.) ou pour résoudre des problèmes commerciaux. En conséquence, le *guanxi* est considéré comme une relation acheteur-fournisseur à la chinoise et est souvent comparé au marketing relationnel dans les

recherches sur la relation acheteur-fournisseur (Abramson et Ai, 1997; Wang, 2007; Metters et al., 2010). Le *guanxi* partage en effet de nombreux points communs avec le marketing relationnel en termes de renforcement de la confiance, de coopération, d'approche collaborative du désaccord et de développement de réseaux de relations (Abramson et Ai, 1997). Malgré cela, le mécanisme de fonctionnement du *guanxi* est totalement différent du marketing relationnel occidental. Premièrement, en tant que produit du confucianisme, le *guanxi* possède de fortes caractéristiques culturelles chinoises (Yang, 1994; Metters et al., 2010). Comme la société chinoise est une société relationnelle avec un système juridique sous-développé (Lee et Humphreys, 2007), l'échange *guanxi* en Chine respecte davantage la moralité et les normes sociales que la légalité et les règles (Xin et Pearce, 1996; Wang, 2007). Basé sur la règle de la réciprocité et de l'empathie, l'échange *guanxi* est inégal, orienté sur le long terme et fortement basé sur la compréhension mutuelle non-dite (Wang, 2007). De plus, comme le *guanxi* moderne est dérivé de la relation familiale, le *guanxi* est établi pour distinguer les membres des groupes et les membres externes, et ces deux groupes de personnes sont traités de manière totalement différente (Zhuang et al., 2010). Contrairement au marketing relationnel ouvert à tous les partenaires, l'échange *guanxi* se produit davantage entre les membres internes d'un groupe pré-établi (Wang, 2007). Deuxièmement, le *guanxi* est une relation très personnelle. Par rapport au marketing relationnel qui repose totalement sur la réciprocité instrumentale, le *guanxi* contient davantage d'affections envers les partenaires (Chen et al., 2013). Parfois, cet attachement affectif vaut plus que l'aspect utilitaire dans la relation *guanxi* (Wang,

2007). Dans l'environnement commercial chinois, c'est l'amitié entre partenaires commerciaux qui précède la relation commerciale. Ceci est lié au besoin de renforcer les liens de confiance dans la société chinoise. Dans une société à faible niveau de confiance comme la Chine, les gens ne font confiance qu'aux personnes avec lesquelles ils sont familiers, comme les membres de la famille ou les amis proches (Fukuyama, 1995; Luo, 2011). En Chine, la confiance commerciale ne repose pas sur des accords écrits ou des contrats légaux (confiance systémique), mais sur le crédit personnel d'un partenaire selon sa réputation morale historique (confiance personnelle) (Wang, 2007; Luo, 2011; Chen et al., 2013). Par conséquent, comparé à des règles précises, l'engagement oral d'une personne dans un tel contexte social est relativement sûr. Même si le *guanxi* se réfère principalement aux relations interpersonnelles, il peut également fonctionner au niveau organisationnel (Zhuang et al., 2010; Chen et al., 2013). On pense qu'à travers la mise en place et le maintien de pratiques de *guanxi* entre les représentants de chaque entreprise et les principaux dirigeants, les relations acheteur-fournisseur peuvent être développées (Zhuang et al., 2010). Les résultats des relations acheteur-fournisseur pourraient être agrégés à travers la somme des *guanxi* interpersonnels (Chen et al., 2013). Grâce à de fréquentes interactions *guanxi* et à l'échange de faveurs régulières entre les entreprises d'un même canal de distribution, on peut s'attendre à la mise en place d'une relation acheteur-fournisseur véritablement collaborative.

L'objectif principal de cette thèse est d'étudier l'impact du *guanxi* sur la gestion de la chaîne d'approvisionnement. Pour mieux comprendre ce processus, les sous-

questions suivantes sont considérées dans chaque chapitre successivement:

1. Quel est le rôle du *guanxi* dans la société moderne?
2. Comment mesurer le *guanxi* entre acheteurs-fournisseurs français et chinois?
3. Comment le *guanxi* influence-t-il la performance de la chaîne d'approvisionnement sur le marché français?
4. Comment la culture influence-t-elle la relation entre le *guanxi* et la performance de la chaîne d'approvisionnement?

Le concept de *guanxi* existe en Chine depuis des milliers d'années, mais ce n'est qu'à la fin des années 1970 que la recherche *guanxi* est apparue pour la première fois dans les publications académiques occidentales. Depuis lors, la recherche s'y est beaucoup intéressée, en particulier ces dernières années, dans le contexte de la croissance économique rapide et de l'augmentation des investissements étrangers en Chine. Surtout au cours des quatre dernières décennies, le concept *guanxi* a fondamentalement évolué d'un concept tribal à une forme chinoise du BSR d'aujourd'hui. Par conséquent, il est essentiel **d'examiner le développement historique du *guanxi* et de mettre à jour notre compréhension de son sens moderne** (Chapitre 1).

Avec l'amélioration de l'économie et de la capacité de production de la Chine, les entreprises chinoises investissent de plus en plus dans les marchés étrangers pour développer leurs ventes et acquérir de nouveaux actifs. Les investissements directs étrangers (IDE) chinois ont atteint 128 milliards USD en 2015, derrière les États-Unis et le Japon (World Investment Report 2016, Conférence des Nations Unies sur le

commerce et le développement). Selon le Bulletin statistique des investissements directs étrangers de la Chine (extrait daté du 1er octobre 2016), à la fin de 2015, les IDE chinois en France avaient atteint 5,7 milliards USD. La diffusion de la culture *guanxi* accompagne les investissements chinois sur les marchés occidentaux. Étant donné que le *guanxi* est profondément ancré dans la culture chinoise, le peuple chinois est inconsciemment guidé par les règles d'échange *guanxi* lorsqu'il établit son BSR, même avec des partenaires étrangers. Sur la base des expériences passées, cette approche fut efficace dans différents contextes. Cependant, cela pose des problèmes évidents dans le cas de personnes qui ne connaissent peut-être pas la culture chinoise. Les différences culturelles peuvent constituer un obstacle majeur à la réalisation des avantages relationnels et à la performance de la SCC (Cannon et al., 2010). Les personnes de différentes origines culturelles peuvent avoir une compréhension et des réactions différentes vis-à-vis du même comportement. Par conséquent, un défi important de la gestion des opérations internationale est que ce qui fonctionne dans un environnement peut ne pas l'être dans d'autres circonstances (Mettters et al., 2010). La plupart des études antérieures sur le *guanxi* ont uniquement considéré le marché chinois, où les acheteurs et les fournisseurs partagent la même culture. Cependant, les entreprises chinoises s'étendant de plus en plus à l'étranger, **il convient d'établir si le *guanxi* est un facteur important pour des fournisseurs étrangers qui ne connaissent peut-être pas la culture *guanxi*.**

Cette thèse portera sur le marché français car il est l'un des principaux marchés d'investissement de la Chine à l'étranger. Pour étudier empiriquement les fonctions du

guanxi sur le marché français, nous devons déterminer comment mesurer le *guanxi* entre des acheteurs-fournisseurs français et chinois. Bien qu'il existe différentes manières de mesurer le *guanxi*, la plupart sont basées sur des modèles conceptuels ou des enquêtes générales, et seules quelques études ont développé une échelle *guanxi* empiriquement valide. Parmi les échelles de *guanxi* existantes, aucune ne convient à notre recherche pour deux raisons principales. Premièrement, elles mesurent le *guanxi* au niveau individuel, comme le *guanxi* entre collaborateurs (Chen et Peng, 2008) ou le *guanxi* superviseur-subordonné (Chen et al., 2009), et ne conviennent donc pas pour mesurer le *guanxi* acheteur-fournisseur. Deuxièmement, la plupart ont été développées dans des études qui ne considèrent que le *guanxi* chez les Chinois. La culture française diffère significativement de la culture chinoise (Hofstede, 2001). Les modes d'interaction entre chinois et français sont donc influencés par les cultures chinoise et française (Håkansson et Ford, 2002). Nous visons à combler cette lacune **en créant une échelle de mesure *guanxi* empiriquement valide pour les BSR franco-chinoises** (Chapitre 2).

En testant les influences du *guanxi* sur la performance de l'entreprise, de nombreuses études antérieures ont utilisé la performance financière ou la performance du marché comme indicateurs clés (Gu et al., 2008; Zhuang et al., 2010; Cao et al., 2014). Cependant, très peu d'études ont cherché à savoir si le *guanxi* pouvait améliorer la performance de la chaîne d'approvisionnement (Supply Chain Performance, SCP) d'un point de vue opérationnel. Or ce concept joue sans aucun doute un rôle clé dans la construction de la SCC avec des partenaires chinois. Par conséquent, nous allons

examiner l'importance du *guanxi* sur le marché français en étudiant l'impact de celui-ci sur la SCC (Chapitre 3).

Enfin, nous élargissons le champ de l'étude en tenant compte des effets du *guanxi* dans l'environnement mondial. À mesure que les relations *guanxi* deviennent de plus en plus internationales en cette ère de mondialisation, il est essentiel de comprendre comment la culture influe sur le concept. Bien que le *guanxi* soit considéré comme combinant des dimensions utilitaires et affectives (Hwang, 1987), très peu d'études empiriques ont testé séparément les fonctions du *guanxi*. Lorsque l'on a affaire à des partenaires de la chaîne d'approvisionnement issus de milieux culturels différents, il est très important d'identifier quelle stratégie (émotionnelle ou utilitaire) est la plus efficace dans des circonstances particulières. Alors que la confiance est la base universelle des relations de collaboration (Fawcett et al., 2017), son émergence est influencée par la culture (Ueltschy et al., 2007). Dans certaines sociétés, la confiance repose sur la cognition, alors que dans d'autres, elle repose sur l'affection (McAllister, 1995; Chua et al., 2009). Par conséquent, nous supposons que la stratégie *guanxi* appropriée (émotionnelle ou utilitaire) dépend du contexte culturel du partenaire de la chaîne d'approvisionnement. Notre objectif est **d'étudier le rôle modérateur de la culture sur les effets de la pratique du *guanxi*** (Chapitre 4).

Pour combler les lacunes susmentionnées, nous avons mené une série d'études empiriques sur les marchés français et chinois. Cette thèse est structurée en quatre chapitres. Le premier chapitre, «Culture *guanxi*: son impact sur le modèle économique des entreprises chinoises» (Zhang et Hong, 2017), examine historiquement l'évolution

du *guanxi*, exposant le contexte de sa formation, sa pratique, son mécanisme d'échange, ses principales caractéristiques et, surtout pour nos objectifs, ses impacts sur la performance de l'entreprise. Le deuxième chapitre, «Mesurer le *guanxi* dans les relations entre acheteurs-fournisseurs français et chinois», crée une échelle de mesure *guanxi* empiriquement valable pour les BSR franco-chinoises, en utilisant les résultats des entretiens qualitatifs et des enquêtes quantitatives. Cette recherche aborde également le rôle du *guanxi* dans les relations sino-françaises, en expliquant comment les acheteurs chinois basés en France évaluent la qualité de leur *guanxi* avec les fournisseurs français. Le troisième chapitre, «Ouvrir la boîte noire de la relation *Guanxi*-SCC: le cas du *guanxi* entre acheteurs-fournisseurs français et chinois», atteint deux objectifs principaux: il prouve empiriquement l'importance du *guanxi* dans les relations franco-chinoises, tout en montrant l'influence indirecte de celui-ci sur la SCP grâce à l'effet médiateur de trois dimensions différentes du SCC: le partage de la vision, la collaboration basée sur les ressources et la collaboration basée sur les processus. Enfin, le quatrième chapitre, «Le rôle modérateur de la culture dans la relation entre *guanxi* et performance de la chaîne d'approvisionnement», montre que la culture individuelle de l'acheteur modère l'influence du *guanxi* émotionnel et du *guanxi* instrumental sur la SCP. En analysant les données collectées auprès de 200 acheteurs chinois dans l'industrie manufacturière, nos résultats indiquent que la relation entre le *guanxi* expressif et la SCP, via la confiance basée sur les affections, est plus forte pour les acheteurs collectivistes, alors que la relation entre le *guanxi* instrumental et la SCP est plus forte pour les acheteurs individualistes.

Chapter 1: Guanxi Culture: How it Affects the Business Model of Chinese Firms

***Guanxi* Culture: How it Affects the Business Model of Chinese Firms**

Abstract

As a product of Chinese traditional culture, *guanxi* (Chinese interpersonal relationships) has a huge influence on Chinese societal and business behaviors. This chapter aims to explore the nature of *guanxi*, elaborating its effects on business performance.

Keywords: *Guanxi*, Chinese business culture, *renqing* (favor), *mianzi* (face)

1.1 INTRODUCTION

The Chinese term *guanxi* has been discussed in western management publications since the 1980s when it first appeared as a concept for western companies to consider when doing business in China. In order to succeeding in doing business in China, western companies have spent many years trying to understand what *guanxi* is and how to practice *guanxi* in China. *Guanxi* has been special Chinese cultural factor and has played a very important role in Chinese social and economic systems. However, what is *guanxi* exactly?

According to the Chinese *Xinhua Dictionary*, the basic meaning of *guanxi* comes from combining two Chinese words: *Guan* (关) and *Xi* (系). *Guan* (关) means a “gate or barrier,” and *xi* (系) means “connection or link.” So *guanxi* literally means to “go through the gate and get a connection.” The definition of *guanxi* given by the Chinese authority’s dictionary is “certain properties of contacts or relations among people.” So *guanxi* can be simply translated as “personal relationship” or “social connection.” However, because *guanxi* is deeply rooted in Chinese culture, it is more complex than a purely personal relationship as found in western countries. So we leave this Chinese word untranslated, because there is no English word with a correspondent meaning.

In research before 1990, *guanxi* was defined in a vague way as a “special” relationship or “particular” ties to differentiate it from common personal relationships (Alston, 1989). With subsequent in-depth studies of *guanxi*, more and more Western scholars have a better understanding of the *guanxi* phenomenon. Subsequently, *guanxi* has been defined as relationships or social connections based on mutual interests and

benefits, which is achieved by exchanging favors and giving social status between *guanxi* partners. So the *guanxi* interaction is not only commercial but also reflects a social act that binds exchange partners with reciprocal obligations (Yang, 1994). Generally, it's believed that *guanxi* is an interpersonal utilitarian relationship for reciprocal exchange, taking place only at individual levels (Davies, Leung, Luk, & Wong, 1995). Recent research, however, has proved that this kind of interpersonal *guanxi* can also be applied at the organizational level (Cai, Jun, & Yang, 2010; Gu, Hung, & Tse, 2008).

Using a business perspective, *guanxi* is not only a cultural factor but also an institutional force and governance structure. At the firm level, *guanxi* can be regarded as social capital and a cooperative resource to gain firm advantages in terms of financial performance, marketing channels, and so on (Cai et al., 2010; Cao et al., 2014; Gu et al., 2008). *Guanxi* study has been favored by more and more western investors in recent years. They see *guanxi* as a magic weapon to access Chinese markets and gain competitive advantages. *Guanxi* study is also seen as relationship marketing in Chinese markets (Davies et al., 1995).

Different scholars define *guanxi* using different perspectives because the word *guanxi* can refer to different but related things: *guanxi* states, *guanxi* practices, and *guanxi* exchanges. In most cases, *guanxi* refers to *guanxi* states, i.e., the relationships or ties between people, firms, or even between individuals and the government. This kind of *guanxi* relationship is based on emotional attachment and utilitarian purposes (see Section 1.6). *Guanxi* states come from *guanxi* bases (see Section 1.3). However,

guanxi sometime means *guanxi* practices or *guanxi* behaviors (see Section 1.4). *Guanxi* practices refer to the process when people expand their *guanxi* networks through a set of social behaviors such as wining and dining. *Guanxi* is not only static but also a dynamic process. It needs to “pull *guanxi*” actively to achieve more mutual benefits. For instance, *guanxi* begins when one party starts to look for favors from another party. If another party cannot always respond to this favor, he or she will ask others to fulfill this favor through his or her *guanxi* networks. This process will involve more and more actors and will conclude only when the problem is solved or abandoned (Fan, 2002). Because *guanxi* is a utilitarian relationship based on exchanging favors, it can be used for exchange as social capital under a code or a set of social norms (see Section 1.5).

This chapter is divided into eight sections. After this introduction, the background of *guanxi* culture (Section 1.2) is presented. Then, three *guanxi*-related concepts are introduced in the following parts: *guanxi* bases (Section 1.3), *guanxi* practices (Section 1.4), and *guanxi* exchange mechanisms (Section 1.5). Section 1.6 elaborates *guanxi*'s main characteristics, whilst Section 1.7 focuses on *guanxi*'s impact on business performance, with the conclusion in Section 1.8.

1.2 BACKGROUND

The deeply rooted *Guanxi* culture has gravely influenced the way of doing business in China. It is therefore imperative to have a thorough understanding of why *guanxi* matters so much. The popularity of the *guanxi* phenomena in Chinese society can be explained from two aspects: traditional cultural values and modern social

atmosphere.

1.2.1 Traditional Cultural Values

Guanxi is a product of a Confucian culture that rules social behaviors between people. Because *guanxi* culture is so closely linked with Confucianism, it's necessary to understand Confucianism and its influence on *guanxi* culture.

Confucianism is an ethical, religious, and philosophical system that has enjoyed a long-term dominant cultural influence in East Asia and Southeast Asia (including China, Korea, Japan, Vietnam, etc.). The philosophy was started by Confucius (551–479 BCE), who is one of the most influential philosophers and educators in China, during the “Spring and Autumn” period (approximately 771 to 476 BCE). Confucian ideas have been used as a ruling ideology since the Han dynasty (206 BCE–220 AD), influencing Chinese intellectuals and laboring people alike for thousands of years.

The core value of Confucianism is *Ren* which means “love others” and “treat others well.” *Ren* codifies an ethical rule for personal relationships. It emphasizes that we should treat others with love and compassion to get along harmoniously and with friendship. It believes that through harmonious relationships, the whole society will become more tolerant and stable. Under this Confucian social theory, Chinese people pay lots of attention to interpersonal relationships with others. In this way, Chinese society has become a relational society, and the *guanxi* (personal relationship or social connection) culture flourishes there.

Confucian theory also emphasizes that all relationships start from kinship and the

clan system. It underlines that each individual person attaches to a whole family, and the worship of ancestors has priority over other relationships, giving emphasis to the family-value orientation of Chinese culture. Seen from this perspective, the Confucian culture can be interpreted as a clanship culture, with Chinese personal relationships and social order maintained by blood ties and emotion. Unlike the individualism found in Western countries, where each has a social division of labor, Chinese society consists of family units. Every Chinese is subordinate to his or her own family and is responsible to the family. In China, the family relationship always takes priority over other social relationships tied through contracts. So the *guanxi* phenomenon always starts from inside the family, then ventures to outside acquaintances. Because there is a lack of confidence in strangers, Chinese people choose to believe insiders (people with whom they share *guanxi*) rather than outsiders (people with whom they don't share *guanxi*).

Guanxi shares some similarities in other East Asian cultures that are highly influenced by Confucianism: *Kankei* in Japan and *kwankye* in Korea have similar meanings as *guanxi* in China and it corresponds to *blat* in Russian culture. This phenomenon also exists in other societies dominated by collectivist cultures, such as Italy, Israel, and South Korea, which regard kinship as a key social resource (Gu et al., 2008). Even though *guanxi* culture shares some similarities with other personal network cultures in the world, *guanxi* operates in a unique way that is not exactly the same as its counterparts in other cultures (Gu et al., 2008).

In summary, Chinese culture is deeply influence by Confucianism, which emphasizes interpersonal relationships, especially clanship. And *guanxi* phenomenon

(people relying on social connections) is a product of Confucian values. China is a relational society, and Chinese people use *guanxi* as a basis for their important social resources.

1.2.2 Modern Social Atmosphere

The traditional cultural viewpoint of *guanxi* has well explained how it is embedded in Chinese society and deeply influences Chinese people's daily life and social conducts. On the other side, the Chinese modern social atmosphere, including contemporary and institutional Chinese environments, also promotes the development of *guanxi* culture. In this case *guanxi* means an "institutionally defined system" and is more related to institutional structure than cultural factors (Guthrie, 1998).

As mentioned, China is a relational society in which people rely more on personal relationships than rational laws. This can be partly attributed to the Cultural Revolution, which took place in China from 1966 to 1976. During that period, social orders, organization disciplines, and laws were destroyed by frequent parades, and people preferred to believe a person they knew rather than social orders (Yang, 1994). Even though this disaster is nearly 40 years past, and China has enjoyed high-speed economic development since the 1980s, Chinese business environments and legal systems have been criticized as unstable and with high uncertainty. Because of the absence of an adequate legal system and the lack of universal formal rules, people rely more on personal relationships than formal contracts to avoid possible business risks (Lee & Humphreys, 2007). This is true for private companies, which are more vulnerable to

potential damages from an underdeveloped legal system. Therefore, in such an uncertain business environment, people rely more on informal personal *guanxi* than formal structures, which are disadvantageous for protection and risk avoidance (Xin & Pearce, 1996). *Guanxi* is also regarded as a crucial institutional force to counter outside high-risk environments (Cai et al., 2010). In addition, during this period of economic reform, because of the non-transparency of market information and unclear policies, some important factors, such as key information, rare resources, land, and business licenses, were controlled by a small group of people. These “bourgeois individualisms” chase their own interests and badly affected the social atmosphere (Yang, 1994). At this time, people needed to try to build *guanxi* with these self-interested persons to get key resources. However, with the deepening of China’s economic development, the Chinese government has begun to pay more attention to laws and regulations, and rebuild a rational-legal system. Additionally, because more and more foreign investments are coming to China, market competition has become increasingly intense, which will weaken *guanxi*’s importance (Gu et al., 2008). So in this view, people use *guanxi* to get rare resources through a “back door” (corruption), and political protection to counter the risks of an unstable legal system will be diminished (Guthrie, 1998).

Apart from the uncertainty of the legal system, the inefficiency and ineffectiveness of business infrastructures and related institutions can be another main institutional reason causing *guanxi* culture formation in China (Gu et al., 2008). Chinese regulatory systems are criticized for their lack of efficiency and effectiveness because of underdeveloped infrastructure, length of negotiations, bureaucratic delays, and

institutional ambivalence (Yi & Ellis., 2000; Cai et al., 2010). People believe that through *guanxi* practices many unnecessary business processes are cut and lengthy reviews are dramatically shortened. Accordingly, the treatment of related business formalities is more efficient. Therefore, as long as the regular Chinese system remains ineffective and inefficient, *guanxi* will play an important role for subsequent effectiveness in business (Ambler et al., 1999).

1.3 GUANXI BASES

When we say that person A has *guanxi* with person B, it means that there's a type of link between person A and person B. This link can be a family tie, social tie, or other kinds of ties. This link between people is called a *guanxi base*. Although *guanxi* bases do not necessarily produce active *guanxi* connections that make things happen, *guanxi* bases are still regarded as a prerequisite of *guanxi* practice (Yang, 1994; Yi & Ellis, 2000).

There are a variety of *guanxi* base types. For example, a *guanxi* base generally can be divided into blood base and social base. The blood base is a familial tie, and a social base reflects a relationship gained through social activities. The nature of *guanxi* bases determines the quality of *guanxi* between persons. Some researchers classify *guanxi* into four categories, from the closest to the most distant: family and kinship, neighbors and native place ties, nonkin relationships of equivalent status, and nonkin superior-subordinate relations (Yang, 1994). Except for family and kinship, which is an inherent relationship, the three other sorts of bases can be categorized as sharing commonalities.

These kinds of *guanxi* are based on commonalities shared by two persons, such as classmates (have studied at the same school), fellow villagers (coming from the same place), coworkers (working at the same company), and so on. In this chapter, *guanxi* bases are divided into two categories: kinship *guanxi* bases and commonality *guanxi* bases.

1.3.1 Kinship *Guanxi* Bases

This type of *guanxi* base refers to relationships by birth or blood. It includes natal and nuclear families, extended families, consanguine relationships, and more distant sets of relatives. As discussed, because China is a family-oriented society, and Chinese people are deeply influenced by a kinship culture, family and kinship *guanxi* bases are ranked as the closest and most stable *guanxi* base. Within this family *guanxi* base, immediate family is the closest relationship, then comes the extended family, and the last is the distant family. Family ties are relatively permanent and stable. Family *guanxi* is a pure emotional tie, every family member is obliged to make a contribution to the whole family without asking for anything in return. And the resource distribution inside the family is based on need, which is fair but not necessarily equal (Hwang, 1987). For instance, rich family members with worse economic situation will get more financial support from the whole family.

1.3.2 Commonality *Guanxi* Bases

Yi & Ellis (2000) believe the establishment of *guanxi* begins with finding

commonalities. These commonalities can be birthplace, school, company, profession, and so on. Through these commonalities, people feel closeness and become tied together by through these common points. This kind of *guanxi* base is also called “relationship by nature” (Fan, 2002).

1.3.2.1 Neighbors

There’s an old Chinese saying that “close neighbors are better than distant relatives.” In daily life, close neighbors can have more interactions with people than with distant relatives, resulting in more emotional attachment compared to a distant relative whom they have hardly seen in years.

1.3.2.2 Same Hometown

Sharing the same hometown is a native place tie, which the Chinese value greatly. Because China is such a large country with different regional cultures, people feel close to others who come from the same hometown. When people go to a new place far away, they will join an association composed of people from the same place to feel protected. This phenomenon is very popular not only in China but also worldwide. For example, in France, people from *Whenzhou* (a city in the Zhejiang province) will associate together to do business and gain common benefits.

1.3.2.3 Same School

This *guanxi* base includes classmates, alumni, teachers and students, and so on.

Chinese people believe that the *guanxi* base of coming from the same school creates a valuable and long-term relationship. The *guanxi* established during campus life is emotional rather than utilitarian. There's no pecuniary interest in this relationship, and people feel less at risk than through *guanxi* established at the workplace (Yang, 1994).

1.3.2.4 Same Working Place

This *guanxi* base includes colleagues, masters and apprentices, superiors and subordinates, and so on. Compared to the same school *guanxi*, this kind of *guanxi* is more utilitarian. It is also less stable because of potential conflicts of interest in workplaces.

Certainly, in real life, *guanxi* bases are too varied to detail here. Even though a particular *guanxi* base could largely determine the quality of *guanxi* between individuals, no one *guanxi* base always maintains priority over the other bases. For example, we cannot say that classmate *guanxi* is better than colleague *guanxi*. The closeness of *guanxi* depends not only on the *guanxi* base but also another more important aspect: *guanxi* practice. Even though family *guanxi* has been regarded as the most stable and close *guanxi* base, it could also be weakened by distance and be less close than neighbor *guanxi*, for example. And the quality of the *guanxi* base will change as environments change. For example, neighbors' relationships were at a high level of *guanxi* base during the 1980s because most Chinese lived in dormitory style quarters with a kitchen and toilet shared with neighbors. At that time, Chinese people had more

interactions with neighbors. However, since the 1990s, Chinese people have moved to modern apartments instead of collective dormitories and live more separately, and neighbor *guanxi* is not as close as before.

1.4 *GUANXI* PRACTICES

Guanxi bases reflect the existing links between individuals, but they cannot guarantee producing an active *guanxi*. An active *guanxi* relationship means individual people can take advantage of a *guanxi* base to achieve his or her own goals. For example, when you ask a favor of your classmate, whom you haven't spoken to in ten years, he may refuse your request because of the lapse in time. However, an active *guanxi* may also be established between two individuals (person A and person B) with no existing *guanxi* base. In this case, they need a mediator or introducer (person C) to establish *guanxi* between them. Even though a *guanxi* base between person A and person B does not yet exist, both have a *guanxi* base with the mediator person C. Through their social network, a *guanxi* relationship can be established. In fact, in modern society, with the increase in social networks, establishing *guanxi* in this way is getting more and more popular. Unlike previous *guanxi*, which are based on existing *guanxi* links, this method reflects an acquired relationship (Fan, 2002). Because in the business world, acquired *guanxi* (*guanxi* established through social activities) is most popular, this article focuses on social-based *guanxi*. Simply, we need to use *guanxi* practice to find *guanxi* or to establish *guanxi* base, and these *guanxi* practices contain a set of activities that follow Chinese social norms. Generally, there are two phases to go from stranger to close

guanxi partners: *guanxi* initiation phase and *guanxi* cultivation and maintenance phase.

1.4.1 *Guanxi* Practice During the Initiation Phase

The *guanxi* initiation phase is a process during which an outsider becomes an insider of a particular *guanxi* circle. People with a *guanxi* base include groups of people sharing commonalities (kinship can also be regarded as a group of people sharing commonalities). Inside a *guanxi* group is a *guanxi* network, and these insiders are called in-group members or in-network members. Insiders of the *guanxi* circle are treated very differently from outsiders in that insiders are trusted more and receive more help. Therefore outsiders need to go through the group barrier and become insiders to obtain useful information and resources. The key point of *guanxi* initiation is to find the commonality (link point) and establish the *guanxi* base. In a collective society such as China, people feel emotional attachments with others who share common characteristics (Zhuang et al., 2010). Perceived similarity is proved to be an ancestor to *guanxi* establishment (Lee, Pae, & Wong, 2001). These similarities can be created by nature, but they can also be acquired by social activities such as knowing a person in common and dining at the same place, and so on.

1.4.2 *Guanxi* Practice in the Cultivation and Maintenance Phase

Just because a *guanxi* base or link has been created doesn't mean that an active *guanxi* has been established. People need to cultivate *guanxi* and maintain *guanxi* through *guanxi* practice. These practices are used to develop the quality of *guanxi*

between individuals through the exchange of gifts and favors. *Guanxi* practices are formalized as a series of social activities or social rituals such as gift-giving, exchanging of favors, banquets, and so on (Yang, 1994). The Chinese believe that through these *guanxi* interactive behaviors, their *guanxi* state will be improved (Zhuang, Xi, & Tsang, 2010).

1.5 GUANXI EXCHANGE MECHANISMS

Because *guanxi* is based on reciprocal obligations and exchange of favors, it can be explained by social exchange theory (Yang & Wang, 2011). With this perspective, there are two basic things that we need to figure out: (1) what exactly is being exchanged in this relationship and (2) under what rules?

1.5.1 Renqing (favor)

Guanxi is a process of exchanging favors, and this kind of favor is called *renqing* in Chinese (exchanging resource in *guanxi*). Unlike in western contexts, where favors refer only to tangible or specific things such as money, goods, or services, *renqing* can also include some abstracts such as opportunity, affection, and so on (Hwang, 1987). When someone does you a favor, you will own him or her *renqing*. And you need to pay this *renqing* at the appropriate time. *Renqing* is the exchange resource in *guanxi* relationships. Compared with other resources in social exchange, such as goods, information, lands, and so on, *renqing* is a resource of high particularism and middle concreteness (Hwang, 1987). *Renqing* is highly particular because it can be repaid only

by a particular person in particular way. Unlike other resources such as money, *renqing* can be transferred through people. And *renqing* can hardly be measured. Second, *renqing* is considered to be middle concrete because it can be repaid by tangible goods and also intangible affections.

Table 1.1 summarizes the differences between *renqing* resources and other common social exchange resources, such as money, service, goods, information, and so on.

Table 1.1: Difference between *renqing* resources and common social exchange resources

	Renqing resources	Common social exchange resource	Sources
Value	Unequal value	Equal value	Hwang, 1987
Measurement	Can't calculated objectively	Have a certain price	Hwang, 1987
Favor return circle	Long-term	Short- term	Wang, 2007
Process	Endless process	Clear start and end points	Hwang, 1987
Transferability	Nontransferable	Transferable	Hwang, 1987
Boundary	Mix business and personal favor	Business and social relationships are separated	Cao et al., 2014

Table 1.1 delineates the differences between *renqing* and other exchange resources in the following six aspects: value, measurement, favor return circle, process, transferability, and boundary. Common social exchange resources such as goods or information have certain prices. Although *renqing* contains emotional and beneficial elements, it can never be calculated objectively, so the *renqing* exchange is an unequal exchange. Subsequently, in common social exchange, when a partner returns the favor,

the exchange process is finished, and this reciprocal action will be returned in a short time. However, because *renqing* cannot be clearly measured, one cannot pay off all the *renqing* he or she owes, and so the *renqing* exchange is an endless process. In addition, Chinese culture is oriented long term (Hofstede, 2001). A *renqing* favor does not need to be repaid immediately; you can return the favor when the other partner needs it. Therefore, *renqing* is a long-term action. And, because *renqing* is a resource of high particularism, *renqing* exchange can take place only between particular people. Yet goods, money, and services are transformable resources. Last, unlike westerners, who separate business and private favors, Chinese people mix these two relationships and will do a business favor to repay a personal *renqing* (see Hwang, 1987; Wang, 2007).

1.5.2 *Renqing* rule

Guanxi is a mixed tie that contains emotional and utilitarian purposes. In terms of exchange, *guanxi* exchange respects *renqing* rules (Hwang, 1987), which are the social norms and behavior rules that *guanxi* partners need to follow during their reciprocal exchanges. Similar to trust and relationship commitments, which play very important roles in relationship marketing, *renqing* is the underlying mechanism of *guanxi* (Wang, 2007).

Renqing rules can be interpreted through two parts: reciprocity rules and empathy rules (Wang, 2007). Reciprocity rules refer to when *guanxi* partners are obliged to return favors as necessary. *Guanxi* is based on mutual benefits and interests. When you receive a favor from someone, you need to pay it back at a future time. Furthermore, in

a *guanxi* network, you need to help the insiders who are in trouble even if they don't ask for specific requests. If you refuse to return a favor, you will lose face (your social reputation), which could cause your *guanxi* relationship to end (Hwang, 1987). Unlike common social exchange, the favor exchanged in *guanxi* is not equal. According to the reciprocity rule, the favor returned always has higher value than what was received. The reciprocity rule indicates the obligation to return the favor; however, when to return this favor and in what way is another thing. The way to return favors should respect the empathy rule.

Empathy means the ability to see a situation from another person's perspective, which involves understanding, consideration, forgiveness, and *ganqing* (affectional attachment) toward others (Wang, 2007). In a *guanxi* relationship, there are usually two parts: a *renqing* allocator and a *renqing* petitioner. Because *renqing* return is a long-term situation and cannot be measured precisely, an empathic petitioner shouldn't ask for an immediately returned favor or equal-valued return favor. As for the allocator, being empathetic means figuring out the exactly need of petitioners and doing them favors at the appropriate time. China is a high-context country, and people prefer to express their desires obscurely. In this case, the *renqing* allocator needs to do corresponding favors according to a particular situation even without petitioners' directly asking. The empathy rule here is similar to "anticipatory communication" (Wang, 2007). If you fail to interpret a petitioner's need, or pretend to not understand, you will be criticized for not understanding *renqing*.

1.5.3 *Xinyong* (Trustworthy) and *Mianzi* (Face)

Xinyong can be translated as “trustworthy” or “credible” in English. If we say someone has *xinyong*, it means this person is trustworthy and reliable. Whether a person can fulfil his or her reciprocal obligation depends on his or her *xinyong* credit. Different from systems of trust in the west at the organizational level, *xinyong* is an interpersonal trust (Leung et al., 2005) and is not based on written contract but a person’s oral commitment. *Xinyong* is based on one’s past reputation of returning favors, which is highly related to one’s business ethical integrity (Hwang, 1987; Leung et al., 2005). People prefer to do a *renqing* exchange with one who has high *xinyong* credit, because he or she has shown the ability to respect *renqing* rules. One who does not have *xinyong* will lose his or her future opportunities to exchange favors.

People who violate the *renqing* rule in a *guanxi* exchange will not only lose *xinyong* but also lose *mianzi* (face). *Mianzi* refers to one’s reputation, social stature, and the power to influence others in *guanxi* relationships. The Chinese place a high value on their *mianzi*, hence “saving *mianzi* rather than losing it becomes a primary objective in Chinese society” (Hwang, 1987).

1.6 *GUANXI*’S MIAN CHARACTERISTICS

Previously we introduced three *guanxi*-related concepts: *guanxi* state, *guanxi* practice, and *guanxi* exchange. This part focuses on *guanxi*’s main characteristics in order to differentiate it from other confusing concepts, such as pure interpersonal relationships, relationship marketing, and so forth.

1.6.1 Utilitarian Aspect

As discussed, *guanxi* is based on mutual interests and benefits. Therefore, people establish *guanxi* for certain purposes. The *guanxi* process is full of reciprocal exchanges, and *guanxi* parties are bounded by obligation and indebtedness. Hence, the utilitarian aspect is a main characteristic of *guanxi* that differs from common interpersonal relationships.

There are at least three main differences between *guanxi* and a pure interpersonal relationship: first, the reciprocal process is not always equal. As an old Chinese says, “The favor of a drop of water has been rewarded with the gratitude of a fountain of water”: when we receive a favor, we should repay this favor with value added. This concept is deeply rooted in Chinese society and results in an intense norm of reciprocity. Second, *guanxi* practice needs to comply with some existing rituals, such as gift exchanging, wining and dining, and so on. Maintaining *guanxi* is more formal than the cultivation of common personal relationships. Third, *guanxi* relationships are not a purely emotional attachment. People need to use *guanxi* to achieve certain goals, such as obtaining key information, rare resources, special service, and so on (see Chen et al., 2011).

1.6.2 Emotional Aspect

Chinese people often use the word *ganqing* to indicate the emotional closeness of *guanxi* among parties in a network. *Ganqing* plays a very important role in *guanxi*

interactions. This emotional closeness can be used as a key indicator to describe the quality of *guanxi* between two people. The more affection between each other, the better *guanxi* they have. *Guanxi* is not a pure utilitarian relationship; it contains affective commitment and a caring attitude toward others. Sometimes, people rely more on its emotional value than its utilitarian value (Wang, 2007). Individuals' emotional attachments can be improved through social activities such as wining and dining. Through frequent social interaction between parties, affectional bonds between parties strengthen, improving their *guanxi*.

Guanxi has always been regarded in Western research as a Chinese version of relationship marketing (Davies et al., 1995). Unlike simple transactional relationships, *guanxi* has many things in common with relationship marketing: trust and mutual understanding, cooperative behavior, development of networks, long-term orientation, and so on (Wang, 2007). *Guanxi* is quite different from Western relationship marketing, however, because of its unique emotional aspect. First, *guanxi* is a personal relationship that contains an affectional element. Unlike Western networks, which are commercial, *guanxi* is also a social network. People in *guanxi* relationship exchanges not only provide beneficial favors but also affection (feelings, care attitudes, etc.). Relationship marketing is an impersonal relationship that becomes established more on a firm level and is built only for commercial purpose with no personal or emotional aspects. Relationship marketing is much more rational than *guanxi*. Second, relationship marketing is universalistic. This relationship is open to any other commercial partner. Any potential business partners can build this relationship if they are willing to sign the

contracts and respect them. But Chinese society is a low trust society (Fukuyama, 1995). Chinese people trust only people with whom they share *guanxi* or are inside their *guanxi* circle. The *guanxi* circle is a highly specific network. The Chinese treat insiders and outsiders totally differently in terms of trust. In *guanxi* relationships, people rely more on oral commitment than written contracts in relationship marketing efforts (see Wang, 2007).

1.7 GUANXI AND BUSINESS

The *guanxi* phenomenon is deeply rooted in Chinese daily life. It contains a set of social norms (*renqing* rule) that heavily influence Chinese social behaviors and interpersonal interactions, including business behaviors. Many foreign managers regard *guanxi* as a rule of doing business in China. Indeed, many researches have pointed out that *guanxi* has a big influence in every aspect of the business domain, including relationship marketing, supply chain management, market performance, market channeling, and so on. Business people can benefit from their social networks with either government officials or business partners. This part focuses on *guanxi* and people looking for business interests (include investment, business opportunities, rare resources, etc.) through their *guanxi* networks.

Before we discuss *guanxi*'s impact on business performance, one crucial question needs to be raised: because *guanxi* has been described as a relationship at the personal level, how does this personal relationship turn into a benefit at the organizational level?

In business circumstances, *guanxi* refers to the cross-organizational connections

between each company's representatives. These persons are also called *channel-boundary personnel*, representing their company directly and communicating frequently with the other company's representatives (Park & Luo, 2001; Zhuang et al., 2010). *Guanxi* in business situations is also a reciprocal relationship based on mutual benefits, so when channel-boundary person A of company A does a personal favor for person B, who is a representative of company B, person B could return this favor by showing favoritism during a business exchange between company A and company B. This is how a corporate exchange can be personalized. In western cultures, people always make a clear distinction between business interests and private interests. However, this "business is business" behavior culture cannot be applied in Chinese firms. In a *guanxi* culture-dominated company, business exchange also involves *renqing* exchange (benefits and emotion). A personal obligation can be paid by business actions, which in turn increases corporate benefits. And as discussed, unlike trust and commitment, which are the cornerstone of relationship management, Chinese people rely more on a personal trust -- *xinren* -- than contract trust or system trust on the organizational level. Personal reliability is always more important than confidence in corporations. So in China, people build personal *guanxi* first, then business relationships can be developed based on this good personal *guanxi*. However, in western cultures, personal relationships are always built after successful business cooperation.

Even though *guanxi* is in force, personal relationships do play an important role at the firm level; *guanxi* remains a personal asset and can hardly be transformed to an

organizational property. *Guanxi*, which is a personal network, can be transferred only interpersonally, not from a person to an organization (Fan, 2002). When an employee leaves his or her company, his or her *guanxi* asset will be separated from the company at the same time. So, organizational *guanxi* is actually based on personal *guanxi* among cross-organizational boundaries staff (e.g., company representatives).

1.7.1 Business With Government *Guanxi*

Previous *guanxi* research (before 2000) focused on *guanxi*'s function in terms of government officials. Because the Chinese legal system is undeveloped and the business infrastructure is far from efficient, small and private companies need to rely on *guanxi* to get protection. In such a situation, *guanxi* functions as a substitute for formal institutional support (Xin & Pearce, 1996). Companies can get benefits from government *guanxi* in the following three ways:

1.7.1.1 Resource acquirement

The original Chinese economic system was based on a central planning economy, and still today the Chinese market is not totally opened. State-owned companies still contribute a large part to Chinese industrial output (50% in 1998 and 25% in 2011). Many rare resources, such as land, raw material, and special licenses, are strictly controlled by the central government and local governments. And these resources are usually not open to the public. Only people who have government *guanxi* (insiders of this *guanxi* circle) can access procurement of these rare resources (Davies et al., 1995).

1.7.1.2 Information Access

Because of underdeveloped business infrastructures, the information about government policy, regulation, and market trend is not publicly transparent. Much information is kept confidential, and only insiders have the access to it. Establishing *guanxi* with government officials is an important way to access key information and avoid environmental uncertainty (Davies et al., 1995).

1.7.1.3 Get Protection

In the background of weakened institutional forces and an unstable investment environment in China in before the 1990s, a close relationship with important government officials could get protection from unstable conditions and ward against appropriation or extortion (Xin & Pearce, 1996).

1.7.1.4 Antibureaucracy

The Chinese government has been criticized as bureaucratic and lacking efficiency. However, if you have *guanxi* with some officials, you can break this bureaucratic barrier and get a quick response for relevant formalities. *Guanxi* can help you save time and chase quick-moving business opportunities.

Early literature emphasized the *guanxi* between business people and government officials. This kind of *guanxi* has been regarded as a magic weapon enabling entrance

into the Chinese market and also provides a company strategic advantage. Such a view was formed during a time of imperfect legal systems and weakened institutional forces. Additionally, business-government *guanxi* was always involved in corruption. Because *guanxi* practice is a process of reciprocal exchange, if you want to get rare resources, rare information, special treatment, or protection, you needed to pay back monetary favors to key government officials. It's a money-power exchange trade, which causes unfair competition and has a negative impact on the whole market. However, as the economy has developed, the Chinese government has paid more and more attentions to laws and regulations in order to build a rational-legal system. In addition, the Chinese market is becoming more competitive with deeper marketization, so the government is decreasing its interference in the market. For these reasons, government *guanxi* is losing its importance for business development.

1.7.2 Business *Guanxi*

Guanxi has been proved to have a positive influence on business results in terms of financial performance including sales growth, sales trends, cost savings, market expansion, market share increasing, supply chain performance including supplier development, strategic purchasing, outsourcing, bullwhip effect reduction, and increasing company reputations. But how does *guanxi* influence business performance? The following points describe *guanxi*'s direct and indirect influences on business performance.

1.7.2.1 Direct Influence

This part presents the business behaviors that can be affected directly by *guanxi* behaviors and discusses how *guanxi* works.

1.7.2.1.1 Trust

Trust plays an important role in western relationship marketing. Similarly, *guanxi* is highly related to trust. As described previously, *guanxi* exchange is based on reciprocally obligated social norms, and people need to respect these norms in order to keep *xinyong* and avoid losing face. Therefore, *guanxi* can improve interpersonal trust (Lee et al., 2001; Leung et al., 2005). Trust can effectively avoid business interruptions caused by opportunistic behaviors.

1.7.2.1.2 Information Sharing

Guanxi reflects emotional feeling toward others. This emotional closeness promotes better interaction among business partners. Together with trust, good interaction encourages business partners to have open communication and to promote information-sharing behaviors. In addition, under *renqing* rules, good *guanxi* will lead to more reciprocal information exchange (Cai et al., 2010), including business opportunities and market trends, helping business performance (Cao et al., 2014; Yi & Ellis, 2000).

1.7.2.1.3 Resource Acquisition

The cooperative firms in *guanxi* networks have the possibility of accessing partners' resources to achieve resource complementarity. Reciprocal behaviors will take place in resources exchanges. And through *guanxi* links, distant people also can have the chance to have cooperative resources exchanges (Park & Luo, 2001).

1.7.2.1.4 Cost Savings

Cost savings related to *guanxi* practice can be produced in three ways: lower transaction costs, lower information research costs, and lower resource research costs. First, interpersonal trust in *guanxi* relationships produces reliability that can eliminate unnecessary administrative process to facilitate future transactions. Simplified transaction processes save transaction time and cost. Second, *guanxi* promotes cooperative behaviors, and lower transaction costs can be achieved by synergic practices between business partners. However, because of more frequent information exchange produced by *guanxi* practices, information research cost decreases. Third, because *guanxi* networks permit access to partner resources, resource research costs also will be reduced by resource sharing.

1.7.2.1.5 Satisfaction

Because *guanxi* contains reciprocal exchanges for in-circle members, exchange partners can obtain increasing satisfaction through these mutual benefits. This satisfaction is gained by acquiring necessary information and resources from a partner's

company. In addition, the nature of *guanxi* is a close relationship that increases satisfaction involuntarily (Leung et al., 2005).

1.7.2.1.6 Interdependence

Once a partner invests in a *guanxi* relationship, the other partner has to pay back and invest more into this relationship. Otherwise, he or she will lose face because of violating the *renqing* rule. As the investment in special assets increase, business partners become more dependent on each other.

1.7.2.1.7 Negotiation

Better interaction in *guanxi* relationships can promote better negotiation. Moreover, the affection attachment, good interactions, and interlocking mutual obligations between *guanxi* partners results in less conflict and coercive power use (including reward, referent, expert, etc.) when facing disagreements. *Guanxi* relationships are useful to reduce and resolve conflicts (Chen et al., 2011).

1.7.2.1.8 Flexibility

A close *guanxi* relationship among business partners can achieve a better negotiation and control benefits with a set of reciprocal obligations that one partner can use to influence other's decision behaviors. This control behavior can help companies to anticipate future exchanges and to make real-time exchanges, increasing company's flexibility when facing uncertain environments (Gu et al., 2008).

1.7.2.1.9 Cooperation

Based on the *renqing* rule, reciprocal obligations are based on mutual interest by both partners. Furthermore, trust and emotion mechanisms in *guanxi* increase the willingness to cooperate. Together with *guanxi*'s influence on using noncoercive power and on avoiding conflicts, *guanxi* contributes a lot to firms' cooperating (Zhuang et al., 2010).

1.7.2.1.10. Coordination

Coordination refers to the synchronization of business activities among partners. It's believed that the trust and emotional ties built in *guanxi* can increase the frequency of information exchange, which in turn increases the coordination between *guanxi* partners.

1.7.2.2 Indirect Influence

Regarding key indicators of business performance (such as financial performance and marketing performance), *guanxi*'s influences are not direct but occur through mediators who have been introduced previously.

1.7.2.2.1 Long-Term Orientation

Compared with other countries, Chinese society puts a great value on a long-term orientation (Hofstede & Hofstede, 2001). Satisfaction, mutual trust, and

interdependence help to promote companies' future collaboration in the long term.

1.7.2.2.2 Financial Performance

Financial performance is one of the most important indicators of business performance. Financial performance includes sales growth, net profits growth, cost savings, and so forth. Cost decreases can be achieved by transaction cost savings, information research savings, and resource research savings. Long-term orientations can increase relationship quality and, together with controlled behaviors in *guanxi* relationships, have a positive effect on financial performance (Lee et al., 2001). In addition, through *guanxi* networks, more business opportunities for financial resources will open for exchange partners. And through the access of key information about market trends and the cooperative behaviors with business partners, companies will find out about real-time market changes and be able to quickly respond. That will in turn augment a company's financial performance, especially sales growth (Gu et al., 2008).

1.7.2.2.3 Market Performance

Similar to financial performance, market performance is also a key indicator that reflects business performance. Market performance can be shown by the increase of market share. *Guanxi* has been proved to have a positive impact on market channels (Zhuang et al., 2010) and develops a firm's channel effectiveness and responsive capability. In this way, a firm's market share will increase. Besides, cooperative and coordinated behaviors in *guanxi* networks can not only improve financial performance

but also increase market share by sharing market information and benefits control (Gu et al., 2008).

1.7.2.2.4 Supply Chain Performance

Supply chain performance can be improved through *guanxi* practices in terms of supplier development, strategic purchasing, and outsourcing (Lee & Humphreys, 2007). Supplier development is achieved through regularly exchanged favors between *guanxi* partners. Long-term orientations, open communication, and a cooperative culture in *guanxi* lead the development of strategic purchasing. And trust fostered in *guanxi* encourages companies to outsource to their business partners. Additionally, because of close relationships and frequent information sharing, the bullwhip effect will decrease and supply chain performance will be improved (Cao et al., 2014).

Table 1.2 shows *guanxi*'s influence on business performance based on the previous explanations.

Table 1.2 *Guanxi*'s influence on business performance

<i>Guanxi</i>'s key elements	Mediate influence on business performance	Final influence on business performance	
Reciprocal obligation	Trust	Long-term orientation Financial performance Market performance Supply chain performance	
	Information exchange		
	Resource exchange		
	Cost saving		
	Satisfaction		
	Interdependence		
	Cooperation		
Emotional closeness	Trust	Long-term orientation Financial performance Market performance Supply chain performance	
	Information exchange		
	Satisfaction		
	Cooperation		
	Coordination		
Interaction	Information exchange		Long-term orientation Financial performance Market performance Supply chain performance
	Satisfaction		
	Negotiation		
	Flexibility		

1.8 CONCLUSION

Guanxi (Chinese interpersonal relationship) culture plays a very important role in Chinese society. Firstly, as a product of Confucius Culture, *guanxi* is deeply rooted in Chinese daily life. Secondly, due to the inefficiency and ineffectiveness of Chinese business infrastructures and related institutions, Chinese people rely more on personal *guanxi* for commercial protection and risk avoidance.

Guanxi originated in clanship. It referred to family relationship and developed into social relations latterly. *Guanxi* is established on *guanxi* base (such as kinship, neighbors, co-workers, classmates, etc.). However, only *guanxi* can not necessarily produce active *guanxi* (i.e. using *guanxi* to have things done). People need to cultivate

and maintain *guanxi* through a set of social activities like dining and winning.

The process of maintaining *guanxi* is called *guanxi* practice, in which people exchange *renqing* favor. As a specific *guanxi* exchange resource, *renqing* includes not only tangible things like valuable goods and money, but intangible affections and opportunities as well. *Guanxi* exchange respects a set of social norms which is called *renqing* rule. *Renqing* rule focus on reciprocity, which means *guanxi* partners are obliged to return favors as necessary. If one part failed to do so, he or she will lose *xinyong* (personal credit) and *mianzi* (face, social statue and reputation).

Guanxi contains both utilitarian aspect and emotional aspect. On one hand, unlike pure personal relationship, *guanxi* is based on mutual interests. Hence, people establish *guanxi* is for certain beneficial purposes. On the other hand, *guanxi* contains affective commitment and caring attitude toward others. Emotional closeness can be used as a key indicator to describe the quality of *guanxi*. *Guanxi*'s emotional aspect differs it from western relationship marketing.

As the development of Chinese economy, it's more and more common that people seek business interests (include investment, business opportunities, rare resources, etc.) by using *guanxi* network. In business circumstance, *guanxi* refers to the cross-organizational connections between each company's representatives. It's believed that a personal obligation can be paid by business actions, which in turn increase corporate benefits. In other words, closer *guanxi* (frequent *guanxi* interactions and *renqing* exchanges) between two companies' channel boundary persons could lead more collaborative behaviors between companies. And these collaborative behaviors (include

mutual trust, information sharing, resource acquirement, cost saving, negotiation, etc.) could turn ultimately into a better business performance in terms of finance, marketing, and supply chain as well. So for western people who what to invest in China, or doing business with Chinese partners, *guanxi* practice with key personnel is an inevitable process.

Chapter II : Measuring *Guanxi* in Sino-Franco Buyer-Supplier Relationships

Measuring *Guanxi* in Sino-Franco Buyer-Supplier Relationships

Abstract

Guanxi is regarded as a very important cultural factor when doing business with Chinese companies. However, previous scales developed to measure *guanxi* are unsuitable for empirical studies of Chinese overseas enterprises. With the rapid growth of Chinese investment in France, a suitable scale to empirically measure Sino-Franco supplier-buyer *guanxi* is needed. This study uses data from qualitative interviews and a quantitative survey to develop and validate a *guanxi* measurement scale for the relationship between French suppliers and Chinese buyers. Based on the results of exploratory factor analysis and confirmatory factor analysis, two dimensions of the final *guanxi* measurement are identified: Affection and Business Ethics. Our *guanxi* scale are not only helpful for future empirical studies of *guanxi* in France but also useful for French suppliers in evaluating their *guanxi* with Chinese buyers.

Keywords: *Guanxi*, Measurement scale, Sino-Franco relationship, Buyer-supplier Relationship, Affection, Business ethics.

2.1 INTRODUCTION

Through the combination of rapid economic development in China and the Chinese government's "go out policy" (encouraging local enterprises to invest abroad), an increasing number of Chinese firms are starting to invest in foreign countries. Their principal aims are to developing sales in overseas markets and acquire new assets, including technology, innovation capabilities, and international managerial skills. Chinese FDI has increased sharply in the recent years, with an average growth rate of 16.85% from 2009 to 2014 (National Bureau of Statistics of China). It reached USD 128 billion in 2015, behind only less the U.S. and Japan (World Investment Report 2016, UNCTAD). According to the latest data of the National Bureau of Statistics of China, Chinese FDI in France was USD 0.4 billion in 2014, accounting for 3.74% of total FDI in Europe. Although this sum is modest, its average growth rate has been 55.1% over the last five years (2009-2014), which is very impressive.

On the other hand, due to globalization, unpredictable business environments, and demand uncertainty, SCM is becoming increasingly complicated. Many companies are changing their approach to do business by embracing collaboration to increase their competitiveness. To have a well-integrated SCC, the buyer-supplier relationship should be established and maintained with caution.

As Chinese enterprises increasingly invest in France, many problems concerning supply chain relationship are arising. One of the biggest challenges is the cultural differences between Chinese buyers and French suppliers, particularly in terms of three dimensions: uncertainty avoidance, individualism, and long-term orientation (Hofstede,

2001). Cultural differences heavily influence both approaches to business and communication. Chinese people pay close attention to interpersonal relationships, on which they rely to solve daily or commercial problems. This is termed *guanxi* culture. In general terms, *guanxi* translates as “a personal relationship” or “social network.” As a product of Confucian culture, *guanxi* plays a very important role in Chinese social life. It has, therefore, attracted much attention from Western scholars since the 1980s, with more than 150 papers focusing on *guanxi* published in the past 20 years. These papers have explored different aspects of *guanxi* and its influences on business performance.

Though the importance of *guanxi* is evidently well known, very few studies have provided a comprehensive and reliable *guanxi* measurement scale due to the complexity of this concept. Furthermore, due to cultural differences between France and other countries, existing *guanxi* measurements (e.g., for Sino-Anglo *guanxi*) may not be suitable for Sino-Franco relationships. This research, therefore, aims to develop and validate a suitable *guanxi* measurement scale for the relationship between Chinese buyers and French suppliers, based on the findings of an empirical investigation. Our research has two main contributions. First, it provides an empirically valid *guanxi* measurement scale applicable to Sino-Franco BSRs. Second, it elucidates the structure of the *guanxi* construct when applied specifically to Sino-Franco relationships.

The remainder of this research is organized as follows. First, the concept of *guanxi* is outlined, including its definition, importance, and different facets. Second, the methods for developing and validating the new scale will be presented, including

in-depth interviews, survey data collection, exploratory factor analysis (EFA) and confirmatory factor analysis (CFA). Based on the EFA and CFA findings, the attributes of *guanxi* and the final measurement model will be discussed in the third part. In the final part, the academic contribution, managerial implications, and the limitations of this research will be discussed.

2.2 CONCEPTUAL BACKGROUND OF *GUANXI*

Chinese culture is deeply influenced by Confucianism, which emphasizes interpersonal relationships, especially clanship. The Chinese term *guanxi* has ruled social behaviors between people for thousands of years, as a product of Confucian culture. However, the concept of *guanxi* has significantly evolved over time.

For the majority of its recorded history, *guanxi* has been identified only as a sociological concept. However, in the 1980s, modern *guanxi* was recognized as a business culture concept in Western management publications. As a special Chinese cultural factor, *guanxi* plays a very important role, not only in social life but also in economic systems. With a growing number of Western companies investing in China, *guanxi* is receiving increasing attention from Western businesspeople seeking success in the Chinese market.

In early studies by Western scholars (pre-1990), “*guanxi*” was defined as a particular tie in order to distinguish it from common personal relationships (Alston, 1989). Subsequently, as research into the concept became more in-depth, *guanxi* came to be defined more specifically as social connections based on mutual benefits through

reciprocal exchange. Thus, *guanxi* concerns not only commercial behavior but also social action that links the exchange partners through mutual obligations (Yang, 1994). *Guanxi* has been described as a utilitarian relationship for the purpose of reciprocal exchange, which only works at the individual level (Davies et al., 1995). However, recent studies have demonstrated that *guanxi* can also function at the organizational level, through boundary spanning personnel like company representatives (Gu et al., 2008; Cai et al., 2010; Zhuang et al., 2010). From a business perspective, the relationship is not merely a cultural factor but also an institutional force and governance structure. At the firm level, *guanxi* can be viewed as social capital to gain organizational advantages in terms of financial performance, marketing channels, and SCP (Gu et al., 2008; Cao et al., 2014).

Because of the importance of *guanxi*, it's very necessary to have a good understanding of *guanxi*'s characteristics. *Guanxi* is a mixed tie between pure expressive tie and instrumental tie (Hwang, 1987). It has been regarded, in many studies, as containing both emotional attachment and utilitarian benefits (Chen & Peng, 2008; Zhuang et al., 2010; Yang & Wang, 2011). To explore the nature of *guanxi*, its two main facets are introduced in the remainder of this section: the emotional aspect and the utilitarian aspect.

2.2.1 Emotional Aspect

The affection among network parties plays a very important role in *guanxi* interactions. The quality of *guanxi* between two persons could be indicated by the

emotional closeness between them. It is believed that greater mutual affection results in better *guanxi*. Although people mostly establish *guanxi* for utilitarian purposes, *guanxi* practice undeniably involves affective commitment and a caring attitude toward others. In some cases, people expect more affectional returns from a *guanxi* relationship, rather than purely instrumental benefits (Wang, 2007).

Seeking to better understand *guanxi*, some Western scholars have described it as a Chinese version of relationship marketing (Davies et al., 1995). Although *guanxi* shares many similarities with Western relationship marketing, like mutual understanding, cooperative behavior, and long-term orientation, their constructs differ in terms of the nature of the relationship (Wang, 2007). Compared with impersonal and commercial Western social networks, *guanxi* involves more personal emotions when dealing with network partners. Favors exchanged in a *guanxi* relationship include not only monetary goods but also emotional commitment and a caring attitude. In many cases, *guanxi* partners value affections exchanged in the network more highly than the utilitarian return (Wang, 2007). In other words, decision making in a *guanxi* network is not entirely rational – as it is in relationship marketing – since it also depends on personal emotion. Since *guanxi* is partly affection-oriented, its emotional aspect should be considered when discussing *guanxi*.

2.2.2 Utilitarian Aspect

As mentioned earlier, *guanxi* is defined as a utilitarian relationship for reciprocal exchange and favors, based on Chinese social norms (Davies et al., 1995; Park & Luo,

2001; Gu et al., 2008; Chen et al., 2011). Therefore, people establish *guanxi* for the purposes of mutual interests and benefits. Unlike common interpersonal relationships, the formation of *guanxi* always entails certain purposes. For utilitarian purposes, *guanxi* maintenance is based on endless reciprocal exchanges.

Guanxi exchange could be explained by social exchange theory, since it based on reciprocal obligations and exchange of favors (Yang & Wang, 2011). Unlike in Western rational exchange, resource exchanged in a *guanxi* relationship are not confined to tangible or specific things, such as money, goods, or services; they can also include opportunities, affection, and other abstract items (Hwang, 1987). It is expected for a person to return a favor at the appropriate time, premised on the reciprocity rule of *guanxi*.

In Chinese society, people place such high value on personal credit that they will only do business those they consider sufficiently trustworthy. *Guanxi* is based on reciprocity, and whether a person is considered likely to fulfill their reciprocal obligations depends on their personal credit. An individual's personal credit depends on their historical reputation for promise-keeping and favor-returning, which are regarded as one's business ethics in Chinese society (Hwang, 1987; Leung et al., 2005). It is preferable to exchange favors with a person known to have high personal credit, as this indicates their inclination to respect reciprocity rules. An individual who lacks personal credit faces difficulties finding opportunities to exchange favors. Violation of the reciprocity rule in a *guanxi* exchange result in the loss of both personal credit and face. In Chinese culture, personal "face" relates to one's self-esteem, reputation, and

social stature. In this society, people's primary objective is to protect their face (Hwang, 1987). Since Chinese people value personal reputation and credit so highly, they are careful to respect the obligation of reciprocal returns.

2.3 GUANXI MEASUREMENT

In previous empirical studies, *guanxi* has been measured in three different ways: in terms of its related behaviors, functions, and characteristics. In the first case, the quality of *guanxi* among two persons depends on the existence of trust, goal sharing, information sharing, disagreement resolution, control, and other *guanxi*-related behaviors (Abramson & Ai, 1997; Cao et al., 2014). In the second case, the quality of *guanxi* depends on whether their relationship produces good outcomes, which may include obtaining information, government approval, rare resources, and financing (Gu et al., 2008). In the third case, *guanxi* is measured by a multi-dimensional construct, assessing face, affection, reciprocity, harmony, etc. (Lee et al., 2001; Leung et al., 2005). Although each of these scales can measure *guanxi* to some extent, they are mostly based on conceptual models or general investigations. Therefore, a valid *guanxi* measurement based on empirical investigation is needed.

Only a few studies have developed a valid, empirically based *guanxi* scale. Chen and Peng (2008) measured co-worker *guanxi* in terms of its instrumental and expressive components. Subsequently, Chen et al. (2009) created a three-dimensional model to measure supervisor-subordinate *guanxi* in terms of affective attachment, personal-life inclusion, and deference to supervisor. Both models measure *guanxi* at the micro level

(individual level), and so do not provide solutions for the challenges of measuring macro-level (organizational-level) *guanxi* (Chen et al., 2013). Although Yen et al. (2011) contributed to measuring business *guanxi*, their research focuses on Sino-Anglo *guanxi*. French culture differs from that in Anglo Saxon countries such as the U.S., Canada, the U.K., Ireland, Australia, and New Zealand (Hofstede, 2001). In addition, in a business network, companies of different cultural backgrounds are likely to influence one another (Hakansson and Ford, 2002). Regarding Chinese companies in France, their way of practicing *guanxi* could, therefore, be influenced by their French suppliers. For these reasons, the Sino-Anglo *guanxi* scale is not considered suitable for research on the French market. Therefore, creating an appropriate measurement scale of Sino-Franco buyer-supplier *guanxi* would be helpful for future studies.

2.4 METHODOLOGY

To create a valid Sino-Franco *guanxi* measurement scale, we conducted empirical research in the French market. First, we designed an original questionnaire based on previous literature and in-depth interviews. Second, we distributed the preliminary questionnaire in France. Third, we performed EFA to identify *guanxi*'s attributes. Finally, we used CFA to validate our *guanxi* measurement scale and create the final model.

2.4.1 Questionnaire Creation

To create the preliminary questionnaire, we followed the three-stage item

screening procedures of Farth et al. (1998). In the first stage, we collected 193 items of *guanxi* measurement from 28 relevant articles. Among these items, some have approximately the same meaning. For example, “we exchange gifts” (Chen et al., 2011) is almost the same as “we exchange special gifts in each holiday season to show gratitude to each other” (Chen et al., 2011). Moreover, some items’ implications were overlapping. For example, the item “I encourage others to owe a favor” (Lee et al., 2001) falls within the broader scope of “we do personal favors for each other” (Chen et al., 2011). After discussion with other researchers, these items were deleted, leaving 58 items.

In the second stage, we categorized these 58 items into five groups: *guanxi*’s importance, *guanxi*’s function, personal emotion, reciprocity, and social interactions. In the group “*guanxi*’s importance,” *guanxi* is measured by testing whether there is consensus between the two business partners on *guanxi*’s importance, and whether they have realized the necessity of cultivating *guanxi* between them (e.g., “in our company, we believe relationship/*guanxi* is very important in doing business” (Lee & Humphreys, 2007)). Although both sides’ understanding of *guanxi*’s importance helps to cultivate *guanxi* in the future, the quality of *guanxi* cannot be measured on this basis. For example, a sales manager may have a strong desire to establish good *guanxi* with a purchasing director in the buyer’s company, but if he does not put it into practice, the quality of their *guanxi* will be poor. Similarly, the group “*guanxi*’s function” is unsuitable for measuring *guanxi*. These items seek to measure *guanxi* by examining its outcomes, such as sharing information, accessing key resources, and improving

financial performance (e.g., “our senior management is able to obtain valuable and important information” (Lee et al., 2001)). Although people establish *guanxi* to pursue these outcomes, *guanxi* quality cannot be accurately measured by its results (Chen et al., 2009; Chen et al., 2013). For these reasons, we decided to drop all items in the “*guanxi*’s importance” and the “*guanxi*’s function” groups, keeping only those items in the “personal emotion,” “reciprocity,” and “social interaction” groups to measure *guanxi* in this study.

Regarding “personal emotion,” *guanxi* is a personalized relationship that includes emotional attachment, thus distinguishing it from Western relationship marketing (Wang, 2007; Gu et al., 2008). Emotional closeness is a key indicator of *guanxi* quality (Yen et al., 2011). As regards “reciprocity,” *guanxi* combines both personal affection and utilitarian purposes (Hwang, 1987). Some scholars have argued that *guanxi* is more utilitarian than emotional (Wang, 2007). From a utilitarian perspective, *guanxi* operates as reciprocal exchange for mutual benefits. It is, therefore, necessary to measure *guanxi* from a reciprocal perspective. Regarding “social interaction,” it is important to note that *guanxi* is not a stationary state but, rather, a dynamic process (Fan, 2002). To maintain and increase the quality of *guanxi*, individuals in the relationship need to engage in a series of social activities (exchanging gifts, wining and dining, etc.) in line with Chinese social norms (Yang, 1994). Chinese believe that through these interactive behaviors, their *guanxi* state will be improved (Zhuang et al., 2010). We consider all three of these factors suitable to test the quality of *guanxi* between business partners.

In the third stage, we picked between three and six items most frequently

mentioned and most representative in each group. We combined these 13 items (four for personal emotion, six for reciprocity, and three for social interaction) to form our preliminary questionnaire.

However, these items come from studies mostly conducted in China. Since this study's objective is to create a *guanxi* scale for the French market, some adjustments are needed to adapt these items for Sino-Franco relationships. To develop an appropriate *guanxi* measurement scale, five in-depth interviews were conducted in France. Three of the five interviewees are Chinese managers who work in Chinese companies in France; the other two are Chinese expert researchers in the field of Sino-Franco cross-cultural management. These interviewees exhibited good understanding of both the concept of *guanxi* and the context of Chinese companies in France. During each one-hour interview, respondents were asked to explain their understanding of these three facets of *guanxi*, and to provide their opinions on the 13 provisional items with respect to Sino-Franco relationships. In the "personal emotion" group, several related concepts were mentioned frequently in the interviews, such as affectional attachment, friendship, brotherhood, caring attitude, and in-group member. In the "reciprocity" group, respondents indicated that the reciprocal obligation of mutual benefits, opportunism avoidance, and a reliable and harmonious relationship could reflect this concept. Finally, in the "social interaction" group, interviewees pointed out that this concept refers to not only some social rituals, like gift-giving and banquets, but also efficient and effective communication.

After discussions with these interviews, the original questionnaire was slightly

adjusted. An item testing business partners' "*guanxi* base" was removed following the interviewees' suggestions. *Guanxi* base refers to the links between people, like family members, co-workers, classmates, and acquaintances. Since *guanxi* base is regarded as a prerequisite of good *guanxi* (Yang, 1994; Yi & Ellis, 2000), many studies use this item as a key criterion to measure *guanxi* (Chen et al., 2011). However, the interviewees argued that this item would not work in our research because our targets are Chinese in France, and so are unlikely to have a *guanxi* base with their French suppliers. Even in the Chinese market, a pre-existing *guanxi* base between partners has very little relevance in their professional working relationship (Bu & Roy, 2008; Farh et al., 1998). We, therefore, concluded it would be useless to test the *guanxi* base of Sino-Franco BSRs, and so removed this item, leaving 12 items in our preliminary *guanxi* measurement. Table 2.1 summarizes the processes of creating and selecting the items.

Table 2.1 Questionnaire creating process

Stage	Number of remaining items
1. Item generation.	193
1. Deleting repeat and overlap items.	58
2. Categorizing and removing inappropriate groups.	41
3. Picking most representative items in each group.	13
4. In-depth interviews.	12

We used five-point Likert scales to measure these three dimensions (personal emotion, reciprocity, social interaction). Respondents were asked to indicate their agreement from 1 (totally disagree) to 5 (totally agree) for each statement shown in Table 2.2, according to their actual situation.

Table 2.2 Preliminary *guanxi* measurement scale

Personal Emotion	
Items	References
1. I take my business partner as my good friend.	Wang, 2007; Yang & Wang, 2011
2. Our interactions focus not only our business, but also our personal life.	Hwang, 1987
3. I take my business partner as one of ‘in-group’ members, and I would like to share ‘in-group’ information with him/her.	Wang, 2007
Reciprocity	
Items	References
4. It’s necessary to do a favor to my business partner a favor when he/she needs.	Hwang, 1987
5. If I’ve received a favor from my business partner, I have to return this favor back in an appropriate occasion.	Yang, 1994; Hwang, 1987; Chen et al., 2011
6. In this business relationship, we care not only each’s own interests, but also the other’s.	Hwang, 1987
7. My business partner is trustworthy; he/she can always fulfil his/her obligations.	Leung et al., 2005; Wang, 2007
8. My business partner is reliable and integrity, our cooperation will not be broken out because of opportunism.	Leung et al., 2005
9. Our relationship is harmony.	Hwang, 1987
Social interaction	
Items	References
10. I often interact with my business partner on social activities such as gift exchanging, ding, and winning, etc.	Yang, 1994
11. I communicate timely and frequently with my business partner.	Gu et al., 2008
12. I talk with very open with my business partner.	Gu et al., 2008

After creating this preliminary questionnaire, a pilot study was conducted. We distributed the questionnaire to six purchasing managers of Chinese companies in France. After completing the questionnaire, they provided feedback in terms of content validity, the consistency between each concept and its items, and the degree of difficulty in answering the questionnaire. Based on their positive feedback, we remained this preliminary questionnaire and conducted the survey.

2.4.2 Data Collection

To validate this preliminary *guanxi* scale, we conducted a survey in the French market. Given the objective of creating a Sino-Franco buyer-supplier *guanxi* scale, our sampling targets Chinese enterprises in France and Chinese working in French companies in France. To avoid invalid responses, only people who interact with French suppliers (boundary spanning personnel) were invited to complete the questionnaire. Before conducting the survey, we hired a professional translator to translate and back-translate the preliminary *guanxi* scales from Chinese to English and vice-versa to ensure the consistency of these two versions. The questionnaires were distributed to 186 Chinese firms in France and to 398 Chinese working in France. Of the 584 questionnaires distributed in total, 101 usable responses were returned. Table 2.3 shows the demographic profile of the sample.

Table 2.3 Demographic profile (N=101)

Variable	Category	N	%
Nationality	Chinese	79	78.22
	French	22	21.78
	Other	0	0
Title of respondent	High level	31	30.69
	Middle level	24	23.76
	Low level	39	38.61
	n/a	7	6.93
Main business area	Manufacturing	39	38.61
	Trading	35	34.65
	Other	26	25.74
	n/a	1	0.99
Length of relationship	< 2 years	33	32.67
	2 ~ 5 years	31	30.69
	6 ~ 10 years	8	7.92
	> 10 years	24	23.76
	n/a	5	4.95

As Table 2.3 shows, most of these 101 respondents are Chinese (78.22%). Regarding their job title, nearly one third (30.69%) of respondents are in high-level roles, including CEO, managing director, deputy general manager, etc., while 23.67% are department managers. In terms of business area, 38.61% work in manufacturing companies, such as wine production, daily necessities manufacturing, and food processing. Meanwhile, 34.65% work in trading companies, such as wine exporters. More than half of the respondents have no more than five years' relationship with their suppliers (32.67% have less than two years, and 30.69% have two to five years).

2.4.3 Exploratory Factor Analysis

EFA was employed to find the structure of the *guanxi* construct. The first EFA was

run with all 12 items of the preliminary scale. After this first run, items 2, 4, and 7 were deleted due to cross loading. We then ran a second EFA with the remaining nine items.

The results are shown in Table 2.4.

Table 2.4 Exploratory factor analysis

Items	Affection	Business Ethics
1. I take my business partner as my good friend.	.551	.362
3. I take my business partner as one of 'in-group' members, and I would like to share 'in-group' information with him/her.	.815	-.011
5. If I've received a favor from my business partner, I have to return this favor back in an appropriate occasion.	.493	.105
6. In this business relationship, we care not only each's own interests, but also the other's.	.199	.633
8. My business partner is reliable and integrity, our cooperation will not be broken out because of opportunism.	-.016	.800
9. Our relationship is harmony.	.077	.717
10. I often interact with my business partner on social activities such as gift exchanging, dining, and winning, etc.	.805	-.085
11. I communicate timely and frequently with my business partner.	.728	-.065
12. I talk with very open with my business partner.	-.132	.719
Cronbach's alpha	.751	.711

Extraction method: principal components analysis.

Rotation method: direct oblimin with Kaiser normalization.

The EFA results revealed two dimensions: dimension 1 includes items 1, 3, 5, 10, and 11, while dimension 2 includes items 6, 8, 9, and 12. The Cronbach's alpha values of both dimension 1 (0.751) and dimension 2 (0.711) are higher than 0.7, which shows that they have high reliability.

The items in dimension 1 reflect affective care toward the partner and involvement in personal life. Item 1 (friendship) and item 3 (in-group) reflect the personal emotion among *guanxi* partners, while item 5 (favor return), item 10 (social activities), and item 11 (communication) refer to the social interaction between partners, which is conducive to increasing affection. Collectively, the items in this dimension convey both static emotional attachment and dynamic processes of affectional interaction among *guanxi* partners. Therefore, we named dimension 1 (items 1, 3, 5, 10, and 11) “Affection.” The items in dimension 2 reflect the cooperative relationship and trusting attitude among partners. Item 6 (care for other’s interests) and item 8 (reliability) relate to *guanxi* partners’ credit, which is regarded as an important business ethic in China (Leung et al., 2005). Relatedly, item 9 (harmony) and item 12 (open attitude) reflect good intentions and a cooperative attitude toward others, in line with Confucian philosophy (Chinese social code). Therefore, we named dimension (items 6, 8, 9, and 12) “Business Ethics.”

2.4.4 Confirmatory Factor Analysis

To validate this measurement scale and to create the final model, CFA was performed using AMOS 21.0. We first compared two models (one-factor model and two-factor model) by testing each’s model fit, and then examined the difference between these models.

We began by assuming that the *guanxi* measurement could be represented by a one-factor model, i.e., all nine items in one dimension. Table 2.5 shows the key fit

indexes for this model.

Table 2.5 Summary of model fit index of 1-factor model

Index	Value
CMIN	51.837
DF	27
CMIN/DF	1.920
CFI	0.874
GFI	0.877
RMR	0.080
RMSEA	0.096
N	101

Model fit was examined using various indexes, including the ratio of Chi-square to degrees of freedom (CMIN/DF), the comparative fit index (CFI), the goodness-of-fit index (GFI), the root mean square residual (RMR), and the root mean square error of approximation (RMSEA). For a good fitting model, CMIN/DF should be less than 2.00; CFI, GFI, IFI, and TFI should be bigger than 0.90; and RMR and RMSEA should be less than 0.05. As Table 2.5 shows, nearly all the index values (except CMIN/DF) failed to meet these criteria. Since this one-factor model clearly did not fit well, we rejected it and moved on to examine the two-factor model. We reran the CFA to validate the two extracted factors from the EFA (i.e., Affection and Business Ethics). The key model fit indexes are presented in Table 2.6.

Table 2.6 Summary of model fit index of 2-factors model

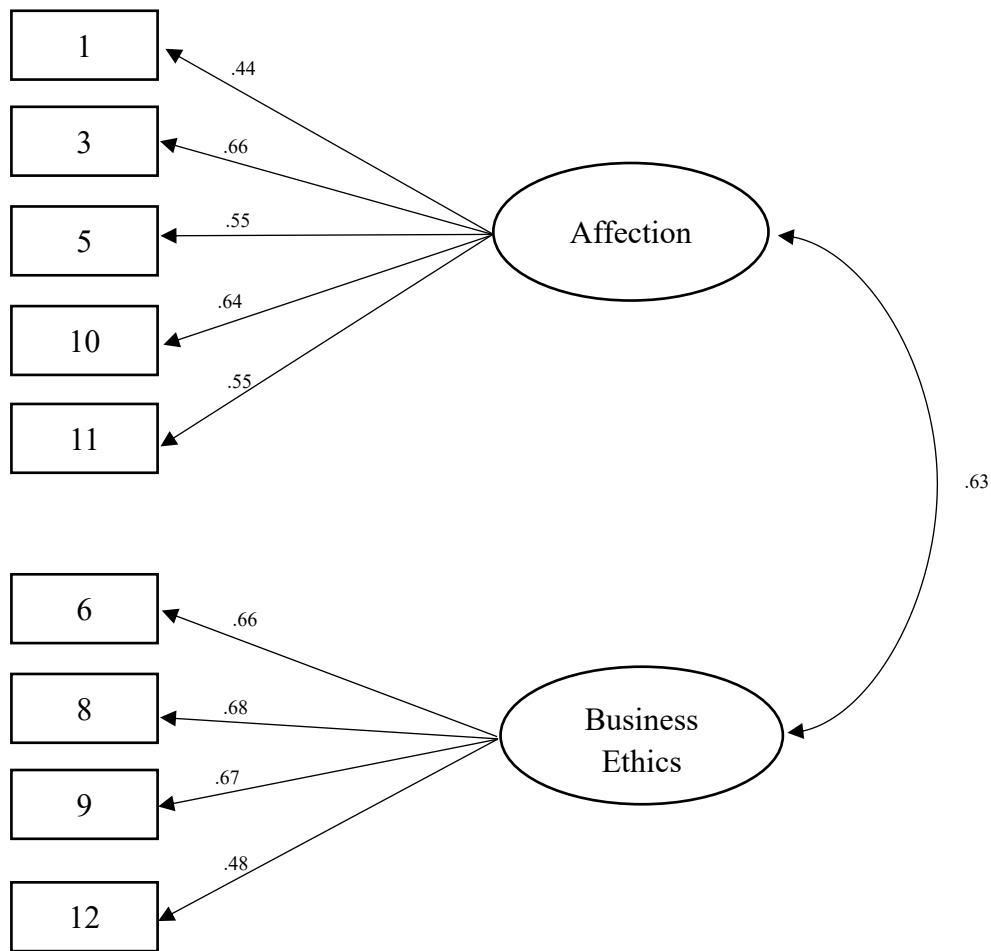
Index	Value
CMIN	25.081
DF	26
CMIN/DF	0.965
CFI	1.000
GFI	0.946
RMR	0.058
RMSEA	0.000
N	101

As Table 2.6 shows, nearly all the indexes meet the aforementioned criteria, indicating that this two-factor model fits the data well. One point to note in this model is that RMSEA equals 0: rather than indicating perfect fit, this value results from the degree of freedom being bigger than the chi-square in this case.

We then tested the significance of difference between the two models. As shown in Tables 2.5 and Table 2.6, the difference of chi-square between the two models is 26.756, while the difference of their degree of freedom is 1. By checking the chi-square distribution table, we found that the $\Delta\chi^2$ between the two models (26.756) is much bigger than the value of $\Delta\chi^2_{(1)}$ at $p = 0.01$ (6.635), which means that the two-factor model differs significantly from the one-factor model.

Consequently, we chose the two-factor model as the final validated model for the *guanxi* measurement scale, which is shown in Figure 2.1.

Figure 2.1 *Guanxi* measurement model.



As Figure 1 shows, nearly all the factor loadings are higher than 0.5, except for item 1 (0.44) and item 12 (0.48) which are slightly below this value. The correlation between these two dimensions is 0.63, which means that in the construct of *guanxi*, Affection and Business Ethics are highly related. However, since this correlation index does not exceed 0.75, it is unnecessary to establish a second order model to find another common factor. Taking into account the other indexes discussed above, we conclude that this model has a good fit and could be used in future research.

2.5 DISCUSSION

Based on the EFA and CFA results, two dimensions were found in the *guanxi* scale: Affection and Business Ethics. These differ from the factors in the preliminary questionnaire: personal emotion, reciprocity, and social interaction.

Apart from the items deleted due to cross loading (2, 4, and 7), the first new dimension, “Affection,” includes both remaining items in the “personal emotion” group (items 1 and 3) and most items in the “social interaction” group. In the preliminary measurement scale, items in the personal emotion group refer to the static affective tie between *guanxi* partners. However, *guanxi* is not a simple connection but, rather, a live and dynamic process (Fan, 2002). Therefore, social activities (gift exchanges, banqueting, etc.) are needed to develop mutual affection, in turn increasing *guanxi* quality (Yang, 1994; Gu et al., 2008). Individuals’ emotional attachments can be improved through social activities such as wining and dining. Through frequent social interactions, the affectional bonds between parties are strengthened, thereby improving their *guanxi*. By considering both the state of personal emotion and social interactions, we can regard this new dimension of “Affection” as a dynamic affective process between partners.

The second new dimension, “Business Ethics,” includes three items from the reciprocity group (items 6, 8, and 9) and one item from the social interaction group (item 12). Although most items in this dimension were originally in the “reciprocity” group, they only represent half of the original “reciprocity” items (two were deleted and one was included in the “Affection” dimension). Additionally, since item 12 (open

attitude) is more related to a *guanxi* partner's credit and their conflict avoidance attitude, we named this dimension "Business Ethics" instead of "Reciprocity." Unlike "Affection," which is frequently mentioned in prior studies, "Business Ethics" is a relatively new concept in *guanxi* research. For our purposes, "Business Ethics" refers to one person's commercial goodwill, credit, and collaborative attitude. It contains two parts: personal credit and harmonious relationship.

Personal credit is a kind of interpersonal trust, which plays a very important role in Chinese society. In Western literature, trust and commitment are always regarded as cornerstones of relationship marketing (Garbarino & Johnson, 1999). However, Chinese people rely more on an individual's credit (personal trust) than the "system trust" that prevails in the West (Wang, 2007). System trust is impersonal and based on the legal system, e.g., written contracts (Lurmann, 1979). By contrast, credit (interpersonal trust) is related to your partner's characteristics, such as integrity, reliability, and trustworthiness. Rather than under a legal contract (system trust), credit attaches to one's past conduct and reputation. In the Chinese context, oral commitment is more important than a written statement (Wang, 2007), so people with credit are regarded as trustworthy and their oral commitment considered more reliable. Failure to keep an oral promise will seriously harm both credit (trustworthiness) and face (reputation). People with little credit struggle to find parties willing to cooperate with them. Additionally, since credit is built on a person's reputation and social stature, people with a higher hierarchical position are regarded as having more credit and being more reliable (Leung et al., 2005).

A harmonious relationship entails a conflict-free environment. In Chinese society, conflict avoidance is always prioritized when dealing with others in order to protect group harmony. However, in reality, a conflict-free environment is extremely rare, especially for intercultural relationships. To maintain harmony in *guanxi*, conflicts with business partners should be addressed through non-coercive power (“a firm’s granting of beneficial assistance to another firm”), rather than the imposition of harsh sanctions. This is because exercising non-coercive power is more likely to decrease perceived conflicts and increase cooperation, which are both positively related to *guanxi* quality (Zhuang et al., 2010). Resolving conflicts or disagreements is also important for maintaining harmony in the *guanxi* relationship. Since Chinese prefer risk avoidance, good conflict-handling skills can promote mutual credit between business partners, in turn increasing *guanxi* quality (Leung et al., 2005). Consequently, we also regard this conflict-avoidance attitude as a Chinese business ethic.

In conclusion, *guanxi*’s attributes are found to comprise two dimensions: affection and business ethics. We believe that these two factors could collectively measure *guanxi* quality. These findings partly contradict many previous studies, in which *guanxi* is divided into the two key elements of affection and utilitarian benefits (Chen & Peng, 2008; Zhuang et al., 2010; Yang & Wang, 2011). From this perspective, *guanxi* quality depends on the emotional closeness and mutual benefits between each party. In this study, utilitarian benefits have been replaced by business ethics. This difference could be explained by the cultural differences between China and France. Most previous *guanxi* studies were undertaken in China, where the cultural

environment is very different from that in France. Environmental differences could influence the perception of *guanxi* (Yen et al., 2011). For instance, Chinese who live in France could value *guanxi* quality differently from local Chinese. According to Hofstede's (2001) *Culture's Consequences*, Chinese culture varies from French culture in terms of masculinity. The masculinity/femininity index demonstrates the duality of culture in terms of gender (masculinity/femininity). Female culture is relationship-oriented, attaching more importance to social goals. In contrast, male culture is ego-oriented, focusing on career and money (Hofstede, 2001). The masculinity/femininity index of France is much lower than that of China, which means that French culture is more female. More specifically, compared to Chinese culture, French culture is less instrumentally oriented. This could explain why "reciprocity" (or "utilitarian") does not appear in our measurement scale.

2.6 ACADEMIC CONTRIBUTIONS

2.6.1 Empirically Valid *Guanxi* Measurement Scale

As a product of Confucianism, *guanxi* is deeply embedded in Chinese culture, and heavily influences the Chinese approach to business. Therefore, it is essential to have a good understanding of *guanxi* and its influences on business performance. However, most *guanxi* research has been conceptual, with few empirical investigations to test the theoretical models (Chen et al., 2013). The shortage of empirical research into *guanxi* is due to the lack of an appropriate *guanxi* scale (Zhu & Hong, 2008). To the best of our

knowledge, there are very few empirically validated *guanxi* measurement scales, especially for inter-organizational *guanxi* (Chen et al., 2013). To answer the call of Chen et al. (2013) to create a clear and specific *guanxi* construct at macro level, this study has created a BSR *guanxi* measure based on empirical research.

2.6.2 Sino-Franco Buyer-Supplier *Guanxi*

Since *guanxi* is a cultural phenomenon, an individual's perception of *guanxi* may vary as the environment changes. Under the influence of globalization, Chinese in other markets may judge *guanxi* differently compared to those based in China (Yen et al., 2011). Additionally, from the network learning perspective, when a person's commercial behavior influences others, that individual will be simultaneously influenced by others' approach to business (Hakansson & Ford, 2002). In the Chinese environment, the mutual influence of intercultural interactions between Chinese firms and their foreign counterparts likely influences perceptions of *guanxi* (Gao et al., 2010). More specifically, while Chinese social norms (e.g., *guanxi* rules) will influence foreign counterparts' approach to business, these Chinese will learn to respect the business rules of Westerners, leading to their approach to business becoming more Western in style. For example, when doing business with Chinese buyers, French suppliers will pay attention to maintaining personal *guanxi* with their business partners by wining and dining, exchanging gifts, etc. During these process, Chinese buyers will develop respect for equal exchanging rules and depend less on emotions when making decisions. This phenomenon was found by Sheer & Chen (2003), who elaborated the mutual influence

of international professional culture and Chinese national culture in Sino-Western relationships. Therefore, perceptions and the practice of *guanxi* will change through increasing interaction between Sino-Western partners.

When considering *guanxi* in an international environment, *guanxi* practice no longer respects only local Chinese rules, but a mixed rule influenced by other cultures (Gao et al., 2010). Therefore, although Yen et al. (2011) developed and validated a *guanxi* measurement for Sino-Anglo relationships, their measurement scale may not be suitable for markets with a different cultural background. It is essential to reconsider *guanxi*'s attributes when doing business in a different market. To contribute to filling this gap, this study is the first to create a valid *guanxi* measurement scale for the French market. We believe that this Sino-Franco *guanxi* measurement scale could also be used by Chinese companies in other countries heavily influenced by French culture (e.g., African francophone countries). With an increasing number of Chinese enterprises investing in Africa in recent years, this study could help managers in these countries to have a better understanding of *guanxi* when doing business with Chinese.

2.6.3 Balance Between Affection and Interests

Hwang (1987) divided *guanxi* into three categories: expressive tie, instrumental tie, and mixed tie. Business *guanxi* is a mixed tie, being sometimes affection-oriented and sometimes benefit-oriented. This raises two crucial issues: how to find the balance between emotion and utilitarian benefits, and which strategy is better in which situation (Yang & Wang, 2011). Our results may elucidate the relationship between *guanxi*'s

focus and the external cultural environment. Compared to the studies of local Chinese *guanxi* and Sino-Anglo *guanxi*, our research identifies *guanxi* as more affective than instrumental. This could be explained by differences between countries' cultures. Since perceptions of *guanxi* could differ depending on the environment (Yen et al., 2011) and *guanxi* practice is a learning and updating process (Gao et al., 2010), the counterpart's culture will influence *guanxi* behaviors. Compared to Chinese culture and Anglo culture, French culture is more feminine, and thus more affection-oriented (Hofstede, 2001). This could explain why the Sino-Franco *guanxi* focuses more on affection than on utilitarian benefits.

2.7 MANAGERIAL IMPLICATIONS

This study's final *guanxi* construct not only provides a valid *guanxi* measurement scale but also shows how Chinese buyers perceive and evaluate their *guanxi* with French suppliers. In our study, *guanxi*'s attributes were found to comprise the two dimensions of affection and business ethics. Since *guanxi* has been proved to have directly and indirectly positive effects on business performance (Lee et al., 2001; Gu et al., 2008; Zhuang et al., 2010), French suppliers should pay attention to both dimensions in order to increase their *guanxi* quality with Chinese business partners.

Affection can be interpreted as family-like attachment or friendship. Although business *guanxi* is built on reciprocal exchange for the purpose of utilitarian benefits, affectional care is essential to maintaining *guanxi*. In Western countries, business partners' friendship often follows successful business cooperation. On the contrary,

Chinese people prefer to make friends first, and then talk business (Luo, 2007). It should be remembered that *guanxi* exchanges include not only material interests but also emotions. For French suppliers, it is better to regard Chinese partners as friends to involve in one's personal life, and to share private information. Unlike Westerners' "business is business" working style, Chinese people like to mix their work and personal life, with personal favors often reciprocated by commercial advantages. Personal interactions should be encouraged between boundary spanning personnel; such social activities may include dining with each other's family members, exchanging gifts, attending festivals, and jointly participating in spare-time pursuits. It is believed that these social interactions are likely to increase business partners' affection, in turn developing their *guanxi*. Moreover, frequent communication is an efficient way to increase mutual affection.

Business ethics encompasses both credit and harmony. First, credit is personal trust, which relies more on personal quality (such as reliability and integrity) than on legal system. In other words, Chinese people-based business cooperation decisions on a partner's trustworthiness, rather than brand reputation. Chinese only trust people who are trustworthy (Yen et al., 2011). For French suppliers to build a "trustworthy" image, they should always keep their oral commitments. It is also important to consider that when Chinese judge a person's credit, this is based on that individual's attitude toward not only them but also others, such as employees, friends, and even restaurant waiters. This is because credit is established through third parties (Leung et al., 2005). Second, Chinese culture is dominated by Confucianism, which regards harmony as fundamental.

When negotiating with Chinese counterparts, French suppliers are recommended to use rewards, recommendations, and information exchange as an influential strategy to achieve their goals. Imposing coercive power, whether through threats or legal action, should be strictly avoided since this will be perceived as conflict by a *guanxi* partner (Zhuang et al., 2010). Furthermore, keeping an open attitude to business partners is very important. Open communication not only increases trust between partners but also avoid conflicts caused by misunderstanding.

2.8 LIMITATIONS AND FUTURE RESEARCH

This research has several limitations. First, our study only considers Chinese perspectives of *guanxi*. Future studies should collect data from their French counterparts and conduct comparative analysis of how the two sides value their *guanxi*. Second, although this research has generated a valid *guanxi* measurement based on empirical research, caution should be exercised in using the scale in relation to other markets. Further examinations of its generalizability are needed. Finally, whether outside culture significantly influences *guanxi*'s attributes still lacks empirical evidence. Future studies could measure *guanxi* in different cultures to explore whether differences in perceptions of *guanxi* are caused by external cultural differences.

2.9 CONCLUSION

In this age of globalization, Sino-Franco trade is becoming increasingly important. At the same time, fierce global competition and increasingly complex SCM make

relationships between Chinese buyers and French suppliers ever more intense. *Guanxi*, as a Chinese cultural factor, heavily influences the supply chain relationship between Chinese buyers and their French counterparts. Having recognized the lack of an appropriate *guanxi* measurement scale for Sino-Franco buyer-supplier relationships, we undertook to formulate a suitable scale through both qualitative and quantitative research. Our empirically validated measurement scale can be used in future empirical studies of *guanxi* for Chinese companies in France. It will also help French suppliers to understand and strengthen the *guanxi* with their Chinese counterparts in transactional processes.

**Chapter III: Opening the black box of the
Guanxi-SCC relationship: the case of Sino-
Franco buyer-supplier guanxi**

Opening the black box of the *Guanxi*-SCC relationship: the case of Sino-Franco buyer-supplier *guanxi*

Abstract

Along with the rapid recent growth of Chinese investments in France, the impact of Sino-Franco BSRs on their SCC is attracting increasing research attention. We refer to both operational research and social management research to consider how *guanxi* influence SCC and buying companies' SCP. By analyzing survey data collected from Chinese buyers in France, our findings empirically prove *guanxi*'s importance in Sino-Franco relationships. They also reveal that *guanxi* indirectly influences SCP through the mediating effect of three SCC dimensions: vision sharing, resource-based collaboration, and process-based collaboration.

Keywords: *Guanxi*, Buyer-supplier relationship, supply chain collaboration, supply chain performance, China, France.

3.1 INTRODUCTION

In an unpredictable environment characterized by demand uncertainty and increasing worldwide competition, SCC has become a favorable strategy for gaining comparative advantages, whether through sharing resources and information, reducing transaction costs, or integrating production process (Cao & Zhang, 2011; Fawcett et al., 2012). However, while the importance and necessity of SCC are well recognized by business partners, true collaboration is hard to achieve in supply chains (Fawcett et al., 2012). One of the main barriers is flaws in the BSR, including miscommunication, lack of trust, goal differences, failure to understand the importance of collaboration, etc. (Ramanathan & Gunasekaran, 2014; Fawcett et al., 2015). Therefore, a collaborative BSR plays a key role in SCC.

At the same time, with growing global trade between east and west, especially the significant growth of Chinese investment in Western countries, BSRs are becoming more complicated due to cultural differences (Casaburi, 2016). People of different cultural backgrounds may have divergent understandings of the same business behaviors, which raises obstacles to forming and maintaining collaborative relationships. Regarding BSRs in the Chinese context, *guanxi* culture rules business behaviors in exchange relationships (Zhang & Hong, 2017). Since China is a relational society, Chinese pay much attention to establishing a reliable BSR to improve business performance. Hence, Chinese *guanxi* practice may provide solutions for the problems of SCC. Therefore, our research aims to explain the link between *guanxi* and SCC. More precisely, we examine how *guanxi* influences SCP for Chinese companies in

Western countries.

This research contributes to the literature in three respects. First, most previous *guanxi* studies have only considered the Chinese market, where both buyers and suppliers share the same culture. With an increasing number of Chinese firms moving into the French market, it remains to be established how and to what extent *guanxi* influences business performance when doing business with suppliers of different cultural backgrounds. Second, although management and marketing studies of *guanxi* have proliferated in recent years (Gu et al., 2008; Zhuang et al., 2010), the application of *guanxi* to SCM has received little attention. Third, this research provides comprehensive theoretical explanations for the link between *guanxi* and SCP, by applying social capital theory, social interdependence theory, the ERBV, and the relational view.

3.2 LITERATURE REVIEW AND MODEL FORMULATION

3.2.1 Guanxi

Since China is a relational society, due to the influence of Confucianism, Chinese rely heavily on their interpersonal relationships in social and commercial life (Zhang & Hong, 2017). *Guanxi* can be simply translated as “an interpersonal relationship” or “social connections,” yet this informal personal relationship differs from pure friendship and commercial social networks. *Guanxi* has always been regarded as a relationship containing both emotional attachment and utilitarian benefits (Hwang,

1987; Zhuang et al., 2010; Yang & Wang, 2011). On the one hand, *guanxi* entails affectional commitment and a caring attitude toward others (Wang, 2007). On the other hand, it is a utilitarian relationship for the purpose of pursuing mutual interests. People establish *guanxi* for reciprocal exchange, based on Chinese social norms (Chen et al., 2011). From a business perspective, *guanxi* functions at the organizational level through boundary spanning personnel, such as company representatives (Cai et al., 2010; Zhuang et al., 2010).

Many scholars regard *guanxi* as a Chinese-style social capital because of their many commonalities (Cheng et al., 2012; Cao et al., 2014). According to Adler and Kwon (2002), social capital comprises three kinds of resources: opportunity, ability, and motivation. Opportunity refers to the accessibility of resources embedded in a social network; ability refers to whether these resources can be mobilized through social ties; and motivation concerns the willingness of reciprocity created through enforced trust and shared norms. *Guanxi* also contains these features. On the one hand, through *guanxi* connections and reciprocal exchanges, individuals have opportunities to access and the ability to attain both tangible (money, goods, and services) and intangible (information and opportunity) resources embedded in a *guanxi* network (Hwang, 1987). On the other hand, the affectional attachment in a close *guanxi* relationship promotes trust and mutual understanding among partners, in turn motivating each partner to cooperate with the other for the collective goal (Wang, 2007). The outcomes of social capital have both instrumental and expressive returns (Lin, 1999), which corresponds with the mixed ties inherent in *guanxi* (Hwang, 1987). Consequently, social capital

theory is applied to explain *guanxi*'s working mechanism in this study.

According to Nahapiet & Ghoshal (1998), social capital has three dimensions: structural, relational, and cognitive. The structural dimension refers to the connections among individuals. *Guanxi*, as a structural capital, provides channels for social network members to access socially embedded resources and information. The relational dimension focuses on interpersonal interaction, including such key factors as trust, norms, obligations, and identification. *Guanxi* exchange is subject to the rule of reciprocity: people who fail to return a favor will lose not only personal credit but also face, bringing an end to *guanxi* (Zhang & Hong, 2017). The cognitive dimension entails the shared representations and shared system meanings among group members. Similarly, members of a *guanxi* circle share commonalities (Zhang & Hong, 2017). People feel more similarities and a greater sense of belonging with ingroup *guanxi* members. In this way, *guanxi* can enforce partners' sense of identity as cognitive capital. In sum, even though *guanxi* is deeply embedded in Chinese traditional culture, it has the same three dimensions as social capital: structural, relational, and cognitive.

3.2.2 Supply Chain Collaboration

SCC is a form of business that crosses organizational boundaries, combining interdependent companies in an integrative and collaborative partnership in which they work together for a common supply chain goal (Cao & Zhang, 2011; Adams et al., 2014; Fawcett et al., 2015). It is believed that through different levels of collaborative behaviors, such as sharing resources, joint decision making, and integrating processes,

an individual company can gain competitive advantages that would not be achievable alone, such as decreasing costs, better meeting customers' needs, and improving business performance (Cao & Zhang, 2011; Adams et al., 2014; Ramanathan & Gunasekaran, 2014). Through the lens of social capital theory (cognitive, structural, and relational capital), SCC could be divided into three corresponding dimensions: vision sharing, resource-based collaboration, and process-based collaboration.

3.2.2.1 Vision Sharing

Vision sharing means that every supply chain partner shares one another's perspective through collaborative communication. In SCC, one of the most critical conflicts is that between local perspective and global vision (Fawcett et al., 2015). Consequently, vision sharing is regarded as the foundation of successful SCC. It is believed that through global perspective sharing and mutual understanding, individual companies can achieve better SCC. This dimension includes goal congruence and collaborative communication. Goal congruence concerns the compatibility between the goals perceived by buyers and suppliers (Yan & Dooley, 2013). Goal congruence provides a global vision for supply chain partners, which helps them to achieve mutual understanding and agreement. Operating under the same perspective, it is easier to create trust and commitment among supply chain partners, which are regarded as fundamental to the supply chain relationship (Cuevas et al., 2015). Thus, goal congruence promotes closer SCC by decreasing the incentive for opportunism (Rajaguru & Matanda, 2013). In terms of collaborative communication, it provides a

transmission process that increases mutual understanding. It serves for establishing a common goal among supply chain partners. Indeed, communication can leverage information and resource sharing to increase competitiveness in the market (Cao & Zhang, 2011). Additionally, intensive communication helps to rectify uncooperative behavior and facilitates solving conflicts among supply chain partners, which is particularly important in *guanxi* culture (Yan & Dooley, 2013).

3.2.2.2 Resource-Based Collaboration

Resource-based collaboration enables firms to externally acquire critical strategic resources through collaborative sharing with supply chain partners. It has two key components: resource sharing and information sharing. Resource sharing refers to the process of leveraging and investing in capabilities and assets with supply chain partners (Cao & Zhang, 2011). Through resource sharing, an individual company is able to access complementary resources and use resources more efficiently. Second, information sharing entails the exchange of critical information between supply chain partners through face-to-face meetings, telephone, fax, mail, and online communication (Cai et al., 2010). The exchange of accurate, relevant, complete, and even confidential information is essential for improving supply chain effectiveness and efficiency (Cao & Zhang, 2011; Liu et al., 2013).

3.2.2.3 Process-Based Collaboration

Process-based collaboration has two key components: decision synchronization

and incentive alignment; both are essential foundations of effective SCC (Scholten & Schilder, 2015). Decision synchronization refers to supply chain partners orchestrating their planning decisions and executing decisions to optimize the total profit of the whole supply chain (Simatupang & Sridharan, 2008). Collaborative decision making can be employed with respect to such matters as forecasting, inventory, promotion, and order delivery. Incentive alignment, entails process sharing among supply chain partners, including costs, benefits, and risks (Cao & Zhang, 2011). It is a mechanism to motivate supply chain partners to act consistently with the global supply chain goal, in terms of productive behavior, performance measurement, and equitable compensation (Simatupang & Sridharan, 2008).

3.2.3 *Guanxi* & SCC

Since SCC can be divided into three dimensions through the lens of social capital theory, there are three logical links between SCC and *guanxi*. First, as structural capital, *guanxi* facilitates exchanges among *guanxi* partners via social network connections. Through the accessibility created by *guanxi*, individual companies are able to acquire key resources from their supply chain partners. Hence, *guanxi* contributes to SCC in terms of information sharing and resource sharing (resource-based collaboration). Second, as relational capital, *guanxi* contributes to cooperative willingness and collaborative culture among business partners. A close *guanxi* relationship creates mutual trust between supply chain partners. Besides, under Chinese social norms and reciprocal obligations, *guanxi* can decrease the perceived risks of opportunism.

Through the relational dimension of *guanxi*, supply chain partners are more motivated to collaborate with each other in process-based collaboration, including decision synchronization and incentive alignment. Third, as cognitive capital, *guanxi* cultivates an atmosphere of sharing representation among *guanxi* partners by enforcing their senses of identity and belonging. By sharing the same language and the same narrative, supply chain partners can easily achieve goal congruence through better collaborative communication (vision sharing).

Though *guanxi* has positive effects on all three SCC dimensions, we believe that vision sharing is the prerequisite for the other two (resource-based and process-based collaboration). According to social interdependence theory (Johnson & Johnson, 1989), the way in which participants' goals are structured determines how they interact, which, in turn, shapes outcomes. Therefore, positive interdependence means that one partner's goal's attainment is positively related with the other partner, leading to promotive interaction. Positive interdependence is based on establishing a clear global vision (goal congruence) among supply chain partners, and is strongly related to good mutual understanding through collaborative communication. Once positive interdependence has been formed, individuals provide one another with effective and efficient help, for instance by exchanging information and resources (resource-based collaboration). In addition, the inspiration of their common vision and cooperative goal increase supply chain partners' motivation to perform collaborative processes, such as decision synchronization and incentive alignment (process-based collaboration).

Based on the above discussion, we propose:

Hypothesis 1. *Guanxi* has a positive effect on vision sharing in a supply chain.

Hypothesis 2. Vision sharing has a positive effect on resource-based collaboration in a supply chain.

Hypothesis 3. Vision sharing has a positive effect on process-based collaboration in a supply chain.

3.24 SCC & SCP

Based on the above discussions, through the lens of *guanxi*, SCC could be divided into three dimensions: vision sharing, resource-based collaboration, and process-based collaboration. Among them, vision sharing will influence SCP through the other two dimensions as mediators.

The positive influence on SCP of resource-based collaboration could be explained by ERBV, according to which a company's comparative advantages are derived from its valuable and rare resources (Lavie, 2006). These resources (both tangible and intangible) include not only the company's internal resources but also the shared resources (appropriated relational rent) and non-shared resources (inbound spillover rent) from partners. Therefore, through sharing resources and information with supply chain partners, a company can acquire competitive advantages, in turn increasing SCP.

The positive impact of process-based collaboration on SCP could be interpreted by the relational view (RV; Dyer & Singh, 1998), which posits that a company can acquire sustained competitive advantages by developing relationships with other companies. These advantages are generated by the joint contribution of collaborative

partners, and cannot realistically be achieved independently. Process-based collaboration provides opportunities to gain competitive advantages through relation-specific asset investment, effective governance, etc. Consequently, a firm can improve its SCP through process-based collaboration with supply chain partners.

Based on these foregoing studies we propose:

Hypothesis 4. Resource-based collaboration has a positive effect on SCP.

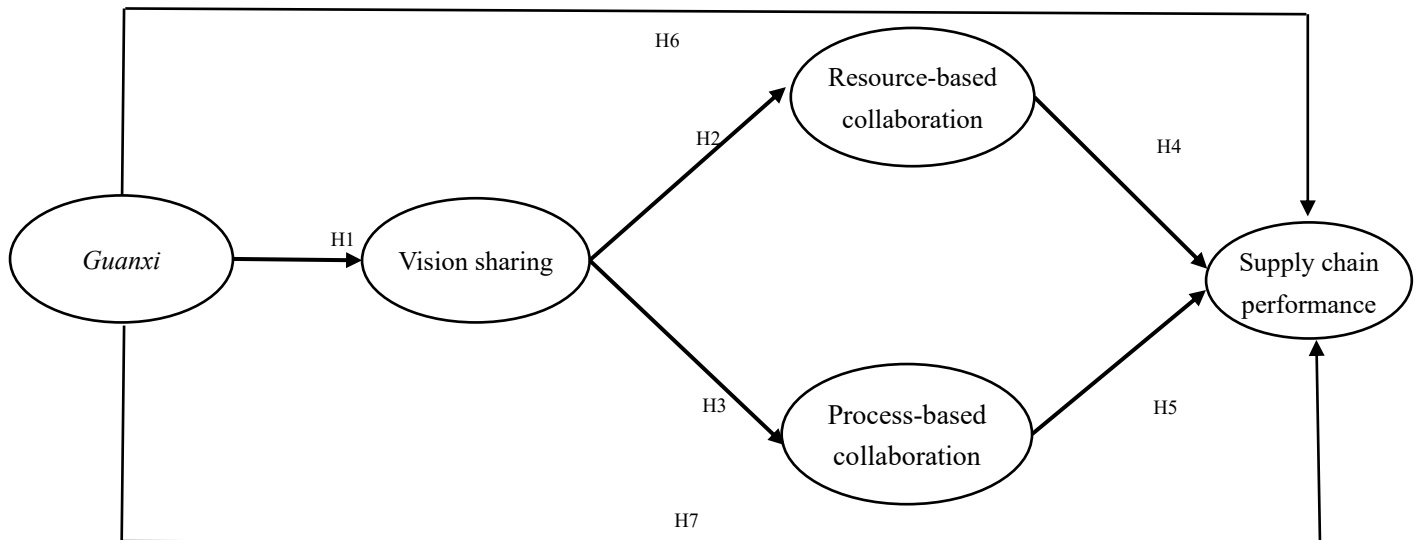
Hypothesis 5. Process-based collaboration has a positive effect on SCP.

By combining Hypotheses 1 to 5, two other mediating hypotheses are proposed:

Hypothesis 6. *Guanxi* has a positive indirect effect on SCP through the mediating effect of vision sharing and resource-based collaboration.

Hypothesis 7. *Guanxi* has a positive indirect effect on SCP through the mediating effect of vision sharing and process-based collaboration.

Figure 3.1 Research Model



3.3 METHODOLOGY

In this section, we first introduce the questionnaire design, sample design, and data collection methods. We then describe and present the results of our tests for correlations, non-response bias, reliability, and discriminant validity. Finally, we report the results for tests of the model whether each hypothesis is supported.

3.3.1 Questionnaire Design

The five constructs (*guanxi*, vision sharing, resource-based collaboration, process-based collaboration, and SCP) were measured using 52 Likert items. Respondents were asked to indicate their agreement to each item on a five-point scale (1 = strongly disagree; 5 = strongly agree).

The *guanxi* measurement scale was taken from Chapter II, which was created specifically for testing Sino-Franco *guanxi*. *Guanxi* is measured by nine items ($\alpha = 0.794$) across two dimensions: affection and business ethics.

The items of vision sharing, resource-based collaboration, process-based collaboration, and SCP were adopted from previous SCC studies (Simatupang & Sridharan, 2008; Cao & Zhang, 2011; Cheng et al., 2012; Liu et al., 2013; Ramanathan & Gunasekaran, 2014). After collating all the items, we conducted a pilot study involving in-depth interviews with six purchasing managers of Chinese companies in France. Based on their feedback on the validity and consistency of our preliminary questionnaire, several judgments were made. In the finalized questionnaire, vision sharing is measured by five items ($\alpha = 0.740$), resource-based collaboration is measured

by nine items ($\alpha = 0.727$), process-based collaboration comprises 15 items ($\alpha = 0.917$), and SCP comprises 14 items ($\alpha = 0.946$).

The complete questionnaire is in Appendix 3.1.

3.3.2 Sample Design and Data Collection

To study *guanxi*'s impact on SCP for Chinese companies in France, we targeted Chinese firms in France and Chinese working in France. To avoid invalid responses, only people who interact with French suppliers (boundary spanning personnel) were invited to complete the questionnaire. Questionnaires were distributed to 186 Chinese firms in France and to 398 Chinese working in French companies in France. In total, 101 usable questionnaires were returned, representing a response rate of 17.3%. Among these 101 respondents, nearly one-third (30.69%) are in a high position, such as CEO, managing director, or deputy general manager, while 23.67% are department managers. In terms of business area, 38.61% work in manufacturing companies, such as wine production, daily necessities manufacturing, and food processing. Meanwhile, 34.65% work in trading companies, such as wine exporters. More than half of the respondents have no more than five years' relationship with their suppliers (32.67% have less than two years, and 30.69% have two to five years).

3.3.3 Non-Response Bias

To test for possible non-response bias, a t-test was used to examine the significant difference between respondents of different time waves (Armstrong & Overton, 1977).

We divided our sample into two groups: responses received within three months are early responses (50) and those received after three months are late responses (51). We compared the respective means for the five constructs (i.e., *guanxi*, vision sharing, process-based collaboration, resource-based collaboration, SCP). The results revealed no statistically significant differences between these groups at $p < 0.05$, confirming that non-response bias does not exist in our data (see Appendix 3.2).

3.3.4 Results

We first employed CFA to examine discriminant validity using LISREL 8.8. By performing CFA with item parceling (Bagozzi & Edwards, 1998), the model fit was examined by several key model fit indexes.

Table 3.1 Summary of model fit index

	Result
Chi-square	236.71
Degree of freedom	141
Chi-square/Df	1.68
SRMR	0.08
RMSEA	0.088
CFI	0.96

As Table 3.1 shows, the overall model fit is acceptable given the small sample (N=101).

After examining the model's reliability and validity, we tested the impact of *guanxi* (GX) on SCP through the mediating effects of vision sharing (VS), process-based collaboration (PC), and resource-based collaboration (RC) (see Figure 3.1). We

first calculated the correlations between variables, which are presented in Table 3.2.

Table 3.2 Correlation, Mean, and Standard deviation (N=101)

Correlations					
	1	2	3	4	5
1. <i>Guanxi</i> (GX)					
2. Version sharing (VS)	.503**				
3. Process based collaboration (PC)	.341**	.495**			
4. Resource based collaboration (RC)	.436**	.529**	.674**		
5. Supply chain performance (SCP)	.229*	.311**	.504**	.509**	
Mean	3.602	4.020	3.317	3.362	3.094
Standard deviation	0.622	0.596	0.722	0.559	0.776

** . Correlation is significant at the 0.01 level (2-tailed).

* . Correlation is significant at the 0.05 level (2-tailed).

As expected, the correlations between GX–VS, VS–RC, VS–PC, RC–SCP, and PC–SCP proved to be positive and significant.

To test the hypotheses, we applied model 6 of the PROCESS macro in SPSS v22 to perform serial mediation analysis (Hayes, 2012). All the effects were subjected to bootstrap analysis with 5,000 bootstrap samples and a confidence interval of 95%. A significant effect is indicated if the bootstrap confidence interval (95%) does not include 0. The results are shown in Tables 3.3 and 3.4.

Table 3.3 Estimated path coefficient of the multiple mediation model

Paths presented in Figure 1	Coeff.	SE	T	P	LLCI	ULCI
GX -> VS (H1)	0.4825	0.0833	5.7903	0.0000	0.3171	0.6478
VS -> PC (H3)	0.5243	0.1221	4.2953	0.0000	0.2820	0.7665
GX -> PC	0.1437	0.1171	1.2274	0.2226	-0.0886	0.3760
VS -> RC (H2)	0.1750	0.0828	2.1141	0.0371	0.0107	0.3393
PC -> RC	0.4073	0.0629	6.4804	0.0000	0.2826	0.5320
GX -> RC	0.1464	0.0734	1.9941	0.0489	0.0007	0.2921
VS -> SCP	0.0078	0.1427	0.0545	0.9567	-0.2756	0.2911
PC -> SCP (H5)	0.3161	0.1268	2.4921	0.0144	0.0643	0.5679
RC -> SCP (H4)	0.4340	0.1712	2.5352	0.0129	0.0942	0.7738
GX -> SCP	-0.0135	0.1263	-0.1066	0.9153	-0.2641	0.2372

Note: GX = *Guanxi*, VS = Version sharing; PC = Process based collaboration; RC = Resource based collaboration, SCP = Supply chain performance.

Table 3.3 presents all the direct effects among all the variables. GX has a positive effect on VS ($b = 0.4825$, $t = 5.7903$, $p < 0.01$), while VS has a positive impact on both PC ($b = 0.5243$; $t = 4.2953$, $p < 0.01$) and RC ($b = 0.1750$, $t = 2.1141$, $p < 0.05$). In addition, both PC and RC have each positively affect SCP ($b = 0.3161$, $t = 2.4921$, $p < 0.05$ for PC; $b = 0.4340$, $t = 2.5352$, $p < 0.05$ for RC). Therefore, Hypotheses 1 to 5 are all supported.

Table 3.4 Result of the mediation tests

Indirect effect of <i>Guanxi</i> on Supply chain performance	BC 95% CI				
	Mediators	Effect	SE	LLCI	ULCI
Total		0.2994	0.1078	0.1019	0.5233
Ind1	VS	0.0038	0.0928	-0.1810	0.1854
Ind2	VS & PC (H7)	0.0800	0.0507	0.0104	0.2203
Ind3	VS & RC (H6)	0.0366	0.0228	0.0070	0.1016
Ind4	VS & PC & RC	0.0447	0.0229	0.0132	0.1100
Ind5	PC	0.0454	0.0521	-0.0235	0.1954
Ind6	PC & RC	0.0254	0.0256	-0.0155	0.0912
Ind7	RC	0.0635	0.0384	0.0075	0.1650

Note: GX = *Guanxi*, VS = Version sharing; PC = Process based collaboration; RC = Resource based collaboration, SCP = Supply chain performance.

Table 3.4 summarizes the direct effect and all the possible indirect effects among the independent variable (GX), dependent variable (SCP), and three mediators (VS, PC, and RC). According to the results, the two paths on which we focus (i.e., Ind 2 GX → VS → PC → SCP and Ind 3 GX → VS → RC → SCP) are significantly supported (CI = [0.0104 – 0.2203] for Ind 2; CI = [0.0070 – 0.1016] for Ind 3). As shown in Table 3.4, *guanxi* indirect influences SCP through two possible paths: GX → VS → PC → SCP, or GX → VS → RC → SCP. Consequently, Hypotheses 6 and 7 are both supported.

3.4 DISCUSSION

This research empirically examines how Sino-Franco *guanxi* impacts on SCP through the mediation effect of three dimensions of SCC: vision sharing, process-based collaboration, and resource-based collaboration. The findings show that *guanxi* has a

positive influence on vision sharing between buyers and suppliers. In addition, vision sharing promotes both resource-based collaboration and process-based collaboration. Finally, we find that resource-based collaboration and process-based collaboration each positively influence SCP.

3.4.1 Theoretical Implications

Our study makes three main contributions to the literature. First, this is the first study to empirically test *guanxi*'s importance for Sino-Franco relationships. Second, we uncovered the mechanism of *guanxi*'s impact on SCP. Third, we have proposed a comprehensive theoretical explanation for the model by applying the ERBV and RV to each corresponding hypothesis.

First, our research broadens understanding of *guanxi*'s implications in other cultures. This study extends research on *guanxi* to encompass international relationships, and initially confirmed *guanxi*'s importance in Sino-Franco BSR through empirical analysis. Although *guanxi* is a cultural product of Confucianism, it is evidently relevant beyond China and East Asia. This study extends the research of Barnes et al. (2011) and Berger et al. (2015) by adding the perspective of Sino-Franco *guanxi* into the broader concept of Sino-Western *guanxi*.

Second, this study establishes the link between *guanxi* and SCP. Unlike most previous studies, which primarily emphasize operational skills to manage the supply chain, our research provides a relational perspective for improving SCP. Through the lens of social capital, SCC could be simplified into three main dimensions: vision

sharing, process-based collaboration, and resource-based collaboration. Although previous studies have also presented different interconnecting dimensions of SCC, most fail to offer convincing explanations of the interactions between these dimensions (Cao & Zhang, 2011). This result helps to deepen understanding of SCC. Additionally, although a few prior studies have used a relational approach in operational research (Krause et al., 2007), this study contributes to considering the cultural impact on SCM (albeit focusing on *guanxi* instead of universal BSRs), especially in the context of SCC. Since global trade is becoming increasingly common, research on international collaboration needs to take cultural background into account. Specifically, our research provides an empirically tested model revealing how *guanxi* influences SCP. The results not only demonstrate *guanxi*'s positive influences on SCP but also reveal the mediating role of the three dimensions of SCC and the interactions among them. The positive link between *guanxi* and vision sharing is strongly supported, which indicates that a close interpersonal relationship helps both sides to form the supply chain's global vision. When the global vision has been shared, business partners are more motivated to implement it through concrete collaborative behaviors, such as resource-based and process-based collaboration. Next, the results empirically confirm that both resource-based collaboration and process-based collaboration are associated with higher SCP, each through a different process. Finally, *guanxi* has indirect impacts on SCP through two different paths. The last finding is consistent with the assertion in prior research that *guanxi* may not directly influence business performance but indirectly affects performance through its impact on inter-firm relationships (Li & Lin, 2006; Lee &

Humphreys, 2007). This study provides a new perspective on how to enhance SCP through *guanxi* practice. Our statistically valid structural model could be taken into consideration in future social-operational or cross-cultural operational research, especially for cases of SCC relationships with Chinese partners.

Third, this study provides detailed theoretical support for each single hypothesis, thus contributing to a comprehensive understanding of this model. Social capital theory, ERBV, and RV are widely used in existing SCC and BSR research (Cao & Zhang, 2011; Cheng et al., 2012; Ramanathan & Gunasekaran, 2014). However, most studies have mixed these theories together to explain the relationship between SCC and firm performance (Cao & Zhang, 2011; Ramanathan & Gunasekaran, 2014). The application limits specific to each theory need to be recognized. For instance, ERBV focuses more on resource sharing than on process-based collaboration. Therefore, this study is the first to link each theory with targeted corresponding hypotheses to accurately explain every process. In addition, the theoretical underpinning of social interdependence theory reveals the interactions of the three SCC dimensions, emphasizing that vision sharing is a pre-requisite for behaviors conducive to effective SCC.

3.4.2 Managerial Implications

With a growing number of Chinese companies recently investing in France, this study aims to help both French suppliers and Chinese buyers to establish successful SCC by improving their *guanxi*. Based on our research results, several managerial recommendations are proposed.

For French suppliers unfamiliar with *guanxi* culture, the fundamental point to recognize is that, for Chinese, a business relationship is primarily a personal relationship. Frequent personal interactions between the two companies' representatives should be supported in order to build a close *guanxi*. Since *guanxi* originates from family ties, social interactions are needed with business partners to develop stranger ties into familiar ties (Luo, 2011). Therefore, both French managers and employees are encouraged to involve Chinese business partners in their personal life, such as dining together, drinking together, and exchanging gifts. It is necessary to devote considerable time to interact with Chinese partners in order to build trust. Another consideration is that business and personal life are always intertwined for Chinese. It is better not to refuse a Chinese partner's requests of personal favor since these are often returned by business favors. Additionally, since a Sino-Franco *guanxi* focuses more on affection and business ethics, French suppliers are advised to exhibit emotional care toward their Chinese buyers, and always pay attention to keeping oral commitments in order to increase their personal credit.

For Chinese buyers in France, this study has proved the importance of *guanxi* in the French market. Although their French business partners may be unfamiliar with *guanxi* culture, and France has a well-developed legal system, developing personal *guanxi* is still a good strategy for improving SCP. According to our research model, *guanxi* will influence vision sharing before the other two SCC dimensions. Therefore, before advancing to resource sharing and process integration, it is critical to achieve the same collective goal with supply chain partners. To attain goal congruence, close *guanxi*

is needed. It is believed that through collaborative communication and regular interactions between top managers, business partners can easily share a vision and avoid conflicts and opportunism caused by self-interest pursuing.

3.4.3 Limitations

Although our research has empirically demonstrated how Sino-Franco *guanxi* impacts on SCP, the results should be interpreted with caution. There are several limitations that require attention in future research. First, our research only considered the perspectives of Chinese buyers. Since *guanxi* is an interpersonal relationship between (at least) two parties, a dyadic methodology should be employed to consider the perspectives of Chinese buyers and French suppliers. Second, our sample size was small. Future researches should aim to include a larger sample, so that more robust conclusions can be drawn.

**Chapter IV: The moderating role of culture
in the relationship between *guanxi* and
supply chain performance**

The moderating role of culture in the relationship between *guanxi* and supply chain performance

Abstract

With the intensification of Sino-Western trade, studies increasingly recognize the importance of *guanxi* in international supply chain management as an informal institutional force. This study aims to deepen our understanding of the impact of *guanxi* on supply chain performance by examining the effectiveness of two types of *guanxi* among people with different cultural orientations. Drawing on the survey data of 200 Chinese manufacturers with overseas business, the results show that the mediated relationship between expressive *guanxi* and supply chain performance through affect-based trust is stronger for collectivistic buyers, whereas the mediated relationship between instrumental *guanxi* and supply chain performance through cognition-based trust is stronger for individualistic buyers. Our model offers a theoretical rationale for future studies as well as important managerial implications.

Keywords: Expressive *guanxi*, Instrumental *guanxi*, Affect-based trust, Cognition-based trust, Culture, Collectivism, Individualism, Supply Chain Management

4.1 INTRODUCTION

With the intensification of globalization, Sino-Western trade is occurring more frequently than ever. However, due to the significant cultural and institutional differences, supply chain management (SCM) between Chinese and westerners faces considerable challenges. As a leading emerging country, China's rapid economic development is accompanied by underdeveloped formal institutions, such as imperfect marketization and deficient legal systems (Handley & Angst, 2015; Shou et al., 2016; Wang et al., 2016). Hence, the Chinese rely heavily on *guanxi* (interpersonal relationship or social network) as an informal institutional force to establish interorganizational trust and manage their supply chains (Cai et al., 2010; Yang et al., 2012). In addition, as a product of Confucianism, *guanxi* is characterized by Chinese traditions and social norms differing from the universal buyer-supplier relationships (BSR) in western countries (Chen et al., 2011). As such, enhancing supply chain management with Chinese partners requires investigating the impact of *guanxi* on supply chain performance.

In the last decade, some SCM studies deem *guanxi* a key driver of developing supplier management, reducing the bullwhip effect, promoting information and resource sharing, etc. (Lee & Humphreys, 2007; Cai et al., 2010; Cheng et al., 2012; Cao et al., 2014). Yet, very few studies empirically test its impact on supply chain performance, and instead focus on financial or marketing performance. Furthermore, although the management literature recognizes *guanxi* as mixed ties entailing expressive and instrumental aspects (Hwang, 1987), the majority of scholars consider

it as an integrated construct, and few separately investigate the functions of these two aspects. Expressive *guanxi* and instrumental *guanxi* are entirely different in terms of their generation and function mechanisms (Hwang, 1987; Chen & Peng, 2008), and may thus differently influence SCP. The question of which type of *guanxi* (expressive or instrumental) is more effective for SCP thus remains open. Recent studies have recognized the importance of culture in supply chain management (Metters et al., 2010; Wong et al., 2017). Since culture is highly related to mental programming and behavior codes, people with different cultural backgrounds may have different interaction patterns when establishing BSR (Cannon et al., 2010; Barkema et al., 2015; Ou et al., 2016). Therefore, culture is an important factor when analyzing the effects of *guanxi*. As such, our research aims to: 1) investigate the effects of expressive *guanxi* and instrumental *guanxi* separately; and 2) ascertain the moderating role of culture on these processes (to uncover which *guanxi* works better according to the cultural background).

The remainder of the article is structured as follows. Section 4.2 reviews the relevant concepts and develops the hypotheses. Sections 4.3 and 4.4 provide the statistical analysis to verify the proposed model. Finally, Sections 4.5 and 4.6 discuss the findings, implications, and limitations of our study.

4.2 LITERATURE REVIEW AND HYPOTHESES DEVELOPMENT

4.2.1 *Guanxi*

Guanxi describes interpersonal relationships or social connections based on mutual interests and benefits, “achieved by exchanging favors and giving social status between *guanxi* partners” (Zhang & Hong, 2017). As a product of Confucianism, *guanxi* governs social behaviors among Chinese people. Depending on the nature and closeness of *guanxi*, Hwang (1987) points out three types of interpersonal relationships: expressive ties, instrumental ties, and mixed ties. Expressive ties exist mostly among family members and close friends, entailing pure emotions. Conversely, people establish instrumental ties as a means of attaining goals. In Chinese business, *guanxi* is regarded as a Chinese style buyer-supplier relationship and is often compared to the concept of relationship marketing (Wang, 2007; Metters et al., 2010). Although buyer-supplier *guanxi* is established on the basis of mutual interest, it also entails emotional attachment (Wang, 2007; Barbalet, 2017). Therefore, buyer-supplier *guanxi* could be regarded as mixed ties, including both an expressive and an instrumental dimension. The expressive dimension is extended from family ties involving affective attachment, emotional understanding, warmth, and caring (Hwang, 1987; Chen & Chen, 2004). In the business context, the expressive dimension is related to non-job activities such as wining and dining, solving personal problems, etc. (Yang, 1994; Chen & Peng, 2008). Through these after-work interpersonal activities and exchanges of feelings, the affectional attachment between *guanxi* partners is enhanced (Chen & Chen, 2004; Yen

et al., 2011; Barbalet, 2017). Conversely, the instrumental dimension refers to the beneficial and material aspect of *guanxi* (Chen & Chen, 2004; Hwang, 1987). The reciprocal exchange in instrumental *guanxi* aims to satisfy economic needs or provide utilitarian rewards (Chen & Chen, 2004; Chen et al., 2013). In the workplace, it is more specifically linked to job related activities such as professional cooperation, helping with work problems, exchanging ideas, and so forth (Chen & Peng, 2008).

4.2.2 *Guanxi* and Trust

Numerous studies indicate that *guanxi* generates trust (Lee et al., 2001; Gu et al., 2008; Cheng et al., 2012; Cao et al., 2014; Wang et al., 2014). First, trust may be established through repeated interpersonal exchanges (Luo, 2011; Yen et al., 2011). Second, the behaviors of *guanxi* partners are monitored and sanctioned by *guanxi* exchange rules, which lead to decreasing opportunism (Luo, 2011). Within the *guanxi* circle, people discharge their obligations to avoid losing face (reputation and social status) (Lee et al., 2001; Barbalet, 2017), hence leading to trust.

However, most researchers consider *guanxi* in its entirety, without separately examining the functions of the expressive and instrumental dimensions, and although closely intertwined (Chua et al., 2009), they may generate trust in different ways (Chen & Chen, 2004). Through the lens of these two types of *guanxi*, and combining the theory of McAllister (1995), trust can be divided into affect-based trust and cognition-based trust. Affect-based trust refers to the trust embedded in emotional connections,

providing the motive to believe someone, whereas cognition-based trust is built on good reasons, evidence, and knowledge of a person (McAllister, 1995).

Expressive *guanxi* emphasizes enhancing emotional attachment through frequent social interactions, which are the seedbed of affect-based trust (McAllister, 1995; Chua et al., 2012). Along with reinforcing interpersonal emotional connections, a sense of loyalty and solidarity will emerge, which in turn motivates partners to act less opportunistically (Chen & Chen, 2004; Barbalet, 2017). In addition, through the exchange of feelings and values in personal interactions, social data can be collected to judge whether the person is reliable, sincere, and trustworthy (McAllister, 1995). It is assumed that these good personality traits are also present in the workplace (Chen & Chen, 2004).

Conversely, instrumental *guanxi* is generated during work cooperation, solving job-related problems, and exchanging benefits (Chen & Chen, 2004; Chen et al., 2013). Satisfactory professional interactions and successful cooperation lead to recognizing professional capabilities (track record, professional credentials, role performance, etc.). Such objective evidence and knowledge provide good reasons to trust others in terms of their abilities and competences (McAllister, 1995; Chen & Chen, 2004; Chua et al., 2012). In this way, cognition-based trust is established. Based on these arguments, we propose:

Hypothesis 1. Expressive *guanxi* has a positive effect on affect-based trust.

Hypothesis 2. Instrumental *guanxi* has positive effect on cognition-based trust.

4.2.3 Trust and SCP

Numerous studies argue the dominant position of trust in BRS and its importance in relation to financial and operational performance (Ha et al., 2011; Delbufalo, 2012; Li et al., 2014; Fawcett et al., 2017). However, while different types of trust are recognized (Lee & Dawes, 2005; Wang, 2007; Chen et al., 2011; Shou et al., 2011), in-depth research is needed to establish how types of trust differently influence SCP (Fawcett et al., 2017). Therefore, our study attempts to establish links between SCP and two types of trust (affect-based trust and cognition-based trust) separately.

First, affect-based trust between supply chain partners creates an open atmosphere that makes partners feel more comfortable and motivated to communicate and collaborate (Cao et al., 2014; Wu et al., 2014). This openness between buyer and supplier promotes mutual understanding, which leads to relational satisfaction and commitment (Cheng et al., 2012; Delbufalo, 2012; Wang et al., 2016). In addition, with affect-based trust, supply chain partners are more willing to share information leading to lower information costs (Ha et al., 2011; Delbufalo, 2012; Li et al., 2014; Wu et al., 2014). Through access to timely and accurate information, companies can better respond to their customers' needs in a shorter time and with greater flexibility (Delbufalo, 2012; Cao et al., 2014; Wu et al., 2014). Lastly, affect-based trust leads to opportunities to exchange resources between suppliers and buyers (Ha et al., 2011; Cheng et al., 2012). Resource sharing also enables companies to gain a competitive advantage by accessing complementary strategic resources and using these more efficiently (Lavie, 2006).

Differently, cognition-based trust helps reduce the concerns of partners in terms of opportunism by showing a good past record. Partners with cognition-based trust might provide more reliable information and professional knowledge, which results in more frequent information and knowledge sharing behaviors (Wang et al., 2016). Exchanging reliable information and knowledge may not only enhance supply chain resilience, but also improve product innovation and long-term competitiveness (Cao & Zhang, 2011). In addition, due to the complexity of supply chain collaboration, the professional competence and experience of partners rely highly on joint actions, including joint decision making, joint planning, joint problem solving, etc. (Ha et al., 2011; Delbufalo, 2012). When partners orchestrate their planning and execution, the benefits of the whole supply chain may be optimized by increasing efficiency and effectiveness (Simatupang & Sridharan, 2008; Cao & Zhang, 2011). Finally, cognition-based trust allows decreasing managerial risk by sharing the risks and benefits, which in turn encourages partners to invest in relationship assets and cooperation in a long-term perspective (Ha et al., 2011; Delbufalo, 2012). Based on these arguments, we propose:

Hypothesis 3. Affect-based trust has a positive effect on supply chain performance.

Hypothesis 4. Cognition-based trust has a positive effect on supply chain performance.

4.2.4 Moderating Effect of Individualistic /Collectivistic Culture

Culture has a significant impact on building trust (Ueltschy et al., 2007; Cannon et al., 2010; Chua et al., 2012; Ribbink & Grimm, 2014). Since trust concerns the expectations of partners, its establishment will be influenced by the cultural context and the interaction experience of the partners (Zaheer et al., 1998). Therefore, the way of building trust will differ among individuals across cultures (Schumann et al., 2010).

Among the different cultural frameworks and dimensions, the most commonly applied in this domain are that of Hofstede (2001) and S ndergaard (1994). In his work, Hofstede (2001) proposes five dimensions of national culture: power distance, uncertainty avoidance, individualism/collectivism, masculinity/femininity, and long-term orientation. In this research, we consider individualism/collectivism as our cultural indicator for two reasons. First, consistently recognized in different cultural frameworks, individualism/collectivism is more predictive and representative than other indicators (Handley & Angst, 2015). Second, this indicator is widely applied in the domain of behavioral norms and relationship development (Cannon et al., 2010). Consequently, we rely on individualism/collectivism to distinguish individual cultures in relation to *guanxi* style BSR.

Individualism/collectivism indicates the relationship between an individual and a group in a certain society (Hofstede, 2001). Specifically, it describes people's self-construal attributes (how they relate with others) and the extent to which they value their individual achievements compared to their community goals in a given social framework (Schumann et al., 2010; Yang et al., 2012; Barkema et al., 2015).

Collectivists differ from individualists in two aspects: collectivists are socially interdependent and strongly connected to others (Cannon et al., 2010; Yang et al., 2012); individualists are socially independent, act more personally, and are less subject to social pressures (Yang et al., 2012). As a consequence, compared to an individualist's rational, economic, and calculative traits, the collectivist is more relational and cares more about relationships with in-group members (Barkema et al., 2015; Handley & Angst, 2015; Zeffane, 2017). Secondly, collectivists emphasize the value of belongingness and loyalty to a group instead of being unique (Yang et al., 2012; Barkema et al., 2015; Van Hoorn, 2015), in return expecting the group's protection (Zeffane, 2017). Since collectivists are attached to their own group, they tend to subordinate their personal interests for collective benefits (Cannon et al., 2010; Barkema et al., 2015; Zeffane, 2017). Conversely, for individualists, personal goals and rights prevail over the group's (Cannon et al., 2010; Barkema et al., 2015; Van Hoorn, 2015). We expect that in a collectivistic culture, the effect of *guanxi* on trust will differ from an individualist culture.

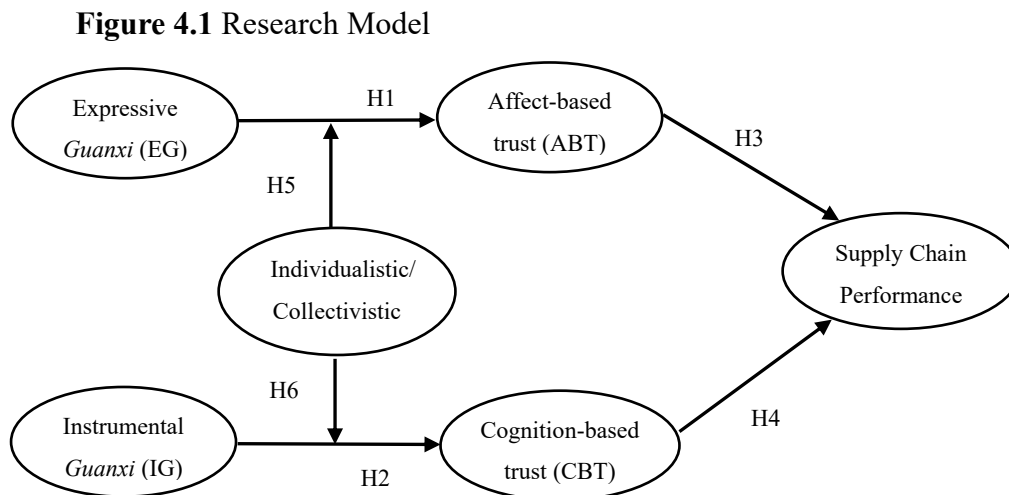
Indeed, in a collectivistic culture, individuals are connected by emotional commitment. In their perspective, emotional and social aspects dominate in business exchanges (Cannon et al., 2010). In addition, as collectivists are more socially interdependent, they pay greater attention to interactions between business partners. As interactions are a key driver of affect-based trust, the positive effect of expressive *guanxi* on affect-based trust will strengthen when the buyer is more collectivist oriented. By contrast, individualists are rational and calculative (Handley & Angst, 2015), and

individual performance and accomplishments are more valued than collective ones (Handley & Angst, 2015). In such circumstance, the working abilities of business partner are essential to building trust (Schumann et al., 2010). Hence, the positive effect of instrumental *guanxi* on cognition-based trust will strengthen when the buyer is more individualist oriented. Based on these arguments, we propose:

Hypothesis 5. A buyer’s collectivistic cultural orientation positively moderates the relationship between expressive *guanxi* and affect-based trust.

Hypothesis 6. A buyer’s individualist cultural orientation positively moderates the relationship between instrumental *guanxi* and cognition-based trust.

Figure 4.1 below presents our research model.



4.3 METHODOLOGY

4.3.1 Sample

We targeted Chinese manufacturing companies that have overseas business. To ensure the reliability of responses, only those who have contact with their suppliers were asked to compile the questionnaire. The 23 items used in the questionnaire (see Appendix 4.1) derived from the scales described below. All the questionnaires were translated into Chinese and back-translated into English to check the translation's accuracy. To access our target sample, we obtained a database of 200 responses from one of the biggest Chinese survey companies. Table 4.1 reports the respondents' demographic profile.

Table 4.1 Demographic profile (N=200).

Variable	Category	No.	%
Age	< 30	28	14.0
	30 - 39	135	67.5
	40 - 49	37	18.5
	> 49	0	0.0
Gender	Male	103	51.5
	Female	97	48.5
Respondent job level	High level	54	27.0
	Middle level	130	65.0
	Low level	16	8.0
No. of employees	< 50	1	0.5
	50 - 200	43	21.5
	201 - 500	76	38.0
	501 - 1000	67	33.5
	> 1000	13	6.5
Ownership	National	57	28.5
	Private	95	47.5
	Foreign investment	48	24.0
Length of relationship	< 2 years	0	0.0
	2 ~ 5 years	52	26.0
	6 ~ 10 years	120	60.0
	> 10 years	28	14.0
Supplier's nationality	Southeast Asian	115	57.5
	European	31	15.5
	North American	47	23.5
	Other countries	7	3.5

As Table 4.1 shows, most of our respondents (92%) hold middle level (department manager) and high level (president, vice president, CEO) positions, and therefore have more frequent contact with their suppliers. In addition, all the supplier-manufacturer relationships have lasted for more than two years, which means that our respondents generally have a deeper understanding of buyer-supplier *guanxi*.

4.3.2 Measures

Expressive Guanxi (EG) and Instrumental Guanxi (IG). We measured expressive *guanxi* and instrumental *guanxi* with 4 items each adapted from Chen & Peng (2008). The scale ranges from 1 (totally disagree) to 5 (totally agree). A sample item of expressive *guanxi* is ‘We have similar personalities’, and a sample item of instrumental *guanxi* is ‘We support each other at work’.

Affect-based trust (ABT). We measured affect-based trust with 4 items adapted from McAllister (1995). The scale ranges from 1 (totally disagree) to 5 (totally agree). A sample item is ‘We have a sharing relationship. We can both freely share our ideas, feelings, and hopes’.

Cognition-based trust (CBT). We measured cognition-based trust using 3 items adapted from McAllister (1995). The scale ranges from 1 (totally disagree) to 5 (totally agree). A sample item is ‘This person approaches his/her job with professionalism and dedication’.

Individualistic/Collectivistic Culture (ICC). We generated the 4 individualistic/collectivistic culture items from Faqih & Jaradat (2015). In this 5-point scale (1=totally disagree to 5 = totally agree), individualism and collectivism are two ends of the same continuum, such that low collectivism equals high individualism. Sample questions are ‘Individual rewards are not as important as group welfare’ and ‘Being loyal to a group is more important than individual gain’.

Supply Chain Performance (SCP). Respondents were asked to rate their supply chain performance using a 5-item Likert-type scale (1 = totally disagree to 5 = strongly

agree) with 4 items adapted from Huo et al. (2014). A sample item is ‘Our supply chain can quickly modify products to meet customer requirements’.

4.3.3 Statistical analysis

To test our model, we applied partial least squares (PLS) structural equation modeling using SmartPLS, which is suitable for modeling complex processes and relatively small samples (Hair et al., 1998; Sosik et al., 2009). The results of the reliability, construct validity (convergent validity and discriminant validity), and structural model testing are shown below.

4.4 RESULTS

Table 4.2 shows the descriptive, reliability, and convergent validity statistics. We used the Cronbach’s alpha coefficient and composite reliability score to assess the reliability of each construct. As all indicators are higher than 0.7, the reliability is adequate for further empirical analysis (Nunnally, 1978). Furthermore, we used the AVE indicators to evaluate the convergent validity (see Table 2). According to our result, all indicators are higher than 0.5, showing that each construct has good convergent validity (Henseler et al., 2009).

Table 4.2 Descriptive, reliability, and convergent validity statistics.

	Mean	S.D.	Cronbach 's Alpha	Composite Reliability	Average Variance Extracted (AVE)
EG	4.065	0.585	0.720	0.827	0.547
IG	4.400	0.459	0.757	0.845	0.578
ABT	4.165	0.496	0.740	0.837	0.562
CBT	4.225	0.561	0.750	0.857	0.667
ICC	4.186	0.560	0.800	0.870	0.626
SCP	4.259	0.525	0.767	0.850	0.588

Next, we estimated the discriminant validity (the dissimilarity between each construct) using two procedures. First, we calculated the factor loading of each item (see Appendix 4.2). Apart from the CBT1 scale item, every item loaded highly on its theoretical assigned factor, but not on other latent constructs, demonstrating good discriminant validity. However, as the results remained the same whether deleting CBT1 or not, we kept this item in line with the original scale. Second, the square root of the AVE of each latent variable should be greater than the shared variance between the specific construct and any other constructs in the model (Fornell & Larcker, 1981), and the value should be over 0.5 (Chin, 1998). Table 4.3 shows that every construct's square root of the AVE meets these two conditions. Therefore, discriminant validity is well demonstrated.

Table 4.3 Correlations of latent variables.

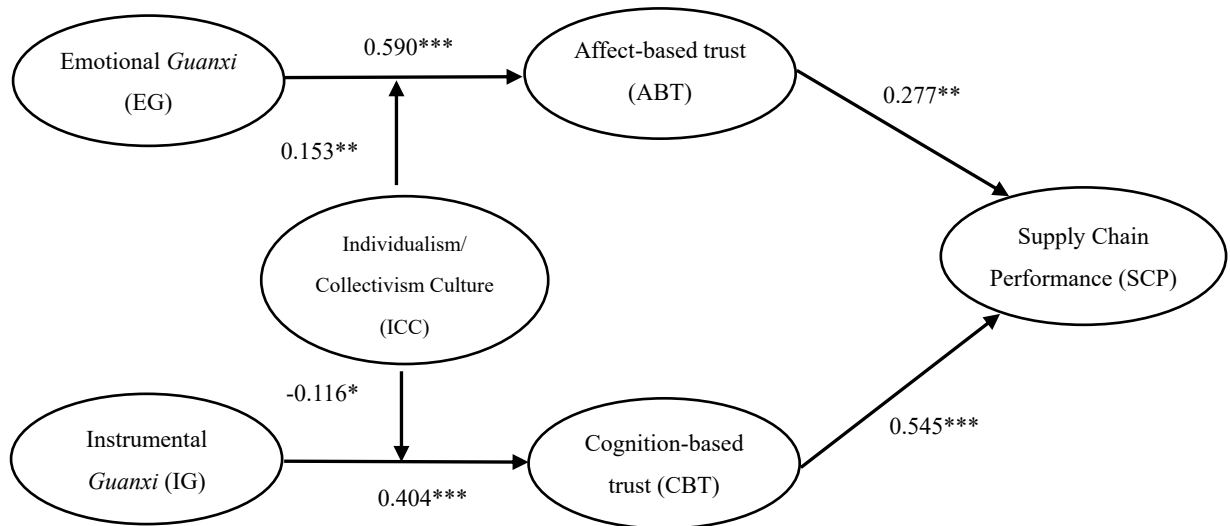
	ABT	CBT	EG	ICC	IG	SCP
ABT	0.750					
CBT	0.718	0.817				
EG	0.712	0.713	0.740			
ICC	0.590	0.688	0.639	0.791		
IG	0.619	0.716	0.657	0.607	0.760	
SCP	0.669	0.744	0.673	0.756	0.663	0.767

*Diagonal elements are the square root of the average variance extracted (AVE).

Lastly, Figure 4.2 reports the results of the structural model testing, providing significant support for each hypothesis. The results indicate that expressive *guanxi* highly influences affect-based trust ($\beta=0.590$, $P<0.01$), supporting H1. Correspondingly, the effect of instrumental *guanxi* on cognition-based trust is also statistically significant ($\beta=0.404$, $P<0.01$), supporting H2. In accordance with expectations, the focal company's supply chain performance is positively and significantly affected by both affect-based trust ($\beta=0.277$, $P<0.01$) and cognition-based trust ($\beta=0.545$, $P<0.01$), supporting H3 and H4. Next, the results show statistical support for the positive moderating effect of individualistic-collectivistic culture on the relationship between expressive *guanxi* and affect-based trust ($\beta=0.153$, $P<0.01$), supporting H5. This means that the positive effect of EG on ABT is strengthened when the buyer is more collectivist oriented. On the contrary, the moderating effect of individualistic-collectivistic culture on the relationship between instrumental *guanxi* and cognition-based trust is significantly negative ($\beta=-0.116$, $P<0.05$), supporting H6. In other words, the positive effect of IG on CBT is weakened when the buyer is more collectivist

oriented. As individualism is opposite to collectivism, we can conclude that the positive effect of IG on CBT is strengthened when the buyer is more individualist oriented.

Figure 4.2 Results of hypothesis testing (N=200)



*** Significant at the 0.001 level; ** Significant at the 0.01 level; * Significant at the 0.05 level

4.5 DISCUSSION AND IMPLICATIONS

This research investigates two different types of *guanxi* effects on supply chain performance and the moderating effects of individualistic/collectivistic culture. In line with our theorizing, the findings indicate that expressive *guanxi* and instrumental *guanxi* affect supply chain performance through two distinct paths: the former influences SCP through affect-based trust, while the latter affects SCP through cognition-based trust. In addition, our results illustrate the moderating effect of culture on the relationship between *guanxi* and trust: the positive effect of expressive *guanxi* on affect-based trust is stronger for collectivists than for individualists, whereas the

positive effect of instrumental *guanxi* on cognition-based trust is stronger for individualists than for collectivists.

4.5.1 Theoretical Implications

The first contribution of this study concerns the effects of two different forms of *guanxi* on SCP. Indeed, although an increasing number of studies discuss the effect of *guanxi* on business performance, very little research empirically examines its effects on SCP. We not only empirically tested the effects of expressive *guanxi* and instrumental *guanxi* on SCP separately, but also ascertained the mediating role of two forms of trust (i.e. affect-based trust and cognition-based trust) by establishing two paths: EG-> ABT -> SCP, and IG -> CBT -> SCP. Our study thus indicates the different functions of two *guanxi* dimensions. This finding empirically supports the concept of *guanxi* as a multi-faceted construct. Many earlier studies consider the various dimensions of *guanxi* as a condition, testing their joint effect on business performance (Gu et al., 2008; Cao et al., 2014; Ou et al., 2016), thus providing only a partial view. Future studies should consider the different dimensions of *guanxi* separately to obtain more accurate conclusions.

Furthermore, we built on previous work associating *guanxi* with trust (Wang, 2007; Cai et al., 2010; Shou et al., 2011; Wang et al., 2014), and our findings contribute by establishing the links between EG and ABT, and between IG and CBT. Although these conceptual ideas have been mentioned before (Chen & Chen, 2004; Lee & Dawes, 2005), to our best knowledge, our research provides the first empirically evidence of the positive effect from EG to ABT, and from IG to CBT. This particular finding

deepens our understanding of the connection between *guanxi* and trust. In the dominant view, trust is mainly based on credibility and benevolence (Ganesan, 1994; Chen et al., 2011). Despite its popularity, this theory has some limitations. First, the concept of these two types of trust originated from western research, which is not adapted to Chinese culture (Wang, 2007). Second, later research indicates that benevolence trust does not really exist in business relationships (Fawcett et al., 2017). Our empirically tested model overcomes these limitations by not only better integrating the theories of *guanxi* and trust, but providing a more convincing explanation of the effect of trust on SCP.

The second contribution is our focus on the moderating role of individualistic/collectivistic culture on the mediated relationship between *guanxi* and SCP through trust. Our results contribute to the growing body of literature on the impact of culture on buyer-supplier relationships (Ueltschy et al., 2007; Cannon et al., 2010; Ribbink & Grimm, 2014; Handley & Angst, 2015; Ou et al., 2016). Our findings show the significant moderating role of ICC in buyer-supplier relationships (Cannon et al., 2010; Handley & Angst, 2015). Additionally, by integrating ICC into the process from *guanxi* to trust, the results confirm prior studies arguing that culture influences the generation of trust (Ueltschy et al., 2007; Cannon et al., 2010; Ribbink & Grimm, 2014). However, our particular findings add to existing literature by differentiating expressive *guanxi* and instrumental *guanxi*, and calling attention to their distinct interaction patterns with ICC. Previous studies focus on the function of trust in different cultures, concluding that trust is more effective in collectivist and high context cultures than in individualist and low context culture (Ueltschy et al., 2007; Cannon et al., 2010). The

results of the current study go a step further by linking ABT to collectivistic culture and CBT to individualist culture. Moreover, since we use individual cultural values instead of the national index, our conclusion is more universal. This finding opens a new window for the application of *guanxi* in individualist culture. Lastly, in response to Yang & Wang's (2011) question on 'which tie works better under which situations', we show that the effectiveness of EG or IG is consistent with the collectivistic cultural orientation: partners with a high collective orientation respond more positively to expressive *guanxi*, whereas partners with a low collective orientation are sensitive to instrumental *guanxi*. This finding paves the way for future studies on the balance between the two attributes of *guanxi* that are highly dependent on the partner's cultural background. Our results suggest considering not only the external national culture, but the counterparty's individual culture when testing the functions of *guanxi*.

4.5.2 Managerial Implications

Our study offers a number of managerial implications. First, international suppliers should pay attention to the fact that the buyer-supplier *guanxi* is a mixed tie entailing the exchange of feelings and benefits (Chen & Chen, 2004). Furthermore, for the Chinese, expressive *guanxi* and instrumental *guanxi* are much more intertwined than for westerners in the work place (Chua et al., 2009). Despite establishing business *guanxi* for material purposes, expressive and affectional interactions could serve instrumental outcomes (Hwang, 1987; Chen & Chen, 2004). Moreover, people sometimes rely more on emotional than utilitarian value (Wang, 2007). Consequently,

international suppliers need to consider both the expressive and instrumental aspects when establishing *guanxi* with Chinese partners. As for expressive *guanxi*, this refers to emotional understanding and affective attachment to others. Western business partners should be aware of the importance of ‘affect investment’, namely, investing time and money in frequent social interactions (such as dining, greeting, exchanging gifts, etc.) with Chinese partners, since affective experiences promote affect-based trust. Instrumental *guanxi* instead concerns job related activities. This type of *guanxi* is based on material reciprocity and guided by economic interests in the workplace. Instrumental *guanxi* could be improved by mutual assistance in work, giving professional advice, actively solving professional difficulties, openly sharing key information, and so forth. Thus, frequent exchanges of professional ideas and mutual technical assistance should be encouraged between boundary personnel. These satisfactory professional interactions will lead to cognition-based trust.

Second and importantly, our study sheds light on applying the appropriate *guanxi* strategy in the right situation. Developing and maintaining *guanxi* entails costs and risks, which in turn entails learning how to practice *guanxi* more effectively and efficiently. In other words, international suppliers need to identify which type of *guanxi* (expressive or instrumental) is more effective when facing different buyers. According to our study, whether one kind of *guanxi* is more effective than another depends on the partner’s cultural background. Therefore, when applying a *guanxi* strategy, the buyer’s cultural background should be taken into consideration. Collectivists respond more favorably to expressive *guanxi*, and when the buyer is strongly connected to others, and values

collective goals over personal achievement (i.e. collectivist), after-work interactions and personal life sharing are effective ways to quickly establish trust. By comparison, individualists respond more positively to instrumental *guanxi*. Hence, when the buyer is socially independent and the emphasis is on personal goals and rights (i.e. individualist), more professional interactions displaying work motivation and professionalism will be more helpful to building trust than only personal life sharing.

4.6 LIMITATIONS AND FUTURE RESEARCH

This study has several limitations. First, we consider only the buyer's perspectives. This one-sided investigation may hinder the evaluation of supply chain performance. Future studies could apply a bilateral approach to collecting data from both buyers and suppliers. Second, our research model considers only the role of individualistic/collectivistic culture as moderator. Additional studies could examine other cultural factors such as high-context/low-context culture. Furthermore, future studies could also account for the different phases of *guanxi*. The effectiveness of expressive or instrumental *guanxi* may change depending on the initiating stage or the maintaining stage. In addition, although this study examines the different paths between expressive/instrumental *guanxi* with supply chain performance, future studies could extend our research by linking these two types of *guanxi* with different SCP dimensions. Lastly, our data were gathered at a single point in time, and the question of whether the importance of expressive *guanxi* or instrumental *guanxi* evolves over time remains open.

Since *guanxi* exchange is a long-term process, a longitudinal study is needed to examine the dynamism of *guanxi*.

General conclusion

In this age of globalization, international SCM faces new challenges. The cultural and institutional differences between Chinese and Westerners present difficulties for establishing collaborative BSRs. *Guanxi*, as Chinese style BSR, is not only a product of Chinese traditional culture but also a form of institutional force. For the purposes of this thesis, a series of studies were undertaken to investigate the impact of *guanxi* on SCM.

Chapter 1 gave a comprehensive description of *guanxi* in terms of its formation, basis, practice, exchange mechanism, and main characteristics. It also examined the historical evolution of *guanxi*, identifying its transformations in terms of meaning and importance. Traditionally, *guanxi* has long-dominated Chinese daily life as a product of Confucianism. Nowadays, its importance is continuing to grow, due not only to the influence of traditional values but also its institutional functions for commercial protection and risk avoidance. *Guanxi* originally referred to family relationships or clanship. However, in modern society, it is applied to social ties by adapting the family template. Hence, *guanxi* has evolved from a purely expressive relationship to combine affection and instrumentality. Additionally, Chapter 1 generally discussed the role of *guanxi* in commercial situations. In the business world, people pursue business interests through their *guanxi* network. *Guanxi* culture requires interfirm trust to be built at the individual level, through the interactions between each company's boundary spanning personnel. It is believed that close *guanxi* between two companies' representatives serves to promote cross-organizational cooperative behaviors, such as information

sharing, resource acquisition, cost savings, and negotiation. These collaborative behaviors, in turn, enhance each firm's business performance in terms of finance and operations. Chapter 1 offers two main contributions. First, insight into the historical development of *guanxi* informs our understanding of the modern concept. *Guanxi* culture advances with the times, so future studies should consider how the importance and attributes of *guanxi* may evolve. Second, compared to similar business relational concepts in the Western world, like the BSR or relational marketing, the underlying mechanism of *guanxi* is unique due to China's special cultural and social environment. Future research should consider that western exchange rule may ruin commercial relationships with Chinese partners without understanding *guanxi* culture.

In light of increasing Chinese investment in France in recent years, this thesis investigated how *guanxi* impacts on SCP in the French market. Due to the effect of mutual cultural influence in a social network, existing *guanxi* scales (mostly created in China) are unsuitable for Sino-Franco *guanxi* (Håkansson & Ford, 2002). To fill this gap, Chapter 2 created an empirically valid measurement scale for Sino-Franco buyer-supplier *guanxi*. This scale can be employed in future empirical studies concerning Sino-Franco *guanxi*. We also identified "Affection" and "Business Ethics" as the two dimensions of *guanxi* in this context. These differ partly from the traditional *guanxi* dimensions of affection and instrumental benefits, thereby elucidating the influence of external cultural environment on *guanxi* attributes. This confirmed the prior finding that *guanxi* is an environment-dependent phenomenon (Yen et al., 2011) and that *guanxi* practice is a leaning and updating process (Gao et al., 2010). Consequently, future

studies of *guanxi* should consider external environmental factors (especially national culture). In addition, since *guanxi* is a slow-varying process due to environmental exchange, future longitudinal studies are needed to fully consider the dynamism of this concept.

By applying the measurement scale created in Chapter 2, Chapter 3 empirically validated the positive impact of Sino-Franco *guanxi* on SCP. This extended previous research (Cao et al., 2014; Wang et al., 2014; Chen et al., 2015) by expanding the scope of *guanxi* research into international markets, focusing specifically on the French market for the first time. Our research contributes to the growing body of Sino-Western *guanxi* studies. It complements the research of Barnes et al. (2011) and Berger et al. (2015) by adding the perspective of Sino-Franco *guanxi*. The results indicate that the importance of *guanxi* is not limited to China but is also relevant for French suppliers, who are not necessarily familiar with *guanxi* culture.

Although some supply chain studies have considered *guanxi* as a key variable influencing business performance, very few have directly examined its impacts on the overall performance of the entire supply chain. Our study not only empirically confirmed *guanxi*'s positive influence on SCP, but also went a step further by revealing the mediating effects of SCC and the interaction among its three dimensions. Through the lens of social capital theory, complex SCC was divided into the three dimensions of vision sharing, resource-based collaboration, and process-based collaboration. Our empirically validated model reveals that *guanxi* indirectly influences SCP through the mediating effects of either vision sharing and resource-based collaboration or vision

sharing and process-based collaboration. We further contributed to the literature by providing detailed and accurate theoretical support for each individual process. The comprehensive theoretical explanations provide rich understanding of the empirically tested model from an academic perspective. We also pointed out that each theory has its own application area and limits. Most previous studies have mixed related theories (ERBV, RV, etc.) to explain the relationship between SCC and firm performance (Cao & Zhang, 2011; Ramanathan & Gunasekaran, 2014), that approach may cause confusion on the relationships between empirical evidence and theoretical understanding. We provide new insights by linking each theory with targeted corresponding hypotheses.

Based on prior chapters, Chapter 4 deepened our understanding of how *guanxi* impacts on SCP. Though *guanxi* has previously been recognized as a multi-faceted concept, most prior studies have considered its different dimensions as an entirety in their empirical analysis, leading to the loss of some information. Our research addressed this deficiency by first investigating separately the functions of expressive *guanxi* and instrumental *guanxi*. The results indicated that these two types of *guanxi* influence SCP through different working mechanisms: expressive *guanxi* affects SCP through affect-based trust, while instrumental *guanxi* influences SCP through cognition-based trust. We also found that individualist/collectivist culture has a moderating effect on these processes. Specifically, we discovered that the mediated relationship between expressive *guanxi* and SCP through affect-based trust is stronger for collectivist buyers, whereas the mediated relationship between instrumental *guanxi* and SCP through

cognition-based trust is stronger for individualist buyers.

In parallel with former studies, these findings confirm the important role of culture in trust-building and BSR formation. However, our particular findings are novel because we differentiate expressive *guanxi* and instrumental *guanxi* by focusing on their distinct interactive patterns with individualist/collectivist culture. Many prior studies have insisted that *guanxi* culture is more related to collective society (Song et al., 2012; Chen et al., 2013; Wang et al., 2014). We took a further step by linking expressive *guanxi* to collectivist culture, and instrumental *guanxi* to individualist culture, thereby opening a fresh window for *guanxi*'s application in an individualist culture. Finally, referring to the question of "which tie (expressive or instrumental *guanxi*) works better under which situation," proposed by Yang & Wang (2011), the research results suggest that the effectiveness of expressive *guanxi* or instrumental *guanxi* depends on the partner's collectivist cultural orientation. Finding that the balance between *guanxi*'s two attributes is highly dependent on the partner's cultural background provides a valuable foundation for future studies. The results of Chapter 4's study extend the implication of Chapter 2: when testing the functions of *guanxi*, we should not only consider external national culture but also the counterpart's individual culture.

This thesis has positively confirmed *guanxi*'s vital contribution to SCP when partnering with Chinese companies. Therefore, foreign suppliers should pay attention to the establishment and development of *guanxi* with their Chinese supply chain

partners.

As an interpersonal relationship, *guanxi* works at the individual level, rather than the organizational level. Hence, Western companies should encourage their employees, especially boundary spanning personnel, to build and develop their *guanxi* with Chinese counterparts through personal interactions and favor exchanges. This suggestion may violate Westerners' mainstream idea that business and personal matters should be clearly separated. However, Chinese always mix business and personal life. Just as a personal favor is often reciprocated by commercial advantages, turning down a personal request could also lead to the interruption of business collaboration.

Next, in the Chinese BSRs, trust-building is uniquely related to *guanxi* exchange. In China, inter-firm trust is guaranteed more by personal credit than by system-based trust. Therefore, Western managers should also keep their oral commitments, which are actually more important than written contracts. Since China is a low-trust society, only people who respect the rule of *guanxi* exchange are regarded as trustworthy. Consequently, it is essential for Western suppliers to have a good understanding of *guanxi* exchange mechanism. Two particular aspects of the *guanxi* exchange rule of reciprocity must be noted. First, since *guanxi* partners exchange both emotions and benefits, the value exchanged can never be calculated objectively. *Guanxi* exchange is, thus, an unequal and asymmetric process. Hence, when owing someone a favor, it is recommended to add value to one's repayment. Second, repayment is not immediate but at an appropriate time in the future. Therefore, foreign managers should not prioritize the short-term *guanxi* payoff, but focus instead on long-term ends. In addition,

when facing conflicts during business interaction, Western managers should avoid imposing coercive power, such as threats or legal action, since Chinese highly value a harmonious relationship during *guanxi* exchange.

Business *guanxi* combines affection and instrumental benefits. On the affectional aspect, foreign companies should pay attention to “affect investment,” referring to the time and cost devoted to frequent social interactions, including gift exchanges, wining and dining, and involvement in their personal life. It is believed that these emotional expenditures are reciprocal. Conversely, the instrumental aspect is related to reciprocal exchanges in the workplace, such as mutual assistance in work, giving professional advice, actively solving professional difficulties, and openly sharing key information. To maintain and develop *guanxi*, input from both partners is required. For Western managers, it is remarkable that, despite business *guanxi* being built for instrumental purposes, affectional exchanges can also have material outcomes. Therefore, the importance of “affect investment” should not be ignored. Additionally, though Western managers consider it unprofessional to bring personal emotions into professional interactions, these two types of *guanxi* are highly intertwined in Chinese workplaces.

Finally, business partners are recommended to apply the appropriate *guanxi* strategy in the right situation. The effectiveness of expressive *guanxi* or instrumental *guanxi* depends on the counterpart’s cultural background. When a business partner is strongly dependent on others and values the collective goal over personal achievement (i.e., collectivist), then after-work interaction and personal life sharing are effective ways to develop SCP. On the contrary, when a partner is socially independent and

emphasizes personal goals over group ones (i.e., individualist), more professional interactions with them, in order to display one's work motivation and professionalism, will be more conducive to improving performance compared to the exchange of personal emotions.

Although this thesis makes both theoretical and practical contributions, it has several limitations that indicate directions for future studies. First, in the surveys, we only considered Chinese buyers' perspective. Since *guanxi* (or collaboration) is a dyadic relationship, the counterpart's perceptions may differ from those of the focal company. In future studies, a bilateral approach could be employed to consider both partners' perspectives, so as to avoid missing key information. Second, in the studies detailed in Chapters 2 and 3, the findings are limited by the small sample size (N=101) and low homogeneity (including both Chinese companies in France and Chinese working in France). Future studies should use a larger dataset with high homogeneity to draw more universal conclusions. Third, while Chapter 2 mentioned the possible impacts of external cultural environment on *guanxi*'s attributes, these have not been empirically confirmed. Future empirical studies could extend our analysis by investigating how exogenous factors influence perceptions of *guanxi* quality. Fourth, although Chapter 4 discovered that the effectiveness of expressive *guanxi* and instrumental *guanxi* are respectively moderated by collectivist and individualist culture, future studies should explore other moderators, such as high/low context culture and different *guanxi* phases. Finally, all the data were gathered at a single point in time.

Since *guanxi* practice is a dynamic process, *guanxi*'s effectiveness or attributes may vary in different phases. Therefore, a longitudinal approach should be used to examine *guanxi*'s long-term dynamism.

Appendix: Chapter III

APPENDIX 3.1 QUESTIONNAIRE ITEMS

A.3.1.1 *Guanxi* (GX)

GX1. I take my supplier as my good friend.

GX2. I take my supplier as one of 'in-group' members.

GX3. If I've received a favor from my supplier, I have to return this favor back in an appropriate occasion.

GX4. I often interact with my supplier on social activities such as gift exchanging, dining together, and winning together, etc.

GX5. I communicate frequently with my supplier.

GX6. In this business relationship, I care not only my own interests, but also my supplier's.

GX7. Our cooperation will not be broken out because of opportunism.

GX8. Our relationship is harmony.

GX9. I talk very open with my supplier.

A.3.1.2 *Version Sharing* (VS)

VS1. We share a common supply chain goal with our supply company.

VS2. We believe that the collaboration among the supply chain is very important.

VS3. We have various channels to communicate (telephone, email, post mail, etc).

VS4. Top managers of both sides have meeting regularly.

VS5. In case of conflicts, we can joint solve the problem smoothly.

A.3.1.3 Resource-Based Collaboration (RC)

RC1. We share professional employees to solve problems.

RC2. We share social network resources.

RC3. We share professional equipment.

RC4. Since the business relationship has been established, we could access to more resources.

RC5. Since the business relationship has been established, we could access to new technologies.

RC6. We exchange information frequently with our supplier.

RC7. The information shared is accurate.

RC8. The information shared is timely.

RC9. We exchange confidential information with our supplier.

A.3.1.4 Process-Based Collaboration (PC)

PC1. We make key decisions together with our supply company such as inventory requirement, and optimal order quantity, etc.

PC2. We have joint plan on promotional events.

PC3. We have joint plan on product assortment.

PC4. We have joint management on inventory level.

PC5. We have collaborative forecast on market demand.

PC6. We share a common performance measurement.

PC7. Our supply chain process is well integrated.

PC8. We share the costs caused by order changes, product defects, etc.

PC9. We share the benefits produced by our co-management.

PC10. We do collaborative effort to develop supply chain performance.

PC11. We have joint investment on our collaborative relationship.

PC12. We have joint research and development team.

PC13. We share the supply chain risks caused by unstable logistics operation.

PC14. We share the supply chain risks caused by uncertain market demand.

PC15. We share the supply chain risks caused by accidents or disasters.

A.3.1.5 Supply Chain Performance (SCP)

SCP1. Lead time (time interval from order to delivery) decreases significantly.

SCP2. Customer demand responsiveness improves significantly.

SCP3. Production cycle time decreases significantly.

SCP4. Defective product returned ration decreases significantly.

SCP5. Customer orders' fulfillment improves significantly.

SCP6. Customer complaint rate decreases significantly.

SCP7. Production cost has been decreased significantly.

SCP8. Growth of sales has been improved significantly.

SCP9. Inventory level decreases significantly.

SCP10. Inventory turn increases significantly.

SCP11. Level of stock-out decreases significantly.

SCP12. Product quality improves significantly.

SCP13. Productivity increases significantly.

SCP14. NPD (new product development) time decreases significantly.

APPENDIX 3.2 NON-RESPONSE BIAS

Mean	Early responses (50)	Late response (51)	P
GX	3.6028	3.6014	0.991
VS	4.0320	4.0078	0.840
PC	3.1800	3.4514	0.058
RC	3.3174	3.4049	0.434
SCP	3.0560	3.1318	0.626

Appendix: Chapter IV

APPENDIX 4.1 QUESTIONNAIRE ITEMS

A.4.1.1 Expressive *Guanxi* (EG)

EG1. We have similar personalities.

EG2. We have similar interests and hobbies.

EG3. We trust each other.

EG4. We always take other's interest in consideration.

A.4.1.2 Instrumental *Guanxi* (IG)

IG1. We understand each other.

IG2. We support each other at work.

IG3. We respect each other's point of view at work.

IG4. We can fully communicate about the problems at work.

A.4.1.3 Affect-based trust (ABT)

ABT1. We have a sharing relationship. We can both freely share our ideas, feelings, and hopes.

ABT2. We would both feel a sense of loss if one of us was transferred and we could no longer work together.

ABT3. If I shared my problems with this person, I know (s)he would respond constructively and caringly.

ABT4. I would have to say that we have both made considerable emotional investments

in our working relationship.

A.4.1.4 Cognition-based trust (CBT)

CBT1. This person approaches his/her job with professionalism and dedication.

CBT2. Most people, even those who aren't close friends of this individual, trust and respect him/her as a coworker.

CBT3. If people knew more about this individual and his/her background, they would be more concerned and monitor his/her performance more closely (R).

A.4.1.5 Individualistic/Collectivistic Culture (ICC)

ICC1. Individual rewards are not as important as group welfare.

ICC2. Being accepted as a member of a group is more important than having autonomy and independence on the job.

ICC3. It is more important for a manager to encourage loyalty and a sense of duty in subordinates than it is to encourage individual initiative.

ICC4. Being loyal to a group is more important than individual gain.

A.4.1.6 Supply chain performance (SCP)

SCP1. Our supply chain has the ability to quickly modify product to meet customers' requirements.

SCP2. Our supply chain allows us to quickly introduce new products into our markets.

SCP3. We are satisfied with the speediness of the supply chain process.

SCP4. Based on our knowledge of the supply chain process, we think that it is efficient.

APPENDIX 4.2 FACTOR LOADINGS

	EG	IG	ABT	CBT	ICC	SCP
EG1	0.857	0.490	0.603	0.574	0.582	0.592
EG2	0.732	0.474	0.546	0.524	0.439	0.506
EG3	0.663	0.534	0.452	0.526	0.454	0.493
EG4	0.694	0.461	0.494	0.490	0.403	0.390
IG1	0.554	0.756	0.567	0.581	0.465	0.515
IG2	0.469	0.717	0.440	0.469	0.399	0.423
IG3	0.454	0.759	0.485	0.513	0.426	0.475
IG4	0.514	0.806	0.391	0.598	0.541	0.586
ABT1	0.555	0.491	0.795	0.555	0.441	0.495
ABT2	0.520	0.513	0.705	0.593	0.478	0.532
ABT3	0.522	0.410	0.728	0.463	0.403	0.450
ABT4	0.536	0.436	0.769	0.535	0.441	0.523
CBT1	0.658	0.713	0.602	0.874	0.611	0.680
CBT2	0.582	0.483	0.592	0.780	0.522	0.568
CBT3	0.498	0.534	0.571	0.793	0.547	0.566
ICC1	0.548	0.516	0.542	0.598	0.863	0.618
ICC2	0.492	0.540	0.463	0.566	0.775	0.577
ICC3	0.504	0.472	0.456	0.510	0.764	0.633
ICC4	0.473	0.380	0.391	0.493	0.757	0.567
SCP1	0.569	0.635	0.573	0.632	0.634	0.805
SCP2	0.421	0.374	0.430	0.482	0.475	0.672
SCP3	0.620	0.533	0.598	0.643	0.661	0.824
SCP4	0.418	0.460	0.418	0.498	0.521	0.757

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