

THE INFLUENCE OF QUANXI ON SUPPLY CHAIN COLLABORATION

ZHANG Chi, Ph.D. candidate

*Research assistant, KEDGE Business School,
Email : chi.zhang03@kedgebs.com*

HONG Seock-Jin, Ph.D.

*Professor of Air Transport and SCM, KEDGE Business School
Email : seockjin.hong@gmail.com*

OHANA Marc, Ph.D.

*Professor of OB & HRM, KEDGE Business School
Email : marc.ohana@kedgebs.com*

1. Introduction

Thanks to the development of Chinese economics and the increase of production capacity of Chinese local companies, more and more Chinese local companies have been moved aboard to look for new business opportunities. Since numerous Chinese investments go board into the European market, the way of Chinese people doing business (or Chinese business culture) need to paid attention when establish cooperative business relationship between Chinese oversea firms and European local firms.

In previous literatures, a Chinese concept *guanxi* (personal relationship or connection) has been regarded as a key cultural factor that influence deeply the way of Chinese doing business. However, most of these researches were taken in Chinese local market and focus mainly on Chinese to Chinese relationships. Nowadays, since more and more Chinese companies move to European market, the influence of *guanxi* practice on Chinese – European relationship based business performance need to be rediscovered.

In this age of globalization, supply chain management is becoming more and more important than ever. The competition within supply chain node companies has transformed to the competition among different supply chains. So in this context, many companies are changing their way of doing business by exceeding the border of standalone and individual actions toward collective actions. They are looking forward collaborative relationship with other companies within the supply chain. Companies could be befit from supply chain collaboration by sharing risks and knowledge, decreasing traction cost, enhancing negotiating powers, etc. And considering the dominate position of *guanxi* culture in Chinese companies, a study concerning the influence of *guanxi* on supply chain collaborative behaviors and supply chain performance should be examined.

2. Literature review

2.1 Guanxi

Guanxi has been discussed in western management publications for many years. It appeared firstly at 1980s to advise western company to consider *guanxi* as a cultural factor when doing business in China. And *guanxi* culture, which is deeply rooted in Chinese society, has gravely influenced the way of doing business in China.

Guanxi could generally translated as 'personal relationship' or 'connection' (Yi & Ellis., 2000; Leung et al., 2005). However, Researches have noticed that *guanxi* is different from pure relationship in terms of three dimensions: reciprocity, utilitarian rather than emotional, and long-term orientation (Chen et al., 2011). Functionally speaking, western literatures compare *guanxi* as a version of relationship marketing (Davies et al., 1995). Unlike simply transactional relationship, *guanxi* has some things in common with relationship marketing: trust and mutual understanding, cooperative behavior, development of networks, long-term orientation, etc. (Abramson & Ai., 1997; Wang, 2007). However, *guanxi* has big difference with western relationship marketing in terms of its personal, particularistic, emotional characteristics (Wang, 2007). Although *guanxi* is establish on reciprocal obligations, it's indeed a personal affiliation and based on affection commitment (Lee et al., 2001; Wang, 2007).

Guanxi's culture has a huge influence on Chinese people daily live, especially Chinese business behavior. Many scholars regard *guanxi* as a deep-seated cultural fact of Chinese society (Yang, 1994; Davies et al., 1995; Yi & Ellis., 2000). *Guanxi* can be seen as a product of confusion values (Fan, 2002,11,71) which present the thinking of relational society, harmony, collectivism, clan-like network, etc. (Park & Luo., 2001; Lee & Humphreys,2007).

And because of the uncertainty of business environment and legal system (Park & Luo., 2001; Lee & Humphreys, 2007), Chinese people rely more on guanxi as an informal rule to counter potential risks (Cai et al., 2010). So in some literatures, guanxi is viewed as an institutionally defined system (Guthrie, 1998; Chen et al., 2011), and contemporary political socio-economic system (Fan, 2002).

In business context, guanxi practice refers to find business solutions through personal relationship. In essence, this guanxi practice are a series of reciprocal but unequal exchanges (Yi & Ellis., 2000). And these exchanges are expressed as a series of social interactions including exchanging of gifts, favors and banquets, giving face, trust and commitment, and dining & winning (Yang, 1994; Guthrie, 1998).

People try to be involved into guanxi network for several reasons. Firstly, becoming a 'insider' could help obtaining information and having the privilege to access to insider information (Yi & Ellis., 2000; Fan, 2002; Lee & Humphreys, 2007; Gu et al., 2008). Such information could be the information on market trends, business opportunities, or decode government policy intents (Yang, 1994; Gu et al., 2008). Secondly, guanxi provides insurance against environmental uncertainty (Abramson & Ai., 1997; Fan, 2002). A good guanxi between companies helps to decrease the risk of interruption of collaboration caused by opportunism (Yi & Ellis., 2000). Thirdly, since become an insider of a guanxi network, guanxi partners could only access to some key information, but also some rare resources (Davies et al., 1995; Fan, 2002).

2.2 Supply chain collaboration

In this age of globalization, supply chain management is becoming more and more important than ever. The competition within supply chain node companies has transformed to the competition among different supply chains. And in the same time, because of the globalization (Simatupang & Sridharan, 2005), unpredictable environment (Cao & Zhang, 2011), and the demand uncertainty (Ramanathan, 2014), supply chain management is becoming more and more complicated. So in this context, many companies are changing their way of doing business by exceeding the border of standalone and individual actions toward collective actions to increase its competitive. So the idea of supply chain collaboration emerges as times require.

Different literatures define supply chain collaboration in different ways. In this paper, the supply chain collaboration can be defined as a cross organizational boundaries business form, in which interdependent companies are bind in an integrative and collaborative partnership through working together for a common supply chain goal (Monczka et al, 1998; Simatupang & Sridharan, 2004; Simatupang & Sridharan, 2005; Cao & Zhang, 2011). In order to achieve a well-integrated collaboration, independent companies need to fulfil each's obligations to reach joint-decision making, Knowledge creation, joint effort, and etc. (Simatupang & Sridharan, 2002; Simatupang & Sridharan, 2005). And these obligations for each companies could be called as collaborative practice. The collaborative practice include sharing cost, benefits and resources, combining business activities, having relational communication, etc. (Simatupang & Sridharan, 2002; Simatupang & Sridharan, 2004; Montoya-Torres & Ortiz-Vargas, 2014; Ramanathan, 2014). People believe through supply chain collaboration, single companies could gain different competitive advantages (Simatupang & Sridharan, 2002): financial advantage as higher profits and lower cost (Fisher, 1997; Simatupang & Sridharan, 2005; Cao & Zhang, 2011), meet customer's needs and improve business performance (Simatupang & Sridharan, 2004; Simatupang & Sridharan, 2005).

Supply chain collaborative behaviors or supply chain collaborative practices refer to the interactions between supply chain node companies that will promote or strength their supply chain collaboration.

According to the literature reviews, the supply chain collaborative behaviors include these seven different dimensions as fellows: goal congruence, collaborative planning, resource sharing, communication, system synchronization, incentive alignment, and long-term orientation (Monczka et al., 1998; Mentzer et al., 2001; Barratt, 2004; Chen & Paulraj, 2004; Cao & Zhang, 2011;Montoya-Torres & Ortiz-Vargas, 2014;Ramanathan,2014).

2.3 Hypothesis proposed

Based on the previous literatures, three hypothesis have been proposed:

Hypothesis 1: Guanxi has a significant positive effect on supply chain collaboration practice.

Hypothesis 2: Guanxi has a significant positive effect on supply chain collaboration performance.

Hypothesis 3: Supply chain collaboration practice has a significant positive effect on supply chain collaboration performance.

3. Research methodology

3.1 Questionnaire development

In the questionnaire, three main dimensions are tested: guanxi, supply chain collaborative behavior, and supply chain performance.

Guanxi is measured in three sub-dimensions: personal emotion, reciprocity and social interaction. Personal emotion refers to the emotional closeness between people, affective commitment and favoritism (Gu, Hung, & Tse, 2008; Lee, Pae, & Wong, 2001; Zhuang, Xi, & Tsang, 2010). This personal emotion characteristic differentiate guanxi from business relationship, because guanxi is more personal and social instead of impersonal and commercial (Yang, 1994; Davies et al., 1995; Wang, 2007). Reciprocity means that the establishment of guanxi between two parties is based on mutual interests and benefits. These two parties have the reciprocal obligations to exchange favors (money, business opportunities, confidential information, etc.) (Yang, 1994; Davies et al., 1995; Park & Luo, 2001; Lee, Pae, & Wong, 2001; Fan, 2002; Lee & Humphreys, 2007; Wang, 2007; Chen, Huang, & Sternquist, 2011). The social activities could be seen as the practices to promote guanxi. These rituals include exchange of favors, banquets, winning and dinning (Yang, 1994; Wang, 2007; Gu, Hung, & Tse, 2008).

As for the supply chain collaborative behaviors, it's measured in seven different sub-dimensions according to the literatures: goal congruence (Cao & Zhang, 2011; Mentzer et al., 2001), collaborative planning (isher, 1997; Monczka et al., 1998; Simatupang & Sridharan, 2005; Cao & Zhang, 2011; Nyaga, Whipple, & Lynch, 2010), resource sharing (Cao & Zhang, 2011; Hudnurkar, Jakhhar, & Rathod, 2014; Ramanathan & Gunasekaran, 2014), communication (Monczka et al., 1998; Mentzer et al., 2001; Barratt, 2004; Chen & Paulraj, 2004; Cao & Zhang, 2011; Montoya-Torres & Ortiz-Vargas, 2014; Ramanathan, 2014), system synchronization (Mentzer et al., 2001; Barratt, 2004; Simatupang & Sridharan, 2005), incentive alignment (Barratt & Oliveira, 2001; Park, Mezas, & Song, 2004; Simatupang & Sridharan, 2005), and long-term orientation (Mentzer et al., 2001; Ramanathan, 2014).

In terms of supply chain performance, different literatures give various measurements. In this survey, the supply chain performance is measured by these six criteria: customer satisfaction (Monczka et al., 1998; Mentzer et al., 2001; Ramanathan, 2013), financial performance (Simatupang & Sridharan, 2005; Cao & Zhang, 2011; Ramanathan, 2014), inventory performance (Simatupang & Sridharan, 2005), market performance (Monczka et al., 1998; Simatupang & Sridharan, 2005), production performance (Monczka et al., 1998; Cao & Zhang, 2011;), and resources acquirement (Park, Mezas, & Song, 2004; Cao & Zhang, 2011).

3.2 Sampling and data collection

Based on the literatures, this questionnaire contains 60 likert scale questions plus 8 background information questions. In order to increase response rate, this questionnaire has three different language versions: Chinese, English and French.

The questionnaires have been emailed to 200 Chinese companies in France .Among these respondents, 50 Chinese companies in France have returned their responses. And among these 50 questionnaires, 33 of them (66%) comes from Chinese version, 13 of them (26%) comes from English version, and 4 of them (8%) comes from French version. This table below (table 2) shows the descriptive statistic of the sample.

Table 1 Descriptive statistic

Classification		Number	Percentage
Title of respondent	High level	22	44.90%
	Middle level	15	30.61%
	Low level	12	24.49%
	Sub total	49	100.00%
Main business area	Wine produce	17	34.00%
	Wine trade	12	24.00%
	General produce	9	18.00%

	General trade	5	10.00%
	Other	7	14.00%
	Sub total	50	100.00%
Respondent's nationality	Chinese	33	66.00%
	French	17	34.00%
	Other	0	0.00%
	Sub total	50	100.00%
Length of relationship	< 2 years	14	29.79%
	2 ~ 5 years	15	31.91%
	6 ~ 10 years	3	6.38%
	> 10 years	15	31.91%
	Sub total	47	100.00%

Seeing from this table, among these 50 respondents, nearly half of them (44.90%) are in high position of each companies. Their job titles include CEO, chef manager, deputy general manager, president and vice president. 30.61% of respondents are in middle level of each companies. Most of them are department managers. And 24.49% of respondents are employees.

3.3 Correlation test

In order to check the correlations between these three main constructs (guanxi, supply chain collaborative behavior and supply chain performance), a correlation test was made by using SPSS.

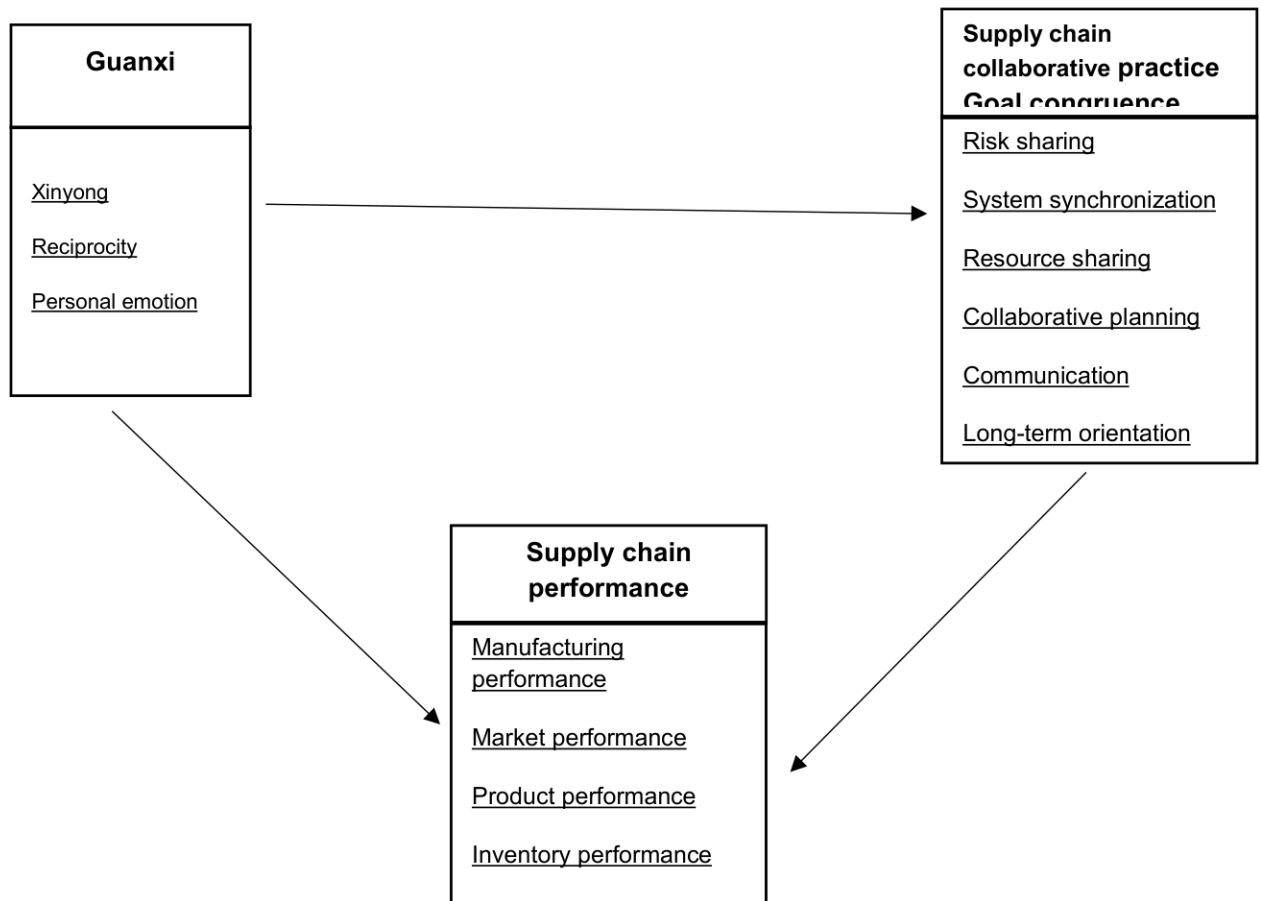
Seen from the result, it comes the conclusion that guanxi is highly related to the supply chain collaborative behaviors (Pearson correlation equals 0.561), and the supply chain collaborative behaviors are highly related to the supply chain performance (Pearson correlation equals 0.375). However, the correlation between guanxi and supply chain performance is not significant (Pearson correlation equals 0.074).

3.4 Exploratory Factor Analysis and Conceptual framework

Based on the 50 questionnaires (60 scales questionnaires each), an exploratory factor analysis is did by using SPSS. According to the result of EFA, the guanxi construct is divided into 3 dimensions: trust, reciprocity and personal emotion. All the standardize loading of each questions in guanxi are bigger than 0.6. And the Cronbach's alpha of each dimensions are 0.761 (trust), 0.747 (reciprocity) and 0.71 (personal emotion). As for the supply chain collaborative behaviors, it's divided into eight dimensions: risk sharing (0.901), system synchronization (0.828), resource sharing (0.825), collaborative planning (0.716), communication (0.682), long-term orientation (0.598), goal congruence (n/a), and information sharing (0.584). As for the supply chain performance, there are four dimensions: manufacturing performance (0.918), market performance (0.891), product performance (0.821), and inventory performance (0.806).

Based on the result of exploratory factor analysis, each construct has found its dimensions. It helps to establish a more complete conceptual framework for future study (Structural equation modeling).

Table 2 Conceptual model



4. Conclusion

This study aims at investigating the impact of guanxi (a special Chinese business cultural) on supply chain management for Chinese oversea companies. Most previous guanxi's studies focus on Chinese local market, but this research consider firstly Chinese oversea companies in the French market. This paper use quantitative method used to test the relationships between three main constructs: guanxi, supply chain collaborative practice and supply chain performance. Based on the literatures, a survey was conducted to all the Chinese companies in France. Three-language version questionnaires were sent to 200 Chinese companies in different industries. And 50 respondents have returned their questionnaires. By using these 50 data, this paper uses correlation test to check the relationships between guanxi and supply chain management. And it uses exploratory factor analysis to establish conceptual model for future studies. According to the result of correlation test, guanxi practice is significantly related to supply chain collaborative behavior, and supply chain collaborative behavior is also significantly related to supply chain performance. It concludes that, though guanxi practice (personal social activities and affection investments) between buyers and suppliers, more supply chain collaborative behaviors between upstream and downstream companies will be. And in this way, supply chain performance will be improved. So for the purpose to have a better supply chain collaboration, mangers should encourage boundary employees to build a good personal relationship with the ones from their supply chain partners. Based on the limited data (50) and exploratory factor analysis, a conceptual model is established. In the future, with more data collection, a structured equation modeling could be used to test this model.

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