Managing supply chain collaborations in International joint ventures: Case study in the Chinese automotive industry

Weixi Han (weixi.han@ntu.ac.uk)
Nottingham Trent University

Yuan Huang
Cardiff University

Douglas M. Macbeth
University of Southampton

Abstract

The international joint venture (IJV) strategy brings the challenges of managing the interrelated horizontal and vertical supply chain collaboration (SCCs) in Chinese automotive industry. To explore the multi-level interrelated relationships including cross-cultural SCCs and IJVs, a multi-case study approach is employed in the paper. Best practices of SCC in IJVs are identified and investigated, where multicultural collaborations as well as monitoring and control of SCC tasks are discussed. The paper reveals the reconfiguration and development of SCCs in a multicultural-IJV context, addressing the question of how multi-level SCC is influenced by the cultural differences among the collaborators.

Keywords: supply chain collaborations, international joint ventures, automotive industry

Instruction

The supply chain collaboration (SCC) between a manufacturer and supplier can be affected by changes in the environment or by mutual differences such as culture (Ribbink and Grimm, 2014). The main trends in the extant SCC studies are supply chain effectiveness and competitive advantages (Cao et al., 2011) and manage the success of strategic sourcing and current procurement initiatives are represented by SCC (Lambert and Schwieterman, 2012). SCC can be vertical or horizontal and can also be operational, however, only a few studies (Han et al., 2017; Jia and Lamming, 2014) looked at both vertical and horizontal relationships in the supply chain management context.

Currently, many global manufacturers prefer production in China. International investment in automotive international joint venture (IJV) vehicle manufacturer brands occupies over 88% of the market in China (Holweg et al., 2008; China Automotive Industry Yearbook, 2017). A complex IJV structure was developed, as illustrated in Figure 1. A desired corporate performance requires parent firms to build effective
control systems and to allocate appropriate control powers so that the parent firms could effectively transfer their firm-specific advantages to the IJV (Choi and Beamish, 2004; Yan and Gray, 2001). This is not without its problems. One problem was that some vehicle manufacturers had several sub-IJVs, and also had initiated IJVs with the international party who were their direct competitors (Figure 1). Sub-IJVs are competing for new products, but vehicle manufacturer has a limited product range for the Chinese market, and thus potentially unhealthy competition is emerging between the two IJV operations. Besides, manufacturers' domestic party have independent operations which are in direct competition with their own IJVs. While this structure has helped to drive the initial development of manufacturers and fostered the growth of suppliers, complexities surrounding the multicultural SCC also meant that considerable difficulties were encountered in managing operations. Most crucial of these challenges has been the formation and management of the relationship between manufacturers and suppliers, where the latter has remained in a passive position over the long term (Holweg and Oliver, 2016).

![Figure 1 – Major automotive international manufacturers’ sub-IJVs in China](image)

Within the context, research multi-level and cultural business to business relationships management are essential to make sound decisions and also to anticipate potential problems when enhancing the SCC and offers the potential to simultaneously examine different dimensions of collaboration (Cao and Zhang, 2011). The current research is cross-sectional, whereby the results only provide a static picture of the current situation. Thus, one of its limitations is that it fails to capture the dynamic nature of multi-level relationships which are managing SCCs in IJVs. The lack of SCC in this favourable business position seriously restrains the growth of the Chinese automotive industry (Lockström et al., 2010), and it requires further development and improvement.

**Literature**
**Business-to-business relationships**

Business relationships are a term which summarizes the many different words used to define the many different partnering relationships between companies across and within supply chains (Johnston and Staughton, 2009). These partnering relationships focus on the completion of a common objective. This generally requires the use of techniques to deal with any conflicts which arise and to efficiently resolve any issues which do emerge (Larson, 1995; Black et al., 2000). Bresnen (2007) noted that while partnering may involve one short-term piece of work, companies can gain greater advantages when they adopt long-term commitment strategic partnering. Egan’s (1998) study suggested that companies wishing to enter a strategic partnership must be willing to create a stable and lasting association, while Gill and Butler (2003) noted that joint ventures are a type of partnering relationship which may involve companies paying to create new and independent affiliates which they own together. These IJVs often use the abilities offered by each partner to take advantage of new opportunities which have become available. Doz and Hamel (1998) found that formal agreements are made which clarify the contribution made by each partner.

Many studies are using more evidence-based methods and have identified a number of issues with SCC. For example, Bresnen (1996) has questioned whether these collaborations can really reduce risk and costs, while Staughton and Johnston (2005) have studied the manner in which relationships are measured. Bresnen (2007) focused on the flaws of the collaborating approach, and Kelly et al. (2002) investigated challenges facing companies with very new collaboration. Finally, Phua and Rowlinson (2003) concentrated on cultural differences and whether business relationships were really worth the scene for continuing since it seems at the moment that there are concerns about the use and benefit of collaborating.

**Multicultural relationships management control**

Cultural characteristics provide grounds for the interpretation of actions within a SCC measurement context (Han, Huang and Macbeth, 2017). The culture of a business can be defined as the combination of usual qualities that impact on how a group will respond to its environment (Hofstede, 1980). Organisational culture and national culture consist of different dimensional levels. National culture underpins the culture of an organisation and provides the basis for the norms of organisational behaviour (Hofstede, Hofstede and Minkov 1991). Particular countries and nationalities tend to have their own distinct cultures, and this makes cultural clashes a probable occurrence in the modern economy. It is posited that a ‘culture gap’ between business partners can lead to very different organisational practices, managerial decisions and business ethics (Hewett et al. 2006; Hofstede 1980; O’Reilly and Chatman 1986; Schein 1985; Tse et al. 1988). Accordingly, it is further proposed that culture can impact business performance.

Regardless of the increased popularity of the collaboration as a business model, academic commentary is lacking in a number of aspects. Some research in the literature on SCC concerns the relative competency in performance (Benton and Maloni 2005; Bititci et al. 2005; Narayanan et al., 2015; Paulraj et al., 2008); however, only Ribbink and Grimm (2014) have investigated cultural difference through the lens of SCC. The diverse results suggest that additional research is necessary in order to obtain empirical evidence to form the basis for a comprehensive and reliable understanding of SCC management by cross-cultural manufacturers.

The inter-organisation relationships already established between the parent parties and their current suppliers play important roles in their new IJVs as they bring their
experiences with them to the new context. Few studies have considered the perceptions of both domestic and international parties with regard to management control issues (Groot and Merchant, 2000; Chalos and O’Connor, 2004; Kamminga and Meer-Kooistra, 2007; Liu et al., 2014). Such an investigation is critical to developing an understanding of how each party perceives and uses controls in the management of the venture. Kamming and Meer-Kooistra (2007) pointed out that the inter-relationships between parent parties play an important role in IJVs. They examined the control patterns of many IJV parties who must monitor operations in settings with which they are barely familiar – market, distribution and legal systems, and so on – and who often have to deal with significant geographical and time differences. Kamminga and Meer-Kooistra (2007) regarded joint venture operations management as dynamic. Changes may also take place in the IJV governance structure and in management control.

**Theoretical framework proposition**

Multicultural organizations are adaptive systems which operate in complex business environments. However, determining the applicability of multicultural SCC approaches is a complex process, the number of studies (see Table 1) of alternative concepts is increasing, and multicultural businesses are inclined to suggest that any such approach is universally appropriate. The recommendation for a universal approach is driven by a lack of multicultural collaborators on the part of the automotive industry, which hopes to benefit from a particularly effective SCC and thus gain wide applicability. However, aiming for such wide applicability means it is inevitable that the automotive industry’s SCCs in IJVs.

**Research question:** How do international joint ventures reshape supply chain collaborations from a cultural perspective?

This study aims to combine theory and practice to develop a theoretical framework by investigating multicultural SCC effectiveness management.

<table>
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<th>Table 1 – Criteria of multicultural collaborations</th>
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<td><strong>Categories</strong></td>
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<td>Alignment between IJV and SCC</td>
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<td>IJV partners’ relationship management</td>
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<td>Alignment between China and other cultures</td>
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Methodology
A methodical investigation of this research issue concerning business-to-business conduct is possible through the rigorously developed research strategy (Marshall and Rossman, 2006), with the understanding of business-to-business relationship within a multicultural collaborators context hopefully enhanced through the investigation. This research concentrates mainly on a process approach (Pettigrew, 1992; Van de Ven, 1992) to the SCC, as opposed to validation of existing theories, qualitative investigations tend to focus on the revelation of new knowledge (Symon and Cassell, 1998; Silverman, 2005). Such an examination reveals the extent to which this investigation has developed throughout the research; progressing to not only address the thesis question but to also provide substantial impetus for any subsequent empirical research. The research was an amalgamation of the following methods: (1) theoretical/conceptual development, and (2) empirical/case study research.

The context of the Chinese automotive industry can provide useful lessons, as cases therein can be perceived as more extreme given the dynamic and complex environment. Multicultural business environments are a fundamental problem for both simple and complex organisations and cooperation forces partners to develop skills that minimise interpersonal and organisational differences (Mahlendorf et al., 2012). Therefore, multi-level relationships are included here as a critical antecedent to SCC. SCCs are then investigated in the context of the IJVs in a cross-sectional case study. Consequently, sourcing managers are not only accountable for their activities but are equally liable for supplier behaviour.

To investigate and build theories addressing the multi-level interrelated SCC including supplier-manufacturing relationships, IJVs, the inherent cultural impact as mentioned in the research questions, a multi-case study approach is employed in the study to collect empirical evidence that is sufficiently cover IJVs with a variety number of national combinations (e.g., China-Europe, China-America, China-Japan) within the Chinese automotive industry (Voss et al., 2002). Their first-tier suppliers are included to reflect the vertical SCC perspective and to explore any horizontal connections because of the IJVs. Through a comprehensive review and analysis of the literature regarding SCC, a proposition of multi-level relationships management is developed. The proposition is then engaged with the empirical evidence that is classified by the dimension, supply chain position, and cultural context within the multi-level SCC. Classification has been considered as an effective configuration method to build theories (Bailey, 1994). The results validate and extend prior theory while providing valuable insights for practising managers. Four sets of SCCs in IJVs were selected (see Table 2, E1-E4). In this study’s selection procedure, since the additional cases did not contribute any significant new information about the SCCs in IJVs, it was concluded
that the cases had reached the point of theoretical saturation (McCutcheon and Meredith, 1993; Yin, 2003). The case study evidence is collected through in-depth interviews with four to six senior directors and supply chain managers from each case.

**Analysis and Findings**
Recognising in managing SCC in IJVs. As organisations, the multicultural relationships of IJV and the SCC are both included in the cases (see Table 2). IJV managers have the problem of what priorities to focus on with their different partners. That is to say; the horizontal IJV relationships might show similar characteristics to the vertical manufacturer-to-supplier relationships.

<table>
<thead>
<tr>
<th>Categories</th>
<th>Key criteria</th>
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<td><strong>Alignment between joint venture relationship and SCC</strong></td>
<td><strong>SCC</strong></td>
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<td><strong>IJV</strong></td>
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<td><strong>Partners</strong></td>
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<td><strong>Clear responsibilities and rights</strong></td>
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<td><strong>Optimise joint venture relationship and supply chain collaboration</strong></td>
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<td><strong>IJV management relationship</strong></td>
<td><strong>Management control issues</strong></td>
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<td><strong>Parent parties cooperation</strong></td>
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<td><strong>The degree of association</strong></td>
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<td><strong>Political and legal risks</strong></td>
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<td><strong>Reverse knowledge flows</strong></td>
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<td><strong>Supplier management</strong></td>
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<td><strong>Positioning social skills and an understanding of Chinese cultural knowledge</strong></td>
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<td><strong>Alignment between China and other cultures</strong></td>
<td><strong>National culture underpins the culture of the organization and provides the basis for the norms of organizational behaviour</strong></td>
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<td><strong>Countries’ and nationalities’ cultures make cultural clashes</strong></td>
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<td><strong>Culture gap lead to very different organizational practices, managerial decisions and business ethics</strong></td>
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<td><strong>People are independent and their choice of behaviour has the potential to erase the effects of national culture</strong></td>
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**Note:** ☀️, what is confirmed in empirical research
**Note:** *, what is new finding in empirical research

**Alignment between IJVs and SCC**
The empirical data shows that manufacturers understand the alignment between IJV relationships and the SCC. The IJV relationship affects how business to business relationships function because most the international party has both supplier selection
and decision rights in the manufacturer. While these two kinds of relationships are provided with a clear division of responsibilities and rights (confirmed by E1 and E3). E1 indicates that responsibilities for dealing with the two relationships are different. The SCC should be screened by assessment. In E3, SCC and IJV relationships are respected. The SCC is implemented in procurement strategy, and a profit community can be formed with suppliers.

The criterion of mutual effect with each other is a new finding in this empirical research and was identified by all participants. E2 considers that the SCC has a tendency to be dominated by the international party. E4 believes that these two relationships cannot be separated in the Chinese automotive industry.

Optimise both relationships is another new finding in this empirical research, E3 considers are likely to apply with at least as much force when manufacturers attempt to co-operate with each other. This is likely to magnify all the criteria that arise during attempts at change in a single organisation.

**IJV relationship management**

The criterion of management control issues is confirmed by most manufacturers. Regarding the management control issue in E2, Chinese respondents mentioned that since operations management concepts are different in the original joint venture, the international party has an advanced management concept, while the Chinese party has a rich cultural heritage. IJV partner’s relationship management personnel are replaced frequently and company policy is lacking in continuity. Therefore, IJV suffers from conflicts and crises. E2 international respondents suggested that subcontracting is more realistic and cautious due to the previous failure in a joint venture experience. New IJV cooperation and operations form the unique opportunity to seize the Chinese market. In E4, the management control is healthy and sustainable; E4 has been prepared for operations improvement.

The parent parties’ cooperation is confirmed by the same manufacturers as the above criterion. Parent parties’ cooperation in IJVs, illustrating tacit coordination of both parties, is crucial to smooth operations (E1). Otherwise, the international party places value on Chinese culture being actively integrated into the joint venture. Many years of international joint venture partners’ relationship management experience can make a quick response (E2). Furthermore, as a whole joint venture, all factors in management operations shall be communicated and discussed. Positioning social skills and an understanding of Chinese cultural knowledge is confirmed by E2 and E4 and was recognised as an important criterion of IJV partners’ relationship management.

**Alignment between China and other cultures**

Culture is a strong theoretical variable impacting the operation of SCC and IJVs. It influences motivation behind a combination of SCC, the configurations employed in operation management, and the level of effectiveness and outcomes. The SCC is implemented to the benefit of all in the associated community. The empirical data show that the IJV parties reflect their cultures (E1, E3, E4), which in turn influences the management of the relationship components (E1, E3, E4); the industry relationship is paramount; the bilateral agreement is secure; potential culture clashes are avoided (E2, E4), and the international party’s system is satisfied. The SCCs in different cultural backgrounds have been explored here; these can be compromised, based on agreement, and compared transversely. Finally, developing a healthy organisational culture positively affects relationship performance.
Conclusion

The conceptual framework examines IJV relationship management, Chinese and other culture alignment and alignment between SCC and IJVs factors are the foundations for the research. While a partial confirmation of the initial framework was found, the empirical findings reveal several surprising results.

First, a deeper understanding of the conditions of manufacturers and their suppliers in Chinese automotive industry, and confirmation of the conceptual framework proposed in this study has been achieved. The conceptual framework is basically in line with the actual conditions of the Chinese automotive industry, according to the data analysis. This study recognising SCC in IJVs dynamism, the analysis of the data confirms the SCC as ‘an activity system’ could be well-coordinated and integrated. Both manufacturers and suppliers undertook actions to achieve higher performance, and the SCC operation generated new findings and experiences in multicultural IJVs. Different international parties also have their own characteristics in how they deal with an IJV relationship. Linking this with the IJV groupings in the Chinese automotive sector, it is plausible that avoiding problem identification was a mechanism to avoid potential collaboration with some of the suppliers. IJVs can have effective SCC with clear responsibilities and rights. After the IJV, an SCC can be formed with the profit commonwealth. The establishment of an SCC reflects a commitment to long-term cooperation and analysis for supplier selection and evaluation. Therefore, it is critical to influencing the mindset of managers in the SCC as a first step. Furthermore, the results indicate that SCCs are built gradually at a very senior level and that the level of strategy and criteria increase in a sequential way over time, with relatively little reliance on contractual agreements unless absolutely necessary. Participants confirmed key criteria or identified new criteria and relevant concepts aimed at criteria of the conceptual framework were defined. The respondents are working with these concepts in their regular practice.

Second, the proposition demonstrated that different cultural and organisational backgrounds could be compared transversely. All four cases pay significant attention to the automotive industry environments at present and clearly recognise the IJVs and their own SCC demand conditions. To better survive and sustain SCC in IJVs, it is necessary to enhance sustainable competitive advantage and superior performance (Hult et al., 2007; Cousins et al., 2008; Vanpoucke, Vereeckbe and Boyer, 2015).

References


9


