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**GOVERNANCE IN VALUE CHAIN NETWORKS: THE
INTERPLAY BETWEEN STRATEGY, STRUCTURE
AND BOUNDARY SPANNING INTERACTIONS**

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Thesis Abstract

Value chain networks (VCNs) exist between buyers and suppliers in consecutive stages of a chain of value adding activities. The concept of a value chain in this scenario goes beyond the boundaries of a single firm and encompasses multiple network members. The key characteristics of these networks are vertical specialization in the value chain, intensive coordination regarding product specifications and logistics and medium to long term relationships between network members.

The importance of shifting the focus of alliance research from individual alliances to a firm's portfolio of interorganizational relationships has been highlighted by the work of a number of researchers (e.g., Gulati, 2007, Ozcan and Eisenhardt, 2009) in the general management literature. Here the term 'portfolio' refers to a firm's set of direct ties. While some research has been done in this area, it has been noted in the literature that there is need for further research for shedding light on managerial practices and their consequences in the context of a firm's portfolio relationships. The information systems literature highlights the importance of the role of interorganizational information systems (IOISs) in facilitating the development and maintenance of these relationships. However, Robey et al. (2008) note that the first wave of IOIS research which focussed on electronic data interchange (EDI) has not been particularly helpful in shedding light on the governance scenarios associated with the next generation of IOISs that are based on open standards. They highlight the fact IOIS research needs to be sensitive to other grounds for maintaining relationships between network members and emphasize the need for a cross-disciplinary approach to theory development in order to gain a better understanding of managerial decision making in complex business environments. Thus this study adopts an interdisciplinary approach to investigate IOIS enabled interactions between boundary role persons (BRPs) and the overall governance of the portfolio of interorganizational relationships.

Specifically, using a case research methodology, this study investigates governance in VCNs from the perspective of two focal companies and members in their respective portfolios of interorganizational relationships. The governance of a network of interorganizational relationships has been conceptualized in this thesis as involving (i)

the establishment of explicit or implicit contracts which set out the structures of such relationships, as well as (ii) ongoing IOIS-facilitated interorganizational interaction processes through which these relationships are operationalized. It is an essential component of the overall corporate governance for organizations that engage in two or more interorganizational relationships. On the macro-level, interorganizational interactions in VCNs are voluntary activities between organizations undertaken with the purpose of establishing or maintaining interorganizational relationships and generating benefits for the stakeholders involved. These activities may involve the transfer of intangible items such as information and knowledge or tangible items (physical goods/services/cash) or both. Perceived at the micro-level, interorganizational interactions, in essence, involve social and formal exchanges between BRPs separated by organizational boundaries.

The research suggests that based on their interorganizational cooperation strategies, firms participating in relational VCNs engage in governance practices that involve diverse structural arrangements (explicit and open-ended or implicit) and a rich array of interactions. The analysis found evidence for four key types of interactions identified in the literature (coordination, collaboration (strategic and systems level), monitoring and relationship marketing). In contrast to previous studies, this study highlights the importance of both IOISs and internal ICTs in facilitating interorganizational interactions. While the information systems literature generally focuses on the role of either internal or interorganizational systems, this study shows that both play an important part in supporting interorganizational interactions as BRPs often need to coordinate with other BRPs within their own organizations in order to facilitate their interorganizational interactions. The fact that both internal ICTs and IOISs facilitating linked processes evolve together over time necessitates a more holistic approach to IOIS research. The thesis also finds an increasing move towards cloud-based solutions being driven by downstream network members. However challenges were found to exist due to different levels of IOIS sophistication amongst network members. The thesis also contributes to the literature by exploring the role of trust holistically in relation to the governance of IOR portfolios by examining it both at macro (interorganizational) and micro (interpersonal (i.e., between BRPs)) levels. At both levels trust was found to develop through ongoing interactions.

Dedication

To my family

My Grandmother Indu Probha Raha

From you I learnt not to fear my own mortality. You left a big void in all our lives.

My Uncle Ashoke Raha

From you I learnt the importance of combining an understanding of engineering detail with high level management thinking. Part of me still expects to see you waiting for me when I come out of Kolkata Airport. You are missed every day.

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Statement of Originality

I certify that the intellectual content of this thesis is the product of my own work and that all the assistance received in preparing this thesis and sources have been acknowledged. This thesis has not been submitted for any degree or other purposes.



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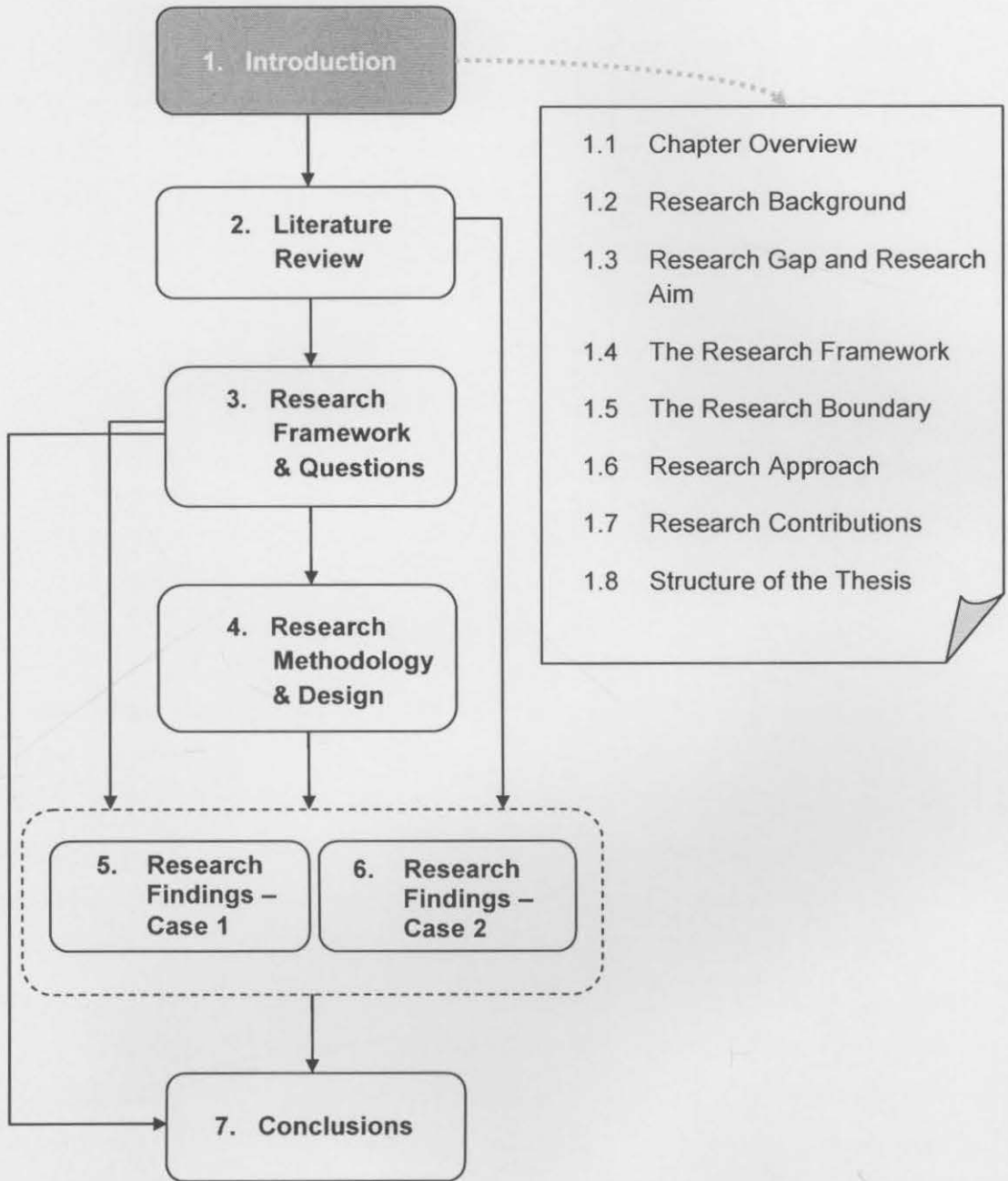
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1 Introduction



1.1 Chapter Overview

This chapter presents the research motivation (Section 1.2.2), the research aim (Section 1.3) and research boundaries (Section 1.5) and provides a preview of the remaining chapters in the thesis. The research framework and questions discussed in Section 1.4 are elaborated on in Chapter 3 based on a detailed literature review in Chapter 2. The research approach (Section 1.6) is discussed in detail in Chapter 4. The research contributions (Section 1.7) are developed in Chapter 7 based on the research findings presented in Chapters 5 and 6. Finally, Section 1.8 provides a brief overview of the relationships between the chapters in this thesis.

1.2 Research Background

1.2.1 Clarification of Terminologies

This research is motivated by the governance challenges faced by companies pursuing interorganizational cooperation strategies which necessitate their engagement in multiple interorganizational relationships (IORs).

The term ‘value chain’ originated in the work of Porter (1985) who used the term to describe a firm’s chain of value creating activities. This included the primary activities of inbound logistics, operations, outbound logistics and post-sale services and the supporting activities of procurement, technology development and firm infrastructure management. However, the unbundling of the enterprise (Hagel III and Singer, 1999) has led to a distribution of a firm’s chain of value creating activities beyond a firm’s boundaries and across a network of suppliers and customers. Such networks existing between organizations which are responsible for consecutive stages in a chain of value adding activities have been referred to variously as smart business networks or supply networks (Vervest et al., 2004), value networks (Peppard and Rylander, 2006), supply chains (McCormack et al., 2003), vertical supply networks (de Man, 2004) and global value chains (Gereffi et al., 2005). Walters and Rainbird (2007) emphasize the fact that from a firm’s perspective such a value chain or network consists of both a firm’s supply chain and its demand chain. While the supply chain consists of “*the global network used to deliver products and services from raw*

materials to end customers through an engineered flow of information, physical distribution and cash” (APICS Dictionary Tenth Edition (2002, p. 115), cited in McCormack et al., 2003, p. 32), the demand chains are “*a collection of processes and activities that networks of individuals and groups, both internal and external to the company, use to manage and pull demand from the market* (Langabeer, 2000, pp. 68-69).

The above discussion suggests that the usage of the terms ‘chain’ and ‘network’ are somewhat ambiguous in the literature. In order to distinguish between the two, this thesis uses the term ‘chain’ to refer to activities (i.e., here the term supply chain refers to supply related activities and the term demand chain refers to activities related to managing and pulling demand). The term ‘network’ is used to refer to the fact that the chain of value adding activities is distributed across a network of firms. Thus, drawing on Walters and Rainbird (2007), the thesis uses the term ‘value chain network’ (VCN) to refer to networks existing between organizations which are responsible for consecutive stages in a chain of value adding activities. This thesis focuses specifically on relational VCNs (Gereffi et al., 2005) which involve implicit or open-ended contractual arrangements and complex interorganizational interactions amongst members.

Two other relevant terms have been defined in this thesis in order to synthesize an array of related definitions in the literature and provide a basis for the study:

- (i) Firms participating in VCNs tend to be involved in multiple interorganizational relationships (IORs). The governance of a network of IORs has been defined in Chapter 2 as follows:

The governance of a network of interorganizational relationships is driven by its interorganizational cooperation strategy and involves: (i) the establishment of explicit (i.e., formal) or implicit (i.e., relational) contracts which distribute appropriate rights and responsibilities, and rules and procedures that constitute the structures of interorganizational relationships, as well as (ii) ongoing interorganizational interaction processes. It is an

essential component of the overall corporate governance of an organization that engages in two or more interorganizational relationships.

- (ii) The interorganizational interactions aspect of governance has been defined in this thesis as follows:

On the macro-level, interorganizational interactions in business networks are voluntary activities between organizations undertaken with the purpose of establishing or maintaining interorganizational relationships and generating benefits for the stakeholders involved. These activities may involve the transfer of intangible items such as information and knowledge or tangible items (physical goods/services/cash) or both. Perceived at the micro-level, interorganizational interactions, in essence, involve voluntary activities between boundary role persons separated by organizational boundaries.

1.2.2 Research Motivation

Three 'network paradoxes' pose challenges for governance of IORs in a networked business environment (Hakansson et al., 2009):

- While companies in a network can use their business-to-business (B2B) relationships to their advantage, these relationships can also restrict the pursuit of individual objectives. The paradox is that larger investments in such relationships increase opportunities for the participating companies but decrease their freedom for change. The relationships between software and hardware suppliers and service providers involves investments in respective network positions in order to deliver value to end-consumers (Hakansson and Ford, 2002). However, these existing relationships may limit a company's ability to emulate or react to new entrants. IBM's tightly controlled reseller network, for example, was efficient but quite static and eventually lost out to more flexible and innovative networks of other companies (Wilkinson and Young, 2002).
- Companies can both influence and be influenced by their relationships with other companies. The paradox in this context is that while B2B relationships are outcomes of a company's strategy and actions, the company itself is an outcome

of the nature of these relationships. When Motorola decided to undertake a Collaborative Planning, Forecasting and Replenishment (CPFR) initiative as part of a shift towards a more collaborative strategy, both the company and its participating retailer had to rethink their internal structures and information systems in order for them to improve their interaction processes (Cederlund et al., 2007). The complex implementation resulted in improved peer-to-peer relationships and better information sharing between the two companies. It helped Motorola reduce transportation costs and reduced inventory levels at the retailer's distribution centre. However, the complexity of adoption of an industry framework such as CPFR with just one partner, suggests considerable challenges for a company attempting to influence the practices of multiple partners in order to improve its interorganizational interactions with them.

- The third paradox relates to the structure of the network and the position of a company in it. Companies attempt to control their networks in order to achieve their own objectives. While this aspiration can act as a driving force in developing a network, more control may lead to a less innovative and effective network. As recent events suggest, even experienced companies such as Toyota can find it quite challenging to synchronize their strategies with their control mechanisms. Toyota's rapid expansion has led it to become increasingly dependent on new suppliers outside Japan (Economist, 2010). Furthermore it has continued its strategy of using certain suppliers as the sole sources for certain components. While this strategy has worked with suppliers with whom the company has had long-term relationships, the sole-sourcing approach with newer second and third tier suppliers resulted in numerous safety-related recalls and negative publicity for Toyota. The lack of an adequate number of senior engineers for monitoring new suppliers (i.e. inadequate interactions to keep up with the expansion and sole-sourcing strategies) and highly centralized decision-making in Japan (i.e. structural issues) have been argued to be the key reasons for these misfortunes.

These challenges for business and the existing gaps in the literature (Section 1.3) have motivated the direction of this study.

1.3 Research Gap and Research Aim

As firms increasingly engage in multiple interorganizational relationships (IORs), the importance of shifting the focus of research from individual alliances to a firm's portfolio of IORs has been highlighted by the work of a number of researchers (e.g. Gulati (1998), Kale et al. (2002) and Ozcan and Eisenhardt (2009)). Here the term 'portfolio' refers to a firm's set of direct ties (Das and Teng, 2000, Ozcan and Eisenhardt, 2009). While some research has been done in this area, Gulati (2007) notes the importance of the portfolio as a key direction for future research. He observes that:

- (i) More research is required to shed light on managerial practices and their consequences in the context of a firm's portfolio of IORs.
- (ii) At the micro-level more research is needed to understand the role that boundary spanning individuals (also referred to as boundary role persons or BRPs) play in managing these relationships. The importance of the role of boundary spanning individuals was also highlighted by industry members of the Logistics Association of Australia with whom the researcher had informal discussions prior to embarking on this study.

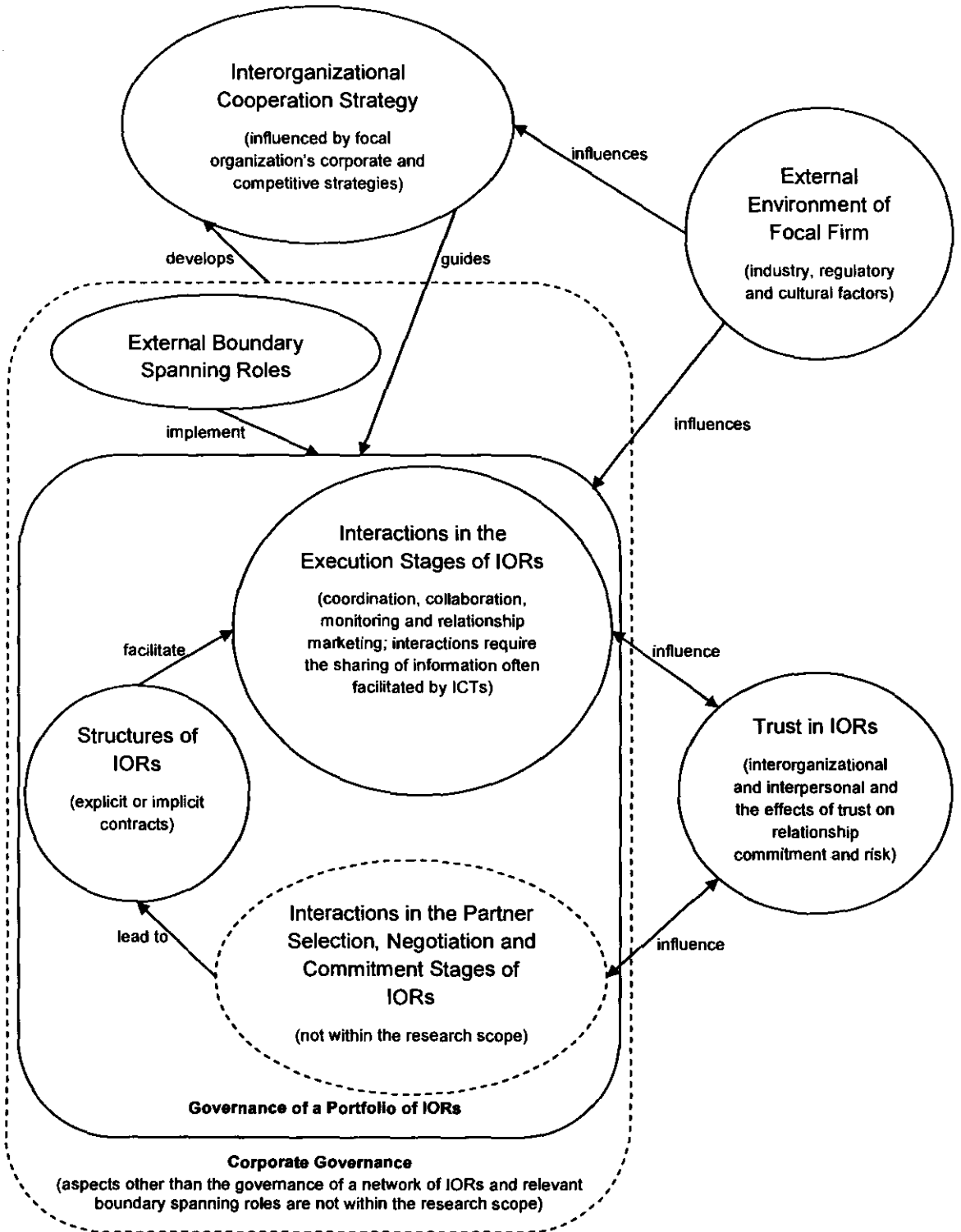
The aim of this research is to address these gaps in the literature by examining the governance of a portfolio of IORs in a relational VCN in terms of both its macro and micro-level aspects.

Additionally the research has addressed the lack of consensus definitions in the literature with respect to governance of IORs and interorganizational interactions.

The focus of this research is not on the governance of a firm's entire network of IORs in a VCN, but rather on the governance of its direct IORs (the 'portfolio'). Thus only the structures and interorganizational interactions between a focal company and adjacent members in a VCN are under investigation.

1.4 The Research Framework and Questions

The following research framework is developed in Chapter 3 based on a comprehensive review of the relevant literature in Chapter 2.



The associated research questions which are outlined in Chapter 3 and addressed in detail in Chapter 7 are as follows:

- 1) *How does a firm engaging in relationships with globally distributed customers and suppliers, govern its portfolio of direct interorganizational relationships (IORs) with customers and suppliers in a value chain network (VCN)?*
 - (a) *How do a firm's external environment and its interorganizational cooperation strategies influence the governance of its portfolio of direct IORs in a VCN?*
 - (b) *How do firms use ICTs to facilitate interorganizational interactions with customers and suppliers in its portfolio of direct IORs in a VCN?*
 - (c) *What forms of trust emerge during the course of interorganizational interactions and how does trust facilitate these interactions?*
- 2) *Are there performance implications for a focal firm based on how it governs its portfolio of globally distributed direct IORs? If so, how could such a firm improve the governance of its portfolio of IORs?*

1.5 The Research Boundaries

As the governance of a network of IORs in a VCN is a complex domain of activity the scope of this research is limited to the following:

- (i) It only investigates a focal firm's portfolio of interorganizational relationships (IORs) with adjacent members in a relational VCN. Indirect relationships are beyond the scope of this research.
- (ii) The study develops a rich picture of governance of IORs in the context of two focal organizations in two specific industries. Though the findings could be relevant to organizations in other industries as well, the thesis does not aim to generalize findings across all industries.

- (iii) The study examines interorganizational interactions in the execution stages of IORs. Interactions conducted during the negotiations and commitment stages of IORs are beyond the scope of this study.
- (iv) The study is not longitudinal in nature. Thus, possible changes in governance and relevant interviewee perspectives beyond 2010 (when the data was collected) are beyond the scope of this thesis.

1.6 Research Approach

An interpretivist case study methodology is adopted in this research since it is primarily exploratory in nature and seeks a holistic understanding of the phenomenon of the governance of IORs in relational VCNs from the perspectives of individuals who have a lived experience of the phenomenon. Since governance in VCNs is a complex multi-level phenomenon, two different units of analysis were adopted for this study: the governance of a focal firm's portfolio of interorganizational relationships and the interactions between boundary spanning individuals across interorganizational boundaries.

The two focal organizations participating in the study, referred to as BigApparel and SubLiquor due to confidentiality requirements, are members of the apparel and alcoholic beverages industries respectively. Interviews (29 hours with 27 staff members from the focal organizations and partner firms) were the primary means of data collection in this study although internal documents available from the participating companies and publicly available information were also reviewed. Observations also served as a means of data collection. Transcripts and field notes were analysed in the qualitative data analysis package NVivo.

1.7 Research Contributions

The research is multidisciplinary in nature and contributes to the value chain management/supply chain management literature and the information systems literature in following ways as discussed in Chapter 7:

- (i) A research framework has been developed which synthesises key concepts associated with the governance of a portfolio of IORs from the perspective of a focal firm.
- (ii) Based on synthesis of the extant literature, a number of definitions have been developed in order to address the lack of consensus definitions in the literature in the context of governance of IORs. These include definitions for the governance of a network of interorganizational relationships, interorganizational interactions, coordination, strategic collaboration, systems collaboration and monitoring.
- (iii) The research suggests that based on their interorganizational cooperation strategies, firms participating in relational VCNs engage in governance practices that involve diverse structural arrangements (explicit and open-ended or implicit) and a rich array of interactions. The analysis found evidence for all four types of interactions identified in the literature (coordination, collaboration (strategic and systems level), monitoring and relationship marketing). All interaction categories were found to map to different business processes classified by Croxton et al. (2001) in the context of VCNs.
- (iv) The perceived importance of interorganizational information systems (IOISs) and internal ICTs in facilitating interorganizational interactions have also been highlighted by the study. While the information systems literature normally focuses on the role of either internal or interorganizational systems this study shows that both play an important part in supporting interorganizational interactions as BRPs often need to coordinate with other BRPs within their own organizations.
- (v) The thesis shows that the execution stage of a relationship with one member of a focal company's IOR portfolio may involve a rich set of interactions with other members of a company's IOR portfolio
- (vi) This thesis distinguishes itself from most of the literature on dyadic IORs and the limited literature on networks of IORs by exploring interorganizational

interactions as both macro level phenomena between organizations and micro level phenomena between boundary role persons (BRPs).

- (vii) This thesis also contributes to the literature by exploring the role of trust more holistically in relation to the governance of IOR portfolios by examining both its macro and micro level aspects. At both levels trust was found to develop through ongoing interactions.
- (viii) The research also provides insight into the influence of a firm's environment (its industry environment including strategies of partner firms, its regulatory environment and cultural contexts of members of its IOR portfolio).
- (ix) Finally, the results suggest that the interorganizational interactions aspect of governance may play an important role in maintaining or improving the financial performance of a firm.

The study could be used to inform managers regarding the challenges and opportunities associated with governance of IORs. It could also inform them of some necessary characteristics of BRPs, namely their ability to respond to the cultural characteristics of customers/suppliers as well as their ability to generate trust in interorganizational relationships. It could also assist firms that are participating in relational VCNs to reflect on how they could achieve performance improvements through their interorganizational interactions. The categorization of different types of interactions and their mapping to different business processes could potentially also be used as a planning tool by management.

1.8 Structure of the Thesis

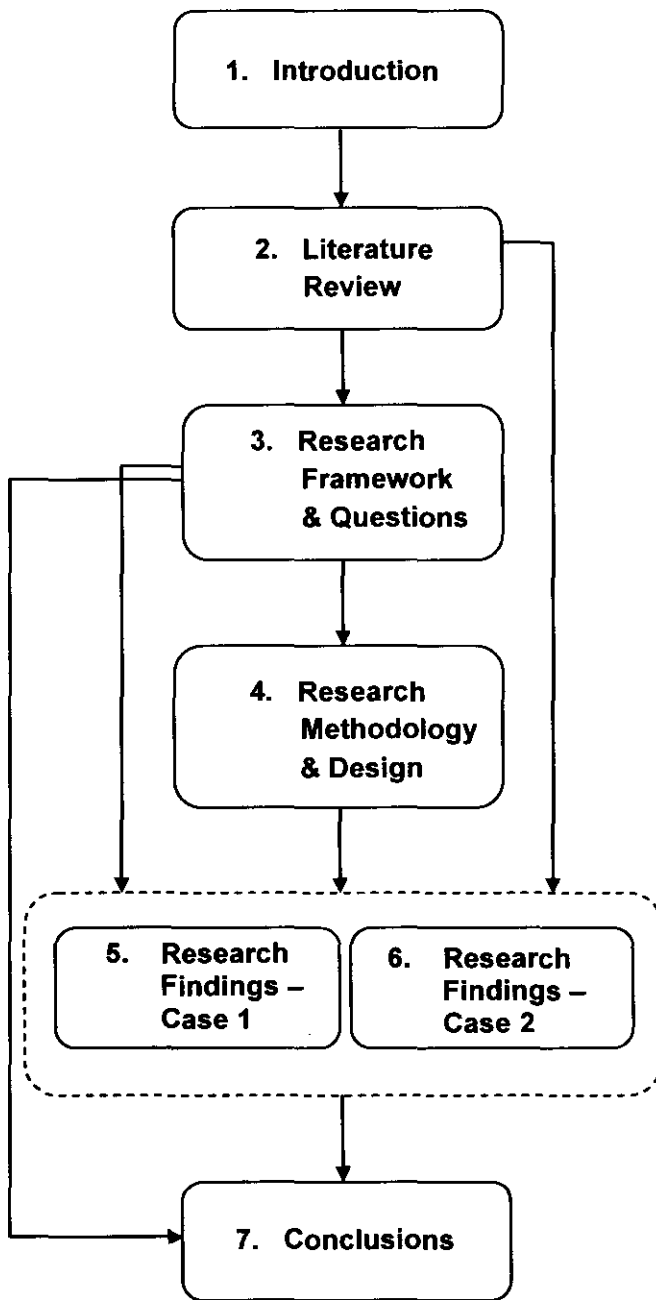
The thesis is structured as follows:

- Chapter 1 presents the business problem and gaps in the research literature motivating this research. It also provides a preview of the following chapters in terms of the research framework and questions, the research approach, and contributions from this research.

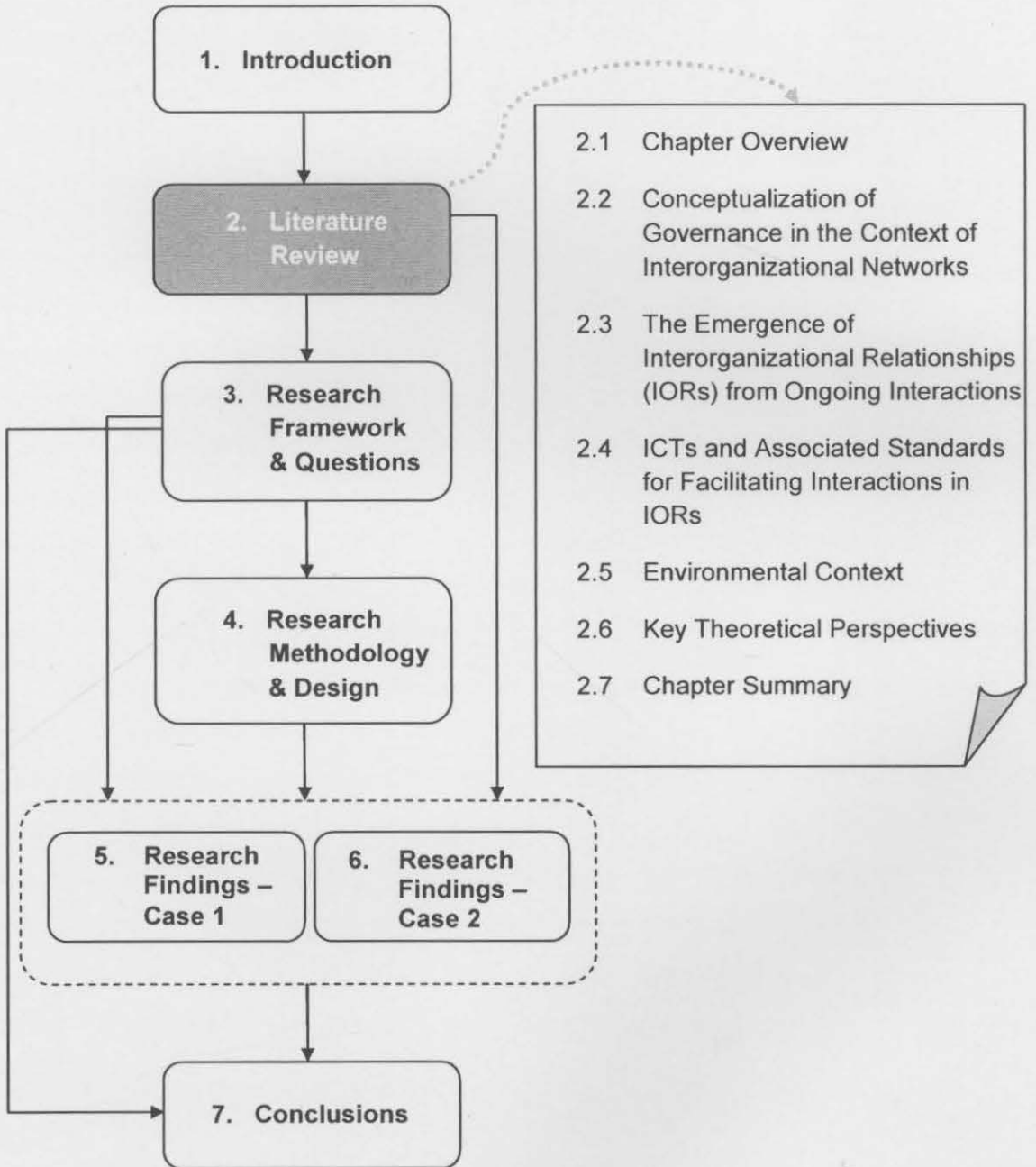
- Chapter 2 presents a thorough multidisciplinary literature review synthesizing key concepts associated with governance in the context of a network of interorganizational relationships (IORs). These include strategy, structure, interorganizational interactions, boundary spanning roles, interorganizational and interpersonal trust, interorganizational information systems (IOISs), the external environment of a firm and relevant theoretical perspectives.
- Chapter 3 develops the research framework based on the literature review presented in the previous chapter and discusses the associated research questions.
- Chapter 4 presents the epistemological and theoretical perspectives guiding the case study strategy adopted in this research. It discusses the units of analysis, specific research methods (interviews and other sources of evidence), research quality considerations and data analysis techniques.
- Chapters 5 and 6 present the findings in relation to the governance of a portfolio of IORs in the context of the two focal companies involved in this study. Challenges and opportunities associated with governance are also discussed.
- Chapter 7 synthesizes the findings presented in Chapters 5 and 6 and addresses the research questions posed in Chapter 3 in the context of the literature reviewed in Chapter 2. It also reflects on the contributions of the research and its limitations and identifies directions for future research.

The logical flow of chapters is shown in Figure 1-1 below. As shown by the arrows in the figure, the literature review (Chapter 2), research questions (Chapter 3), and research methodology (Chapter 4) have guided the findings presented in Chapters 5 and 6. As discussed earlier, the subsequent conclusions (Chapter 7) are guided by the literature review, research questions and the findings presented in Chapters 5 and 6.

Figure 1-1 The structural and logical flow of the thesis chapters



2 Literature Review



2.1 Chapter Overview

Since there are no comprehensive literature reviews on the topic, this chapter draws upon the extant literature in several areas, including sociology, economics, organizational studies, strategic management, psychology, information systems and supply chain and logistics management to create a context for research in governance in interorganizational networks. A number of definitions are synthesized from the literature in the course of developing the topic.

Section 2.2 derives a definition of governance in the context of interorganizational networks based on existing conceptualizations of corporate governance and governance of dyadic interorganizational relationships. It then presents a discussion of the key concepts associated with the definition: strategy, structure and interorganizational interactions. A definition of interorganizational interactions is developed in this context. The section also derives definitions for different types of interorganizational interactions: coordination, collaboration and monitoring. The definition of a fourth type of interactions, relationship marketing, is adopted from the literature without modification. Section 2.3 discusses the evolution of interorganizational relationships (IORs) through ongoing interactions. Specific focus is placed on stages of an IOR, the relevance of boundary spanning roles and the phenomena of interpersonal and interorganizational trust. Section 2.4 addresses the information and communication technologies (ICTs) which facilitate such interactions. Section 2.5 discusses various environmental factors such as regulatory and cultural issues that influence a company's governance processes. Finally, Section 2.6 presents the key theoretical perspectives relevant to this research. Section 2.7 provides a summary of the chapter.

2.2 Conceptualization of Governance in the Context of Interorganizational Networks

2.2.1 Corporate Governance

In this thesis, the conceptualization of *governance in interorganizational networks* is based on the conceptualizations of corporate governance and the governance of

interorganizational relationship dyads. Transaction Cost Economics (TCE – discussed in detail in Section 2.5) views firms and markets as alternate forms of *governance structures* (Williamson, 1996). Drawing on TCE, Zingales (2000) explains corporate governance as follows:

“The word “governance” implies the exercise of authority. But in a free-market economy, why do we need any form of authority? Isn’t the market responsible for allocating all resources efficiently without the intervention of any authority? In fact, Coase (1937) taught us that using the market has its costs, and firms alleviate these costs by substituting the price mechanism with the exercise of authority. By and large, corporate governance is the study of how this authority is allocated and exercised.” (p. 1630) [Emphasis added]

The first part of the often quoted definition (below) provided by the Organization of Economic Cooperation and Development (OECD) is also concerned with *how authority is exercised*, i.e., procedures and processes. The second part of the definition is about *how authority is allocated* (i.e., structure) through (i) rights and responsibilities and (ii) rules and procedures for decision making (i.e., corporate governance structure) (OECD, 2007):

“Procedures and processes according to which an organisation is directed and controlled. The corporate governance structure specifies the distribution of rights and responsibilities among the different participants in the organisation – such as the board, managers, shareholders and other stakeholders – and lays down the rules and procedures for decision-making.” (p. 151)

For example, OECD’s (2004) principles of corporate governance suggests that a company’s board of senior decision makers (an important component of its structure), is responsible for a number of processes including the guidance of corporate strategy:

“Together with guiding corporate strategy, the board is chiefly responsible for monitoring managerial performance and achieving an adequate return for shareholders, while preventing conflicts of interest and balancing competing demands on the corporation... In addition, boards are expected to take due regard of, and deal fairly with, other stakeholder interests including those of employees, creditors, customers, suppliers and local communities. Observance of environmental and social standards is relevant in this context.” (p. 58)

The other aspect of the identification of the responsibilities of a board of senior decision makers is the recognition of multiple internal and external stakeholders who are affected by how authority is allocated and exercised (i.e., structures and processes). The OECD (2004) further emphasizes the importance of different stakeholders in the success of a company by observing:

“The competitiveness and ultimate success of a corporation is the result of teamwork that embodies contributions from a range of different resource providers including investors, employees, creditors, and suppliers. Corporations should recognise that the contributions of stakeholders constitute a valuable resource for building competitive and profitable companies. It is, therefore, in the long-term interest of corporations to foster wealth-creating cooperation among stakeholders. The governance framework should recognise that the interests of the corporation are served by recognising the interests of stakeholders and their contribution to the long-term success of the corporation.” (p. 46)

The above discussion suggests that the governance of a network of interorganizational relationships can be considered to be a significant element of the company’s overall corporate governance that enables the cooperation among internal and external stakeholders.

2.2.2 Governance of a Network of Interorganizational Relationships – A Definition

Networks are seen to be an intermediate organizational form (Powell, 1990, Thorelli, 1986) between markets and hierarchies originally described by Williamson (1975). In Williamson’s formulation (Section 2.5) these are referred to as hybrid modes governance where parties to a contract retain their autonomy (Williamson, 1991). In the academic literature on networks, the terms ‘network’ and ‘network governance’ have been used interchangeably. Provan and Kenis (2007) note that a ‘*network is viewed as a mechanism of coordination, or what has often been referred to as network governance*’ (p. 232). They define a network as “*groups of three or more legally autonomous organizations that work together to achieve not only their own goals but also a collective goal*” (ibid, p. 231). Jones et al. (1997) provide a more detailed definition using the term network governance: “*a select, persistent, and structured set of autonomous firms (as well as nonprofit agencies) engaged in creating products or services based on implicit and open-ended contracts to adapt to*

environmental contingencies and to coordinate and safeguard exchanges. These contracts are socially—not legally—binding” (p. 914). This definition includes a number of key terms:

- (i) ‘*Select*’: The network members constitute a subset of an industry rather than the industry as a whole.
- (ii) ‘*Persistent*’: The network members work with each other repeatedly over time.
- (iii) ‘*Structured*’: The interactions between the members are patterned and reflect a division of labour.
- (iv) ‘*Autonomous firms*’: The members of the network are all potentially legally independent. However, the definition does not exclude business units that may directly invest in each other or share common ownership.
- (v) ‘*Implicit and open-ended contracts*’: While pairs of members may have legal contracts, these do not define the relations between all parties. The means of coordination, adaptation and safeguarding exchanges are generally not derived from legal contracts or authority structures. Instead, cooperation amongst network members relies on social modes of control and coordination such as reputation, collective sanctions and occupational socialization. This type of contracts are also referred to as relational contracts (Baker et al., 2002):

“Relational contracts within and between firms help circumvent difficulties in formal contracting (i.e., contracting enforced by a third party, such as a court). For example, a formal contract must be specified ex ante in terms that can be verified ex post by the third party, whereas a relational contract can be based on outcomes that are observed by only the contracting parties ex post, and also on outcomes that are prohibitively costly to specify ex ante. A relational contract thus allows the parties to utilize their detailed knowledge of their specific situation and to adapt to new information as it becomes available. For the same reasons, however, relational contracts cannot be enforced by a third party and so must be self-enforcing: the value of the future relationship must be sufficiently large that neither party wishes to renege.” (p. 40)

Holmstrom and Roberts (1998) cite the relationship between Japanese automakers and their suppliers as examples of the successful use of such implicit or relational contracts:

“... the contracts between the Japanese automakers and their suppliers are short and remarkably imprecise, essentially committing the parties only to work together to resolve difficulties as they emerge. Indeed, they do not even specify prices, which instead are renegotiated on a regular basis... The key to making this system work is obviously the long-term, repeated nature of the interaction.

Although supply contracts are nominally year-by-year, the shared understanding is that the chosen supplier will have the business until the model is redesigned, which lasts typically four or five years. Moreover, the expectation is that the firms will continue to do business together indefinitely.” (p. 81)

In this thesis a distinction is made between the terms ‘network’ and ‘network governance’ in analogy with the distinction between a company/organization and ‘corporate governance’ in the descriptions of corporate governance (Section 2.2.1). Here network governance is viewed to be about how rights and responsibilities are distributed in a network of autonomous organizations through implicit or explicit contracts.

The definition presented here also has two more aspects (interaction processes and interorganizational cooperation strategy) which draw on Zaheer and Venkatraman’s (1995) conceptualization of relational governance in the context of dyadic interorganizational relationships:

- (i) The authors identify two dimensions of governance: structure and inter-firm interaction processes in the form of joint planning activities. They argue that: *“viewing relational governance in terms of both structure and process is important since a combination of structural and processual dimensions more completely describes the complexity of such intermediate relationships than either the structure or the process dimension alone”* (ibid, p. 375). Here, by the term ‘intermediate relationships’, the authors refer to hybrid governance forms as described by Williamson (1991). As discussed earlier, the structure in networks (i.e., rights and responsibilities) is as worked out between network members through explicit and implicit contracts (e.g., Jones et al., 1997). The interaction processes between network members are also a key component of governance. In the context of corporate governance, this is analogous to the discussion on processes and procedures for controlling an organization (Section 2.2.1). However, in the context of network governance the purpose may be one of cooperation rather than control. The interaction processes are not restricted to joint planning activities alone. The different types of interorganizational

interaction processes identified in the literature are discussed in more detail in Section 2.2.5.3.

- (ii) Additionally, Zaheer and Venkatraman (1995) view the interorganizational cooperation strategy as “*the choice of the form of governance, specifically the determination of the appropriate governance structure and process*” (p. 375). Thus, the elements of interorganizational network governance adopted by a company are outcomes of its interorganizational cooperation strategy.

Thus, from the perspective of a company engaging in relationships with two or more organizations, the governance of a network of interorganizational relationships is defined as follows:

The governance of a network of interorganizational relationships is driven by its interorganizational cooperation strategy and involves: (i) the establishment of explicit (i.e., formal) or implicit (i.e., relational) contracts which distribute appropriate rights and responsibilities, and rules and procedures that constitute the structures of interorganizational relationships, as well as (ii) ongoing interorganizational interaction processes. It is an essential component of the overall corporate governance of an organization that engages in two or more interorganizational relationships.

The above definition distinguishes itself in a number of ways from previous definitions:

- (iii) As stated earlier, a distinction between a network of organizations and ‘network governance’ is implicit in the definition in analogy with the difference between a firm and corporate governance. Specifically, this means the governance not only consist of the structures of the interorganizational relationships but the associated interaction processes as well.
- (iv) The definition adopts the perspective of an individual firm engaging in multiple interorganizational relationships.
- (v) It links the governance of a network (structures and interaction processes) with a firm’s interorganizational cooperation strategy.

- (vi) It identifies the governance of a firm's network of interorganizational relationships as an integral component of its overall corporate governance.

The various aspects of the above definition including strategy, structure, interaction processes, and interorganizational relationships are discussed in more detail in the next few sections.

2.2.3 Strategy

2.2.3.1 Corporate and Competitive Strategies

Reflecting the changes in global business environment over the last three decades, the conceptualization of strategy has evolved considerably in the strategic management literature. In one of the earliest attempts at a definition, Mintzberg conceptualized an organization's strategy as "a pattern in a stream of decisions" (1978, p. 935) where decisions are specific commitments to actions usually requiring commitments of resources (Mintzberg et al., 1976). Subsequent scholarship has categorized different types of strategy and identified the relationships between them.

Bowman and Faulkner (1997) distinguish between corporate and competitive strategy. Corporate strategy is concerned with the selection, resourcing and control of businesses and operational areas. The two streams of thought on competitive strategy focus on the importance of industry structure and an organization's unique capabilities and resources respectively. Porter's (1985) notion of competitive strategy highlights how a firm can gain superior profits by pursuing generic strategies, such as cost leadership or differentiation, in ways that suit the industry structure within which it operates. The second perspective on competitive strategy emphasizes how a firm's unique resources and capabilities – which are difficult to imitate – can be combined to deliver a valued product (Collis, 1996).

However, companies may also operate across different industries. They may have several businesses and multiple geographical locations and may have to rely on complementary resources and capabilities embedded in their alliances (Dyer and Singh, 1998). This brings the focus back to the domain of corporate strategy which is concerned with the selection of businesses, markets and locations for the firm. An *interorganizational cooperation strategy, aligned with the firm's corporate strategy,*

would make alliance formation essential to competitive advantage in the businesses and markets in which the firm is involved.

2.2.3.2 Interorganizational Cooperation Strategy

In general, cooperation refers to parties working together to achieve mutual goals (Anderson and Narus, 1990). Developing cooperation strategies for two-party or multi-party alliances (i.e., networks) involves planning for organizational forms that are neither markets nor hierarchies. Markets may or may not involve repeat transactions over time but they provide participants with low switching costs (Gereffi et al., 2005). They involve the obvious cost of searching for parties with whom to undertake transactions. Hierarchies involve vertical integration and managerial control flowing from headquarters to subsidiaries. They display weaknesses of structural inertia and work best in product-market environments which only change incrementally (Child et al., 2005). An interorganizational cooperation strategy has some advantages over both and is described as:

“... the attempt by organizations to realize their objectives through cooperation with other organizations rather than in competition with them. It focuses on the benefits that can be gained through cooperation and how to manage the cooperation so as to realize them. A cooperative strategy can offer significant advantages for companies that are lacking in particular competencies or resources to secure these through links with others possessing complementary skills or assets; it may also offer easier access to new markets, and opportunities for mutual synergy and learning”

(Child et al., 2005, p. 1)

A cooperative strategy is closely linked with a company's corporate strategy. Bamford et al. (2003b) cite the examples of Corning Glass and Cisco Systems, two companies which make very different uses of their alliances, to emphasize the fact that the role of a company's alliances in its overall corporate strategy must be clearly identified. Corning Glass exploits its glass technology in different vertical markets by using its alliances with Siemens in fibre-optic cabling, with Samsung in television glass and with Dow in silicones. Cisco Systems uses its alliances to explore new technologies with the intention of bringing them in-house if they are successful. The successful alliance between Rover and Honda, until the sale of Rover to BMW, was

also based on identifiable complementary capabilities (Child et al., 2005). Rover could offer Honda an understanding of European Automobile tastes, access to a network of suppliers and subcontractors and spare capacity in its factories. On the other hand, Honda was able to offer Rover new models to expand its range and quality engineering that it badly lacked (Faulkner, 1995a). It is necessary that a cooperative arrangement reflects the company's mission and objectives, and serves as a means of sharing risks or resources (Child et al., 2005).

A company may enter into cooperative arrangements with multiple companies. This 'alliance constellation' (Das and Teng, 2002) or 'alliance portfolio' (Ozcan and Eisenhardt, 2009) becomes the source of a company's competitive advantage. For example, Apple's alliance portfolio which includes Google, Microsoft, EMI and Salesforce.com (Burrows, 2007) has been seen to be a necessary component to its success (Ozcan and Eisenhardt, 2009). This competitive scenario has increasingly become one in which networks, rather than companies, compete against each other (Cares, 2006, Kleindorfer et al., 2009). Networks "*involve neither the explicit criteria of the market, nor the familiar paternalism of the hierarchy, the basic assumption of network relationships is that one party is dependent on resources controlled by another, and that there are gains to be had by the pooling of resources*" (Powell, 1990, p. 303).

Research suggests that the number and diversity of alliances can have a positive influence on performance (Baum et al., 2000, Dyer and Nobeoka, 2000, Lavie, 2007, Powell et al., 1996). Diverse alliances provide access to multiple information sources and various types of resources. Baum et al. (2000) found that biotech ventures with a higher number of diverse alliances had a higher likelihood of survival. Relationships amongst partners may also have an influence on the performance of a focal company. Lavie (2007) found that alliances with companies that compete with each other improves the bargaining power of the focal firm. Weak ties offer new information and flexibility and strong ties enable efficient exchanges, therefore, balanced alliance portfolios influence performance positively (Rowley et al., 2000). Uzzi (1997) found that garment manufacturers who had both weak ties that kept them linked to changes in the market and strong ties that enabled mutual adjustment performed more

successfully. Developing a network strategy, therefore, involves considering these issues in relation to a firm's alliance portfolio as well as the network position of the firm.

2.2.4 Structure in Interorganizational Alliance and Network Configurations

Different dyadic interorganizational alliance and network configurations imply different distributions of rights and responsibilities, i.e., structure, in the context of governance.

2.2.4.1 Equity and Non-Equity Alliances

Gulati (1998, p. 293) defines strategic alliances as “... *voluntary arrangements between firms involving exchange, sharing, or codevelopment of products, technologies, or services. They can occur as a result of a wide range of motives and goals, take a variety of forms, and occur across vertical and horizontal boundaries.*”

While equity alliances include various types of joint ventures (JVs), some common non-equity alliances involve strategic outsourcing, joint purchasing, cooperative bidding, co-marketing and co-branding (Ernst, 2003). In essence, the governance structure of an alliance is based on the formal contractual agreements used by the involved participants: “*At one end are joint ventures, which involve partners creating a new entity in which they share equity and that most closely replicate the hierarchical control features of organizations. At the other end are alliances with no sharing of equity that have few hierarchical controls built into them*” (Gulati and Singh, 1998, p. 781).

Equity JV governance models can be of three types: independent JV, dependent or dominant-partner JV and interdependent or shared management JVs (Ernst, 2003, Killing, 1983). A separate entity is more likely to be set up when the ownership is equal (Bleeke and Ernst, 1993b). In independent JVs, the venture is treated as an independent business and those running the alliance make most of the business decisions including capital expenditures and annual planning (Ernst, 2003). Dow Corning, the JV between Dow and Corning Glass, is a classic example of this type. In a dependent joint venture, one partner takes the lead role. Fuji Xerox, a dominant-

partner JV of over forty years, where Xerox played the lead role in contributing technology patents and making operational decisions, is a well known example. Companies participating in international JVs may choose between surrogate subsidiary, junior partnership or balanced partnership configurations (Tallman and Shenker, 1994). When an international partner has considerable international experience and is willing to make a significant capital investment and retain substantial control over the JV a surrogate subsidiary is formed with the international company as the dominant partner. When an international company chooses to be a junior partner, its capital investment is less intensive than that of the local company. A balanced partnership (shared management) may become the only solution from a regulatory compliance perspective in industry sectors in a particular country where international companies are prohibited from acquiring majority JV ownership. In the interdependent model there are ongoing resource flows and interactions between the JV and corporate parents. This type of JV is also suitable where both partners can make contributions of similar value to the alliance. For example, the interdependent JV between Toshiba and Motorola, before ending in a sale to Motorola, relied on Motorola for microprocessor technology and on Toshiba for DRAM technology (Ernst, 2003).

A focus on governance is very important in non-equity alliances as there are no ownership links between partners. However, this is often a challenge, as non-equity alliances depend on cross-partner teams and committees rather than a formal alliance organization. Non-equity alliances are the most common alliance forms, particularly in certain industries such as pharmaceutical, airlines, software and retail. When non-equity alliances are complex or highly valuable or offer potential for growth, formal governance structures become necessary. The alliance between Astra Merck and Hoechst Marion Roussel (HMR), formed in 1995, required HMR to use its pharmaceuticals sales force in the U.S. to promote Astra Merck's leading product Prilosec. Since the alliance was considered highly valuable, the companies established a ten-person governance committee which would hold meetings four to six times a year. (Bamford et al., 2003a)

2.2.4.2 Interorganizational Networks

The concept of networks exists across many fields, from biology to transport to communication. Networks in the business world have been defined as:

“... selected sets of multiple autonomous organizations, which interact directly or indirectly, based on one or more alliance agreements between them. The aim of networks is to gain a competitive advantage for the individual organizations involved and occasionally for the network as a whole.”

(de Man, 2004, p. 4)

Additionally, to distinguish networks from dyadic relationships, Provan & Kenis (2007) suggests that networks are organizational forms involving at least three member organizations. De Man (2004, p. 4) highlights five key elements of the above definition: ‘*selected sets*’, ‘*multiple autonomous firms*’, ‘*interact directly or indirectly*’, ‘*one or more alliance agreements*’ and ‘*competitive advantage*’. ‘Selected sets’ refers to the fact these networks do not encompass entire industries. Although boundaries may be hard to define, companies in the network generally have a higher level of interaction with other network members than they do with companies outside the network. Companies do not lose their independence by joining a network, i.e., they remain autonomous. In some networks all the firms may be connected while in others firms may interact indirectly through a common alliance partner. Some networks may be made up of a single alliance agreement between multiple partners. Others may consist of many bilateral agreements. Some networks may be planned and set up consciously by companies to gain economies of scale (e.g. Star Alliance in the airlines industry) or set up a standard (e.g. GSM for mobile phones). Others may develop more organically over time due to the alliance activities of a particular company (e.g. Toshiba’s network). Competitive advantage is achieved at the level of the network (e.g. Star Alliance) or at the firm level (e.g. Toshiba). While Toshiba’s partners profit from their alliance relationships, they do not strive towards a common goal on a network level unlike the members of the Star Alliance.

Various terminologies have been used in the literature to describe networks in the business environment. These include alliance constellations (Bamford et al., 2003b), business networks (Hakansson et al., 2009, Hakansson and Snehota, 1995),

collaborative networked organizations (Camarinha-Matos et al., 2009), global value chains (Gereffi et al., 2005), smart business networks or supply networks (Vervest et al., 2004), industrial networks (Baraldi, 2008), supply chains (McCormack et al., 2003), value constellations or value creating systems (Normann and Ramirez, 1993), value networks (Christensen, 1997, Peppard and Rylander, 2006), and virtual corporations (Child et al., 2005). The terminology followed in this thesis is derived from the classification of various types of interorganizational networks in the next section.

2.2.4.3 Classification of Interorganizational Networks

Interorganizational network typologies have generally been classified based on structural characteristics such as the stability of networks (Miles and Snow, 1992) or the dominant coordination modes (Grandori, 1997, Provan and Kenis, 2007) or goals (de Man, 2004). Miles and Snow classify networks as stable networks (those with multiple suppliers and distributors who focus their resources and activities on the needs of a core firm) and short term dynamic networks linking firms together for the development of a particular physical good or service. Provan and Kenis, classify network types into decentralized networks, centralized networks and broker-coordinated networks. A number of the examples cited by these classifications could be representative of categories in multiple classifications. Since different types of interorganizational networks essentially exist to achieve specific goals, this thesis adopts the goal-based classification of de Man (2004):

- (i) **Quasi-integration networks:** These are networks set up between direct competitors for defensive reasons such as saving costs, increasing market power or industry rationalization. The key characteristics are horizontal alliances, long term orientation, far reaching integration of certain activities and goal congruence amongst members. For example, in fragmented industries, small and medium-sized enterprises (SMEs) may use this mode of cooperation to reduce costs. In mature industries quasi-integration networks may help to extend the lifespan of organizations through increased market power and cost savings. Airline alliance networks such as Oneworld and Star Alliance are examples of quasi integration networks in a mature industry. In spite of deregulation, issues

such as national sentiment around airlines and structure of airline treaties between governments can make mergers very difficult. Quasi-integration becomes the only option with benefits close to those from a merger. These networks aim to increase market power and boost efficiency for their member organizations.

- (ii) **R&D networks:** Research and development (R&D) networks arise between companies trying to share the costs, risks and competencies associated with the development of new technologies. These are driven by the need for speed and the difficulty large companies have in continuing to remain innovative. The key characteristics of these networks are technological complementarities and cost saving. These networks are pre-competitive, pertain to specific technologies and are not directly market related. They may last for a limited period of time. The SEMATECH (SEmiconductor MAnufacturing TEChnology) consortium (<http://www.sematech.org/>), formed in 1987 between the U.S. government and 14 U.S. based semiconductor manufacturers to address common manufacturing issues, is an example of an R&D network. The consortium subsequently grew through the formation of a number of subsidiaries with specific R&D objectives.
- (iii) **Standardization networks:** These are networks of companies cooperating to set the dominant process or technology in a certain area. Unlike R&D networks, standardization networks have a visible impact on the market. The key characteristics are the involvement of the most important companies in a certain sector and their market orientation. By definition, co-competition is a feature of these networks and integration is limited. Competitors cooperate on setting a standard whilst competing on different products. Forums and cross-licensing agreements are important mechanisms for realizing standardization. The Open Mobile Alliance (<http://www.openmobilealliance.org/>), formed in 2002 by around 200 companies including leading mobile operators, network and device suppliers and content and service providers, is an example. The presence of players along the entire value chain in this network marks a consolidation

approach and a step away from organizing different standards bodies to work independently on different mobile technologies.

- (iv) **Solution networks:** This type of network results from collaboration between partners, often from different industries, who provide complementary goods and services to produce complete customer-specific solutions. The key characteristics of these networks are horizontal or diagonal alliances and medium to long term relationships of medium intensity. Often these networks exist in latent form only to be activated to address a particular customer need. Generally, only a small number of partners are involved in a particular project. For example, to enable companies to deliver a complete package of employee benefits, financial organizations may form a solution network with social security and health care organizations (van der Snoek, 1999). Networks in the IT industry, such as the complex and dynamic web of cooperation between Yahoo!, Google, Microsoft and Amazon (Iyer et al., 2006), are also examples of this type. Since no single firm can meet the range of software requirements amongst consumers, software firms need to ensure interoperability by cooperating with other IT industry members (including competitors) who produce complementary applications.
- (v) **Value chain networks (VCNs):** These types of networks are referred to as vertical supply networks (de Man, 2004), dominated networks (Child et al., 2005) or lead organization-governed networks (Provan and Kenis, 2007). This thesis refers to these networks as value chain networks (VCNs) to emphasize the fact that these networks exist between organizations which are responsible for consecutive stages in a chain of value adding activities. The concept of a value chain in this scenario goes beyond the boundaries of a single firm and encompasses multiple network members. These types of networks resulted from a firm's focus on core competencies and outsourcing of parts of production processes. The improvements in communication and transport during the course of the last century facilitated this growth in outsourcing activities. The key characteristics of these networks are vertical specialization in the value chain, intensive coordination regarding product specifications and logistics and

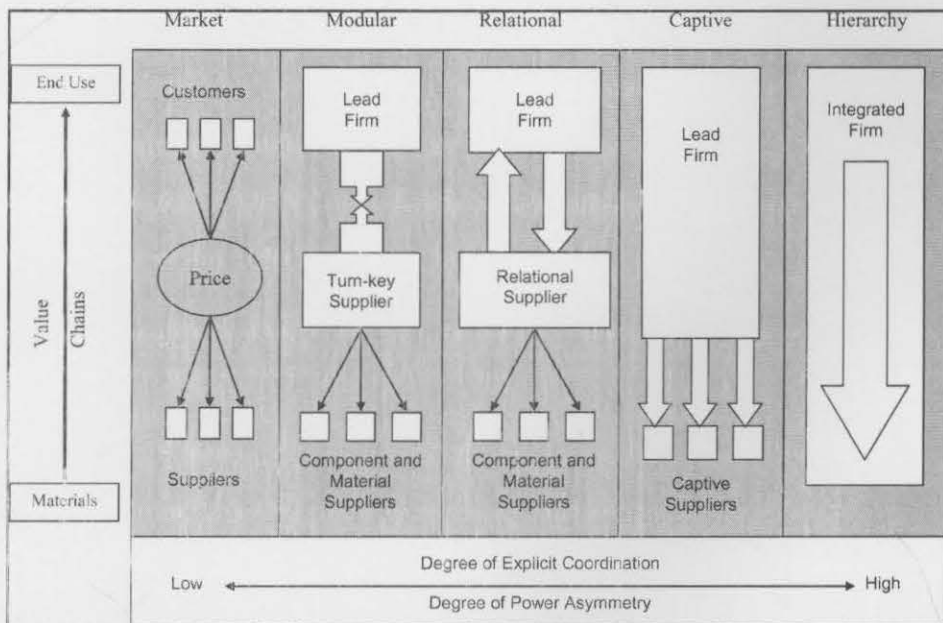
medium to long term relationships between network members. Dell and Toyota's networks are well known examples of this type (de Man, 2004). Toyota's long term alliances with multiple suppliers act not only as a source of parts, but also as a source of knowledge and innovation through joint product development activities. Dell's intensive relationship with a network of suppliers allows it to respond flexibly to customer demand and maintain almost negligible inventory compared to other computer companies.

This thesis focuses on the fifth type of business network discussed above, VCNs. The next section discusses a classification of VCNs from the literature.

2.2.4.4 Classification of Value Chain Networks (VCNs)

Based on empirical observations of coordination forms, Gereffi, et al. (2005) identified three different VCN forms between markets and hierarchies: modular, relational and captive. While the authors refer to these as 'global value chains', this thesis adopts the term VCN consistently as discussed in the previous section. The classification is illustrated in the figure below.

Figure 2-1 Three types of VCN between markets and hierarchies (Gereffi et al., 2005, p. 89)



- (i) **Modular VCNs:** Suppliers in modular VCNs manufacture products to detailed customer specifications. However, suppliers providing turnkey services use generic machinery that limits transaction-specific investments and make capital expenditures for materials and components on behalf of customers. They also take full responsibility for competencies around process technology.
- (ii) **Relational VCNs:** These networks involve complex interactions between buyers and sellers, often creating high levels of asset specificity and mutual dependence. These interactions may be managed through spatial proximity, reputation or family and ethnic ties.
- (iii) **Captive VCNs:** Small suppliers in captive VCNs are transactionally dependent on much larger buyer firms. Lead firms usually exert a high degree of monitoring and control in these networks and suppliers face significant switching costs.

The degree of explicit coordination and power asymmetry increases progressively from modular to relational to captive VCNs. Gereffi et al. (2005) also distinguish the three VCN forms in terms of complexity of information and knowledge transfer required, the extent to which this information and knowledge can be codified and the capabilities of the suppliers in the context of a particular transaction. This classification is shown below.

Table 2-1 Key characteristics of the three types of the VCNs adapted from Gereffi et al. (2005, p. 87)

Governance type	Complexity of transactions	Ability to codify transactions	Capabilities in the supply-base
Modular	High	High	High
Relational	High	Low	High
Captive	High	High	Low

Citing examples from the U.S. electronic industry and the apparel industry, Gereffi et al. (2005) further note that the nature of coordination in VCNs evolve over time. *Modular VCNs in the U.S. electronics industry grew from the decision of several North American and European manufacturers in the 1990s to close or sell off their*

plants to contract manufacturers, thus marking a move away from hierarchical business models. This drove the global electronics production capacity into the hands of a few large internationally operating contract manufacturers. One such global contract manufacturer, Solectron, for example, has extended its services beyond circuit-board assembly to include product (re)design, test routine development, component purchasing, final product assembly, inventory management, logistics and distribution and after sales services. Companies such as Solectron introduce a high degree of modularity into VCNs because they provide a comprehensive bundle of value chain resources and capabilities that can be accessed by a wide range of lead firms. The growing capabilities in its international supply-base have allowed the apparel industry to move from the captive to the more complex relational VCN form. The key to the success of the apparel industry in East Asia, for example, has been in moving away from assembly oriented explicit coordination involving cut fabric and detailed instructions to full-package supply requiring more complex forms of knowledge exchange, coordination and supplier autonomy.

2.2.4.5 Network Positions – Roles and Responsibilities

Firms may be both directly and indirectly connected to other firms in a business network (Wilkinson and Young, 2002). 'Network position' refers to the role of a firm in a business network and identifies how it is linked to other firms in the network (Johansson and Mattson, 1992). This is an essential consideration for a network-based cooperation strategy. The concept is distinct from 'market position' which is concerned with how a firm's products are positioned in the eyes of potential customers in relation to offers from competitors. A firm's network position may be characterized in terms of its ability to access and control important resources in the network and its role and value as a network partner (Anderson et al., 1994). Some firms may occupy roles as sources of ideas or materials and others may take on a leadership role. De Man (2004) discusses three possible positions for a company in a business network:

- (i) **Network member:** Also referred to as group members (de Man, 2004) or niche players (Iansiti and Levien, 2004), they do not occupy special positions in the business network; instead they act as contributing participants and may engage

in multiple relationships with other companies in the network. Most members of the Star Alliance a quasi-integration network are equal members with Lufthansa informally leading the network and acting as the orchestrator. In Toyota's VCN, the suppliers act as network members and Toyota as the orchestrator. Network members need to make a specialist contribution and maintain acceptable performance levels. Star Alliance members add strength to the overall route network in different regions around the globe while members of the Toyota network specialize in supplying certain car parts or technologies. Burt (1992) identifies three benefits of network membership: access, referral and timing. The term access refers to informational benefits – a network member will be able to continually receive information about new deals from partners and the reputation and capabilities of potential partners. Network members may also refer interesting partners to each other, thereby increasing the ease of acquiring reliable partners. The benefit of timing results from the fact that partners are able to learn about new opportunities earlier than companies outside the network. However, some disadvantages also arise from network membership. These include loss of independence from over-dependence on the group and lack of awareness of developments outside the network (Grabher, 1993, Gulati, 1999). This could lead to lack of innovation and renewal and eventually result in decline in the network's competitive advantage.

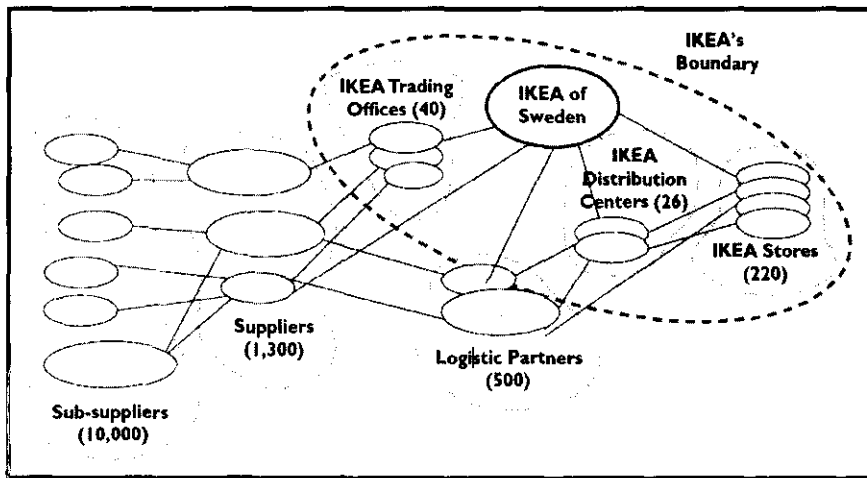
- (ii) **Bridge:** De Man (2004) adapts the concept of a bridge from Granovetter (1973) and describes a bridge as a company that has a relationship between two or more companies or groups. When one company has an alliance with two other companies that are not linked to each other, it can act as a bridging tie between the other two (McEvily and Zaheer, 1999). The gap between the other two companies is called a structural hole (Burt, 1992). Companies that act as bridges can benefit from structural holes by having access to two or more separate sources of knowledge and information and the power to direct the flow of information to suit their needs. In the 1980s three geographically clustered groups of companies in the Europe (including Philips, Siemens and Thomson) Japan (including Fujitsu, Hitachi and Matsushita) and the U.S. (including IBM, Intel and Motorola) were working on developing microelectronic technologies.

These groups were regionally concentrated as they had developed around governmental research consortia. Toshiba chose to position itself between the groups and act as a bridge. It developed alliances with Siemens, Fujitsu and Intel, each of whom was a member of a different group. Bridges may have more flexibility, fewer alliances to manage than group members, and more opportunities to hedge risks by developing different technologies with different partners. However, a major disadvantage arises from the fact that the alliances of a bridge are marked by low trust and commitment (Section 2.3.3 presents discussions on trust and commitment). Alliance partners may not trust bridges enough to transfer information to them.

- (iii) **Orchestrator:** This is a company which acts as a central player for reasons such as brand name (e.g., Nike), market power (e.g., Microsoft) or position in the VCN (e.g. Toyota). They tend to have a disproportionately high number of links with other companies and the ability to influence the future of the network. These companies have also been referred to as hubs (Barabasi, 2003) or keystones (Iansiti and Levien, 2004). These orchestrators have the advantage of being in a position where many companies approach them for entering into cooperative arrangements. Orchestrators can choose to cooperate where new initiatives do not threaten their own positions. When properly managed, the role can be a very profitable one. During the 2001 economic slowdown network orchestrators were found to have outperformed other companies (Hacki and Lighton, 2001). One disadvantage to the orchestrator role is the fact that it is perceived to be responsible for any problems within the network. The recent experiences of Toyota are an illustration of this point. Network orchestrators also take on a significant share of the cost of managing the network. An added level of complexity is introduced by the fact that an orchestrator itself may have a *globally distributed structure as shown in the figure below*. Many orchestrators such as IKEA are multinational corporations (MNCs). Ghoshal and Bartlett (1990) suggest that such an organization can be conceptualized as an internally differentiated interorganizational network which is embedded in an external network of suppliers, partners and customers. This conceptualization

indicates the complexity of interaction processes that are involved in the governance of these networks.

Figure 2-2 An Orchestrator and its Network Members: IKEA's VCN (Baraldi, 2008, p. 100)



Wilkinson and Young (2002) note that a firm's network position may evolve with time through the development and management of relationships with other firms. More central positions in networks tend to have a positive influence on firm performance (Rowley et al., 2000). The ongoing interactions within the network may result in positions arising in a self-organizing, bottom-up manner (Holland, 1998). Powell et al. (1996) found that biotech firms that became more centrally located in their industry through their alliances, achieved higher growth.

2.2.5 Interactions in Interorganizational Networks

2.2.5.1 Interorganizational Interactions – A Definition

The term interaction has been widely used in various fields. In the natural sciences the term refers to the influence of one body on another through various natural forces or the mutual influence of biological molecules. In the business literature, the discourse on interactions draws from either sociological or economic perspectives. The table below lists some key definitions. The first definition by Blumer (1986) takes a micro-sociological perspective and addresses interactions between individuals without attempting to address the structural context of these interactions. He famously describes the entire human society as interactions. Giddens' (1984) conceptualization of interactions is based on a premise about the duality of structure – social structure

and the actions of agents in a social system are inseparable. Butler et al. (1997) base their definition on the costs associated with economic transactions. Håkansson, et al. (2009) view interactions as a complex economic process and emphasize their longitudinal nature. Homans (1958) and Levine and White (1961) conceptualize interactions as exchanges at the individual and the interorganizational level respectively.

Table 2-2 Definitions of Interactions

Author(s)	Theoretical premises, assumptions or inspirations	Conceptualization of Interactions
Blumer (1986)	<p>A microsociological perspective on interactions based on three premises:</p> <ul style="list-style-type: none"> (i) "...human beings act toward things on the basis of the meanings that the things have for them." (p. 2) (ii) "...the meaning of such things is derived from, or arises out of, the social interaction that one has with one's fellows." (p. 2) (iii) "...these meanings are handled in, and modified through, an interpretive process used by the person in dealing with the things he encounters." (p. 2) 	<p>Social interaction amongst individuals –</p> <p><i>"The term "symbolic interaction" refers, of course, to the peculiar and distinctive character of interaction as it takes place between human beings. The peculiarity consists in the fact that human beings interpret or "define" each other's actions instead of merely reacting to each other's actions. Their "response" is not made directly to the actions of one another but instead is based on the meaning which they attach to such actions. Thus, human interaction is mediated by the use of symbols, by interpretation, or by ascertaining the meaning of one another's actions. The mediation is equivalent to inserting a process of interpretation between stimulus and response in the case of human behaviour."</i> (p. 78-79)</p>
Giddens (1984)	<p>Social structure, consisting of resources and rules, exhibits duality, i.e., it is both the medium and outcome of social action.</p>	<p>Social interactions in the context of structure –</p> <p><i>"Social interaction refers to encounters in which individuals engage in situations of co-presence, and hence to social integration as a level of the 'building blocks' where the institutions of social systems are articulated...Interactions depend on the 'positioning' of individuals in the time-space contexts of activity."</i> (p. 89)</p>
Butler et al. (1997)	<p>Inspired by the conceptualization of transaction cost:</p> <p><i>"...in order to carry out a market transaction it is necessary to discover who it is that one wishes to deal with, to inform people that one wishes to deal and on what terms, to conduct negotiations leading to a bargain, to draw up the contract, to undertake the inspection needed to make sure that the terms of the contract are being observed, and so on."</i> (Coase, 1960, p. 15). Transaction costs were later classified by Dahlman (1979) into search and information costs, bargaining and decision costs and policing and enforcement costs.</p>	<p>Interactions in a business environment –</p> <p><i>"Individuals and organisations interact to find the right party with which to exchange; to arrange, manage, and integrate the activities associated with this exchange; and to monitor performance. These interactions occur within firms, between firms, and all the way through markets to the end consumer. They take many everyday forms – management meetings, conferences, phone conversations, sales calls, problem solving, reports, memos – but their underlying economic purpose is always to enable the exchange of goods, services, or ideas."</i> (Butler et al. 1997, p.6)</p>

Table 2-3 Definitions of Interactions

Author(s)	Theoretical premises, assumptions or inspirations	Conceptualization of Interactions
Håkansson, et al. (2009)	This definition was inspired by transaction cost theory, social network theory, organization theory and others. Time and change are important aspects of this conceptualization.	Interactions in a business environment – <i>“Interaction is an important economic process through which all of the aspects of business, including physical, financial and human resources, take their form, are changed and are transformed...business interaction is not simply communication or negotiation, even if these may be important aspects of it. The greater the involvement of a company in a particular interaction, the greater will be the effects on its activities, on its resources and on the company itself. Interaction is a cumulative process over time. Hence, characteristics of actors themselves and of their activities and resources are as much an outcome of interactions as they are an input to it.”</i> (p. 33)
Homans (1958)	An exchange perspective on social interactions between individuals. Non-material goods include symbols of approval or prestige.	Interactions between individuals as exchange – <i>“...interaction between persons... (is) an exchange of goods, material and non-material.”</i> (p. 597)
Levine and White (1961)	An exchange perspective on interactions between organizations based on three assumptions: (i) <i>“...(exchange) refers to activity in general and not exclusively to reciprocal activity.”</i> (p. 588) (ii) <i>“...(widening of) the concept of exchange beyond the transfer of material goods and beyond gratifications in the immediate present.”</i> (p. 588) (iii) <i>“...while the organizations may not be bargaining or interacting on equal terms and may even apply sanctions or pressures...relationships involving physical coercion or domination (are excluded).”</i> (p. 588)	Interorganizational interactions as exchange – <i>“...any voluntary activity between two organizations which has consequences, actual or anticipated, for the realization of their respective goals or objectives.”</i> (p. 588)

The conceptualizations above range from viewing interactions as a social exchange between individuals to any voluntary activity (beyond the transfer of material goods) between two organizations. While there is no consensus definition of interactions in a business environment, the definitions in the above table raise some points about interactions:

- (i) Interactions occur between individuals as well as organizations.
- (ii) They can be formal (e.g. meetings and conferences) or informal in nature.
- (iii) They involve the exchange of material and non-material goods
- (iv) They facilitate the achievement of economic goals of participants. Furthermore, Hagel and Brown (2005) note that companies benefit from their interactions with other companies beyond the actual exchange of goods or services.

This thesis focuses specifically on boundary spanning interactions in business networks. Based on the above discussion the following definition is developed.

On the macro-level, interorganizational interactions in business networks are voluntary activities between organizations undertaken with the purpose of establishing or maintaining interorganizational relationships and generating benefits for the stakeholders involved. These activities may involve the transfer of intangible items such as information and knowledge or tangible items (physical goods/services/cash) or both. Perceived at the micro-level, interorganizational interactions, in essence, involve voluntary activities between boundary role persons separated by organizational boundaries.

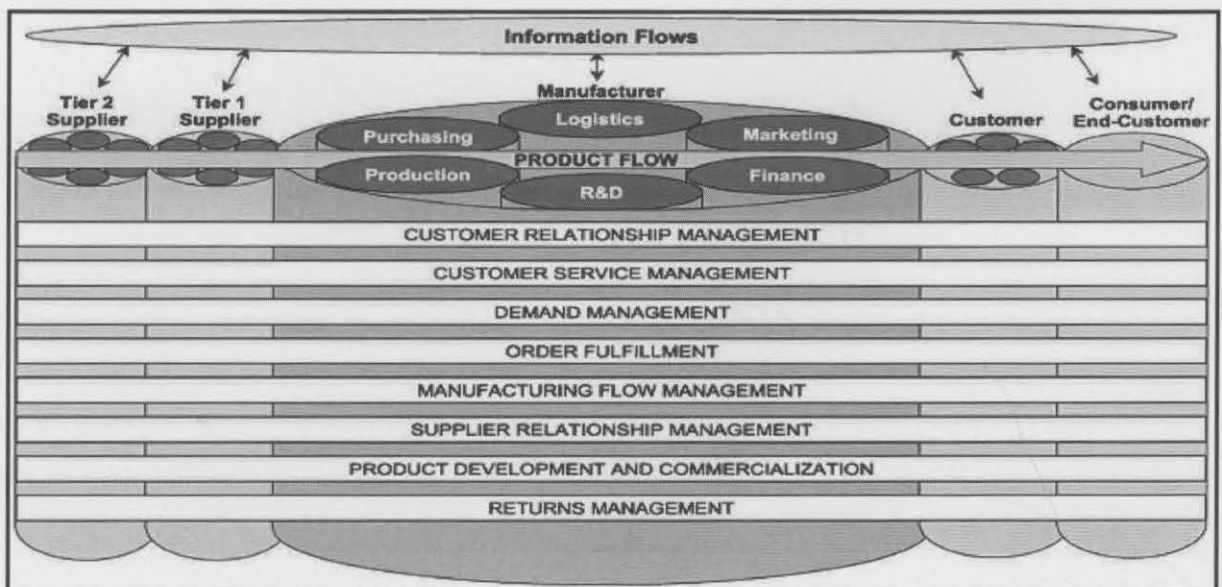
Hakansson, et al. (2009) note that various activities such as production, logistics, deliveries and information handling may be linked between companies in a business network and the links may be of varying strength. In an interorganizational relationship, such activities can be linked through interactions in the form of coordination, collaboration, monitoring or relationship marketing (Section 2.2.5.3). These interaction forms are discussed in more detail in the next section. The above definition also recognizes the fact that interactions in business networks can be visualized both at the organizational and the individual level: “*Although actors at different levels of aggregation may be identified, individuals are inevitably the basic*

interactants in all possible collective actor configurations” (Olkkonen et al., 2000, p. 404). At the individual level, the structural context is both the business network as well as the individual’s organizational structure. For example, since an MNC may be thought of as a network embedded in an external network (Ghoshal and Bartlett, 1990), boundary spanning interactions for facilitating the flow of goods/services/cash may need to occur both at departmental and organizational boundaries. People working at the boundaries of groups or organizations have been referred to as boundary spanners (Friedman and Podolny, 1992) or boundary role persons (BRPs) (Adams, 1976). Their roles in interorganizational interactions are discussed in more detail in Section 2.3.2.

2.2.5.2 Business Processes in VCNs as Contexts for Interorganizational Interactions

Interactions between companies occur in relation to a number of key business processes. The Global Supply Chain Forum has identified eight core business processes for a company in a VCN: customer relationship management, customer service management, demand management, order fulfilment, manufacturing flow management, procurement, product development and commercialization, and returns management (Cooper et al., 1997).

Figure 2-3 Business Processes in Value Chain Networks (Cooper et al., 1997, p. 2)



The eight business processes shown in the figure above include a number of **sub-processes** at the strategic and operational levels (Croxtton et al., 2001):

- (i) **Customer relationship management:** At the **strategic level**, this involves reviewing the corporate and marketing strategies, identifying criteria for categorizing key customers, providing guidelines for the degree of differentiation in product/service agreements, and, developing a framework of metrics and guidelines for sharing process improvement benefits with customers. At the **operational level**, this involves differentiating customers, preparing account/segment management teams, reviewing accounts internally, developing product/service agreements, implementing product/service agreements, and, measuring performance and generating profitability reports.
- (ii) **Customer service management:** At the **strategic level**, this involves developing a customer service strategy, response procedures, infrastructure for implementing response procedures, and a framework of metrics. At the **operational level** this involves recognizing events that need action, evaluating situations and alternatives, implementing solutions, and, monitoring and reporting.
- (iii) **Demand management:** At the **strategic level**, this involves determining forecasting approaches, planning required information flows, determining synchronization procedures necessary to match the forecast to the company's sourcing, production and distribution capabilities, developing a contingency management system and a framework of metrics. At the **operational level**, this involves collecting information, forecasting, performing necessary synchronization, increasing flexibility and reducing variability (in capacity, lead-times and flexibility, etc.), and measuring performance.
- (iv) **Order fulfilment:** At the **strategic level**, this involves reviewing marketing strategy, the supply-side of the VCN structure and customer service goals, defining requirements for order fulfilment (including the order-to-cash cycle), and evaluating the logistics related elements of the VCN (including, the location of warehouses, plants and suppliers of various products, and the required

transportation modes). At the **operational level** the processes include generating and communicating orders, entering orders, processing orders, handling documentation, picking, packing and delivering orders, and, performing post-delivery activities which include receiving and posting payment and measuring performance.

- (v) **Manufacturing flow management:** At the **strategic level** this requires reviewing manufacturing, sourcing, marketing and logistics strategies, determining the required manufacturing flexibility in terms of capabilities and constraints (e.g., minimum batch size, required labour expertise, cycle time, quality policy and controls), determining the push-pull boundary (i.e., identifying the boundary between the parts of the VCN operating in make-to-order and make-to-stock environments since the required interactions with suppliers are quite different), identifying manufacturing requirements and constraints in terms of the roles of suppliers and supplier development strategies, determining manufacturing capabilities and translating them into deliverables (e.g., minimum cycle time) to the customer, and, developing a framework of metrics. At the **operational level**, this involves determining routing and speed through manufacturing (includes developing a master production schedule), manufacturing and material planning (includes producing a time-phased requirement plan and a detailed capacity plan), identifying inventory levels required for synchronizing capacity and demand, and measuring performance.
- (vi) **Supplier relationship management:** At the **strategic level**, reviewing corporate, manufacturing, and sourcing strategies, identifying criteria for categorizing suppliers, providing guidelines for the extent of customization in product/service arguments, developing a framework of metrics, and, developing guidelines for sharing process improvement benefits with suppliers. At the **operational level**, this involves differentiating suppliers, preparing the supplier/supplier segment management team, reviewing the supplier/supplier segment internally, identifying opportunities with the suppliers, developing product/service agreements and communication plans, implementing

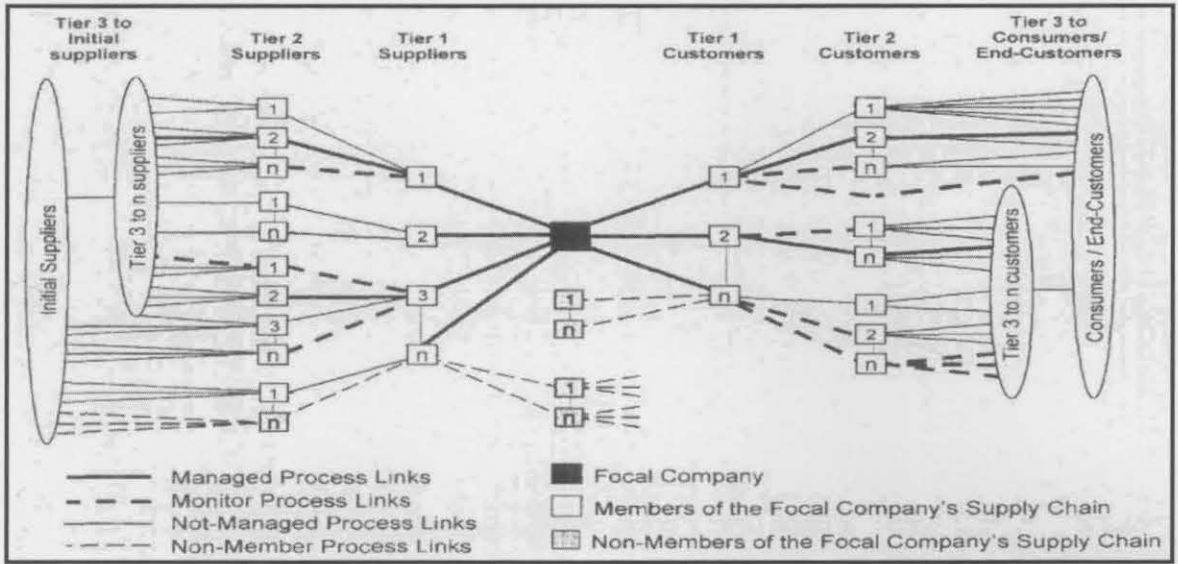
product/service agreements, and measuring performance and generating supplier cost/profitability reports.

(vii) **Product development and commercialization:** At the **strategic level**, this involves reviewing sourcing, manufacturing and marketing strategies, developing idea generation and screening processes, establishing guidelines for cross-functional product development team membership, identifying product rollout issues and constraints, establishing new product/project guidelines, and developing a framework of metrics. At the **operational level**, this involves defining new products, establishing cross-functional product development teams, formalizing new product development projects, designing and building prototypes, making make/buy decisions, determining channels, rolling out products, and measuring performance.

(viii) **Returns management:** At the **strategic level** this involves reviewing environmental and legal compliance guidelines, determining secondary markets and developing avoidance and disposition guidelines, return network and flow options, credit rules, and a framework of metrics. At the **operational level**, this involves receiving return requests, determining routing, receiving returns, selecting disposition options, crediting consumers/suppliers, and analysing returns and performance measurement.

The key issue here is the fact that the eight processes (i.e., many of the sub-processes that make up these processes) may require interactions in various forms in order to link these business processes across functional and organizational boundaries. Product development, for example, may involve people within relevant functions within the organization collaborating with customers and suppliers (Croxtton et al., 2001). Through 80 interviews in 11 companies in five different VCNs, Lambert et al. (1998) found four types of business process links between companies: managed process links, monitored process links, not-managed process links and non-member process links. The figure below illustrates these types of links in a VCN.

Figure 2-4 Types of Interorganizational Business Processes Links (Lambert et al., 1998, p. 7)



Managed process links could involve collaboration between the focal company and other members of the VCN (Lambert et al., 1998). Monitored process links, as the name suggests, involves the focal company monitoring or auditing linked processes. Not-managed process links are those that a focal company does not get involved in directly. Instead it relies on other members of its VCN to manage these links. A non-member process link could exist between a supplier of the focal company and a non-member of the focal company's VCN. Such a situation requires the focal company to be aware of the implications for protection of confidentiality of information and the suppliers' ability to provide manpower for the business processes of importance to the focal company.

2.2.5.3 Types of Interorganizational Interactions Conceptualized in the Literature

This thesis focuses on links between a focal company and adjacent members in a VCN. Coordination, collaboration and monitoring and relationship marketing are the key types of interorganizational interactions discussed in the literature related to such links.

The academic literature describing interactions between organizations presents a range of concepts with overlapping meanings. These concepts are summarized in this section.

2.2.5.3.1 Coordination

Emphasizing the fact that without interdependencies, there would be no need for coordination, Malone and Crowston (1994) define coordination broadly as “*managing dependencies between activities*” (p. 88). A number of coordination mechanisms have been identified in the literature. This section draws on the reviews by Chan and Chan (2009) and Sahin and Robinson (2002) and conceptual work by Simatupang et al. (2002) to categorize coordination mechanisms into the following key types:

- (i) **Quantity discount policy:** Under this approach, price and demand are related to each other and either order quantity is a variable for discount or price is a variable for discount subject to order quantity. In order to reduce its ordering costs, a supplier may provide its buyers incentives in the form of price discounts as long as the quantity exceeds a specified amount (Sirias and Mehra, 2005).
- (ii) **Return policy:** This is a commitment made by an upstream VCN member to a downstream partner. Return policies could encourage buyers to order larger quantities. This is possible because the upstream VCN member offers the buyer credit for returned units irrespective of the reason (Wang and Benaroch, 2004).
- (iii) **Quantity flexibility:** This generally exists in the form of a contract that can be modified once it has been set up. The buyer usually makes a commitment to purchase a minimum amount or places an early order. The supplier provides the buyer with the opportunity to change the order quantity later based on the most updated demand information (Wang and Tsao, 2006). As demand becomes more uncertain, this flexibility becomes increasingly important (Tibben-Lembke, 2004).
- (iv) **Logistics synchronization:** Strategies for logistics synchronization include operational flexibility, collaborative logistics processes, logistics postponement and collaborative transportation. Operational flexibility is about providing

demand response by considering various options such as build-to-order, locate-to-order, make-to-forecast and amend-to-order (Holweg and Pil, 2001). Collaborative logistics processes involve joint forecasting, joint assortment planning, and joint inventory management and replenishment (Simchi-Levi et al., 1999). Logistics postponement aims to delay product differentiation till customer orders have been received (van Hoek, 2001). Collaborative transportation involves using third-party logistics providers for inbound and outbound logistics. Cross-docking, warehousing, and direct shipping are three potential outbound strategies for delivering goods to end customers (Simchi-Levi et al., 1999).

- (v) **Information sharing:** Coordination requires the availability of accurate and prompt information to all relevant network members (Holweg and Pil, 2008). The importance of the information sharing arises from its effect on the other coordination mechanisms. For the quantity flexibility mechanism, the final order quantity is based on the most updated demand information. Logistics synchronization requires a number of joint activities which would inevitably require information sharing. Additionally, as indicated by the discussion below, it might be argued that a quantity discount policy and a return policy would not help to counteract the bullwhip effect.

The distortion of demand information as it travels up different tiers of a VCN is referred to as the **bullwhip effect** (Lee et al., 1997). Lee et al. identify three types of coordination mechanisms specifically for countering the bullwhip effect. The first of these, **demand information sharing**, eliminates the generation of multiple demand forecasts by VCN members through timely upstream transmission of demand information. The other two mechanisms are as discussed in points (vi) and (vii) below. Information sharing and the use of *appropriate ICTs that reduce the cost of ordering could help to reduce the batch sizes of orders and thereby help to resolve this problem.*

Whilst information sharing is the core mechanism for coordination, the extent to which it occurs may be context dependent. Patnayakuni et al. (2006) show that the sharing of information for coordination is facilitated by the extent to which

relational interaction routines are established between VCN partners for the sharing of information and knowledge in general. Such routines take both time and effort to develop and may include both informal and formal arrangements. Interorganizational information sharing for coordination is also positively related with channel interdependence between a buyer and a supplier (Kim et al., 2006).

- (vi) **Operational efficiency improvement mechanisms:** Just-in-time (JIT) replenishment and reduction in cost of ordering by using electronic data interchange (EDI) are possible solutions. Reduced cost of ordering would reduce the size of the batches ordered. Manufacturers can also establish a uniform wholesale price policy by reducing both the level and frequency of wholesale price discounting, thereby reducing the incentives for retail forward buying. Whilst EDI has been used for sharing transactional data since the 1970s, the Internet provides a distinct advantage in terms of standardized data formats and lower implementation costs (Garcia-Dastugue and Lambert, 2003). Internet based relationship coordination mechanisms can take the form of private information hubs. Participation in private information hub is usually restricted to the channel leaders and its key suppliers and customers.
- (vii) **Channel alignment:** Providing discounts to downstream partners who are willing to order mixed stock-keeping-units (SKUs) rather than full truckloads of the same product could help to mitigate the bullwhip effect. Vendor-managed inventory (VMI) is a well recognized approach for counteracting the effect (Disney and Towill, 2003, Lee and Whang, 2000). All demand and inventory-related information is sent to suppliers so that they can ensure continuous replenishment of products. The key challenges for vendors to overcome in VMI relationships are information delay and information accuracy (Angulo et al., 2004). Information delays may occur in both retailers' and vendors' business processes and information systems Mutual audits between retailers and vendors may reduce these problems and enhance the benefits from VMI.

The definition and discussion of coordination mechanisms above suggests that the term 'coordination' has been used in a broad inclusive sense in the literature. In order

to distinguish the term from 'collaboration' (Section 2.2.5.3.2), the thesis extends and narrows the definition of Malone and Crowston (1994) as follows: **Coordination across interorganizational boundaries is the management of dependencies between sequential activities (including planning and forecasting) undertaken by organizations that are participating in interorganizational relationships.** The term 'sequential' distinguishes this definition from that of strategic collaboration as defined by Kim and Lee (2010) which involves the *joint* undertaking of activities (Section 2.2.5.3.2).

2.2.5.3.2 Collaboration

Collaboration is seen as a form of managing dependencies between activities (i.e., coordination) which requires participants to be working jointly on issues of mutual benefit (Malone and Crowstone, 1994, Miles et al., 2005). Various terms with same general theme of joint activity have been used to describe collaboration in the literature:

- (i) Malhotra et al. (2005) focus on **joint decision making** in the context of marketing related activities and find that partnership strengths vary in term of the extent of joint decision making and associated information sharing.
- (ii) Mohr and Spekman (1994) use the term **participation** to refer to the extent of joint activities in an alliance. Examining the vertical alliances between manufacturers and dealers, Mohr and Spekman found that the extent to which alliance partners participated jointly in planning and goal setting and **joint problem resolution** activities positively influenced the success of the alliance.
- (iii) Myers and Cheung (2008) use the term **joint sense making** to include joint problem solving, discussion of strategic issues and creation of a common understanding of available information. In their study spanning a number of different industries, the authors find that in joint sense making activities initiated by buyers, suppliers achieved most of the benefits. However, if the same activities were initiated by the suppliers, both parties realized significant benefits.

- (iv) Heide and John (1990) and Zaheer and Venkatraman (1995) use the term **joint action**. Studying original equipment manufacturer (OEM)-supplier ties, Heide and John operationalize the concept in terms of component testing/prototyping, long-range planning and forecasting component requirements. Their study suggests that stronger expectations of continued interactions, greater supplier verification efforts and relationship specific investments increase joint action. Zaheer and Venkatraman operationalize joint action in terms of **joint planning** of market strategy, product launches and premium volumes. Their study of insurance agencies suggests a strong correlation between reciprocal investments and joint action. While some similarity in findings between the two studies seems apparent, the difference in conceptualization of joint action also suggests that the term may have to be conceptualized differently based on the industry context and the specific types of ties under investigation within an industry.
- (v) **Collaborative planning and execution** is an umbrella term used by Austin (2002) for three key activities: collaborative demand planning, synchronized order fulfilment, and joint capacity planning.
- (vi) **Coopetition**, a term coined by Brandenberger and Nalebuff (1996), involves collaborating with competitors and is exemplified, amongst others, by arrangements between Toyota and General Motors in the automobile industry and Philips and Siemens in the semiconductor industry (Hamel et al., 1989).
- (vii) Kim and Lee (2010) classify collaboration into two distinct categories: **strategic** and **systems collaboration**. Systems collaboration is defined by the authors as *“the extent to which supply chain partners strive to make and keep their communication systems compatible with each other to be ready for interfirm forecasting and planning”* (p. 958). They define strategic collaboration as *“the extent to which supply chain partners actually forecast demand and plan business activities jointly while taking into account each other’s long term success”* (p. 959). This thesis adopts the classification of Kim and Lee (2010) but expands the definition of strategic collaboration to include a broader range of activities such as interorganizational team projects for development of new technologies (e.g., Malhotra et al., 2001) or joint problem resolution (Mohr and

Spekman, 1994, Myers and Cheung, 2008). Thus, strategic collaboration is defined as follows: **Strategic collaboration between organizations is the extent to which these organizations undertake relevant strategic activities (such as demand forecasting, planning, technology development, problem resolution, etc.) jointly while taking into account each other's long term success.** The definition of systems collaboration is also broadened here as such collaboration may occur in any type of interorganizational relationship and the purpose of such collaboration may not be limited to 'interfirm forecasting and planning' as suggested by the authors. The term is defined as follows: **Systems collaboration is the extent to which organizations strive to make and keep their communication systems compatible with partner firms in order to facilitate other interorganizational interactions.**

While collaboration is not advocated for all buyer-supplier relationships (Spekman and Carraway, 2006), it has been found to improve the performance of participating firms (Corsten and Felde, 2005, Kim and Lee, 2010). Trust and electronically mediated exchange (extent of interorganizational communication through internet, electronic mail and EDI systems) have been shown to facilitate collaborative relationships (Myhr and Spekman, 2005). Adoption standards with respect to business practices may also support collaboration efforts. The Collaborative Planning, Forecasting and Replenishment (CPFR) guidelines developed by the Voluntary Interindustry Commerce Standards (VICS), provides a business best practice framework to facilitate collaboration in vendor-retailer relationships. The framework relies on extensive information sharing between trading partners in relation to promotion campaigns, sales plans, forecasts and inventory levels (VICS, 2002, 2004). The information shared facilitates the creation of joint business plans and joint decision making with respect to exception items for sales and order forecasts. A range of companies including Hewlett Packard (Culbertson et al., 2005), Motorola (Cederlund et al., 2007), Rexon, Taiwan (Chen et al., 2004) and Wal-Mart (Parks, 2001) have been reported to have achieved positive outcomes from their CPFR initiatives.

Coordination, monitoring and collaboration are generally key interactions in the execution stage of interorganizational relationships (IORs). The different stages of IORs and their iterative nature are discussed in the next section. Relationships and trust emerge over time through repeated interactions between companies in a business network. These concepts are discussed at both at the macro and micro-level in the next section.

2.2.5.3.3 *Monitoring*

Monitoring is another type of interorganizational interaction requiring information sharing as the key mechanism. Kim et al. (2006) note that the inability of a buyer to monitor a supplier's production process could increase the risk of opportunistic behaviour on the supplier's part. The authors operationalize electronic information sharing for monitoring in terms of a buyer's access to a supplier's production schedule, shipping/delivery schedule, inventory levels of raw materials and finished products, production capacities and quality of products. Their findings based on a study of 124 buyers in multinational enterprises in the shipbuilding and automobile industry suggests that electronic information sharing for monitoring purposes is positively associated with uncertainty of demand and transaction volume as well as channel interdependence between buyers and suppliers.

With increasing globalization of buyer and supplier markets, the need for monitoring may be driven by compliance requirements specified by various international standards such as the Ethical Trading Initiative (ETI) Base Code (a code of practice established by ETI, an alliance of trade unions, voluntary organizations and companies working together to improve the lives of workers who grow or make consumer goods (ETI, 2009)) and SA8000 (a standard established by the non-profit agency Social Accountability International (SAI) whose members include non-governmental organizations, audit firms and companies (SAI, 2008)). Monitoring based on such standards also requires gathering substantial quantities of information from supplier factories and reporting the information to the appropriate recipients (Bremer and Udovich, 2001).

Based on this discussion of monitoring in the literature, the thesis defines the term as follows: Based on the extant literature, monitoring has been defined in this thesis as follows: **In an interorganizational relationship, monitoring involves the gathering of information by one organization from another as well as associated decision making to ensure that the other party performs as expected in a given context.** Note that this usage of the term monitoring is different from the term ‘monitored link’ used by Lambert et al. (1998) as discussed in Section 2.2.5.2. These authors have used the term monitored link to refer to an indirect interorganizational relationship of a focal firm. In this thesis the term monitoring is used to describe a type of interorganizational interaction that can take place between firms even within a direct interorganizational relationship.

2.2.5.3.4 Relationship Marketing

Relationship marketing has been variously defined in the marketing literature. In the context of services marketing, Berry (1983) provides the following definition: *“Relationship marketing is attracting, maintaining and – in multi-service organizations – enhancing customer relationships”* (p. 25). In the industrial marketing area, Jackson (1985) describes the concept as *“marketing oriented toward strong, lasting relationships with individual accounts”* (p. 2). Using a similar term, ‘relationship selling’, Doyle and Roth (1992) note: *“the goal of relationship selling is to earn the position of preferred supplier by developing trust in key accounts over a period of time”* (p. 59).

However, as Morgan and Hunt (1994) observe: *“Strictly speaking, in strategic alliances between competitors, partnerships between firms and government in public-purpose partnerships, and internal marketing, there are neither “buyers,” “sellers,” “customers,” nor “key accounts” only partners exchanging resources* (p. 22). They provide the following general definition of the term which is adopted in this thesis: *“Relationship marketing refers to all marketing activities directed toward establishing, developing, and maintaining successful relational exchanges”* (p. 22).

2.3 The Evolution of Interorganizational Relationships (IORs) through Ongoing Interactions

Organizations tend to engage in business-to-business interactions with a variety of customers and suppliers. Relationships develop between organizations over time through repeated interactions. A discrete transaction which has a “*distinct beginning, short duration, and sharp ending by performance*” is different from an interorganizational relationship (IOR) which “*traces to previous agreements [and] ... is longer in duration, reflecting an ongoing process*” (Dwyer et al., 1987, p. 13). Noting interactions as episodic and ongoing, Hakansson (1982) characterizes the IORs in terms of outcomes such as the clarification of expectations and the development of contact patterns: “*The routinization of these exchange episodes over a period of time leads to clear expectations in both parties of the roles or responsibilities of their opposite numbers... The communication or exchange of information, in the episodes successively builds up inter-organizational contact patterns and role relationships. These contact patterns can consist of individuals and groups of people filling different roles, operating in different functional departments and transmitting different messages...*” (p. 25).

2.3.1 The Stages of an IOR

Over time, through repeated interactions, formal role relationships become socially embedded in accommodation (Morely and Stephenson, 1977), escalating progression of socialization (McGrath, 1984, Schein, 1970), and normative expectations that mutually arise among IOR participants. Interpersonal behaviour substitutes for role behaviour as personal relationships are built accompanied by the deepening of psychological contracts (Ring and Van de Ven, 1994). Based on Common’s (1950) original formulation of transactions, Ring and Van de Ven conceptualized the evolution of an IOR as a repetitive sequence of three stages. These are as follows:

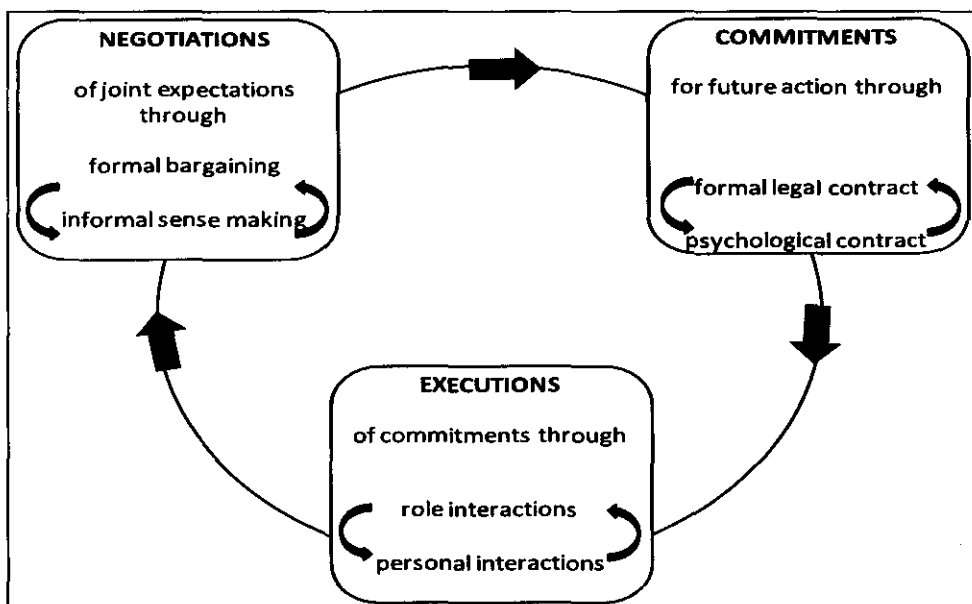
- (i) **Negotiation stage:** In this stage the involved firms develop a joint expectation regarding perceived uncertainties, their motivations and possible investments. In this stage the choice behaviour of parties and formal bargaining processes are

important as parties argue over the terms and procedures of a potential IOR. Iterative efforts at negotiations through formal bargaining and socio-psychological (informal) sense making may be necessary for parties to assess each other's roles and trustworthiness for the transaction being considered.

- (ii) **Commitment stage:** In this stage, an agreement is reached about the rules and obligations for future action in the IOR. The terms and structure of the IOR are either informally understood in a psychological contract amongst the involved parties or codified in a formal contract. A series of interactions may be necessary to enable parties to reach consent. Many agreements can be reached informally depending on the willingness of parties to rely on interpersonal trust and the level of risk involved.
- (iii) **Execution stage:** In this stage, the commitments and rules of engagement are realized in action. Formally designated role behaviour reduces initial uncertainty and makes interactions between parties predictable. Through a series of role interactions parties may gain familiarity with each other as persons. This may lead to them increasingly relying on interpersonal rather than inter-role relationships.

The three stages are illustrated in the figure below.

Figure 2-5 Development of IORs, adapted from Ring and Van de Ven (1994, p. 97)



Since a cooperative IOR may need to remain in effect for a significant length in time, misunderstandings, changes in expectations and conflicts are inevitable (Ring and Van de Ven, 1994). The terms of the relationship may require rethinking and supplemental agreements may need to be established through renegotiations. Hakansson (1982) refers to this aspect of IORs as “*the adaptations which one or other party may make in either the elements exchanged or the process of exchange. Examples of this are adaptations in product, in financial arrangements, in information routines or social relations ... The benefits of these adaptations can be in cost reduction, increased revenue, or differential control over the exchange. Adaptations in specific episodes may also be made in order to modify the overall relationship*” (p. 26). In a final cycle of iteration, parties may decide to conclude the relationship if the deal has been completed or there has been a breach of agreement. Two illustrations of evolving IORs are discussed below:

- (i) IORs in business networks may evolve over time from more arm’s length activities towards jointly conducted activities. The Rover-Honda alliance provides an example of the evolution of IORs. In its early stages, the relationship involved arm’s length licensing arrangements between Honda and Rover followed by the exchange of Japanese design for an understanding of styling requirements for the European market. The alliance grew with the launch of the Honda Legend and the Rover 800 in 1986, which required the two companies to work together in joint manufacturing and design teams. By 1990 the two companies not only had had joint design and manufacturing but joint sourcing and R&D as well, whilst still maintaining their separate identities. The alliance continued till the late 1990’s when BMW acquired Rover. (Faulkner, 1995b)
- (ii) The evolving relationship between Sharp, a leading manufacturer of flat panel displays and Corning Glass is an example of evolution within the execution stage of an IOR. When Sharp modified its product design for larger panels to lower costs, it wanted to keep the changes a secret and did not share them with Corning Glass, one of its main suppliers. Sharp’s panels on the new production line failed completely. Instead of engaging in blame assignment, the companies decided to work together to resolve the problem. The close interaction between

the engineers from the two companies for the next several months resulted in the development of a new acid treatment for one of Corning Glass's glass products. When the product was used in Sharp's new panels, the treated glass yielded better performance than had been anticipated from the original product. (Hagel III and Brown, 2005)

The following subsections discuss the significance of boundary spanning roles involved in the interactions and the associated development of trust and commitment in IORs.

2.3.2 Boundary Spanning Roles

“Boundaries are a defining characteristic of organizations, and boundary roles are the link between the environment and the organization.”

(Aldrich and Herker, 1977, p. 217)

While interorganizational relationships (IORs) in business networks are macro-level phenomena, they emerge and evolve with time as a result of interactions amongst individuals (Ring and Van de Ven, 1994). People working at the boundaries of groups or organizations have been referred to as boundary spanners (Friedman and Podolny, 1992) or boundary role persons (BRPs) (Adams, 1976). BRPs may undertake boundary spanning interactions both within a company (Michaels et al., 1995) as well as between a company and its environment (Hallenbeck et al., 1999). A number of authors have attempted theoretical classifications of external environment-oriented boundary roles in organizations (Aldrich and Herker, 1977, Katz and Kahn, 1966, Leifer and Delbecq, 1978) or examined these roles in a narrow context (Keller and Holland, 1975, Miles, 1976). Based on research across multiple industries, Jemison (1984) presents an empirically derived set of three **boundary roles** that subsumes previous categorizations:

- (i) **Information acquisition and control:** This involves acquiring information required by the organization from external sources and making decisions about what portion of the information should be given to whom and when.

- (ii) **Domain determination and interface:** This requires deciding what customers the organization will pursue and how products will be provided to these customers. This also involves meeting with customers and providing information to others to create a positive image of the organization.
- (iii) **Physical input control:** This requires making decisions about the type, quality and delivery schedules of the material inputs required from outside the organizations.

While the above roles suggested by Jemison emphasize the coordination aspects of boundary spanning activities, boundary spanning roles may be of different types. Boundary spanning roles may also be created when companies create boundary spanning teams to collaborate on specific projects (e.g., Malhotra et al.(2001)). Monitoring activities discussed in the previous section, would also in essence be conducted through interactions between BRPs and their counterparts in partner organizations.

While some authors have reported increased job satisfaction from multiple boundary spanning roles (e.g., Hallenbeck et al. (1999)), BRPs may also face some personal conflict because of the nature of their roles:

“One of the problems most frequently associated with boundary spanning [interactions] is role conflict. As a boundary spanner interacts with members of different groups, they convey to the boundary spanner the particular expectations that each group has about the boundary spanner's role, including how [he/] she should act, what values [he/] she should express, and what interests [he/] she should represent. Given that each group's values and interests are different, the boundary spanner is likely to experience conflicting expectations of how to fulfil [his/] her role.”

(Friedman and Podolny, 1992, p. 28)

The counterintuitive results of a study by Zaheer et al. (1998) suggesting that greater interpersonal trust between BRPs is related to increasing negotiation costs, may be an indicator of the difficulties experienced by boundary spanners facing conflicting expectations from opposite sides of an organizational boundary. Perrone et al. (2003) found that, role autonomy, which “permits purchasing managers to engage in discretionary behaviors that allow supplier representatives to learn about their

underlying motives and intentions" (p. 422), enhances the trust of supplier's representative in the purchasing manager. The complex issue of trust at the individual and organizational level is discussed in the next section.

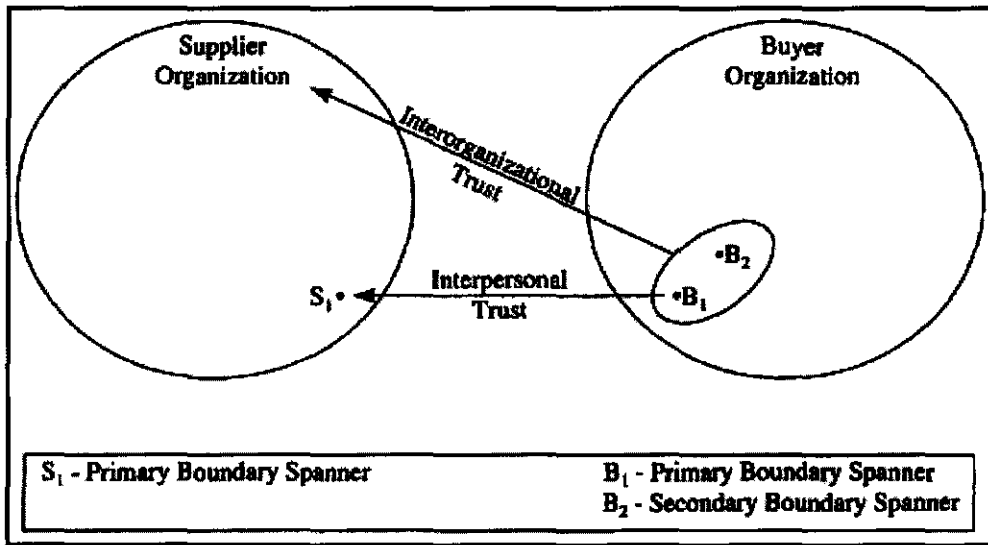
2.3.3 Interpersonal and Interorganizational Trust

"Now trust has a very important pragmatic value, if nothing else. Trust is an important lubricant of a social system. It is extremely efficient; it saves a lot of trouble to have a fair degree of reliance on other people's word. Unfortunately this is not a commodity which can be bought very easily. If you have to buy it, you already have some doubts about what you've bought. Trust and similar values, loyalty, truth-telling are examples of what an economist would call "externalities". They are goods, they are commodities; they have real practical value; they increase the efficiency of the system, enable you to produce more goods or more of whatever values you hold in high esteem. But they are not commodities, for which trade on the open market is technically possible or even meaningful."

(Arrow, 1974, p. 23)

Just as interactions can be conceptualized both at the organizational and individual level, the trust which develops through these interactions can be characterised at both levels. In try to address this complexity associated with trust, Zaheer et al. (1998, p. 142) conceptualize the term **interpersonal trust** as *"a boundary-spanning agent's trust in her counterpart in the partner organization. In other words, interpersonal trust is the trust placed by the individual boundary spanner in her individual opposite member."* The term **interorganizational trust** *"describes the extent to which organizational members have a collectively held trust orientation toward the partner firm"* (Zaheer et al., 1998, p. 143) The figure below illustrates these two distinct but related concepts.

Figure 2-6 Interorganizational and interpersonal trust (Zaheer et al., 1998, p. 142)



Both types of trust are discussed in more detail in the next two sub-sections.

2.3.3.1 Trust as a Micro-Level Phenomenon

Guitot (1977) argues that individuals make attributions about the behaviours and intentions of others based on whether these others are viewed as working within a role or as individuals. Trust in this context, also referred to as **relational trust** (Paul and McDaniel, 2004), is faith in the goodwill and moral integrity of others, produced through sentiments, friendships and mutual norms (Homans, 1961, Ring and Van de Ven, 1994). Reliance on interpersonal trust may be tempered by organizational roles, making it difficult for involved individuals to rely preferentially on relational trust. Gabarro (1979, p. 180) notes: *"...roles and role expectations are part of the context of all social interaction, but they are even more persuasive and are more explicitly defined in working relationships, particularly when they occur within or across organizational hierarchies. Most working relationships develop between people by virtue of their roles. In this respect, people begin [an] institutionalized role relationship, often before they have begun to develop an actual relationship. . . . The operational question for such a dyad is not whether to get "married," but rather how to make the marriage work."* This suggests that role based trust needs to be considered in conjunction with relational trust in order to gain a fuller understanding of trust at the individual level. There are two types of role based trust **calculative trust** and **competence trust**. The concept of calculative trust assumes individuals are rational

beings motivated by their desire to minimize losses and maximize gains (Kramer, 1999), and involves a market oriented economic calculation by involved parties regarding the costs and benefits that would result from creating and maintaining the relationship (Child, 1998, Lewicki and Bunker, 1996). Competence trust is one based on the ability of the other party to perform as expected (Rousseau et al., 1998). The term **interpersonal trust** is used as an integrative concept by Paul and McDaniel (2004) to describe a combination of these three types of trust. The effects of interpersonal trust tend to vary across studies. Paul and McDaniel (2004) found that all three types of interpersonal trust had a positive effect on performance in virtual collaboration on telemedicine projects. On the other hand, in a study of electrical equipment manufacturers and their suppliers, Zaheer et al. (1998) found that interpersonal trust has a negligible effect on reducing conflict and improving performance, and on its own does not reduce negotiation costs in IORs. However, interpersonal trust is found to play a subordinate role in reducing negotiation costs when examined together with interorganizational trust. Furthermore, since institutionalized structures and interaction processes may remain in place even if BRPs come and go during the course of a relationship, low interpersonal trust can coexist with high interorganizational trust (Ring and Van de Ven, 1994).

2.3.3.2 Trust as a Macro-Level Phenomenon

While trust is essentially a micro-level phenomenon occurring between individuals, it has been conceived as a macro-level phenomenon in a number of studies (e.g., Carson et al.(2003), Dyer and Chu (2003), Ghosh and Federowicz Zaheer et al. (1998)). Although these studies conceptualize interorganizational trust somewhat differently, they generally report on the positive effects of interorganizational trust. In an increasingly globalized business environment, regional culture is found to influence interorganizational trust (Huff and Kelley, 2003). Shared values (i.e. the extent to which partners have beliefs in common about the importance and appropriateness of goals, behaviours, and policies) also have a positive influence on trust (Morgan and Hunt, 1994). Opportunistic behaviour (i.e., violation of promises regarding appropriate role behaviour), on the other hand has a negative influence on trust

(Morgan and Hunt, 1994). Conceptualizations of trust and findings from some representative studies are summarised below.

Authors	Definitions/Dimensions of Interorganizational Trust	Research Finding
Carson et al.(2003)	"... the confidence held by one party in its expectations of the behavior and goodwill of another party regarding business actions" (p. 46)	In the context of interfirm R&D collaborations, "trust-based governance has a larger positive impact on task performance when the client is more skilled at understanding the outsourced tasks at hand, the task itself requires skills that are relatively more readily taught (less tacit), and the task itself is organized in parallel with work being done at the contractor as well as the client". (p. 45)
Dyer and Chu (2003)	Dimensions of interorganizational trust: <ul style="list-style-type: none"> • Goodwill (i.e., the trustworthy party would not take advantage of the partner firm even when the opportunity presents itself) • Fairness (i.e., the trustworthy party would make adjustments related to changes in market conditions or other factors in ways viewed as fair by the partner firm) • Reliability (i.e., the trustworthy party would make sincere efforts to behave in accordance with its commitments) 	In the context of automaker-supplier relationships, "... perceived trustworthiness reduces transaction costs and is correlated with greater information sharing in supplier-buyer relationship"(p. 57)
Huff and Kelley (2003)	"...the extent to which organizational members have a collectively-held trust orientation toward the partner firm" (Zaheer et al., 1998, p. 143)	In the context of the banking industry, the study found that the propensity toward interorganizational trust was higher in the USA (an individualist culture) than in Asian countries (collective cultures)
Zaheer et al. (1998)	"...the extent to which organizational members have a collectively-held trust orientation toward the partner firm" (p. 143)	In the context of the electrical equipment manufacturing industry, the study found a strong association between interorganizational trust and lower costs of conflict and negotiation and a strong positive influence of interorganizational trust on performance.

Anderson and Narus (1990) note that trust is influenced by past communications between partners and in subsequent periods the accumulated trust leads to better communication. Here communication implies timely and meaningful information sharing that can be both formal and informal in nature. Thus trust can be seen as both an antecedent and outcome of information sharing. This characteristic of trust can be

corroborated from the findings of several researchers (Dyer and Chu, 2003, Ghosh and Fedorowicz, 2008, Morgan and Hunt, 1994). The influence of trust on another key aspect of IORs – relationship commitment – is discussed in the next section.

2.3.3.3 Trust and Relationship Commitment

Relationship commitment is defined by Morgan and Hunt (1994) as “*an exchange partner believing that an ongoing relationship with another is so important as to warrant maximum efforts at maintaining it; that is, the committed party believes the relationship is worth working on to ensure that it endures indefinitely*” (p. 23). From the perspective of the committed party such an exchange relationship is a ‘valued relationship’ (Moorman et al., 1993). Relationship commitment is central in distinguishing social exchange from a purely economic one (Cook and Emerson, 1978). In fact, mutual commitment forms the very foundation of a relationship (Berry and Parasuraman, 1991).

Trust has been suggested to be key determinant of relationship commitment (Achrol, 1991). This has been corroborated by extant research (Moorman et al., 1993, Morgan and Hunt, 1994). Relationship termination costs and shared values also have positive influences on relationship commitment (Morgan and Hunt, 1994). In terms of outcomes, both trust and commitment were found to have a positive influence on cooperation between involved parties (Morgan and Hunt, 1994).

2.3.3.4 Trust and Risk

The necessity of making decisions in the face of uncertainty when cooperating with other parties gives rise to different risks (Ring and Van de Ven, 1992). Risks can include market risks associated with the probability of finding the right price-performance niche and/or technological risks related to the probability of bringing a new technology to market (Chakravarthy, 1985). Risks generally increase due to time pressures on taking action, increase in information asymmetry and decrease in control (MacCrimmon and Wehrung, 1986). According to Ring and Van de Ven (1992, p. 489):

“Reliance on trust by organizations can be expected to emerge between business partners only when they have successfully completed

transactions in the past and they perceive one another as complying with norms of equity. The more frequently the parties have successfully transacted, the more likely they will bring higher levels of trust to subsequent transactions... Parties with a history of successful transactions are less likely to suffer the adverse affects of information asymmetry because they will share information that reduces technological or commercial risk more freely with each other. As they transact repeatedly, and observe norms of equity and reciprocity, they may place greater reliance on parties not to act opportunistically when given access to proprietary information.”

Moreover, as an organization interacts with different types of organizations more frequently, the more information it is likely to be able to gather regarding the predictability and reliability of different parties. The diversity of interactions could also increase its understanding of the effectiveness of contractual safeguards. (Ring and Van de Ven, 1992)

2.4 ICTs and Associated Standards for Facilitating Interactions in IORs

The three types of interorganizational interactions, coordination, collaboration and monitoring, require the use of sharing of information and knowledge in order to facilitate the provision of services or the design, manufacture, and movement of physical goods. This requires a variety of interorganizational systems. Broadly speaking, an interorganizational system (IOS) or an interorganizational information system (IOIS) “*consists of computer and communications infrastructure for managing interdependencies between firms*” (Chi and Holsapple, 2005, p. 55). Specifically, these systems are built around technology “*that facilitates the creation, storage, transformation and transmission of information. An IOIS differs from an internal distributed information system by allowing information to be sent across organisational boundaries*” (Johnston and Vitale, 1988). IOISs have been classified into three types based on the nature of the interdependencies amongst organizations participating in an interorganizational alliance (Kumar and van Dissel, 1996): pooled information resource IOISs, value/supply chain IOISs, and networked IOISs. As the nature of the interdependencies may be quite complex, these three types of IOISs may possess characteristics associated with each other. However, it is useful to examine

them separately in the subsections below in order to understand their key characteristics.

2.4.1 Pooled Information/Knowledge Resource IOISs

These involve the sharing of information technology resources, e.g., databases, communication networks, applications, and electronic markets (Kumar and van Dissel, 1996). Chi and Holsapple (2005) suggest broadening the conceptualization of these types of systems to ‘pooled knowledge resource IOISs. This suggestion implicitly recognizes the increasing sophistication in the uses of such IOISs and the distinction between information and knowledge which have highlighted by other authors. The term ‘information’ has been described as a collective term for “... *data which are relevant, accurate, timely and concise*” (Tushman and Nadler, 1978, p. 614). Whilst data consist of symbols representing properties of events and objects and their environment, information is inferred from data and contained in answers to questions beginning with what, who, when and how many (Ackoff, 1989). Knowledge is derived from information through making comparisons and connections between different pieces of information, eliciting the view of others regarding the information at hand and thinking about the potential consequences of decision making based on the given information (Davenport and Prusak, 2000). It can be defined as “*a fluid mix of framed experience, values, contextual information, and expert insight that provides a framework for evaluating and incorporating new experiences and information. It originates and is applied in the minds of knowers. In organizations, it often becomes embedded not only in documents or repositories but also in organizational routines, processes, practices, and norms*” (Davenport and Prusak, 2000, p. 5).

An example of a pooled knowledge resource IOIS is the Art Museum Image Consortium (AMICO) online digital archive (<http://amico.org/home.html>) of photographs, sculptures, paintings and books from 36 member institutions. Online travel booking sites such as ZUJI (<http://www.zuji.com.au>) act as pooled knowledge resource IOIS bringing travellers a range of choices in terms of airlines, hotels, car rentals and travel insurance from a global network of suppliers. In addition to contextual information, the ZUJI website also includes reviews based on travellers’ experiences, thus providing prospective customers with a more comprehensive

framework for making their travel decisions. E-marketplaces (e.g., <http://www.alibaba.com>) are a special type of pooled information resource IOIS facilitating arms-length market transactions (Kumar and van Dissel, 1996).

2.4.2 Value/Supply Chain IOISs

These are systems that support structured sequential customer-supplier relationships, e.g., EDI-based ordering and order tracking systems, CAD systems for transferring specifications from customers to suppliers as well as facsimile and voice mail at a more primitive level (Kumar and van Dissel, 1996). The IOIS literature has generally focussed on value/supply chain IOIS (i.e., systems in use for sequential customer-supplier relationships) based on some widely used standards. An IOIS needs a **content platform** for translating private corporate data into a standardized format and a **delivery platform** for transporting the standardized data (Zhu et al., 2006). The data is delivered to specific members in a company's trading partner base. The next three subsections discuss key standards-based IOIS.

2.4.2.1 Proprietary and Partially Open Standard IOIS

A proprietary IOIS is one which is developed to meet the need for a private communication platform needs for a closed group of firms (Zhu et al., 2006). The Analytical Systems Automated Purchasing (ASAP) system developed by the American Hospital Supply Corporation (ASHC) for the healthcare industry is an example of this type (Venkatraman and Short, 1992). The content platform for ASAP was based on ASHC's proprietary standards and the delivery platform was a telephone network. It helped ASHC develop dedicated relationships, effectively locking in the hospitals for which it was the primary vendor.

EDI adoption in industry began in the 1970s (Iacovou et al., 1995, Riggins et al., 1994). Initial EDI implementations between individual companies (e.g. Chrysler) and their suppliers were more proprietary (Zhu et al., 2006). Later EDI implementations generally adopted one of two standards: EDIFACT (published by the United Nations Centre for Administration, Commerce and Transport) and ANSIX12 (published by the American National Standards Institute). Both standards were considered more open than previous ones as they were developed by open consortia (David and Greenstein,

1990). The use of relatively open standards for developing content platforms lowered the asset specificity associated with electronic communications with a trading partner base. EDI generally uses a privately owned value-added network (VAN) as the delivery platform. EDI users can subscribe to a VAN mailbox and exchange EDI messages with each other (Emmelhainz, 1993).

A number of studies have reported on strategic benefits of EDI initiatives. These benefits include faster cycle times and faster response to customer demand (Chatfield and Yetton, 2000), increased market-level performance through standardization of business processes (Ramamurthy and Premkumar, 1995) and improved trading relationships (Fearon and Philip, 1999). At the operational level benefits include impacts on transaction costs, service levels, order lead-times, and inventory levels (Clemons and Row, 1993, Vijayasathy and Robey, 1997). EDI implementation may be accompanied by social impacts on the involved organizations as well. Webster (1995) argues that the use of EDI may reinforce existing power structures in interorganizational relationships. While the use of EDI may produce efficiency gains for both automakers and their suppliers, automakers have been found to achieve their efficiency objectives at the expense of their suppliers (Reekers and Smithson, 1996). On the other hand, increased use of EDI in supplier-wholesaler relationships has been found to decrease the perceived power levels of wholesalers (Nakayama, 2000).

2.4.2.2 Internet-Based Open Standard IOIS

An open standard is one developed by an open community and uses public delivery platforms (David and Greenstein, 1990). Internet-based IOIS rely on content and delivery platforms that are both based on open standards. The key feature of internet-based open-standard IOIS is its use of Extensible Markup Language (XML) or e-business XML (ebXML) for development of the content platform (Zhu et al., 2006). The World Wide Web Consortium has developed the Simple Object Access Protocol (SOAP) for Web services messaging and the Web Service Description Language (WSDL) for describing attributes and services – both these standards are based on XML. These XML-based standards amongst others have been accepted across a range of industries, thus promoting open standard based information exchange (Shapiro and

Varian, 1999). The delivery platform is the Internet, a public network based on the open TCP/IP (Transmission Control Protocol/Internet Protocol).

In contrast to EDI implementations which may require detailed technical negotiations between partners (Subramani, 2004), Internet-based IOIS need less customization (Chau and Tam, 1997). EDI implementations require considerations of interoperability issues and additional fees charged by some VANs for inter-network connections (Emmelhainz, 1993). Moreover, the high per-message costs for VANs makes EDI less appropriate for smaller organizations (Iacovou et al., 1995). Costs associated with Internet-based communications are relatively lower. The key differences between EDI and Internet-based IOIS are summarized in the table below.

	EDI	Internet-Based IOIS
<i>Content platform</i>		
Data standards	Open standards (e.g., ANSI X12, EDIFACT), but less open than XML)	Open standards (XML-based standards, ebXML)
Complexity	High	Low
Customization	Highly partner-specific	Less partner-specific
<i>Delivery platform</i>		
Communication protocols	VAN (private)	Internet (open, TCP/IP-based)
Interoperability	Low	High
Communication costs	High	Low
<i>Trading partner base</i>		
Scope	Relatively narrow, with existing partners	Broad, with existing and new partners, hence strong network effects

2.4.2.3 RFID Systems

While Radio Frequency Identification (RFID) technology has been around since the 1940s, it was not until the 1980s that it was used in industrial applications (Ollivier, 1995). The adoption of RFID has been slow because of implementation challenges, lack of standards, inadequate collaboration between involved parties and high operational costs (Alvarez et al., 2005, Quaadgras, 2005, Rogers, 2003). Since they could only be justified in relation to high volume or high value items, the early implementation of RFID systems were in the form of closed-loop systems, i.e., intra-company implementations without interaction between VCN members (Fasth et al., 2005, Finkenzeller, 2003).

The usage of international standards, such as ISO/IEC 18000 (a standard developed by the International Organization for Standardization (ISO) and the International Electrotechnical Commission (IEC)) and Electronic Product Code (EPC), has led to an increased focus on inter-company implementations (Holmqvist and Stefansson, 2006). Key components of an RFID system include tags and readers and applications that handle the collected data. According to the RFID Journal (<http://www.rfidjournal.com>), an RFID tag consists of a microchip which is attached to a radio antenna mounted on a substrate. The chip contains various types of information about the individual item, including date of manufacture, shipment date, destination and sell-by dates. A reader which has its own antenna receives the signals from the tag and passes the data on to a computer system where relevant applications process the data. One of the key benefits of RFID has been its ability to deliver labour cost savings (Chappell et al., 2002). Other benefits include lead time reduction, increased order fill rate, improved quality control, and better visibility in different stages of the product flow. Wal-Mart is a recognized pioneer in RFID deployment. RFID tags on items purchased in Wal-Mart stores are scanned by shelf-mounted scanners and the information is communicated to Wal-Mart's inventory management system which immediately alerts the relevant supplier's inventory management system, thereby providing the supplier with real-time store shelf-level information (Shankar and O'Driscoll, 2002).

2.4.3 Networked IOISs

Technologies for IORs with reciprocal interdependencies between participants, e.g., computer aided design/manufacturing/software engineering (CAD/CAM/CASE) tools, synchronous (e.g., video conferencing, desktop/screen sharing, audio conferencing) and asynchronous communication systems (e.g., e-mail, voicemail) for supporting collaborative work (Kumar and van Dissel, 1996). GM, for example, was able to significantly accelerate its vehicle development process by implementing EDS's Unigraphics NX (now a Siemens product) as a common CAD/CAM tool with its suppliers. The application was internet-based, thus providing easy access to GM's suppliers (Gutman, 2003). The outcome was not just an accelerated design process, but the standardization of manufacturing processes and plant facilities across suppliers

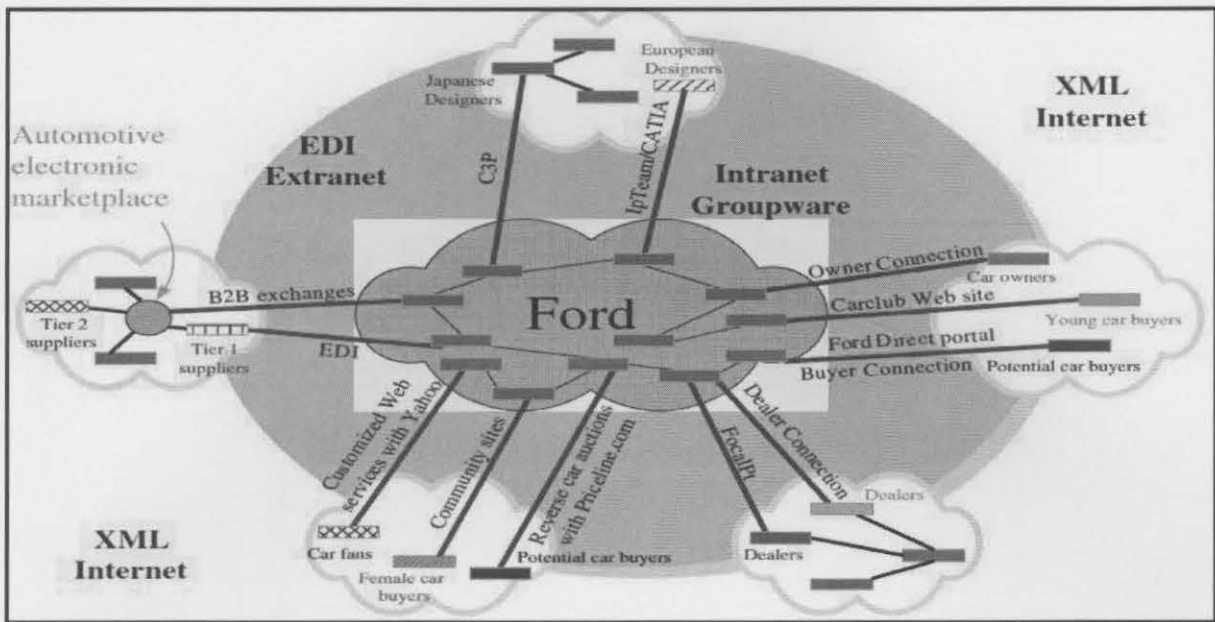
which in turn led to the manufacturing of consistent products with fewer defects. Some systems may be designed specifically for a particular team project. Malhotra et al. (2001) report on a system used by an interorganizational team participating in a rocket engine innovation project. The geographically distributed virtual team members were drawn from Boeing-Rocketdyne, Raytheon, and MacNeal-Schwendler Corporation. The team's collaborative technology Internet Notebook and Project Vault were specially developed by a third party based on the requirements specified by several team members. While the Project Vault allowed secure storage of common files, the Internet Notebook allowed members to create, sort and comment on entries, and provided an electronic whiteboard for almost instantaneous access to the same entry.

2.4.4 Network Position and IOISs

The literature on IOIS generally tends to focus on the use of specific technologies or systems. However, since companies tend to engage in a network of different relationships, they may need to implement multiple types of IOIS. Examining Ford's network position in 2003, Chi et al. (2008) found that the company engages in interorganizational interactions with a number of customers (e.g., Ford dealers, rental car firms and auto body shops), parts suppliers (e.g., First Automotive Works), design partners (e.g., General Electric), financial service providers (e.g., US WEST), and logistics partners (e.g., UPS Logistics). It also engages in collaborative interactions with various competitors such as DaimlerChrysler, GM, and Toyota. As shown in the figure below, a number of IOIS applications are needed to support interactions in these IORs (Chi et al., 2008). Ford has worked with DaimlerChrysler and GM to establish a B2B automotive procurement portal linking automakers and their suppliers and a B2B repair parts portal for linking automakers, auto body shops, dealers, retailers and insurance companies. The company also uses a computer aided design and engineering tool (CATIA), a Web-based collaborative engineering tool (IpTeam), and a computer aided design, engineering and manufacturing and product information management tool (C3P) to support its global product development initiatives with companies such as Mazda. Ford has also developed an automated logistics system jointly with UPS. It has implemented an extranet (FocalPt) and Web-based sales

systems such as BuyerConnection, DealerConnection and FordDirect to support its customers.

Figure 2-7 An IOIS view of Ford's network in 2003 (Chi et al., 2008, p. 65)



Environmental factors such as competitive pressures, business partner power, government pressures and support of initiator may either force or facilitate IOIS adoption for inter-firm interactions (Chau and Hui, 2001, Chwelos et al., 2001, Iacovou et al., 1995, Kuan and Chau, 2001, Premkumar et al., 1997, Ramamurthy et al., 1999). Key macro environmental issues facing companies operating in the global business environment are discussed in the next section.

2.5 Environmental Context

A company's external environment consists of its competitive environment as well as its macro environment (Melville et al., 2004). The competitive environment consists of trading partners and industry characteristics including industry regulations, competitiveness and effects of technological change. The macro level factors are country specific characteristics such as social, political and cultural and regulatory contexts.

2.5.1 Industry Environment

Since the two focal firms operate in very different industries, their industry environments are discussed separately in Chapters 5 and 6. Broader, non-industry-specific issues relevant to conducting business across international boundaries are discussed in this section.

2.5.2 Regulatory and Political Issues

The OECD recommends the following to national regulators and legislators:

“To ensure an effective corporate governance framework, it is necessary that an appropriate and effective legal, regulatory and institutional foundation is established upon which all market participants can rely in establishing their private contractual relations. This corporate governance framework typically comprises elements of legislation, regulation, self regulatory arrangements, voluntary commitments and business practices that are the result of a country’s specific circumstances, history and tradition. The desirable mix between legislation, regulation, self-regulation, voluntary standards, etc. in this area will therefore vary from country to country. As new experiences accrue and business circumstances change, the content and structure of this framework might need to be adjusted.”

(OECD, 2004, p. 29)

Country specific regulatory requirements may change in response to risks perceived by the relevant government. The ‘10+2’ program recently launched by the U.S. government in order to mitigate the risk of terrorism on home soil is an example. It requires 10 data elements from an importer and two data elements from the carrier to be filed electronically 24 hours before loading cargo on a vessel which is ultimately bound for the U.S. This requires the need for better coordination between suppliers, freight forwarders and carriers (Pomerantz, 2008).

Operating in a global business environment requires organizations to also become adept at social and political risk management on a global scale in order to influence policy or political outcomes. Companies tend to enter into such risk management activities for any of a number of reasons: reducing the likelihood of renegotiations of contract terms by governments in countries where they operate, maintaining or increasing the current state of protection of intellectual property rights, building

political or social support in order to ensure that VCN members share rents or policy makers desist from interventions, and defusing activist campaigns for consumer boycott. Sources of information from such risk include internal sources (e.g., managers responsible for particular countries or geographical region), VCN members (e.g., local suppliers of goods, labour and services), activist groups, sensitive consumers who respond to activist campaigns, outside experts (e.g., specialized lawyers and consultancies) and independent third party monitors (e.g., bankers, media and foreign governments). The problem of developing strategies for managing such risks lies in the fact that they are much more complex and difficult to model than financial risks due to the need for incorporating individual and group actions, beliefs and interactions. Instead, the mechanisms for analysis range from the informal (e.g., gut instincts of decision makers based on personal experience and opinions of relevant sources) to the formal (e.g., employing a specialized consultancy to conduct a broader analysis of the experiences of multiple firms in the country in question). (Henisz, 2009)

2.5.3 Cultural Issues

“Culture is a heavily used but elusive concept. Although it refers to a supposedly universal phenomenon, political and social scientists continue to debate how much culture really matters in the broad sweep of history. The problem is that, while culture may be pervasive and widely manifest in social behaviour, artifacts, and the humanly created environment, it is in itself intangible. Indeed, some writers regard culture more as a metaphor than as a ‘real’ phenomenon.”

(Child et al., 2005, p. 328)

This elusiveness has led to a range of definitions of culture in the literature. Drawing primarily from the study of anthropology, Kroeber and Kluckhohn (1952) noted 164 different definitions of culture. These definitions identified some key features of culture: habits and customs, values, preferences, established practices and behaviours, knowledge and artifacts. The emphasis in these definitions ranged from an intangible view of culture as set of ideas to a more tangible perspective on culture as being embodied in art, architecture and technology (Keesing, 1974). Culture is neither a universal trait of human nature nor specific to an individual as is personality (Child et al. 2005). Instead it consists of patterns of behaviour and thinking that are

characteristic of a collective. Thus, research studies commonly refer to national, organizational and professional cultures (e.g., Levinson and Asahi (1996)). This thesis adopts the broad description of culture provided by Mahoney et al. (1994): “*Culture can be defined as an interdependent set of socially acquired shared understandings, values, ideologies, tacit knowledge, metaphors, myths, symbols, rituals, organizational routines, and systems of belief ... A strong culture involves convergence at the sociological, psychological, artificial (i.e., routines and structures), and historical levels ...*” (p. 160).

Synthesizing the extant literature, Karahanna et al. (2005) identify a hierarchy of five levels of culture. These are summarized in the Table 2-5 below.

Level	Definition
Supranational	Any cultural differences that cross national boundaries or can be seen to exist in more than one nation. Can consist of: <ul style="list-style-type: none"> • Regional – Pertaining to a group of people living in the same geographic area • Ethnic – Pertaining to a group of people sharing common and distinctive characteristics. • Linguistic – Pertaining to a group of people speaking the same tongue
National	Collective properties that are ascribed to citizens of countries (Hofstede, 1984)
Professional	Focus on the distinction between loyalty to the employing organization versus loyalty to the industry (Gouldner, 1957)
Organizational	The social and normative glue that holds organizations together (Siehl and Martin, 1990)
Group	Cultural differences that are contained within a single group, workgroup or other collection of individuals at a level less than that of an organization

Since the focal companies participating in this study are multinationals and subsidiaries of multinationals, the national cultures in their locations of operation may be significant elements of their environmental contexts. National cultures are acquired with upbringing and a lifetime of living in a particular society and are likely to be more deeply embedded than organizational culture (Child et al., 2005). A national culture not only has roots in the traditions of a country, it is tied to the institutions and prevalent political ideologies of the specific country as well. The most commonly used framework for examining national culture is Hofstede’s dimensional model (de Mooij and Hofstede, 2010, Hofstede, 1988). The five dimensions of this model are described in Table 2-6 below.

Table 2-6 The Hofstede dimensional model of national culture (de Mooij and Hofstede, 2010, pp. 88-90)	
Dimension	Definition
Power distance	The extent to which less powerful members of a society accept and expect that power is distributed unequally
Individualism/collectivism	People looking after themselves and their immediate family only, versus people belonging to in-groups that look after them in exchange for loyalty
Masculinity/femininity	The dominant values in a masculine society are achievement and success; the dominant values in a feminine society are caring for others and quality' of life
Uncertainty avoidance	The extent to which people feel threatened by uncertainty and ambiguity and try to avoid these situations
Long- versus short-term orientation	The extent to which a society exhibits a pragmatic future-orientated perspective rather than a conventional historic or short-term point of view

Extant research has focussed on the individualist collectivist dimension of national culture. The perception of the importance of performance versus the importance of the relationship between a buyer and a supplier has been found to vary based on the cultural context. In individualist cultures such as the U.S., the primary focus of business interactions is on achieving performance objectives (Doney et al., 1998, Trompenaars and Hampden-Turner, 1998). The successful completion of the task is generally more important than the relationship between buyer and supplier (Schuster and Copeland, 1996). In collectivist cultures, on the other hand, buyers place a greater priority on maintaining and developing relationships than on short-term advantages that may prove disruptive (Kale and McIntyre, 1991). The psychological rewards provided by interpersonal factors dominate the exchange of physical goods and money (Friman et al., 2002).

Research on national culture and trust has shown some conflicting findings. The discussion by Doney et al.(1998) reflects the general view that trust is high and relationships strong in collectivist cultures whereas the trust is low and relationships weak in individualist cultures. Research showing that Japanese firms exhibit stronger positive relationships between trust and commitment and commitment and information sharing in intercultural links with American firms than the American ones do in their links Japanese partners supports this general view (Griffith et al., 2006). Cannon et al. (2010) also find that in individualist cultures (U.S., Anglophone Canada) both supplier's level of performance and buyer's trust had a positive effect on buyer's long-term orientation whereas in collectivist cultures (Mexico,

Francophone Canada) only buyer's trust has a significant effect on buyer's long-term orientation. However, contradicting the commonly accepted view, Huff and Kelley (2003) find a higher level of trust, particularly in the context of external partners in the U.S. than in Asian countries. Based on the work of Triandis (1989) and Yamagishi (1988), the authors argue that low levels of trust may be an inherent part of collectivist cultures and it may take a longer amount of time for individuals from collectivist cultures to develop trusting relationships with an external partner organization. This suggests that a survey conducted at a later point in time on the same respondents could potentially yield a different set of outcomes. Further levels of trust were found to vary across these collectivist cultures in their dataset. This may be an indicator of the fact that collectivism and individualism can exist in variations in different countries. Moreover, countries themselves may exhibit regional cultural variations.

While further research is required to understand the effects of cultural differences on cooperative strategy, such differences do pose challenges. These include more protracted processes for reaching an agreement to cooperate, the structure of the alliance and operational problems.

2.6 Key Theoretical Perspectives

"A theory is a special case of language, a way to communicate meaning about some phenomenon... So, like languages, a theory is an invented, abstract way to describe reality by defining a set of systematically interrelated concepts, definitions, and propositions about tentative relationships between the concepts that characterize the reality that is the object of the theory."

(Tosi, 2009, p. 7)

Ketchen and Hult (2007) highlight the fact that although supply chain research (consequently, research on VCNs) could benefit significantly from the application of organizational theories, the use of such theories has been limited in this area. Since VCNs are complex by nature, no single theory is adequate for describing or explaining governance related phenomena in VCNs. This thesis adopts a multi-theoretical perspective based on the theories of organization described below.

2.6.1 Transaction Cost Economics (TCE)

TCE has been one of the dominant theoretical perspective used in the management literature over the last few decades since the publication of the two seminal books by Williamson (1975, 1985). Williamson's work added considerable precision to Coase's (1937) original argument that under certain conditions, the costs of organizing an economic exchange within a firm can be less than the cost of conducting the exchange in a market. TCE views the firm and market as alternative governance structures and is concerned with "*transactions and the costs that attend completing transactions by one institutional mode rather than another*" (Williamson, 1975, pp. 1-2). Transaction costs can be classified into search and information costs, bargaining and decision costs and policing and enforcement costs (Dahlman, 1979), since "*in order to carry out a market transaction it is necessary to discover who it is that one wishes to deal with, to inform people that one wishes to deal and on what terms, to conduct negotiations leading to a bargain, to draw up the contract, to undertake the inspection needed to make sure that the terms of the contract are being observed, and so on*" (Coase, 1960, p. 15). The transaction involving the transfer of a physical good or a service is the unit of analysis in TCE and the outcome of interest is the means by which these transactions are organized (Williamson, 1985). The central claim of the theory is that transactions will be handled in a way that minimizes the costs associated with carrying them out.

After his original publication in 1975, Williamson took into account the increasing prevalence of interorganizational alliances and identified three alternative forms of governance structures: market, hierarchy and hybrid. Market governance does not involve any dependency between transacting parties. Market transactions are characterized by hard bargaining between parties and governed by formal terms that can be interpreted in a legalistic way. In a hierarchy, i.e., an internal organization, disputes are resolved internally rather than through the court system. In the hybrid form, while the transacting parties maintain autonomy, they also have a non-trivial bilateral dependence on each other. This governance structure recognizes the possibility of unforeseen disturbances and allows some room for the absorption of misalignments. It provides for arbitration to occur prior to resorting to the legal

system and requires information disclosure to facilitate adaptation in response to a disagreement. The governance structure that helps to minimize transaction costs is the preferred option. (Williamson, 1991)

The key attributes of transactions are asset specificity, uncertainty and frequency (Williamson, 1979). Asset specificity refers to “the degree to which an asset can be redeployed to alternative uses and by alternative users without sacrifice of productive value” (Williamson, 1991, p. 281). Asset specificity can be of six types: site specificity, physical asset specificity, human-asset specificity, brand name capital, dedicated investments at the behest of a particular customer, and temporal specificity which is a type of site specificity in which timely response by onsite human resources is critical. As asset specificity increases so do bilateral dependencies and contracting hazards between parties. TCE predicts that transactions with high asset specificity will be undertaken in hierarchical governance structures, those with low asset specificity in markets and those with intermediate asset specificity in hybrid structures.

The second key attribute of transactions is uncertainty. In the presence of a non-trivial degree of asset specificity, increase in uncertainty makes the hierarchy and hybrid modes of governance more attractive. High levels of uncertainty, however, make both market and hierarchies preferable to hybrid structures. This is because hybrid modes require mutual consent for adaptations. When asset specificity is low, the market mode of governance is preferred irrespective of the level of uncertainty. (Williamson, 1985, 1991)

The third attribute of transactions is frequency. As in the case of uncertainty, the effect of frequency on transaction cost is a conditional one with respect to asset specificity. In the presence of asset specificity, frequency pushes transactions away from the market form toward the hierarchical form. (Williamson, 1985)

Examining 308 statistical tests in 63 articles utilizing TCE based constructs, David and Han (2004) found that asset specificity fared best as an independent variable. The construct was found to be quite successful in predicting make-versus-buy decisions and the degree of integration between buyers and suppliers. For instance, Heide and John (1990) found that higher levels of asset specificity led to increase in joint action

between buyers and suppliers in the industrial machinery sector. Expanding the concept of asset specificity, Subramani and Venkatraman (2003) define two types of intangible asset specificities: domain knowledge specificity and business process specificity. Domain knowledge specificity is “*the degree to which critical areas of knowledge of a supplier firm are specific to the requirements of a buyer*” (p. 50) whilst business process specificity is “*the degree to which critical business processes of one firm are specific to the requirements of the other firm in an interorganizational relationship*” (p. 49). Both domain knowledge specificity and business process specificity were found to influence the extent of joint decision making in buyer-supplier relationships. Domain knowledge specificity was also found to influence the degree of integration in these relationships. Some empirical studies have also shown a correlation between investments in relation-specific assets and performance (Dyer, 1996a, b, Parkhe, 1993)

Some studies have simply used TCE as a theoretical foundation to design particular constructs without attempting to test the predictions of TCE. David and Han (2004) observe, “*it seems that TCE is often invoked and appropriated when in fact something quite removed from its core is being addressed. In fact, it may be precisely because of its malleability that the theory has gained such prominence, and that lack of strong consensus has not posed a barrier to diffusion*” (p. 53). For example, based on the nature of transaction costs, Kim et al.(2006) conceptualize electronic information transfer (EIT) in a supply channel in terms of two dimensions: EIT for coordination and EIT for monitoring purposes. Their study found that both aspects of EIT have a positive association with channel interdependence between buyer and supplier and the monitoring component of EIT has a positive association with demand uncertainty. Dyer (1997) investigated how buyers and suppliers in the automotive industry could simultaneously achieve the benefits of high asset specificity and low transaction costs. The study found that an increase of trustworthiness in a trading partner relationship leads to both a reduction in transaction costs and investment in relationship-specific assets.

Like Zajac and Olsen (1993), Dyer (1997) argued that research on governance needs to focus on how exchange relationships can be structured to maximize transaction

value (i.e., minimize both transaction and production costs) instead of focussing on the modes of governance appropriate for the minimization of transaction costs alone. For instance, higher levels of trustworthiness in an interorganizational relationship can lead to an increase in performance-enhancing investments in specialized assets (Dyer, 1997). Hagel and Brown (2005) further reflect:

“Coase asserted that all economic activity incurs transaction or interaction costs-and that, under certain circumstances, firms provide a more efficient mechanism for accessing and using resources than do open-market transactions. In this view, efficiency is the primary motivation for the rise of firms. As information technology systematically reduces interaction costs both within and across organizations, perhaps it is time to reassess the rationale for firms. We hasten to add that we are not arguing for the dissolution of the firm. On the contrary, we believe that companies, albeit in somewhat different forms, will continue to play a critical role in economic value creation. But we sense that the reason for their existence is shifting from efficient use of existing resources to capability building and systemic innovation. This is different from-though related to-the argument that core competencies should be a company's basis for strategy. We are suggesting that they should be the basis for the firm itself.” (p. 85)

If core competencies are the basis of the firm rather than the basis of strategy and competitive advantage (as suggested by the resource based view), then capability building is best undertaken through the development of interorganizational relationships. This argument is developed by Dyer and Singh (1998) in the relational view discussed in the next section.

2.6.2 The Relational View of Competitive Advantage

The relational view identifies sources of competitive advantage on the core premise that *“a firm's critical resources may span firm boundaries and may be embedded in interfirm resources and routines”* (Dyer and Singh, 1998, p. 660). This is in contrast to two key strands of thinking regarding the sources of competitive advantage: the industry structure view and the resource based view (RBV). The industry structure view which is attributed to Porter (1980), suggests that a firm's competitive advantage is in essence a function of its membership in a particular industry with favourable structural characteristics which include relative bargaining power and barriers to entry. Based on this perspective, the industry serves an appropriate unit of analysis.

The second view, RBV, developed through the work of a number of researchers (Barney, 1991, Rumelt, 1984, 1991, Wernerfelt, 1984) suggests that firm heterogeneity rather than industry structure acts as the source of competitive advantage. According to this view, a firm that accumulates resources and capabilities that are difficult to imitate, non-substitutable and valuable achieve a competitive advantage over other competing firms. The unit of analysis in this context is the firm.

In contrast to the two perspectives above, the relational view argues the importance of the interorganizational relationship as the unit of analysis for exploring competitive advantage (Dyer and Singh, 1998). The interorganizational relationships formed in alliances may be difficult to imitate and a source of 'relational rent', i.e., "*a supernormal profit jointly generated in an exchange relationship that cannot be generated by either firm in isolation and can only be created through the joint idiosyncratic contributions of the specific alliance partners*" (p. 662).

The relational view identifies four sources of relational rent and competitive advantage: (i) characteristics of processes associated with relation-specific assets, (ii) investment in knowledge sharing routines, (iii) complementary resources and capabilities, and (iv) effective governance (Dyer and Singh, 1998). Two characteristics of processes associated with interorganizational relationship-specific assets are seen to be important in generating relational rents: the duration of the safeguards instituted against opportunism and the volume of interorganizational transactions facilitated by the relationship-specific assets. For instance, Dyer (1997) found that Japanese automakers provided suppliers with safeguards on investments for at least eight years or more, thereby increasing the likelihood of suppliers making costly relationship-specific investments. On the other hand, since U.S. automakers offered contracts of much shorter duration, their suppliers refused to make relationship-specific investments with long payback periods. The argument regarding the second characteristic, the volume of interorganizational transactions, is similar to that of Williamson (1985), who claims that parties engaging in frequent and recurring transactions can afford more complex governance structures.

The second source of relational rent is a firm's investment in knowledge sharing routines. Dyer and Singh (1998) define an interorganizational knowledge sharing

routine as “a regular pattern of interfirm interactions that permits the transfer, recombination, or creation of specialized knowledge” (p. 665). Its importance lies in the fact that an organization’s partner-specific absorptive capacity, i.e., its “ability to recognize and assimilate valuable knowledge from a particular alliance partner” (ibid.), depends on “the extent to which partners have developed overlapping knowledge bases” as well as “the interaction routines that maximize the frequency and intensity of sociotechnical interactions” (ibid.). Such knowledge sharing between partners, however, requires alignment of incentives which in turn encourages transparency and minimizes the probability of freeloading. Dyer (1997) noted the vastly different knowledge sharing practices used by Toyota and GM with their respective networks. They found a much greater extent of knowledge sharing between Toyota its suppliers. This was attributed to the fact that GM did not cultivate a stable network of suppliers or have a supplier association to facilitate knowledge sharing. Consequently, the suppliers did not have any incentives to engage in costly knowledge sharing activities.

A third opportunity for generating relational rents arises from complementary resource endowments which are *distinctive resources of alliance partners that collectively generate greater rents than the sum of those obtained from the individual endowments of each partner* (Dyer and Singh, 1998, pp. 666-667). The alliance between Nestle and Coca-Cola which allowed the distribution of hot canned drinks through vending machines provides an example of complementary resource endowments collectively acting as a source of relational rent. The cooperative relationship involved combining Nestlé’s brand names and competence in developing coffee and tea products, and Coca-Cola’s international distribution and vending machine network (Hamel and Prahalad, 1994).

The fourth opportunity for generating relational rents is the implementation of effective governance. Dyer and Singh (1998) focus on the structural element of governance and distinguish between governance based on third-party enforcement of agreements such as legal contracts and self-enforcing agreements. Self enforcing agreements can again be of two types: formal self-enforcing safeguards which can take the form of financial hostages or symmetric investments, and informal self-

enforcing safeguards in the form of goodwill trust. As discussed earlier in this chapter, the presence of informal mechanisms such as trust can result in positive outcomes for participants in interorganizational relationships. In the electrical equipment industry, Zaheer et al. (1998) found that interorganizational trust reduced conflict and negotiation costs and positively affected performance. Similarly, Dyer (1997) found that GM's transaction costs were much higher than Toyota's because GM's suppliers viewed the company as being much less trustworthy. Noting the benefits of informal safeguards, Dyer and Singh (1998) further observe that "*formal safeguards are much easier for competitors to imitate. Informal safeguards (goodwill trust or reputation) are much more difficult to imitate because they are socially complex and idiosyncratic to the exchange relationship*" (p. 671).

In a sense, the relational view provides a set of ideas (e.g., characteristics of processes associated with asset specificity, informal safeguards such as goodwill trust) that are complementary to ideas presented by TCE. A combination of the two perspectives thus provides the basis for a more holistic exploration of governance in VCNs.

2.6.3 Social Exchange Theory (SET)

Social exchange theory originated with the work of Homans (1958) who suggested that, social behaviour may be seen as "*an exchange of goods, material goods but also non-material ones, such as the symbols of approval or prestige. Persons that give much to others try to get much from them, and persons that get much from others are under pressure to give much to them. This process of influence tends to work out at equilibrium to a balance in the exchanges. For a person engaged in exchange, what he gives may be a cost to him, just as what he gets may be a reward, and his behavior changes less as profit, that is, reward less cost, tends to a maximum*" (Homans, 1958, p. 606). While this in essence the crux of the theory, different views of the theory have emerged over the years. However, theorists generally agree on the fact that social exchange involves a series of interactions which create obligations (Emerson, 1976) and these interaction are usually interdependent and contingent on the actions of others (Blau, 1964). Differences in power amongst participants arise from these interactions and the interdependence created by them (Blau, 1964, Emerson, 1962). The power of a participant is a function of the participant's contributions, capabilities

and activities. These arguments have been applied to interactions both amongst individuals and organizations.

This section focuses on the development of SET in the context of interorganizational interactions. While studying the interorganizational relationships among healthcare organizations, Levine and White (1961) defined organizational exchange as “*any voluntary activity between two organizations which has consequences, actual or anticipated, for the realization of their respective goals or objectives*” (p. 588). However, Blau (1964) contends that “*that social interaction is governed by the concern of both (or all) partners with rewards dispensed by other (or others) becomes tautological if any and all behavior in interpersonal relations is conceptualized as an exchange*” (p. 6). Based on Blau’s (1964) argument, Cook (1977) suggest the following definition for limiting the discussion on interorganizational interactions: *An exchange relation (e.g., $A_x;B_y$) consists of voluntary transactions involving the transfer of resources ($x,y, . . .$) between two or more actors ($A,B, . . .$) for mutual benefit* (p. 64). Here the term ‘resource’ refers to any physical good, service or valued activity and the term ‘actor’ could apply to individuals, groups or organizations.

The formation of interorganizational exchange relationships results for two key interrelated reasons: scarcity and specialization (Cook, 1977). Levine and White (1961) observe that there would be little need for cooperation if all the elements necessary for an organization to carry out its functions were in its own control and in infinite supply. The authors further add: “*the scarcity of elements, however, impels the organization to restrict its activity to limited specific functions. The fulfillment of these limited functions, in turn, requires access to certain kinds of elements, which an organization seeks to obtain by entering into exchanges with other organizations*” (p. 587). The increasing specialization of companies and the growing number of alliances in the pharmaceutical industry (Hagel III and Singer, 1999) provide illustrative examples.

The limitations on resource availability necessitate organizational interdependence: “*The dependence of A upon B_j (D_{ABj}) is a joint function, (1) varying directly with the value to A of resources received from B_j, and (2) varying inversely with the comparison level for alternative exchange relations*” (Emerson and Cook, 1974, pp.

26 cited in Cook, 1977, pp. 66). Given the relationship between power and dependence, power can be defined as follows: “*In any exchange relation $A_x;B_y$, the power of A over B (P_{AB}) is the ability of A to decrease the ratio x/y* ” (Emerson and Cook, 1974, pp. 25 cited in Cook, 1977, pp. 66) where x and y are the resources as discussed earlier and x/y is the exchange ratio. An exchange relationship is balanced when both parties in the exchange have equal levels of dependence or equal levels of power (Emerson, 1972).

The ideas of dependence and power as applied to dyadic exchange relationships can be extended to interorganizational networks consisting of three or more participants (Cook, 1977). The greater a firm’s power, the greater is its influence in determining the forms of interorganizational interactions and the ratios of exchange. An important determinant of the power of a firm in an interorganizational network is its location with respect to other firms (i.e., network centrality). This means that an organization has greater power if it has access to alternative relationships in a network that can provide it with the same resources. The direction of resource flows may also contribute to power differences in a network. Lehman (1975) suggests that resource flows that are very unidirectional generate power on the part of the sender and dependence on the part of the recipient. The distribution of decision making authority is also a determinant of an organization’s power in a network.

The three theories present a complementary set of ideas which are expected to provide a rich conceptual background for this study. Of the three theories presented here, TCE is aimed to provide explanations in the context of dyadic relationships. The relational view and SET are applicable to both dyadic and network level analyses. SET goes a step further than the relational view in the sense that there are some differences in how SET applies to a single dyadic relationship versus relationships in a network where the access to alternative relationships have implications for the power of a firm. However, if a firm’s interorganizational relationships are important for its competitive advantage, as suggested by the relational view, it is possibly less likely that it will utilize its power in a negative way.

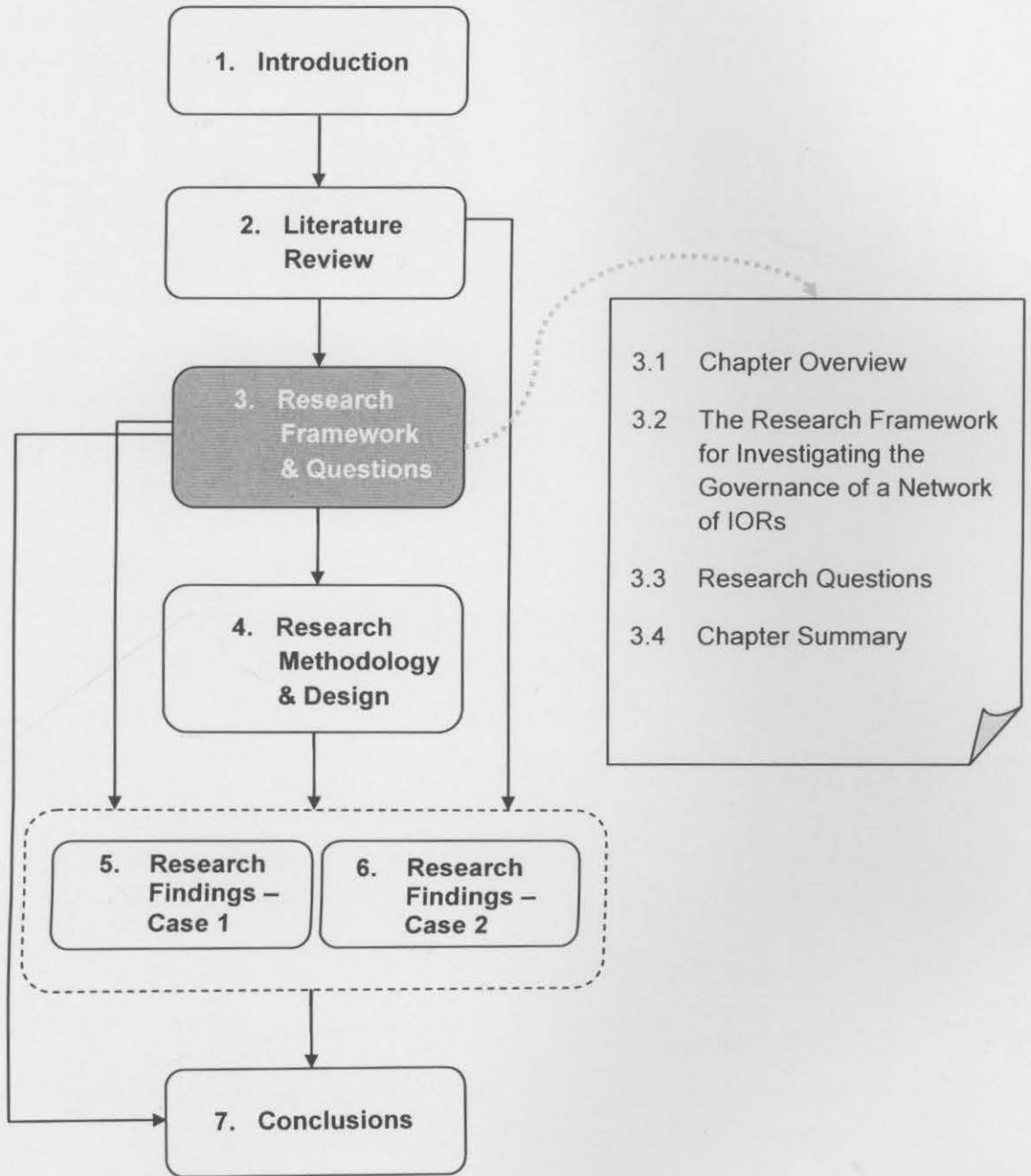
2.7 Chapter Summary

As discussed in Section 2.1, in the absence of any comprehensive review on governance in interorganizational networks, this chapter draws upon the literature in a number of different fields in order to make sense of the elements of governance and its technological and environmental contexts. In summary, the review makes the following contributions to this thesis:

- The review defines governance in interorganizational networks and examines key the literature in relation to the key elements in the definition: strategy, structure and interorganizational interactions. The literature review also discusses the role of ICTs in facilitating interorganizational interactions.
- Both macro and micro level perspectives on trust are examined since interactions take place between organizations as well as the boundary role persons (BRPs) who work for these organizations.
- The review also recognizes that a number of environmental factors may influence governance in interorganizational networks.
- Finally, governance in interorganizational networks is a complex phenomenon. No single theory was found to provide an adequate lens through which to examine this phenomenon. Thus, this chapter reviews provides a review of three theoretical perspectives which are expected to help gain a better insight into the process of governance in interorganizational networks.

The contributions of the review outlined above provide a platform from which the research questions (Chapter 3), the research design (Chapter 4) and data collection instruments are developed.

3 Research Framework and Questions



3.1 Chapter Overview

This chapter presents the research framework guiding the investigation of the two cases and the analysis of the data based on the review of extant literature in Chapter 2. The key elements of the framework are outlined in Section 3.2. This is followed by a discussion of the research questions in Section 3.3.

3.2 The Research Framework for Investigating the Governance of a Portfolio of IORs from the Perspective of a Focal Organization

In Section 2.2.2, the governance of a network of interorganizational relationships from the perspective of a company participating in an interorganizational network is defined as follows:

The governance of a network of interorganizational relationships is driven by its interorganizational cooperation strategy and involves: (i) the establishment of explicit (i.e., formal) or implicit (i.e., relational) contracts which distribute appropriate rights and responsibilities, and rules and procedures that constitute the structures of interorganizational relationships, as well as (ii) ongoing interorganizational interaction processes. It is an essential component of the overall corporate governance of an organization that engages in two or more interorganizational relationships.

The research framework developed in relation to the above definition, has the following key elements:

(1) It incorporates the key concepts in the above definition: interorganizational cooperation strategy, the structures of interorganizational relationships and interorganizational interaction processes. As noted in the above definition the strategy drives the structures and interaction processes:

(1a) **Strategy:** The responsibility for the guidance of overall strategy lies with the board of senior decision makers in a company (Section 2.2.1). Section 2.2.3

discusses three elements of an organization's overall strategy: corporate, competitive and interorganizational cooperation strategies. The corporate strategy is concerned with the selection, resourcing and control of businesses and operational areas (Bowman and Faulkner, 1997). The competitive strategy is focuses on how a firm can gain superior profits by pursuing generic strategies, such as cost leadership or differentiation (Porter, 1985) or emphasizes how a firm's unique resources and capabilities – which are difficult to imitate – can be combined to deliver a valued product (Collis, 1996). However, a firm cannot compete on the basis of its resources and capabilities alone. It may also need to depend on suppliers in low-cost supplier markets in order to pursue generic strategies such as cost differentiation (e.g., Walmart). Indeed, over time, many multinationals have realized that cooperation is more important than predatory competition (Bleeke and Ernst, 1993a). Reflecting on business ethics, Solomon (1992) observes: *“Business life, unlike life in the mythological jungle, is first of all fundamentally cooperative. It is only with the bounds of mutually shared concerns that competition is possible. And quite the contrary to the 'everyone for himself' metaphor, business almost always involves large cooperative and mutually trusting groups, not only corporations themselves but networks of suppliers, service people, customers, and investors”* (p. 26). Thus an organization's corporate strategy (selection of business area, etc.) and competitive strategy (in terms of cost leadership, differentiation, or the combination of its unique resources and capabilities) necessitate the development of an interorganizational cooperation as a comprehensive approach to competition. The structure of interorganizational relationships and associated interactions are implementations of such cooperation strategies (Zaheer and Venkatraman, 1995).

(1b) Structure: This thesis focuses on value chain networks (VCNs) which exist between buyers and suppliers in consecutive stages of a chain of value adding activities (Section 2.2.4.3). The relationships between various players in the network involve various implicit/explicit agreements. These agreements form the structural elements of the governance of interorganizational relationships. As noted by Ring and Van de Ven (1994), while interorganizational relationships

(IORs) in business networks are macro-level phenomena, they emerge and evolve with time as a result of interactions amongst individuals (Section 2.3.2). This requires that elements of internal structure (i.e., the rights and responsibilities of BRPs and the rules and procedures that they are required to follow) be clearly defined in order to implement contracts (explicit or implicit) between organizations. Thus, internal structure has to be designed to facilitate the implementation of the structures of interorganizational relationships.

(1b) Interactions: As discussed in Chapter 1, this study focuses on the interactions between a focal firm and organizations in its portfolio of direct relationships. Initial interactions between the focal firm and a customer or supplier organization involve interactions related to partner selection (Coase, 1960) followed by negotiations and commitment (Ring and Vand de Ven, 1960). The interactions in the negotiations and commitment stages of an interorganizational relationship are crucial for setting up the structures of these relationships as well as the identification of the roles and responsibilities of relevant boundary role persons (BRPs). In the execution stages of IORs, the rules and procedures (based on implicit or explicit contracts) guide the interactions of BRPs across organizational boundaries. These interactions in the execution stage of an interorganizational relationship are of primary interest in this study. These interactions can be of a number of different types and are necessary for the implementation of various business processes discussed in Section 2.2.5.2. They may also require the use of various information and communication technologies (ICTs) as discussed in Section 2.4. The key types of interorganizational interactions outlined in the literature are as follows (Section 2.2.5.3):

(i) Coordination – This describes a range of interactions that has been described simply as “*managing dependencies between activities*” (Malone and Crowston, 1994). As discussed in Chapter 2, a number of different mechanisms of coordination have been identified in the literature. These include: quantity discount policies (Sirias and Mehra, 2005), return policies (Wang and Benaroch, 2004), quantity flexibility (Wang and Tsao, 2006),

logistics synchronization (Holweg and Pil, 2001, Simchi-Levi et al., 1999, van Hoek, 2001), operational efficiency improvement mechanisms (Lee et al., 1997), channel alignment (Lee et al., 1997) and information sharing (Holweg and Pil, 2008, Lee et al., 1997). Information sharing is seen to be an important mechanism that is essential for other mechanisms of coordination as well.

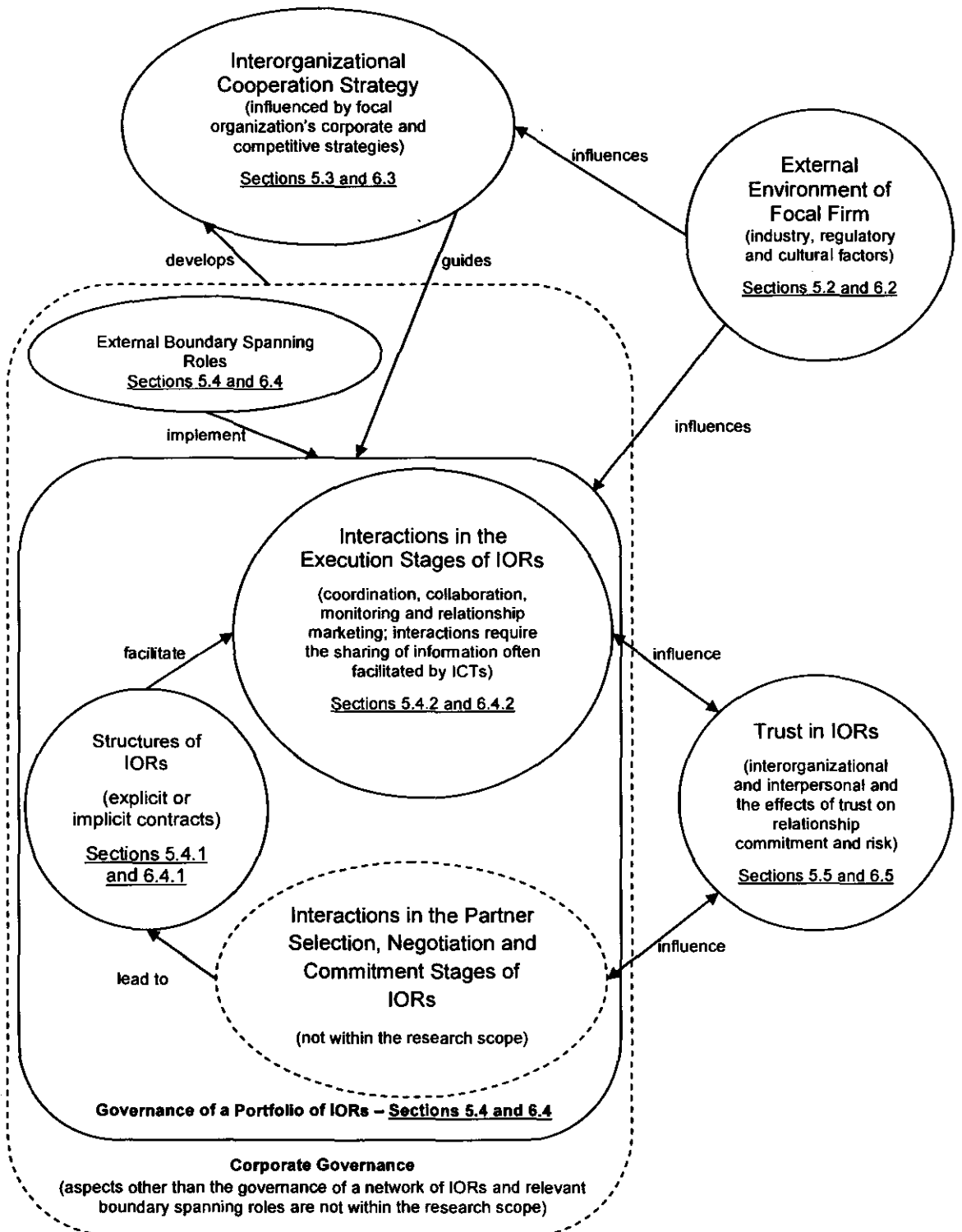
- (ii) **Collaboration** – Collaboration is seen as a type of coordination (Malone and Crowstone, 1994). Kim and Lee (2010) identify two types of collaboration: strategic and systems collaboration. They define strategic collaboration as “*the extent to which supply chain partners actually forecast demand and plan business activities jointly while taking into account each other’s long term success*” (p. 959) and systems collaboration as “*the extent to which supply chain partners strive to make and keep their communication systems compatible with each other to be ready for interfirm forecasting and planning*” (p. 958).
 - (iii) **Monitoring** – This involves monitoring of suppliers’ activities by buyers in order to reduce the risk of opportunistic behaviour (Kim et al. 2006) or to ensure compliance with international standards (Bremer and Udovich, 2001) and requires the sharing of necessary information between buyers and suppliers.
 - (iv) **Relationship Marketing** – Relationship marketing has been defined “*as all marketing activities directed toward establishing, developing, and maintaining successful relational exchanges*” (Morgan and Hunt, 1994, p. 22).
- (2) **Trust**: Initially, trust develops through repeated interactions in the negotiations and commitment stages of an IOR (Ring and Van de Ven, 1994). Repeated interactions in the execution stages of the relationship further help in developing the trust between cooperating organizations and the mitigation of risk (Ring and Van de Ven, 1992) as well as the development of relationship commitment

(Morgan and Hunt, 1994). In turn, growing trust can influence the structures of relationships when agreements are renegotiated and commitments renewed.

- (3) ***External Environment:*** As discussed in Section 2.5, a company's external environment consists of a number of different factors and influences its overall corporate governance and consequently the governance of its interorganizational relationships. These factors could include the industry, regulatory and cultural context of the companies in regions where they operate.

The research framework (Figure 3-1) is developed based on the key concepts summarized above. The sections in Chapters 5 and 6 (case study findings) that address the key elements of the research framework are also highlighted in the figure.

Figure 3-1 The Research Framework for Investigating the Governance of a Portfolio of IORs from the Perspective of a Focal Organization



3.3 Research Questions

This study investigates the governance of IORs in value chain networks (VCNs). These VCNs involve customers and suppliers who are located in consecutive stages of a chain of value adding activities and engage in a variety of complex interactions. Specifically, this research is focussed on relational VCNs (Gereffi et al., 2005). The focus of the study is on the portfolio of direct IORs in relation to firms that conduct business with globally distributed customers and suppliers. The primary research question is as follows:

- 1) *How does a firm engaging in relationships with globally distributed customers and suppliers, govern its portfolio of direct interorganizational relationships (IORs) with customers and suppliers in a value chain network (VCN)?*

As discussed earlier, a firm's interorganizational cooperation strategies are implemented through the elements of governance, i.e., the structures of the relationships in its portfolio and the associated interactions. These strategies are implemented in the context of a complex external environment. This raises the following supporting questions:

- (a) *How do a firm's external environment and its interorganizational cooperation strategies influence the governance of its portfolio of direct IORs in a VCN?*

A number of different types of interorganizational interactions have been reported in the literature. The use of information and communication technologies (ICTs) for supporting these interactions is of interest here:

- (b) *How do firms use ICTs to facilitate interorganizational interactions with customers and suppliers in its portfolio of direct IORs in a VCN?*

In terms of outcomes, ongoing interactions lead to the development of trust between interacting parties. A number of different types of trust have been discussed in the literature. The study aims to investigate the relevance of different types of trust in the context of governance of a portfolio of interorganizational relationships:

(c) What forms of trust emerge during the course of interorganizational interactions and how does trust facilitate these interactions?

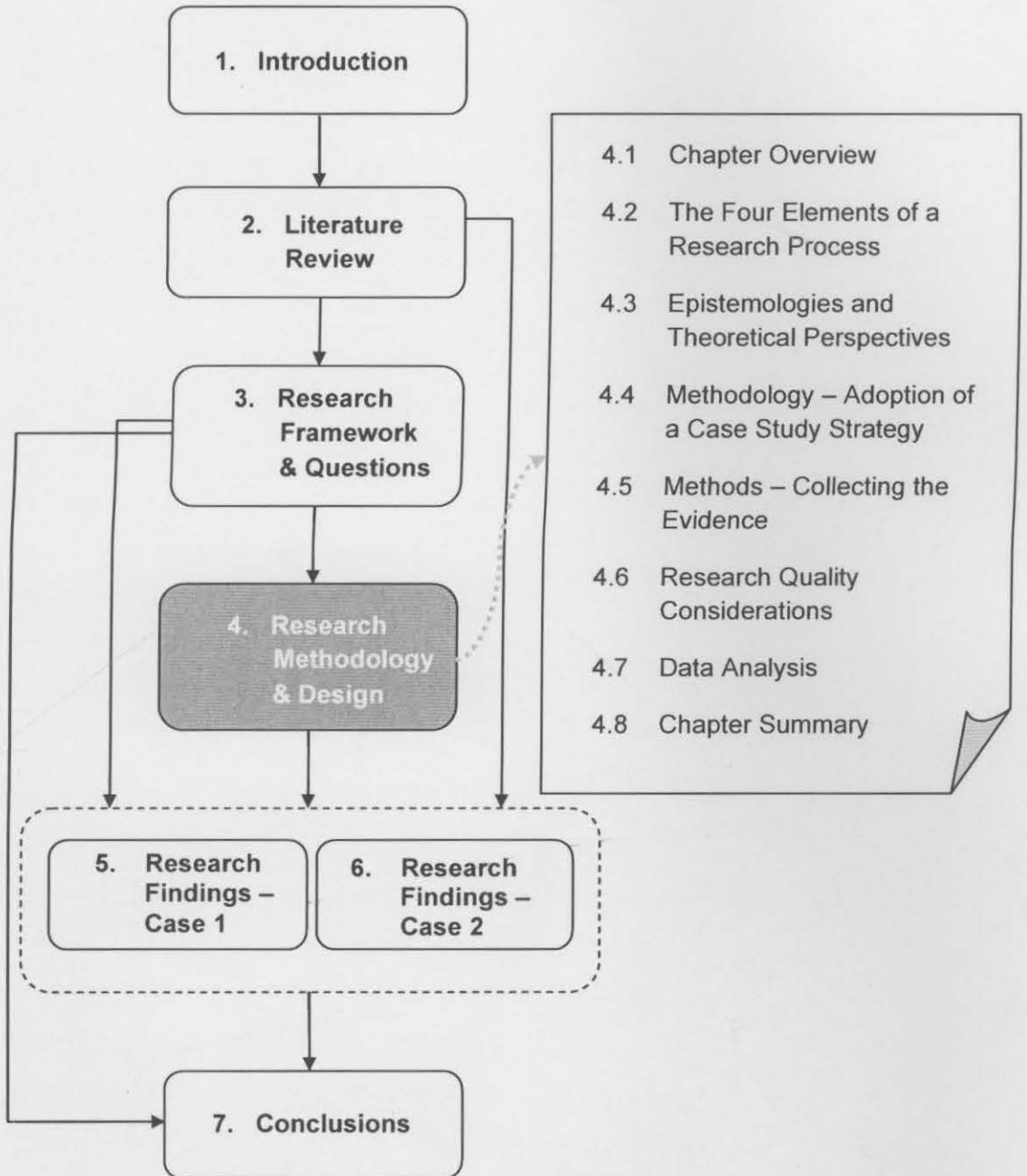
Finally, based on insight gained from addressing the above questions, the thesis identifies some directions for practice by addressing the question:

2) Are there performance implications for a focal firm based on how it governs its portfolio of globally distributed direct IORs? If so, how could such a firm improve the governance of its portfolio of IORs?

3.4 Chapter Summary

This chapter has outlined the research framework for guiding an investigation into the governance of a portfolio of IORs in VCNs. It has also presented the research questions that are addressed in detail in Chapter 7 following the discussion of the two cases in Chapters 5 and 6.

4 Research Methodology and Design



4.1 Chapter Overview

This chapter and its supporting appendices explain how this research was designed and conducted. Section 4.2 provides an outline of four essential elements of a research design. The choice of epistemology and theoretical perspective (Section 4.3) guides the selection of research methodology and the methods of data collection. In this study, a case research methodology is adopted based on a constructionist epistemology and an interpretivist theoretical perspective. There are two units of analysis of interest: the governance of a focal firm's portfolio of interorganizational relationships, and, the interactions between boundary spanning individuals across interorganizational boundaries. This is because interactions between firms are both a macro and a micro level phenomenon. A two-case study design was adopted as discussed in Section 4.4. Data collection was primarily based on interviews but also utilized a number of supporting sources of evidence (Section 4.5). Section 4.6 discusses the research quality considerations which also helped to shape the research design. Section 4.7 describes the data analysis techniques used. Finally, the research design is summarized in Figure 4-1.

4.2 The Four Elements of a Research Process

Designing a research study involves thinking through four distinct but related elements of the research process: methods to be utilized in the study, the methodology governing the choice of methods, theoretical perspectives embedded in the methodology, and the epistemology informing the theoretical perspective (Crotty, 1998). The definitions of these elements and the key options associated with each are summarized in Table 4-1. The next three sections consider different options available to researchers (as indicated by the table) in greater detail and discuss the specific choices made in the context of this research.

Table 4-1 The Elements of a Research Process (Abridged from Crotty (1998, p. 3 & 5))

	Epistemology	Theoretical Perspective	Methodology	Methods
Definition	The theory of knowledge embedded in the theoretical perspective and thereby in the methodology	The philosophical stance informing the methodology and thus providing a context for the process and grounding its logic and criteria	The strategy, plan of action, process or design lying behind the choice and use of particular methods and linking the choice and use of particular methods and linking the choice and use of methods to the desired outcomes.	The techniques or procedures used to gather and analyse data related to some research question or hypothesis.
Possible options	Objectivism Constructionism Subjectivism Constructivism etc.	Positivism (and pos-positivism) Interpretivism <ul style="list-style-type: none"> • Symbolic interactionism • Phenomenology • Hermeneutics Critical inquiry Feminism Post modernism etc.	Experimental research Survey research Ethnography Grounded theory Heuristic inquiry Action research Discourse analysis Feminist standpoint research etc.	Sampling Measurement and scaling Questionnaire Observation <ul style="list-style-type: none"> • Participant • Non-participant Interview Focus group Narrative Statistical analysis Data reduction Theme identification Comparative analysis Cognitive mapping Document analysis Content analysis etc.

4.3 Epistemologies and Theoretical Perspectives

4.3.1 Epistemologies and Associated Philosophical Assumptions

The relevance of an epistemology lies in the fact that it *“is concerned with providing a philosophical grounding for deciding what kinds of knowledge are possible and how we can ensure that they are both adequate and legitimate”* (Maynard, 1994, p. 10). Three key epistemologies can inform theoretical perspectives and consequently the relevant methodologies in social research: objectivism, constructionism and subjectivism (Crotty, 1998). Objectivism holds that meaningful reality exists apart from the operation of any consciousness, i.e., its existence is independent of the observer. Constructionism, however, contends that there is no objective truth. Instead, meaning or truth emerges as humans engage with the world around them, i.e., meaning is constructed, not discovered. In subjectivism, the subject imposes meaning on the object. The meaning may arise from anywhere other than from the object.

In order to see the relevance of the epistemological discussion above, it is necessary to revisit the research focus in this thesis. In essence, the research objective is to gain a better understanding of governance in VCNs by examining various aspects of governance, its influence on management, and relevant environmental and technological inhibitors/enablers by which governance and hence management are influenced. In order to accomplish this, the thesis relies to a large extent on the perspectives of decision makers who have responsibility for various aspects of VCN governance and management in the organizations participating in the study.

Such perspectives are ‘facts’ based on positions these decision makers occupy in their organizations and their interactions with counterparts in other organizations in the VCN. This raises a difficulty in treating their perspectives as purely objective facts as this would ignore the construction these people might put on the facts based on their individual contexts. Subjectivism too cannot be described as an appropriate epistemological stance in this context as the thesis involves constructing an approach to governance in VCNs from the perspectives of decision makers in organizations participating in VCNs.

Taking a constructionist view, Giddens (1976) suggests that the objectives of social scientists are twofold. Social research involves “*entering and grasping the frames of meaning involved in the production of social life by lay actors*” and then subsequently it requires “*reconstituting these within the new frames of meaning involved in technical conceptual schemes*” (p. 79). This constructionist perspective, where meanings emerge from interactions between actors is different from a constructivist perspective in which meaning is generated in the mind of an individual. Thus constructionism is the appropriate epistemological perspective for this study as meanings are seen to be constituted by decision makers based on their interactions within and across organizational boundaries. These meanings are then reconstituted into a representative framework by the researcher. The literature review has served the purpose of sensitizing the researcher for undertaking this synthesis.

A term frequently used along with epistemology is ontology. While epistemology addresses the issue of ‘what it means to know’, ontology is concerned with ‘what is’, i.e. the structure of reality (Crotty, 1998). Ontological and epistemological stances

generally emerge together. For example, a discussion about the construction of meaning is inseparable from a discussion about the construction of a meaningful reality. Some authors use the term 'paradigm' or 'worldview' which refers to "a basic set of beliefs that guide action" (Guba, 1990, p. 17). The term has been used to refer to both epistemology and theoretical perspectives (Crotty, 1998).

4.3.2 Theoretical Perspectives

Some researchers such as Chua (1986) and Walsham (1995) merge the conceptualization of an epistemology with that of a theoretical perspective. Chua (ibid.), for example, classifies epistemologies into positivist, interpretivist and critical types. This thesis, however, adopts the distinction made by Crotty (1998) between epistemology and theoretical perspectives. As discussed earlier, the epistemology adopted for a study forms the basis for selecting the theoretical perspective that informs the methodology. A positivist theoretical perspective is derived from an objectivist epistemology and "*by way of allegedly value-free, detached observation, seek to identify universal features of humanhood, society and history that offer explanation and hence control and predictability*" (p. 66). Interpretivist and critical inquiry perspectives are drawn from a constructionist perspective. In contrast to a positivist approach, an interpretivist one is ideally suited for a study that examines "*culturally derived and historically situated interpretations of the social world*" (p. 66). Adopting a critical inquiry perspective is appropriate when the focus is on providing social critique and shedding light on restrictive or alienating conditions of the status quo (Klein and Myers, 1999). Differentiating the critical inquiry perspective from interpretivism, Crotty (1998) observes: "*It is a contrast between a research that seeks merely to understand and a research that challenges... between a research that reads the situation in terms of interaction and community and a research that reads the situation in terms of conflict and oppression... between a research that accepts the status quo and a research that seeks to bring about change*" (p. 113). Since this thesis adopts a constructionist epistemology, critical inquiry and interpretivism are possible alternative theoretical perspectives for methodology selection. Both interpretivist and critical inquiry perspectives may be combined in a research study (e.g., Myers

(1994)). However, critical inquiry does not support the objectives of this study and the nature of the research questions.

Interpretivism as a theoretical perspective has been classified into three types: symbolic interactionism, hermeneutics and phenomenology (Crotty, 1998). The first type, the symbolic interactionism perspective, is best described in the words of Blumer (1969, p. 5): *“The meaning of a thing for a person grows out of the ways in which other persons act toward the person with regard to the thing. The actions operate to define the thing for the person; thus, symbolic interactionism sees meanings as social products formed through activities of people interacting”*. Symbolic interactionism takes a micro-level perspective and focuses on interactions between individuals. While interactions between individuals are an integral component of governance, a micro-level perspective would not be sufficient for an understanding of the overall phenomenon. The second type of interpretive theoretical perspective, hermeneutics, is best described in terms of its core principle – that of the hermeneutic circle (Gadamer, 1976, p. 117): *“Thus the movement of understanding is constantly from the whole to the part and back to the whole. Our task is to extend in concentric circles the unity of the understood meaning.”* The concept can be applied to shared meanings that are generated between researchers and study participants through repeated interactions between them (Klein and Myers, 1999). The preliminary understandings of the researchers and the participants form the ‘parts’ and the shared meanings that emerge create the ‘whole’. Of much greater interest in this study, however, are the meanings derived by the subjects (i.e., the participating decision makers) from their existing interactions with others within and beyond their organizational boundaries. Here the interpretations of individual participants form the ‘parts’ and the complex ‘whole’ emerges through a series of interviews with participants with a range of different job responsibilities in each case study setting. Thus the third interpretivist perspective, phenomenology, seems to be the most appropriate (Creswell, 2007, p. 60): *“The type of problem best suited for this form of research is one in which it is important to understand several individuals’ common or shared experiences of a phenomenon. It would be important to understand these common experiences in order to develop practices or policies, or develop a deeper understanding about the features of the phenomenon.”* Specifically, this thesis adopts

a hermeneutical phenomenology perspective which involves not just a description of a phenomenon but also an interpretive process where the researcher makes an interpretation by synthesizing the meanings ascribed by the research subjects to their lived experiences (van Manen, 1990). This is different from transcendental phenomenology which focuses on descriptions of the participants' experiences and sets aside the views of the researcher (Moutsakas, 1994).

Theoretical perspectives also have underlying axiological assumptions, i.e., ideas regarding the role of values in research (Creswell, 2007). In an interpretivist study a researcher acknowledges that the study is value laden, and "*openly discusses values that shape the narrative and includes his or her own interpretation in conjunction with the interpretations of participants*" (p. 17), i.e., interpretivist researchers "*position themselves*" (p. 18) within the study. Assumptions regarding causality are also different for different theoretical perspectives. While notions of causality are an integral part of epistemological assumptions, it is useful to articulate the concept explicitly in order to differentiate between positivism and interpretivism. While positivist researchers "*with their goal of explanation and prediction, place a high priority on identifying causal linkages*", interpretivist researchers "*view the world as being so complex and changing that it is impossible to distinguish a cause from an effect*" (Hudson and Ozanne, 1988, p. 509). Taking a holistic view of the world, interpretivist researchers focus on the mutual and simultaneous decision making that occurs between entities (Lincoln and Guba, 1985). Providing further explanation for this philosophical assumption, Hudson and Ozanne (1988) offer the following illustration:

"For instance, in studying family decision-making in dining-out decisions, the interpretivists would focus on the dynamic shaping that occurs. They would take into account not only the children's influence on the parents' choices, but the parents, influence on the children's preferences. They would also recognize many other shaping factors, including contextual aspects. However, these factors cannot be separated into a temporally ordered causal sequence." (p. 512)

Since the epistemological (constructionism), ontological (meaningful reality is constructed) and axiological (open discussion of values shaping the narrative) assumptions, and the theoretical perspective (hermeneutical phenomenology) for this

study have been identified, it is now possible to derive an appropriate methodology for the study.

4.4 Methodology – Adoption of a Case Study Strategy

As noted by Crotty (1998), a methodology is a “*strategy, plan of action, process or design lying behind the choice and use of particular methods and linking the choice and use of methods to the desired outcomes*” (p. 3). A case study strategy is an appropriate choice of methodology for research adopting an interpretivist theoretical perspective (e.g. Walsham (1995)). Whilst other research strategies such as action research are also possible methodological choices from an interpretivist perspective, these are not aligned with the aims of this study. For instance, this study did not aim to change practice as would have been the case with an action research approach (Berg, 2007). Instead, the aim was to design a study that would help to address the research questions by capturing the thoughts and experiences of senior management in the context of the governance of IORs.

Thus the case study strategy is the chosen methodological approach in this study for investigating the phenomenon of governance in VCNs. Although Stake (2005) views case study as a choice of what is to be studied rather than a methodological choice, most authors (e.g., Benbasat et al. (1987), Creswell (2007), Denzin and Lincoln (2005), Eisenhardt (1989), Yin (2003)) view case study research as a research strategy or methodology. Yin (2003) describes the scope of a case study as follows: “*A case study is an empirical inquiry that investigates a contemporary phenomenon within its real-life context, especially when the boundaries between phenomenon and context are not clearly evident*” (p. 13). The methodology is well suited to addressing ‘how’ questions. Since this study explores how governance is conducted in a VCN and how it is influenced by its context, Yin’s (2003) definition of the scope of a case study is well aligned with the aims of this research.

It is important to note that researchers have discussed and applied case study research from various theoretical perspectives. Many of the characteristics of case studies discussed by Benbasat et al. (1987) and Yin (2003) are applicable to case studies conducted from both positivist and interpretivist perspectives whilst Walsham (1995,

2006) focuses on providing a reference point for researchers following the interpretivist tradition. The application of case study research has been just as varied as the discussions on their characteristics and suggested guidelines. For example, Ozcan and Eisenhardt (2009) take a positivist perspective and develop propositions in their multi-case study, Walsham and Waema (1994) apply an interpretivist perspective, and Myers' (1994) study combines elements of both interpretivist and critical inquiry. While there are no attempts at proposition or hypothesis development in this study (as it is conducted in an interpretivist vein), Table 4-1 provides a useful summary of other key characteristics of case studies that are applicable to this research.

Table 4-2 Key Characteristics of Case Studies (Benbasat et al. 1987, p. 371)

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| <ol style="list-style-type: none"> 1. Phenomenon is examined in a natural setting. 2. Data are collected by multiple means. 3. One or few entities (person, group, or organization) are examined. 4. The complexity of the unit is studied intensively. 5. Case studies are more suitable for the exploration, classification and hypothesis development stages of the knowledge building process; the investigator should have a receptive attitude towards exploration. 6. No experimental controls or manipulation are involved. 7. The investigator may not specify the set of independent and dependent variables in advance. 8. The results derived depend heavily on the integrative powers of the investigator. 9. Changes in site selection and data collection methods could take place as the investigator develops new hypotheses. 10. Case research is useful in the study of "why" and "how" questions because these deal with operational links to be traced over time rather than with frequency or incidence. 11. The focus is on contemporary events. |
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4.4.1 Units of Analysis

Adopting a case study methodology also requires making decisions regarding the unit(s) of analysis and whether a multiple or single case design would be most appropriate (Yin, 2003). Since governance in VCNs is a complex multi-level phenomenon, two different units of analysis were adopted for this study:

- (i) the governance of a focal firm's portfolio of interorganizational relationships
- (ii) the interactions between boundary spanning individuals across interorganizational boundaries

As firms continue to engage in alliances, the importance of shifting the focus of research from individual alliances to a firm's portfolio of interorganizational relationships has been highlighted by the work of a number of researchers (e.g. Gulati

(1998), Kale et al. (2002), and Ozcan and Eisenhardt (2009)). Here the term 'portfolio' refers to a firm's set of direct ties (Das and Teng, 2000, Ozcan and Eisenhardt, 2009). As discussed in Chapter 1, while some research has been done in this area, Gulati (2007) notes the need for further research for shedding light on managerial practices and their consequences in the context of a firm's portfolio relationships. The author also notes the need for more research to understand the role that boundary spanning individuals play in managing these relationships. The importance of the role of boundary spanning individuals was also highlighted by industry members of the Logistics Association of Australia with whom the researcher had informal discussions prior to embarking on this study. These considerations led to the adoption of two the units of analysis listed above.

4.4.2 An Embedded Two-Case Study Design

An embedded case study is one in which more than one unit of analysis is involved (Yin, 2003). This study involves two units of analysis as discussed in the previous section. The advantage of an embedded case study approach is that it forces the researcher to consider a specific phenomenon in operational detail (Yin, 2003). Since the phenomenon of interest, the governance of a focal firm's portfolio of relationships, has both its macro and micro-level aspects, an embedded case design with units of analysis at both a macro and a micro level are appropriate in the context of this study.

The type of generalization aimed for in the context of this study is 'analytic generalization' rather than a statistical one as used in survey based research (Yin, 2003). Analytic generalization is a form of generalization in which: "*a previously developed theory is used as a template with which to compare the empirical results of the case study. If two or more cases are shown to support the same theory, replication may be claimed*" (pp. 32-33). With an expectation of greater analytic benefits (Yin, 2003), three focal companies were invited to participate in this study. Theory based sampling (Miles and Huberman, 1994) was used to identify the three focal companies. The selection criteria were as follows:

- (i) As the Asia-Pacific region has been experiencing increasing growth in recent years, the companies of interest were headquartered in this region but with interorganizational links across the globe.
- (ii) Potential participants were selected from different industries in order to provide a greater opportunity for identifying possible similarities or differences around key research themes.
- (iii) In order to better understand governance in VCNs by focussing on the two units of analysis discussed in the previous section, the focal companies selected for the study were expected to have multiple long term interorganizational relationships with their suppliers and customers. In keeping with the research design, the companies selected for the study had to be ones which were going to allow the researcher access to members of their VCN.

Of the three focal organizations contacted, one declined due to internal restructuring and two agreed to participate in the study. The two focal organizations are referred to as BigApparel and SubLiquor in this thesis in accordance with their wish for anonymity. Their names represent the industries in which they are key players.

4.5 Methods – Collecting the Evidence

Yin (2003) observes: “...a major strength of case study data collection is the opportunity to use many different sources of evidence” (p. 97). While acknowledging that a complete list of sources could be quite extensive, Yin (ibid.) outlines six commonly used sources of evidence in a case study: interviews, direct observations, participant-observation, archival records, interviews and physical artifacts. The strengths and weaknesses of these sources are outlined in the table below.

Table 4-3 Six Sources of Evidence: Strengths and Weaknesses (Yin, 2003, p. 86)

Source of Evidence	Strengths	Weaknesses
Interviews	<ul style="list-style-type: none"> • targeted – focuses directly on case study topic • insightful – provides perceived causal inferences 	<ul style="list-style-type: none"> • bias due to poorly constructed questions • response bias • inaccuracies due to poor recall • reflexivity – interviewee gives what interviewer wants to hear
Documentation	<ul style="list-style-type: none"> • stable – can be reviewed repeatedly • unobtrusive – not created as a result of the case study • exact – contains exact names, references, and details of an event • broad coverage – long span of time, many events, and many settings 	<ul style="list-style-type: none"> • retrievability – can be low biased selectivity, if collection is incomplete • reporting bias – reflects (unknown) bias of author • access – may be deliberately blocked
Archival Records	<ul style="list-style-type: none"> • [Same as above for documentation] • precise and quantitative 	<ul style="list-style-type: none"> • [Same as above for documentation] • accessibility due to privacy reasons
Direct Observations	<ul style="list-style-type: none"> • reality – covers events in real time • contextual – covers context of event 	<ul style="list-style-type: none"> • time-consuming • selectivity – unless broad coverage • reflexivity – event may proceed differently because it is being observed • cost – hours needed by human observers
Participant Observation	<ul style="list-style-type: none"> • [Same as above for direct observations] • insightful into personal behavior and motives 	<ul style="list-style-type: none"> • [Same as above for direct observations] • bias due to investigator's manipulation of events
Physical Artifacts	<ul style="list-style-type: none"> • insight into cultural features • insightful into technical operations 	<ul style="list-style-type: none"> • selectivity • availability

Since each source has its strengths and weaknesses, this study involved triangulation through the use of multiple sources of evidence. These included interviews, documentation, archival records, direct observations and physical artifacts.

4.5.1 Interviews

Walsham (1995) argues that interviews are the primary source of evidence in interpretivist case studies, since as an outside observer: *“it is through this method that the researcher can best access the interpretations that participants have regarding the actions and events which have or are taking place, and the views and aspirations of themselves and other participants”* (p. 78). In Walsham’s (1993) view, triangulation means considering views from multiple participants on the same issues (p. 20). In keeping with this view, interviews were conducted with multiple boundary spanners at BigApparel and SubLiquor and views on the same issues were sought from boundary spanners that they interacted with in their respective supplier organizations.

Three types of interviews have been described in the literature: standardized (or structured), unstandardized (informal) and semistandardized (guided-semistructured) (Berg, 2007). Standardized and unstandardized interviews form two opposite ends of the spectrum. Standardized interviews adhere to a predetermined set of questions whereas an unstandardized one is generally completely unstructured and does not follow any set order or wording to any questions. The semistandardized interview is located between the two extremes and interviewers are allowed to probe beyond the answers to their prepared standardized questions. Additionally, as Seidman (2006) observes: *“While the interviewers may develop preset interviewing guides to which they will refer, the interviewers’ initial basic work in this approach to interviewing is to listen actively and to move the interview forward as much as possible by building on what the participant has begun to share”* (p. 81). The interview guide presented in Appendix D was used to steer the direction of the semistandardized interviews utilized in this study. The interview style and structure were piloted through interviews with two senior decision makers with boundary spanning roles in their organizations in two separate industries: ICT and soft drinks. These initial interviews led to the refinement of interview questions and recognition of the fact that the guide had to be general enough in order to capture the activities of staff with different boundary spanning responsibilities. The piloting process also helped the researcher reach an initial estimate of the length of time (one hour) that would be appropriate for covering the interview questions. As discussed below, in the actual interviews conducted for the study, the responses from the interviewees provided opportunities for exploration beyond the initial questions prepared for the interview guide and the actual lengths of the interviews varied for some interviewees based on their availability and input.

A letter of introduction (Appendix A) was provided to key contact persons in BigApparel and SubLiquor during preliminary meetings. Adopting a snowball sampling approach (Miles and Huberman, 1994), these contact persons were asked to discuss the research with key boundary spanners within their organization who interact with suppliers or customers or both. The boundary spanners who volunteered to be interviewed were sent the participant information sheet (Appendix B) and consent form (Appendix C) via email and a signature was requested on the consent form prior to the interview. Recognizing the priorities of the interviewees, the

interviews were conducted flexibly around their work schedules. Although the initial intention was to conduct one hour long interviews, it was found necessary to break some of these into half hour slots to accommodate the interviewees. Overall, the interviews varied in length from 0.5 to 1.5 hours as shown in the table below. Some participants were interviewed more than once in order obtain additional information in the context of input provided by other participants. During these interviews, boundary spanners were asked to identify supplier organizations that might be willing to participate in the study. Table 4-4 below provides the list of interviewees. All interviews related to SubLiquor were conducted in Australia while interviews related to BigApparel were conducted in China and India.

Table 4-4 Interviewees included in this study

Company	Divisions	Position	Location of Interviewee	Number of Interviewees	Number of hours
BigApparel	Business Division	Senior Vice President (SVP)	China	1	1
	Merchandising	Vice President (VP)	India	1	1
	Country Business Head	SVP	India	1	0.5
	Vendor Compliance	VPs	China	2	3
			India	1	1
	Legal	General Counsel	China *	1	1
	Logistics	SVP	China	1	1
			China	1	1
			India	2	4
BigApparel's Manufacturer A	Logistics	Deputy General Manager	India	1	2
		Logistics operations staff	India	1	0.5
	Human Resources	General Manager	India	1	0.5
BigApparel's Manufacturer B	Merchandising	Merchandiser	India	1	1
	Logistics	Assistant General Manager	India	1	1
Forwarder of a BigApparel customer	Order Management	Manager	India	1	1
SubLiquor	Sales	National Accounts Manager	Australia	1	0.5
		State Manager	Australia	1	1
		Business Information Manager	Australia	1	1
	Operations	General Manager	Australia	1	1
		Finance	Australia	1	1
		Business Applications Manager	Australia	1	1
		Logistics Coordinator	Australia	1	1
SubLiquor's supply chain management (SCM) service provider		Value Chain Manager	Australia	1	1
		Demand and Supply Manager	Australia	1	1
		Procurement Officer	Australia	1	1
Totals				27	29
* Interview conducted over the phone from Australia, all others conducted at interviewee's location					

The initial contacts in each focal organization provided insight into their organization and network structures. Supporting evidence in the form of documents was also provided by them. This allowed the researcher to focus on boundary spanning interactions in subsequent interviews. Since different roles require emphasis on different types of boundary spanning interactions (coordination, collaboration or monitoring), the questions in the interview guide were adapted to interviewee responses in order to explore different interactions in greater detail. A number of interviewees also provided the researcher with relevant documents and archival records during or after these interviews.

Although, the interview guide helped the researcher steer the direction of the interviews, the questions asked during the interview were adapted to the job responsibilities of different boundary spanners and to their responses to previous questions. While conducting the interview, the researcher was guided by Seidman's (2006) observation that: "*Although the interviewer can strive to have meaning being made in the interview as much a function of the participant's reconstruction and reflection as possible, the interviewer must nevertheless recognize that the meaning is, to some degree, a function of the participant's interaction with the interviewer*" (p. 23). In order to avoid distracting participants from sharing their own reflections, the researcher sought to minimize her own input during the interviews. As suggested by Seidman, the researcher engaged in 'active listening' by taking notes during all interviews (including recorded ones). This helped the researcher concentrate on what a participant was saying and then return to explore some of these points further when the timing was right during the course of the interview. While following up on interviewee responses a conscious effort was made to minimize interruptions and explore issues without appearing to probe beyond the interviewee's level of comfort.

All except one interview was conducted face-to-face by the researcher. This is because face-to-face interviews offer both the interviewer and interviewee a better opportunity for reading visual cues (Berg, 2007). Face-to-face interviews provide an opportunity for picking up on messages transferred through non-verbal channels such as physical gestures and facial expressions. As suggested by Gorden (1987), interviewers need to consider both what the interviewees are saying and how they are

saying it. Thus the role of the interviewer in this study was twofold: it involved guiding the direction of the interview while taking to the opportunity to explore the participants' responses as well as interpreting of non-verbal cues. Such non-verbal cues were also included in the notes taken during each interview, including recorded ones.

Interviewees were given a brief introduction to the study at the beginning of each interview and they were assured that the interview data would be stored securely and would only be available to the interviewee and the researcher. Maintaining *strict confidentiality* for the companies and the staff members involved in the study was an essential components this study. The interviews were recorded unless the interviewees requested otherwise. A small digital tape recorder was used in order to make the taping as innocuous as possible. Detailed notes were taken during interviews that were not recorded. This approach was in keeping with the requirements of the University's requirements for conducting ethical research.

The transcripts for the recorded interviews and typed notes from the interviews that were not recorded were emailed to the respective interviewees for their verification. Additional clarifications were also requested in some of these emails.

4.5.2 Other Sources of Evidence

As discussed earlier, the other sources of evidence utilized in this study are documentation, archival records, direct observation and physical artifacts.

Documentation is generally available in various forms and help to augment and corroborate evidence from other sources (Yin, 2003). Documents are useful even though they are they are not always accurate or lacking in bias. Each document is generally written for a specific purpose and audience. As long as the purpose is clearly identified by the researcher, he/she is more likely to interpret the evidence correctly. Keeping these arguments in mind, multiple documents were examined in this study. These documents included:

- Organizational charts (from both BigApparel and SubLiquor)
- Agendas and minutes of meetings (from SubLiquor only)

- Process manuals (from BigApparel and SubLiquor and its SCM service provider)
- Documents related to recent shipments (BigApparel's manufactures A and B, and SubLiquor)
- Current annual reports and news releases from both BigApparel and SubLiquor and their customers and suppliers
- Articles appearing in the mass media

Archival records also take various forms and require the researcher to apply the same kind of care as in the case of documentation (Yin, 2003). The archival records included in this study are:

- Archived internal presentations as available (from both BigApparel and SubLiquor)
- Past annual reports and news releases (from BigApparel and its customers and manufacturers and SubLiquor and its customers)

Direct observation often provides additional information about the context or the phenomenon being studied (Yin, 2003). Since the interviews were conducted through site visits to the organizations in which the interviewees worked, observations of the following also informed the study:

- Informal meetings between the focal organizations and their suppliers (informal meetings between BigApparel and Manufacturers A and B and SubLiquor and its SCM service provider)
- Work in a supplier's factory (BigApparel's Manufacturer B only)
- Work in a temporary storage facility at an inland container depot (used by a forwarder of one of BigApparel's customers)
- Locations and furnishings of the interviewees' offices and conditions of their workspaces as well as condition of the buildings (BigApparel's offices and those of Manufacturers A and B; SubLiquor's office location which is also used by its SCM service provider)

Relevant physical artifacts were also viewed during visits to the company sites as suggested by Yin (2003). Specifically, the following were observed:

- Labels being created for shipping purposes at a supplier's office (at BigApparel's Manufacturer A's office location)

- Equipment for testing samples of apparel (at BigApparel's offices)
- Art on the walls and in individual workspaces that were indicative of the nature of the work environment (at BigApparel and SubLiquor's offices)

While interviews were the primary source of evidence, these supporting sources also added to the researcher's understanding of the research topic.

4.6 Research Quality Considerations

There has been extensive debate in the literature regarding the criteria to be applied to the conduct and evaluation of qualitative field research. While some criteria may apply to positivist critical and interpretivist case study research, others do not. This section discusses criteria considered as part of this research design based on two often-cited works: Yin (2003) and Klein and Myers (1999). The criteria discussed by these authors are summarized in the table below.

General criteria for case study research Yin (2003, p. 34)	Specific criteria for interpretivist field research Klein and Myers (1999, p.72)
1. Construct validity – establishing correct operational measures for concepts being studied. 2. Internal validity – establishing a causal relationship (for explanatory or causal studies only) 3. External validity – establishing a domain to which a study's findings can be generalized 4. Reliability – demonstrating that the operations of a study – such as the data collection procedures – can be repeated, with the same results	1. The fundamental principle of the hermeneutic circle – considering the interdependent meaning of parts and the whole that they form 2. The principle of contextualization – requires critical reflection of the social and historical background of the research setting 3. The principle of interaction between researchers and subjects – requires critical reflection on how the research materials (or "data") were socially constructed through the interaction between the researchers and participants 4. The principle of abstraction and generalization - Requires relating the idiographic details revealed by the data interpretation through the application of principles one and two to theoretical, general concepts that describe the nature of human understanding and social action 5. The principle of dialogic reasoning – requires sensitivity to possible contradictions between the theoretical preconceptions guiding the research design and actual findings ("the story which the data tell") with subsequent cycles of revision 6. The principle of multiple interpretations – requires sensitivity to possible differences in interpretations among the participants as are typically expressed in multiple narratives or stories of the same sequence of events under study 7. The principle of suspicion – requires sensitivity to possible "biases" and systematic "distortions" in the narratives collected from the participants

Yin (2003) criteria were developed for qualitative research in general whereas Klein and Myers' (1999) criteria were developed specifically in the context of interpretivist field research. Yin's (2003) conceptualization of internal validity is applicable to positivist studies aiming to develop causal relationships. This study does not aspire to this type of validity. The issues of construct and external validity, however, are relevant to interpretivist field studies and are discussed below.

In order to establish construct validity as suggested by Yin (2003), this study involved the use of multiple sources of evidence (i.e., triangulation): interviews, documentation, archival records and physical artifacts. The interviews themselves involved triangulation through the input of multiple participants on the same issues. A chain of evidence has been maintained throughout the study by using NVivo as the database application. The database contained both the raw data (interview transcripts and notes, field notes regarding observations, and electronic documentation) as well as the codes developed as part of the analysis process. A draft report of findings relevant to each focal company was also provided to the respective key informants in the study for their comment.

Yin's (2003) discussion of external validity corresponds to Klein and Myers' (1999) principle of abstraction and generalization. In accordance with this principle, this study draws on theories discussed in Chapter 2 in order to generalize the findings. Additionally, this study develops a conceptual framework for governance and management and discusses implications based on the empirical work. This is in keeping with the discussion of generalization in the context of interpretivist research by Walsham (1995). The author also suggests that the rich insights from interpretive case studies are in themselves a form of generalization.

In order to ensure reliability, research journals were used to maintain a detailed audit trail (Miles and Huberman, 1994). Specifically, the diaries included chronological entries of research activities, including interview notes, field notes, and notes regarding initial coding efforts and the evolution of codes. Interview transcripts, field notes and codes were maintained in NVivo as discussed before.

It must be noted that some authors have argued for a different set of terminologies for qualitative research due to the positivist origins of the concepts of validity and reliability. The discussion on construct validity, external validity and reliability in this section correspond to the Lincoln and Guba's (1985) conceptualization of credibility, transferability and dependability respectively. These terms are not discussed separately here as the techniques highlighted in the previous paragraphs in the context of construct validity, external validity and reliability are restricted to those relevant to interpretivist studies only.

The study is also guided by the principles of conducting interpretivist field research as outlined by Klein and Myers (1999). The authors see the first principle, referred to as the principle of the hermeneutic circle, as fundamental and guiding the application of the other six principles. As discussed in section 4.3.2, the 'parts' are the meanings ascribed by the boundary spanners to their experiences and the 'whole' emerges through a series of interviews and the synthesis of these meanings by the researcher. The researcher's overall understanding developed from iteration between the parts and the whole. There is less of a focus on the principle of interaction between researcher and subjects as the emphasis here is on the participants' interpretations of their experiences. Moreover, the researcher made a conscious effort to minimize her own input during the interviews in order to limit any influence on the participants' reflections. The principles of multiple interpretations and suspicion guided the data collection and analysis process while the principles of contextualization and dialogic reasoning have guided the writing process. The relevance of the principle of generalization is as discussed earlier.

4.7 Data Analysis

4.7.1 Coding

The importing interview data, field notes and other documents into NVivo 8.0 and the subsequent coding was an ongoing process while data was being collected. Once the raw data (interview transcripts, field notes or documents) had been imported into NVivo, the analysis was conducted as a two stage process. In the first stage three types of coding were utilized: descriptive coding, in vivo coding and structural

coding. Although NVivo provides an automatic coding option, all coding was done manually in this study.

Descriptive coding generally summarizes in a word or phrase the basic topic of a segment of text (Miles and Huberman, 1994, Saldana, 2009). Descriptive coding was appropriate for this study as it is suited to qualitative research using a variety of data forms. In this study, the use of descriptive coding helped the researcher develop a preliminary understanding of the data prior to the use of any other type of coding method. The coding was done in the NVivo coding environment. The codes were stored as 'free nodes' (i.e., nodes are those which have not been placed in any kind of hierarchy) in NVivo. While applying descriptive codes to the interviews, a small number of in vivo codes were used when the data appeared to stand out (Saldana, 2009). In vivo codes are based on actual words used by the participants and "help us to preserve participants' meanings of their views and actions in the coding itself" (Charmaz, 2006, p. 55).

Structural coding is derived from research questions and "*acts as a labelling and indexing device, allowing researchers to quickly access data likely to be relevant to a particular analysis from a larger data set*" (Namey et al., 2008, p. 141). Structural coding is more suitable for interview data than other types of data sources. In this study, once the structural codes had been created, they were entered as 'tree nodes' in NVivo. This was followed by the coding of the interview documents stored in the NVivo database against these tree nodes. Tree nodes are those that have been organized into a hierarchy. The structural codes developed prior to the analysis are listed in Appendix E. Some of the initial descriptive codes (free nodes) which were later incorporated into an expanded tree node structure are also presented in the appendix.

Thus, each interview transcript or summary was coded twice in the first stage. This was done with the expectation that if any relevant topics of interest had been missed by the structural codes, they were likely to be identified by the descriptive coding process. The other documents were used as a source of contextual information and lent themselves better to descriptive coding than structural coding. Since NVivo

allows the creation of nodes both before and during a coding process, it was found to be a useful environment for both types of coding.

In the second stage, pattern codes were developed. These types of codes are “explanatory or inferential codes, ones that identify an emergent theme, configuration, or explanation” (Miles and Huberman, p. 69). The codes from the first stage were reviewed and their commonalities were assessed in order to assign them with pattern codes. An example of a pattern code is demonstrated in Appendix E. The pattern codes and memos reflecting the researcher’s thoughts regarding the emerging codes were also stored in the NVivo database.

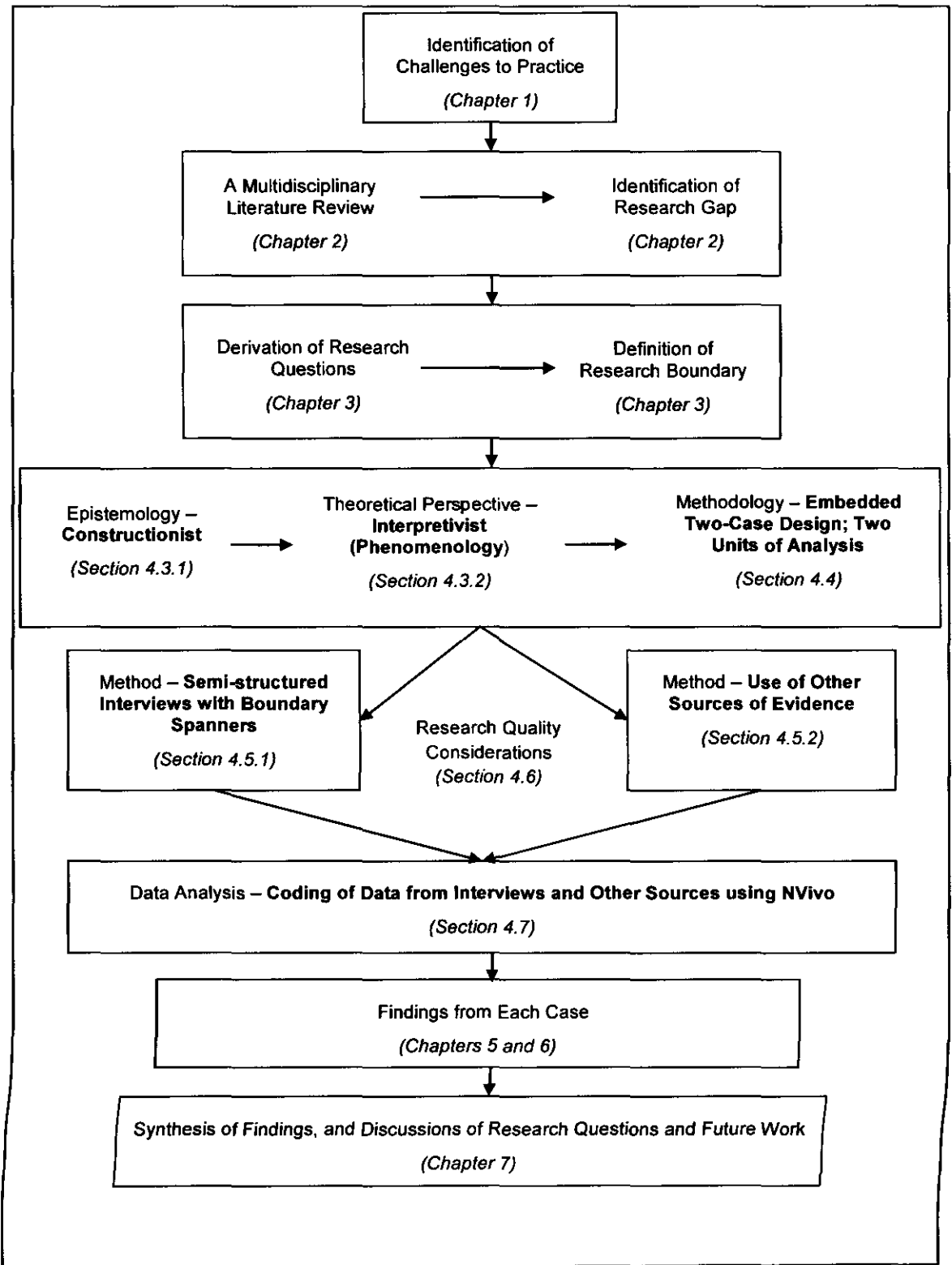
4.7.2 Further Analysis and Interpretation

The analyses discussed in the previous section were conducted separately for both cases. The results of the analysis were then used to develop a descriptive presentation for each focal firm’s approaches to governance in the context of their portfolio of interorganizational relationships (Chapters 5 and 6). The synthesis of findings and a discussion of the research questions are presented in Chapter 7 along with reflections on future work.

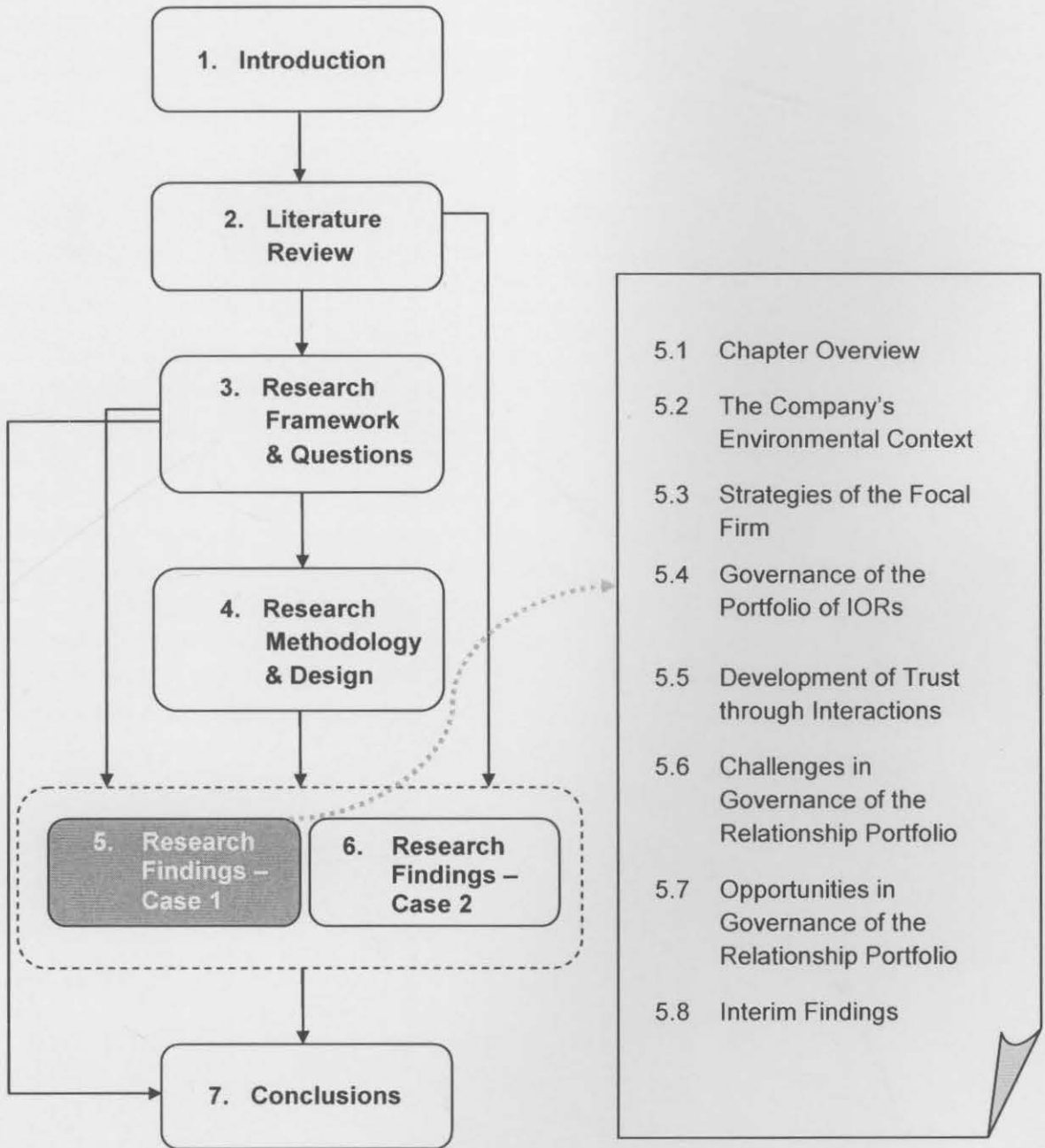
4.8 Chapter Summary

The figure below synthesises the discussions in the previous sections into a high-level representation of the research design and shows how this chapter is related to the other five chapters in the thesis.

Figure 4-1 Essential Elements of the Research Design



5 Research Findings – Case 1: Governance of BigApparel’s Portfolio of Interorganizational Relationships



5.1 Chapter Overview

This chapter presents findings relevant to BigApparel's portfolio of direct interorganizational relationships. Section 5.2 discusses the company's external environment in terms of its industry context, the regulatory environment and representative strategies of firms in its portfolio of IORs. Section 5.3 discusses the firm's own strategies with an emphasis on the interorganizational cooperation strategies that drive the governance of its portfolio of IORs. Section 5.4 presents the key aspects of governance in terms of relationship structure and interorganizational interactions embedded in its business processes in the execution stage of a relationship with a customer. The section also discusses the development of trust through these interactions. Finally, it also addresses the challenges and opportunities for the company in the context of governance of its portfolio of IORs. Section 5.5 discusses the interim findings.

Note: In accordance with the assurance of strict confidentiality given to each participating interviewee, the quotes used in this chapter do NOT identify the positions of the respective interviewees. This is consistent with the requirements for ethical research at the University of Sydney in cases where strict confidentiality agreements are in place between the participating firm and University researchers. The purpose of the quotes used here is only to illustrate key points from the perspective of participants whose lived experience of the phenomenon of governance of an interorganizational relationship portfolio is being investigated. The structuring of sections and subsections for the case and the associated tables and figures represent the outcomes of the analysis.

5.2 The Company's Environmental Context

5.2.1 The Industry

The global apparel and textiles industry provides good examples of buyer-driven value chain networks. The industry reached a value of \$1972.2 billion in 2008 despite shrinking by 3.4% that year. It is forecast to have a value of \$2751.2 billion by 2013, an increase of 39.5% from 2008. In 2008, a market segmentation by products revealed

that apparel, luxury goods and accessories accounted for 67% of the industry's value whereas textiles and footwear accounted for 19.8% and 12.5% respectively. In the same year, Europe, the Asia-Pacific and the Americas were found to account for 33%, 31.7% and 25.4% of the industry's revenues respectively. The remaining 10% of the revenue were generated from the rest of the world. (Datamonitor, 2009)

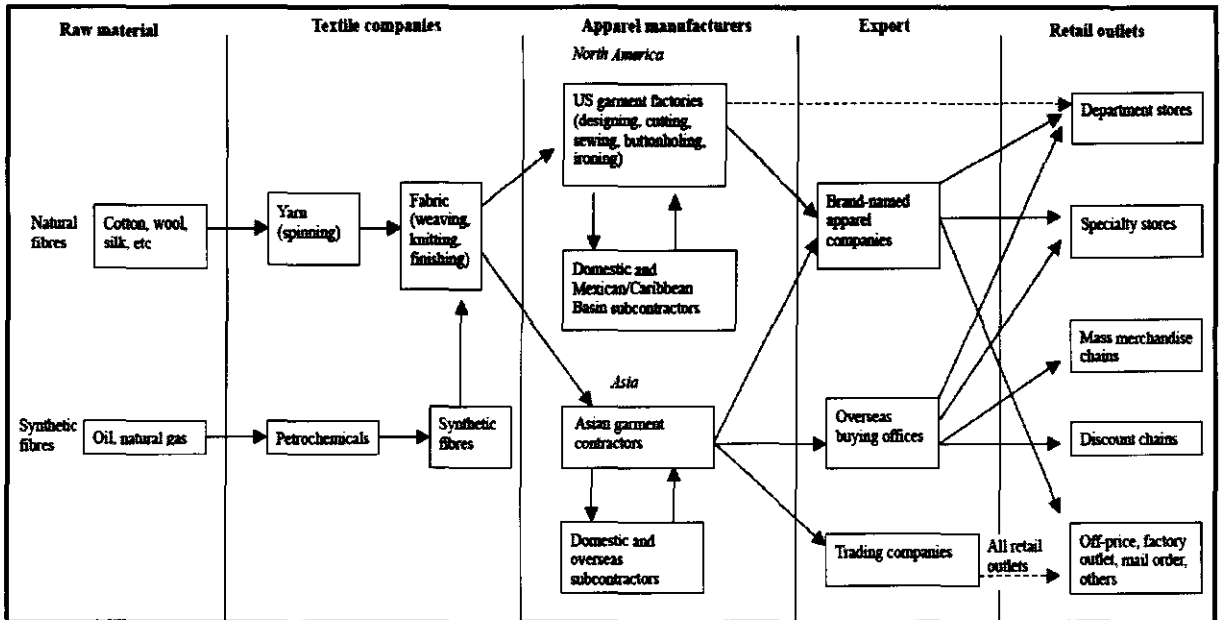
The key players in the industry are retailers, branded marketers, branded manufacturers, exporters, textile companies and suppliers of raw materials. The retail market includes companies of various sizes and its fragmentation level differs by country (Datamonitor, 2009). There is a great deal of differentiation in the industry in terms of brands, styles and fabric with brand prestige having a high significance in some markets. However, there is also a large market for lower-priced, non-designer items. Forward integration (i.e., ownership and operation of retail outlets) by manufacturers is quite high within the apparel market. Backward integration is also a growing trend with some retailers, such as Gap and Benetton, developing their own apparel lines (Gereffi and Memedovic, 2003). Some retailers' offshore buying offices take on a number of responsibilities including product design and monitoring contracted sewing (Speer, 2001). However, the buyer driven nature of apparel industry VCNs has also given rise to brand marketers such as Nike and Reebok who carry out no production and are pioneers in global sourcing (Gereffi and Memedovic, 2003). Suppliers in this industry generally include providers of fabric, dyes, metals, plastics, resin, leather, raw cotton and wool, etc. Some suppliers are also independent contractors who ship only finished products. In fact, the emergence of large factory contractors has been a key trend from the past decade alongside the emergence of giant retailers (Appelbaum, 2008).

The industry depends on both low-value and high-value adding activities. On the low-adding end, the industry is labour-intensive and offers opportunities for entry-level unskilled workers in developed as well as developing countries. The investment costs for acquiring modern technologies are relatively low in this industry, thus making it suitable as a source of industrial growth in poorer countries. Some countries like Bangladesh and Vietnam are experiencing rapid growth in this sector. On the other end, the industry requires high value-adding activities such as marketing, design and

development, and research in material technology which are important sources of competitive advantage. (Nordas, 2004)

A schematic of different value adding stages of the global apparel industry (raw material supply, textile production, apparel manufacturing, export and retail) are illustrated in Figure 5-1.

Figure 5-1 Value adding stages in the global apparel industry (Appelbaum and Gereffi, 1994, p. 46)



The global financial crisis (GFC) was an acute reminder of the interconnected nature of the global economy. The effects were quite pronounced in the apparel industry as large retailers operating in Europe and North America experienced moderate to significant effects on their performance. A number of retailers filed for insolvency. This in turn had serious consequences for their globally distributed manufacturers some of whom could not recover from their losses. The retailers in BigApparel’s relationship portfolio which filed for insolvency are *not* identified by name here in order to protect the identities of both manufacturer organizations and BigApparel.

5.2.2 The Regulatory Environment

Since the early 1970s the Multi-Fibre Arrangement (MFA) has been utilized to impose quantitative limits on apparel imports from developing countries to developed ones. The purpose of this was to protect domestic apparel industries in developed

countries from a flood of cheap imports. Protectionism, however, helped to increase the competitive capabilities of manufacturers in developing countries as they learnt to make more sophisticated products. Booming demand in European and North American markets also fostered the growth of an increasing number of exporters in developing economies. The Uruguay round of General Agreement on Tariffs and Trade (GATT) negotiations resulted in an agreement bringing the apparel and textile trade into the authority of the World Trade Organization (WTO). The MFA was replaced by the WTO Agreement on Textiles and Clothing (ATC) which provided a transitional program for the removal of all quotas by the first of January, 2005. (Gereffi and Memedovic, 2003)

The elimination of the quotas has been seen as a positive by both manufacturers in developing countries who are planning on growing their manufacturing capabilities, and retailers in developed countries who are increasingly sourcing from developing regions.

Since the company caters to customers in developed countries where the observation of international labour standards (Appendix G) are important, BigApparel has to be fully aware of these requirements as well as any customer-specific requirements in order to continue doing business with these customers.

5.2.3 Cultural Contexts of Firms in the Company's Portfolio of IORs

Most of the firms in BigApparel's portfolio of IORs are based in the western hemisphere in Europe or North America. However, the boundary role persons (BRPs) interviewed in the study note significant differences between customers from these regions (Section 5.6). The quality of the interpersonal relationships between BRPs at BigApparel and those in customer firms appear to be of greater importance from the perspectives of European customers than American ones. European customers are also likely to have more environmental requirements but they tend to allow manufacturers more time to meet their compliance requirements. Manufacturers too tend to display varying levels of skills and cultural awareness of fashion based on the countries in which they are based (Sections 5.6 and 5.7). Manufacturers in Turkey, for example, tend to be far better suited for customers who require highly fashionable

garments than manufacturers in Bangladesh who are ideal for producing mass market apparels.

The abilities of BRPs to deal with this diverse set of IORs are important from the perspective of BigApparel. It generally hires staff locally for its offices in all regions where its manufacturers are based. It also hires BRPs based on their experience in and dealing with customers from different regional backgrounds.

5.2.4 Strategies of Firms in the Company's Portfolio of IORs

Although strategies of key firms in BigApparel's portfolio of IORs are reflective of the industry environment, it is useful to consider these in a little more detail as the strategies of these firms provide immediate contextual elements for the firm's own strategies. The discussion in this section is based on both interviews and publicly available documents. While staff members at Manufacturers D, E, and Forwarder F were directly interviewed, the information regarding the three Customers A, B, and C were gleaned from interviews with staff at BigApparel and from publicly available documents from these companies. These are key customers for BigApparel in terms of the volume of sourcing. The three customers are discussed here to illustrate different types of sourcing arrangements that BigApparel maintains in its relationship portfolio. One of the two manufacturers interviewed works with BigApparel to supply one of the three customers discussed here. The manufacturer is *not* linked to the specific customer in this thesis as an additional step taken to protect their respective identities.

(i) BigApparel's Customer A

Customer A is a brand owner with a number of department store-based apparel and accessories brands as well as a number of direct retail-based brands. In 2009, the company reported net sales of over AUD\$ 3 billion. Its retail operations are spread across Western Europe and North America. The company strategy is focussed on building brand strength. Recognizing the different requirements related to the department-store and retail-based brands, it has reorganized its internal reporting structure to align with this strategy. The retail-based brands have their own marketing functions and each brand builds their own sourcing strategies based on specific

requirements. The company has sold its sourcing operations in Asia to BigApparel. Its long term agreement with BigApparel involves the latter acting as the exclusive sourcing agent for one of its brands and the primary sourcing agent for its other brands.

(ii) BigApparel's Customer B

Customer B is a brand owner and a multichannel retailer which markets women's apparel and accessories. The company operates over 500 stores across North America and also reaches customers through its online store and catalogues. Its annual revenue was over AUD\$ 1 billion in 2009. Its strategic focus is on improving its assortment of products and marketing activities that attract new consumers while continuing to appeal to existing ones. Its relationship with BigApparel has developed out of the company's desire to reduce its operating costs and improve its time-to-market. This has allowed the customer to close its buying offices in two locations in Asia. Based on the long term agreement BigApparel now acts as an exclusive sourcing agent for most of its apparel products and a non-exclusive agent for its other products including footwear and handbags.

(iii) BigApparel's Customer C

Customer C is a retailer operating over a thousand stores in the US. Its net sales were above AUD\$ 15 billion in 2009. Its strategic initiatives focus on developing its private and exclusive brands, marketing and improving the consumer's shopping experience. Its expansion strategy focuses on opening more stores around the country. The company does not own any manufacturing facilities. The company currently sources most of its merchandise through a number of local and international vendors, some of whom are located in the same labour markets as BigApparel's manufacturers. Its long term sourcing relationship with BigApparel began with the latter's acquisition of a previous sourcing agent of the company. The company sources around a fifth of its merchandise through BigApparel.

(iv) BigApparel's Manufacturer D

Manufacturer D is a multinational company based in India. The company's strategy is to take advantage of the post-quota regulatory environment and provide customers with a one-stop shopping opportunity. Its growth strategy specifically includes establishing new manufacturing facilities while expanding existing ones, entering new product categories and geographical locations and exploring opportunities in the retail sector in India. Its merger and acquisition strategy focuses on addition of complementary product lines and expansion into retail. Its annual revenue in 2009-2010 was around AUD\$ 400 million (up by around 26% from the previous year) and the profit after taxes was over AUD\$ 3 million.

The company has three different business streams: sourcing, manufacturing, and, branding, marketing and distribution. It has dedicated teams in Bangladesh, India and China for sourcing from over a hundred third-party manufacturers. It has recently expanded its sourcing operations to Vietnam. As one decision maker at Manufacturer D observed:

“We can have our orders produced at a much lower cost in factories in Vietnam than in China or India.”

The company also has its own manufacturing facilities in Bangladesh, India and Indonesia. These facilities produce a broad range of products including knits, dresses, T-shirts and denims. The in-house manufacturing capacity is about 30 million pieces per annum. The company also has dedicated design and development teams at these manufacturing locations. Its merchandizing teams are spread across Europe, North America and China). Its distribution offices are located in the US, UK and China. It also has its own warehousing and processing facilities in the US and UK.

(v) BigApparel's Manufacturer E

Manufacturer E is also a multinational. However, unlike Manufacturer D, Manufacturer E has taken a conservative approach to strategy in the wake of the global financial crisis. Its strategic focus has been on consolidating existing capabilities and optimizing operational costs. This inward focus has also resulted in greater attention to staff training and development. The company's annual revenue was around AUD\$ 190 million in 2008-2009.

Its manufacturing facilities across four cities in India (one of which was visited by the researcher) have state-of-the equipment which help in the production of around three million pieces of knit and woven garments per month. The company also has established sourcing capabilities for components and raw materials and working knowledge of local import regulations:

“Some customers require buttons or zip fasteners from specific manufacturers. This means that sometimes we have to source these items from overseas. We may need to get or renew specific import licences in these situations.”

Product design and development is also a key area of strength for the company. This is facilitated by its presence in US and Europe where a majority of its retail buyers and end consumers are based.

The corporate, competitive and cooperative elements of the strategies of these companies are summarized in the table below as part of the external context for BigApparel’s own strategies.

	Corporate Strategy	Competitive Strategy	Cooperative Strategy
Customer A	<ul style="list-style-type: none"> • Business focus on brand design and marketing for both department store and retail based brands • Internal restructuring around brands • Reduced operating costs by selling sourcing offices in Asia 	<ul style="list-style-type: none"> • To compete by increasing brand strength 	<ul style="list-style-type: none"> • Undertake brand based sourcing arrangements • Adoption of a primary sourcing agent
Financial performance – Net sales of over AUD\$ 3 billion in 2009; survived the GFC			
Customer B	<ul style="list-style-type: none"> • Business focus on brand development, marketing and retail • Closed non-core businesses in the wake of the GFC 	<ul style="list-style-type: none"> • To compete by using multiple retail channels • Improving assortment of products • Undertaking marketing activities to broaden its loyal consumer base. 	<ul style="list-style-type: none"> • Reduce operating costs through the use of a primary sourcing agent
Financial performance – Annual revenue was over AUD\$ 1 billion in 2009; survived the GFC			
Customer C	<ul style="list-style-type: none"> • Business focus on brand development, marketing and retail 	<ul style="list-style-type: none"> • To compete by increase number of retail outlets and improve consumer shopping experience 	<ul style="list-style-type: none"> • Source through a variety of local and international vendors • Consolidate some of the sourcing through a sourcing agent

	Financial performance – Net sales were above AUD\$ 15 billion in 2009; survived the GFC		
Manufacturer D	<ul style="list-style-type: none"> • Providing a one-stop-shop for its customers through a broad business focus on manufacturing, sourcing from third-party manufacturers, design and development and distribution 	<ul style="list-style-type: none"> • To compete by establishing new manufacturing facilities while expanding existing ones, • Entering new product categories and geographical locations • Merger and acquisition focused on addition of complementary product lines and expansion into retail. 	<ul style="list-style-type: none"> • Working directly with retailers on design and development and manufacturing • Working with BigApparel on orders from some of their customers • Joint venture for sourcing from third party manufacturers in Vietnam
	Financial performance – Annual revenue was around AUD\$ 400 million in year ending 2010; survived the GFC		
Manufacturer E	<ul style="list-style-type: none"> • Business focus on manufacturing • Reducing operational costs 	<ul style="list-style-type: none"> • Conservative in the wake of the GFC, preferring an internal focus on operations and staff skills 	<ul style="list-style-type: none"> • Working directly with retailers on design and development and manufacturing • Working with BigApparel on orders from their customers
	Financial performance – Annual revenue was around AUD\$ 190 million in 2009; survived the GFC		

5.3 Strategies of the Focal Firm

BigApparel is a multinational whose primary business involves sourcing. It is also active in the distribution and retail space, but does not have its own manufacturing operations. It is headquartered in China but has established its presence across Asia, North America, Europe, and Africa. The company’s growth strategy has revolved around acquisitions. It engages in brand acquisition and licensing agreements. It has also aggressively pursued the acquisition of sourcing companies and sourcing operations of retailers.

Its portfolio of interorganizational relationships includes over 4000 manufacturers (primarily based in Asia), over 400 customers (primarily based in North America and Europe) and customer-nominated forwarders. The company’s reported annual revenue in 2009 was over AUD\$ 5 billion. The focus of this study is on governance of relationships in the context of its sourcing business which accounts for over 80% of its annual revenue. Its sourcing operations which include a chain of value adding services

for their customers, including design and development, manufacturer compliance, quality assurance, and logistics.

As part of its network maintenance strategy, the company makes an effort to bring its core manufacturers as much business as possible. It uses its trust-based relationships with manufacturers to allow sourcing customers the flexibility of delaying orders as long as possible or even modifying them after the orders have been placed. Resources are allocated flexibly for all services, according to the size of the customer account. Another key differentiator for the company is its ability to lower the cost to customers through the provision of local teams in globally distributed manufacturer locations that can act as shared resources for a number of customers.

“When the business is big enough, a local team of merchandisers is fully dedicated to one customer. If it is not big enough it is shared... If a customer’s business is very small for our office in a particular country, we still provide services for that customer to buy from that country. The team is then shared with other customers and other divisions.”

From the perspective of BigApparel, the acquisition of sourcing operations of retailers is especially important in improving its competitive position, given the fact that many contract manufacturers (such as Manufacturer D) have direct relationships with western retailers and are looking to expand their relationship portfolios. However, acquisition strategies may not always help in the achievement of desired objectives. One of the companies, whose sourcing operations were acquired by BigApparel in recent years, became insolvent during the GFC. However, having a large customer base has helped BigApparel mitigate the effects of such unforeseen circumstances. Table 5-1 summarizes key aspects of BigApparel’s environment and its strategies in the context of its environment.

Table 5-2 Key elements of BigApparel's environment and its strategies

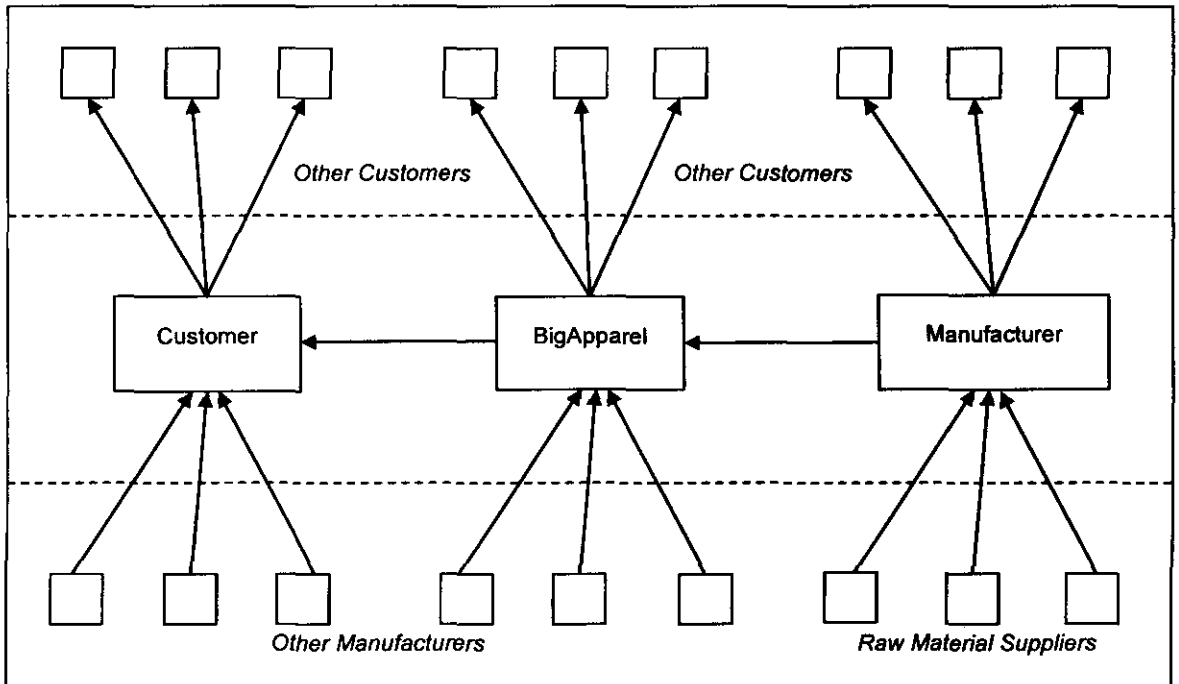
Environmental Factors	<ul style="list-style-type: none"> • Emergence of large retailers and large contract manufacturers over the past decade • Removal of import quota restrictions since 2005 • International labour standards • Cultural diversity among customers (retailers and brand owners) and manufacturers • Strategies of retailers in the wake of the GFC: Reduce cost of operations; consolidation of outsourcing activities (See Table 5-1) • Strategies of some large manufacturers: building increasing numbers of direct relationships with retailers; forward integration into the retail space; engaging in third-party manufacturing (See Table 5-1) • Bankruptcies of retailers during the GFC 		
BigApparel	<p>Corporate Strategy</p> <ul style="list-style-type: none"> • Business focus on one-stop sourcing services for retailers and brand owners based in Europe and America as well as distribution and retailing • Hire BRPs with understanding of regional characteristics of customers and manufacturers • Reducing operational costs in the wake of the GFC 	<p>Competitive Strategy</p> <ul style="list-style-type: none"> • To compete through an acquisition strategy focused on buying other sourcing companies and the sourcing operations of retailers. It also engages in brand acquisition and licensing agreements. • Establishing office locations in key manufacturing bases • Increasing distribution focus in Asia through acquisitions. 	<p>Cooperative Strategy</p> <ul style="list-style-type: none"> • Establishing sourcing agreements with customers of acquired sourcing companies • Establishing sourcing agreements with companies whose sourcing operations have been acquired. • Ensuring a steady flow of business for core manufacturers • Reducing costs for customers through the provision of teams which act as shared resources for customers • Using its trust-based relationships with manufacturers to allow sourcing customers the flexibility of delaying orders as long as possible or even modifying them after the orders have been placed. • Distribution agreements with international brand owners (beyond the scope of this study which focuses on the company's sourcing business).
<p>Financial performance – Annual revenue was over AUD\$ 5 billion in 2009; Weathered the GFC well in spite of some customer insolvencies</p>			

None of the other organizations discussed in Section 5.2.1 have exclusive relationships with BigApparel. The manufacturers do not only supply retail/brand customers through BigApparel but have their own direct relationships with other retail/brand customers as well. Normally BigApparel's customers account for 5% to 50% of a manufacturer's business. Manufacturer strategies may also involve diversifying their businesses and moving into the sourcing space, the core business area for BigApparel (e.g., Manufacturer D).

The customers too do not source exclusively through BigApparel even when they have strong sourcing relationships (in terms of volume) with the company. The strategies of the customers too appear to suggest recognition of the need to mitigate the risks associated with complete reliance on one sourcing partner or one manufacturer.

BigApparel itself has relationships with both a large customer base and a large manufacturer base. This attempt at risk mitigation on the part of all players gives rise to a large number of interconnected relationship portfolios (Figure 5-2). The relationship links in Figure 5-2 are not equally weighted in terms of the volume of business that is associated with each link. The wisdom of relying on a number of weak ties (in terms of volume of business) than on a few strong ones was exhibited during the GFC as manufacturers with a greater number of weak ties were able to survive the insolvency declarations of some major western retailers while others had to close their businesses. This was also a particularly useful aspect of BigApparel’s strategy that allowed it to remain profitable during the GFC when some of its customers declared insolvency.

Figure 5-2 The interconnected nature of relationship portfolios



5.4 Governance of the Portfolio of IORs

5.4.1 Structures

(i) *The Focal Firm's Internal Structures & Boundary Spanning Roles*

BigApparel's three core businesses (sourcing, distribution and retail) are organized into a group structure. A Board of Directors, composed of executive, non-executive and independent non-executive directors oversees the group's activities. It reviews the operations and performance of the group and establishes the overall strategy. The non-executive directors are responsible for ensuring that the Board maintains high standards for mandatory reporting requirements. The Board has established a number of committees which meet a number of times each year to review board composition, financial matters, compensation and risk. In particular, the focus of the risk management committee is related to its external interactions and covers the management of receivables, credit risk, acquisitions, and litigation exposures as well as the management of operational risks. The management is advised by the Board on strategy and has responsibilities for operational matters. These responsibilities include the execution of different elements of business strategy, implementation of risk management procedures, compliance with rules and regulations, and reporting activities.

This study focuses on BigApparel's sourcing business (which involves sourcing finished apparels from low-cost countries for western retailers/brand owners) is responsible for about 80% of its revenue. The sourcing business is organized into a number of divisions which focus on different product categories, as well as logistics, vendor compliance and information technology functions. The business division, vendor compliance and logistics staff act as boundary role persons (BRPs) and liaise with relevant staff in customer and manufacturer organizations. The business divisions are responsible for understanding the requirements of the customers, finding the right vendors, monitoring sample development and production. The vendor compliance function is responsible for ensuring the manufacturers' factories meet compliance requirements before production can begin. The logistics function gets

involved when production is completed and is responsible for liaising with the manufacturer, the customer-nominated forwarder.

(ii) Structure of IORs with Suppliers and Customers

The complexity of BigApparel’s customer relationships arises from the fact that they are flexibly structured long-term agency agreements that favour the customers. BigApparel’s relationships with manufacturers involve implicit agreements based on the expectation that BigApparel will be able provide orders from its customers on an ongoing basis. The key elements of structure from the perspective of BigApparel are summarized in the table below.

Internal/ IOR	Entities	Responsibilities
Internal	<ul style="list-style-type: none"> • Board of Directors 	<ul style="list-style-type: none"> • Development of the overall strategy • Advising management • Maintaining high standards of reporting
	<ul style="list-style-type: none"> • Committees 	<ul style="list-style-type: none"> • Review the management of receivables, credit risk, acquisitions, and litigation exposures as well as the management of operational risks • Review board composition, compensation and financial management
	<ul style="list-style-type: none"> • Management 	General responsibilities: <ul style="list-style-type: none"> • Implementation of different elements of strategy • Reporting • Implementation of risk management procedures • Compliance
Internal – BRPs (sourcing business)	<ul style="list-style-type: none"> • Some are management, others are operational staff 	<ul style="list-style-type: none"> • Senior management responsible for negotiating and signing agency agreements with customers • The business division staff members are responsible for understanding the requirements of the customers, finding the right vendors, monitoring sample development and production. • The vendor compliance staff members are responsible for ensuring the manufacturers’ factories meet compliance requirements before production can begin. • The logistics staff members gets involved when production is completed and is responsible for liaising with the manufacturer, the customer-nominated forwarder
IORs (sourcing business)	<ul style="list-style-type: none"> • Customers and BigApparel 	<ul style="list-style-type: none"> • As defined by flexible but explicit agency agreements
	<ul style="list-style-type: none"> • Forwarders and customers 	<ul style="list-style-type: none"> • As defined by agreements between customers and their respective forwarders. Although there is no agreement between forwards and BigApparel, the company’s logistics staff members need to interact with the forwarders as and when required.
	<ul style="list-style-type: none"> • Manufacturers and BigApparel 	<ul style="list-style-type: none"> • As defined by purchase orders (these relationships are essentially based on implicit agreements)

5.4.2 The Evolution of IORs through Interactions

5.4.2.1 Stages of a Relationship with a Customer

In Chapter 2, interorganizational relationships were discussed as involving three iterative stages: negotiations, commitment and execution. In the case of BigApparel's sourcing relationships, however, there is a variation on this cycle. While long-term agency contracts are established between BigApparel and a customer at the beginning of the relationship, the customer only has to commit to sourcing particular product lines through BigApparel at this point. A commitment regarding the quantity of items to be purchased through the company is only made by the customer prior to each shopping season. Consequently there is no long-term commitment made to relevant manufacturers regarding amounts to be purchased:

"The customer has an agency contract with us. Every season you have to do your best to get as much business as possible. There is no commitment on the customer to give us a minimum business. It is depending on our performance. If you are not performing they go elsewhere. When we receive the purchase order from the customer, we issue the placement memorandum to the manufacturer...This paper acts as the contract between [BigApparel] and the manufacturer. It confirms that there is an order for a particular quantity, the time of delivery, etc. There is no fixed amount of business for a manufacturer. It depends on how the retailer is performing. At the moment, they are all suffering a lot. It also depends on how good we are."

Seasonal commitment requires face-to-face meetings between boundary spanners in customer organizations (buyers) and BigApparel (customer account coordinators and merchandising teams). This may involve buyers travelling to BigApparel's headquarters or vice versa. Developing an understanding of a customer's requirements may require more than one execution cycle:

"When a new customer approaches us the first thing we do is try to understand their channel of distribution, the market they are selling to and the kind of product they are selling and who their competitors are. After we assess that, we look at which manufacturers and which country would be relevant for this particular customer... Understanding the customer is not something you do overnight. It needs a lot of communication, a lot of meetings and understanding before you are capable of serving the customer. So usually the first two seasons are kind of slow and small in terms of understanding what they really want."

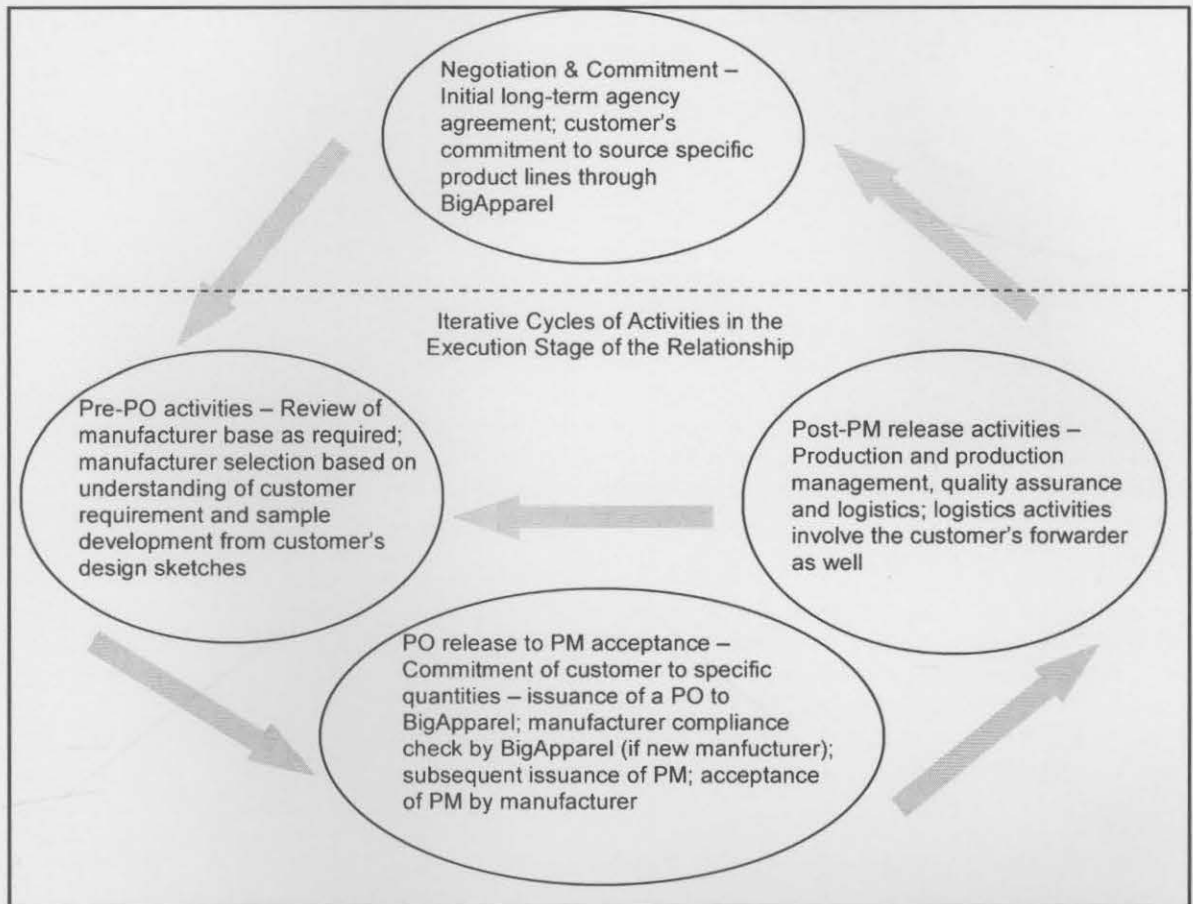
In the absence of any long-term contracts, BigApparel's relationships with manufacturers depend on the former's ability to continue bringing in business from its customer base. The company tries to keep its core manufacturers as occupied as possible with orders from different customers. If one customer cancels an order, the company tries its best to bring the corresponding manufacturer another order from a different customer. Since BigApparel views its relationships with manufacturers as the primary source of its competitive advantage, bringing them sufficient volumes of business is essential for its own continued success.

The evolution of BigApparel's relationship with a sourcing customer is depicted in Figure 5-3. Because of the nature of the agency agreement, the scenario is somewhat more complex than that discussed in Section 2.3.3 on the evolution of interorganizational relationships. This is because the execution stage *not only* involves BigApparel and the customer *but* the relevant manufacturer(s) and the customer's nominated forwarder as well.

The execution stage consists of a cycle involves three distinct sets of activities that require a number of interorganizational interactions. Pre-season planning meetings between BigApparel's merchandisers and a customer's buying staff result in the handing over of design sketches and identification of appropriate manufacturers. These meetings may also involve a review of the manufacturers that the customer has used in the previous season and identification of changes required if necessary. Once a suitable manufacturer (or manufacturers, depending on the size of the expected order) has been identified, sample development activities are undertaken. A satisfactory sample (or samples) must be presented to the customer before the customer commits to actual quantities to be purchased through BigApparel. The commitment is made in the form of a purchase order (PO) given by the customer to BigApparel. Once manufacturer compliance checks are completed, the placement memorandum (PM) is released from BigApparel to the manufacturer. Once the PM is released and accepted production can commence. Quality assurance (QA) activities and logistics are all essential processes in this stage. The pre-PO, PO release to PM acceptance, and post-PM activities are iterative during the course of BigApparel's relationship with a customer. The long-term contract between a customer and

BigApparel may itself be revisited and renegotiated in time. For instance, BigApparel's performance in relation to a particular line of products may result in the customer expanding the number of product lines it sources through the company.

Figure 5-3 The evolution of BigApparel's relationship with a sourcing customer



The table below maps BigApparel's business processes to the generic businesses outlined by Croxton et al. (2001). The associated interorganizational interactions are categorized and discussed in the next two sections.

Table 5-4 BigApparel's Business Processes

Generic VCN business process (Croxtton et al. 2001)	BigApparel's business processes
Customer relationship management	At the <u>strategic level</u> this involves establishing sales and profit targets, reviewing customer markets, categorizing customers, exploring opportunities for bringing new customers on board or expanding the scope of existing agency agreements. At the <u>operational level</u> this involves developing new agency agreements, establishing dedicated account management teams and implementing the agreement.
Customer service management	At the <u>strategic level</u> this involves having established rules and procedures for sample development, order placement, manufacturer compliance, production management, quality assurance and logistics. At the <u>operational level</u> this involves implementing these procedures while taking into account specific requirements that may vary from one customer to another.
Demand management	The company does not undertake any demand forecasting. Recognizing the rapid changes in consumer tastes, its strategy is to give its customers the ability to delay forecasting and ordering decisions as much as possible and reduce their need to hold excess inventory. At the <u>strategic level</u> this means identifying opportunities for bringing its core manufacturers as much business as possible so that they see value in their relationships with the company. At the <u>operational level</u> this allows the company to reserve capacity with yarn suppliers and manufacturers with a promise of the orders to come.
Product development and commercialization	The company is involved in sample development activities together with the relevant manufacturer(s) for each customer. At the <u>strategic level</u> this involves having an established guidelines regarding the membership of the teams that need to be involved in meeting with customers and understanding their requirements, general guidelines for manufacturer selection and procedures for sample development. At the <u>operational level</u> this involves meeting with the customer prior to each shopping season, selection of appropriate manufacturers and sample development.
Manufacturing flow management	At the <u>strategic level</u> this has involved the company implementing an electronic order tracking system that can help its operational staff manage thousands of orders every month in a systematic and standardized manner (i.e., the management procedures are embedded in the system). At the <u>operational level</u> this involves the creation of a time-and-action calendar managing production against it.
Supplier relationship management	At the <u>strategic level</u> this involves reviewing sourcing markets, identifying criteria for categorizing manufacturers, developing metrics for measuring manufacturer performance opportunities for manufacturer development. At the <u>operational level</u> this involves conducting various training sessions for manufacturers, and giving manufacturers advice on how to meet the compliance and quality requirements of their specific customers.
Order fulfilment	At the <u>strategic level</u> this involves having established procedures for generating and modifying placement memoranda as well as for logistics activities. At the <u>operational level</u> this involves receiving a purchase order and generating a placement memorandum, reviewing logistics documentation prepared by manufacturers and instructing manufacturers to hand goods and documentation over to the customer's forwarder when documentation has been reviewed.
Returns management	The company does not have a returns management process

As shown by the above table, there are some overlaps in mapping BigApparel's business processes to the generic ones. For example, production management and sample development are both listed as activities under customer service management. This is essentially because of the nature of BigApparel's business. The company is primarily a service-oriented one, i.e., its core business processes are about providing a series of value-adding services to its customers.

5.4.2.2 Interactions Embedded in Business Processes in the Execution Stage of a Relationship with a Customer

In the execution stage of a sourcing relationship with a customer, BigApparel's business processes require a sequence of boundary spanning interactions between its own staff members and their counterparts in customer and manufacturer organizations.

Once the customer requirements for the upcoming shopping season have been understood through face-to-face meetings, an appropriate manufacturer is selected from BigApparel's relationship portfolio, the core business processes (sample development, manufacturer compliance, order placement, production management, quality assurance and logistics) can then commence. The interorganizational interactions that are an essential for carrying out these core business processes are as follows:

(i) Coordination

Coordination activities generally require the sharing of information both internally within BigApparel and between the company and members of its relationship portfolio. Coordination is facilitated by the use of different tools. The key coordination activities are as follows:

- i. As discussed earlier, face-to-face interactions take place before every shopping season in order to coordinate sample development. This may involve BigApparel staff visiting the customer's buyers or vice versa. In the case of European customers for instance:

“Usually account managers have to fly to Europe for minimum of two times a year, October and March. They sit down with the customers and review the situation and start to prepare the next season. The customer will come to our market a minimum of two times a year, December-January and then June-July. So they have physical meetings a minimum of four times a year. This is based on the seasons.”

Business division leaders may also encourage information sharing between internal teams as well in order to serve the customer better and build the customer’s confidence in the company’s ability to get the job done:

“...most people in my teams have the mentality to exchange information a lot and I am putting a lot of effort to make sure that happens. It is not in their or [BigApparel’s] interests to be competing with each other. They have to make sure they know each other and they work together...So it is very important for the account coordinator, to make sure when he/she goes to Europe, the local managers are meeting the customer at the same time so that they can speak in one voice with the customer. It is also very important that the customer can feel that it is a group of people working together to serve them - not competition among offices. Sometimes, let’s say, Bangladesh is stuck in a certain product, I expect the manager in Bangladesh to tell the customer that he is going to send the request to China and the Chinese team will help the customer. Or if China is stuck in something that the customer expects very low prices that they can’t do, I expect the Chinese team to talk to the account coordinator and make a decision to send that request to another country that can do it better. You need a lot of communication among people to make sure this happens.”

This type of internal interactions between boundary role persons (BRPs) helps to build the customer’s trust on the competence of the company as a whole. The issue of trust is discussed in greater detail in the next section. Once the sample has been developed in the factory of a suitable manufacturer the approval is provided by the buyer to the relevant BigApparel staff.

- ii. The scheduling of manufacturer compliance audits for all manufacturer factories around the globe is done centrally by the manufacturer compliance operations team located in China. This also involves coordination with the manufacturers. If BigApparel selects a new manufacturer for one of its customers, this coordination process involves sharing the expected standards and tools that BigApparel’s compliance staff would use for their audit:

“Prior to the site assessment, we may provide the manufacturer with some information on what’s going to happen – basically who, what, why, where when and how – why we are doing this audit, how it is going to be done, when it will be done, where it will be done, what we require to see, who we require to talk to at the time of the audit.”

The company uses one proprietary enterprise resource planning (ERP) system globally for its internal operations. Once the vendor passes the audit requirements, the status of the vendor is updated in this ERP system as ‘approved manufacturer’. This status update is important for internal coordination since without this approval the merchandising staff cannot issue a placement memorandum (PM) to the manufacturer.

- iii. The merchandisers are responsible for coordinating with vendors and customers during order placement. Once a merchandiser has created a PM it becomes available through the company’s manufacturer portal and an email alert is sent to the manufacturer. At the same time a placement record is created and sent to the customer. Once the manufacturer accesses the portal and accepts the PM an order invoice is generated and checked automatically against the customer’s EDI data. However, some human intervention may still be necessary in this process:

“If the manufacturer has any issue with the order they can call up the merchandiser. Sometimes, even after they confirm it, the customer may change the specification or delivery details. Then there will be an amendment sent to the vendor.”

- iv. The merchandisers are responsible for managing production. This is aided by the automatic creation of a time-and-action calendar in the order tracking module of the company’s ERP system simultaneously with the generation of the PM:

“In terms of flow of information the other tool we have internally is what we call a time-and-action calendar that we have designed for each customer because each customer has a different calendar. We share this time-and-action calendar with the customer and the manufacturer.”

The merchandisers also coordinate with the QA staff in order to make sure that all required quality control audits are conducted in a timely manner. Once the

goods have passed the final inspection and the company's ERP system has been updated, the logistics staff members are able to commence their activities.

- v. Logistics activities are coordinated between the BigApparel staff, the manufacturer and the customer-nominated forwarder:

"When we get the intimation from QA, we contact the respective manufacturer for the relevant documents such as invoice, packing list, country of origin, export certificate, as per the requirements of the customers. We check these documents and if they are in order we ask the factory to hand over the goods to the customer's nominated forwarder. So they will hand over the cargo to the forwarder along with the checked documents. The forwarder does the booking with the airlines or the shipping lines as per the guidelines from the buyer."

Ensuring the completeness of the documentation and accuracy of information in the documents is essential for ensuring the export of the merchandise, preventing seizure by customs in the destination country and/or the non-payment by the customer. The types of documentation that the manufacturers and BigApparel's logistics staff have to deal with vary according to the import regulations of the destination country. A list of key documents and essential information related to shipment and payment are discussed in Appendix F. The customer-nominated forwarder takes on the responsibilities for coordination once the goods are handed over by the manufacturer to the forwarder. Forwarders generally need to coordinate with the local customs officials, shipping lines (or airlines) and possibly other manufacturers. The ultimate goal is to facilitate the physical flow of goods from the manufacturer to the customer according to directions of the customer:

"The forwarder will do the booking with the airlines or the shipping lines as per the guidelines from the customer... Before the booking, the goods need to be cleared through the local customs. The customs broker from the forwarder's company will facilitate the processing of documents at customs. Customs officials will check the merchandise as per the declarations on the documents. They also check the cartons randomly. Once they approve the goods, the cargo can be handed over to the respective shipping lines. There are certain considerations like LCL (less container load) and FCL (full container load). If we [BigApparel's manufacturer] have 20 cartons, this is not enough for a 20 ft container. So the forwarder will wait for the other manufacturers, consolidate and make a full

container load based on the customer's instructions on whether to send as LCL or FCL."

(ii) Monitoring

The key monitoring activities that BigApparel's staff members undertake are sample quality checks, manufacturer compliance checks and quality assurance inspections during and after production:

- i. Once the design sketches have been received from a customer, these are handed over to the manufacturer for development purposes. BigApparel's QA inspectors are present at the manufacturer's factory during sample development. They play an advisory role in the process and provide guidelines regarding testing and technical requirements. They are responsible for ensuring that the quality, styling, colours, and finishing match the customer's expectations. The development process includes converting a customer's paper-based design into CAD format for better visualization and development as well as the selection of appropriate yarns and dyes. Since the ability to get the PO from the customer hinges on getting the sample right, both the staff from BigApparel and the manufacturer put in a great deal of effort into the sample development process. As one decision maker put it quite simply:

"In this business, if you don't provide the right sample you don't get the order."

- ii. Manufacturer compliance checks involve face-to-face interactions with relevant staff at a manufacturer's factory during onsite visits by BigApparel's manufacturer compliance staff. Although the audits are centrally scheduled for the entire global organization, the actual audits are carried out by local BigApparel staff in the countries in which the manufacturers are located. Audit teams generally act as shared resources for multiple customers. This is facilitated by the fact that customer requirements tend to be quite similar:

"... the majority of the requirements are more or less the same for 90-95% of the customers. Only a small part of the requirements is customized. For example, a customer might require every single room in a factory to have a smoke detector. Having a fire extinguisher is not good enough. A customer might also insist that any staircase must have two handrails irrespective of whether it is

narrow or wide. We put the special requirements in our database. When the auditors go out to do the audit they are able to get all the necessary information.”

The corporate social responsibility (CSR) standards guiding the manufacturer compliance audit checklist are presented in Appendix G. The onsite audits ensure that the general requirements based on these standards are met:

“General requirements are no child labour or forced labour. All the workers should work voluntarily. They cannot be forced to do overtime. Overtime payment is 50% more than normal wages. There are some requirements for minimum wages. The factories should follow the local laws including the minimum wage requirements.”

The thoroughness of these audits is essential because lack of manufacturer compliance can have serious negative consequences for the customer’s public image. Each factory may be audited once a year. However, if any issues are identified another visit may be required in 4 to 5 months in order to ensure that compliance has been achieved. When a new manufacturer is brought on board for a particular customer, the merchandisers alert the manufacturer compliance staff so that the compliance process can be completed before a PM can be released. For a factory that is being used by multiple customers, the audits may need to be more frequent and multiple customer-specific audit requirements may need to be verified. Some customers use their own third party compliance auditors and BigApparel staff work with to monitor the relevant manufacturers’ factories. Additionally, QA staff members are trained to notice and report any problems they may notice during their visits to the factory. They notify vendor compliance staff via email using their PDAs.

Sometimes compliance monitoring can bring to light some practices employed by a manufacturer that may be beneficial for others to adopt:

“There are also some good practices. Some factories provide recreational areas for playing table tennis, karaoke. We share this with other manufacturers.”

- iii. BigApparel’s QA inspectors are responsible for conducting initial, interim and final audits once the bulk production commences. The number of interim audits conducted depends on the requirements of the customer. If manufacturing

defects are identified during the audits, they are highlighted to the senior management at the factory. Since the outcomes from each inspection are recorded in the company's ERP system, the QA staff can quite easily keep track of changes implemented by manufacturers based on recommendations during previous inspections. Once manufacturing is completed packaging audits are undertaken to ensure ticketing and packaging accuracy of all orders. At this point there is zero tolerance for errors. Using their PDAs, the QA inspectors can generate inspection reports very quickly and upload these to the ERP system via the vendor portal. When the relevant merchandisers get the reports they can respond immediately either requesting changes or approving the goods for shipment.

Additionally, when a new manufacturer comes on board, QA inspectors conduct a pre-audit technical audit as part of the vendor selection process. This includes checking the factory's production capacity, existing quality management system, manpower and condition of the machinery.

(iii) Strategic Collaboration

In terms of decision making, there is very limited collaboration between BigApparel and members of its sourcing relationship portfolio. Some decisions may be taken together by the customer and BigApparel:

"We communicate the activities and the performance of the manufacturers' factories to the respective customers from time to time. When customers come to our headquarters we work together to review their manufacturer bases [i.e., manufacturers BigApparel's portfolio, currently producing for these customers] – which one they want to move on from, any new suppliers that they want – they work together with us on these strategic decisions."

These decisions regarding the manufacturer base are facilitated by performance records being maintained in BigApparel's ERP system based on QA input.

(iv) Systems Collaboration

BigApparel has been rapidly increasing its system level collaboration with customers and vendors. While its ERP system is not accessible to other organizations, the company is currently linked to many of its customers via a cloud-based EDI solution

(Appendix L) and manufacturers via a commercially available portal solution. As discussed earlier, the manufacturers can login to the portal to accept the PM, thus eliminating the considerable amount of paperwork associated with earlier order placement processes.

The company plans to extend access to the manufacturer portal to customers and forwarders as well. Currently shipping related information is shared directly between the forwarder and the customer as the tracking systems of the large forwarding companies are linked with their customers. This would improve the company's own visibility across its relationship portfolio.

The company also uses a videoconferencing (VC) system. Many of its customers and manufacturers are linked to its VC facilities. The system has helped to reduce the garment fit approval process (part of sample approval) quite dramatically as the company can now display the fit on camera using a dummy and a measuring tape. The system has also been used extensively for training BRPs distributed around the globe.

(v) Supporting Interactions for Manufacturer Development

Apart from interactions that are an integral part of the key business processes, BigApparel helps its manufacturers keep their skills updated through a number of training activities:

- i. The QA teams conduct regular road shows which include product safety seminars and technical seminars on the use of appropriate threads, needles and interlining and dyeing and finishing techniques.
- ii. The manufacturer compliance teams also hold workshops regarding compliance requirements and good practices for manufacturers' factories. Sometimes external factors may determine the need for training sessions:

"Sometimes when there are monumental changes, say for example, in China recently with the contract law - this was a major revamping of their labour law, we had to hold numerous seminars and manufacturer training and education sessions."

- iii. The company is also increasing the scope of its manufacturer development efforts in collaboration with non-governmental organizations (NGOs). The

additional areas of focus include water pollution prevention, energy efficiency and cleaner production.

The enabling interactions, BRPs and organizations involved and media of interaction are summarized in the table below.

Table 5-5 A Summary of Interactions Embedded BigApparel's Business Processes in the Execution Stage of Relationships with Brand Owners			
Type of interaction	BRPs /organizations involved	Relevant media/IOISs or internal ICT based systems	Relevant business processes for BigApparel (Croxtton et al. 2001)
<i>Coordination & monitoring – sample development</i>	Account coordinators, merchandisers (responsible for getting approval from buyer), QA inspectors (present in manufacturer's factory during development), manufacturer's sample development staff, customer's buyer (provides approval)	Coordination – Face-to-face interactions for understanding customer needs and video conferencing for approval of sample Monitoring - Face-to-face at factory location; video conferencing (for approval)	Product development, customer service
<i>Coordination & monitoring – manufacturer compliance</i>	Vendor compliance staff, manufacturer's staff with compliance related responsibilities	Coordination – Factory visits coordinated centrally; manufacturer status update in internal ERP system so that placement memorandum (PM) can be released. Monitoring - Face-to-face at factory locations	Customer service
<i>Coordination – order receipt and communication</i>	Customer's buyer merchandiser, manufacturer	EDI; ERP system; manufacturer portal	Order fulfilment
<i>Coordination – production</i>	Merchandisers, buyer and manufacturer, QA	Time-and-action calendar (generated in the ERP system and then shared)	Manufacturing flow management, customer service
<i>Monitoring – quality assurance during and after production</i>	Merchandisers, QA inspectors, manufacturer	Face-to-face at factory location; Inspection results uploaded by QA inspectors to the ERP system using PDAs, merchandisers approve inspection outcomes	Manufacturing flow management, customer service

<i>Coordination – logistics</i>	Logistics staff, manufacturer, customer's nominated forwarder	Couriers, phone calls (there are plans for all documents are to be uploaded by the manufacturers using the manufacturer portal in the future)	Order fulfilment
<i>Strategic collaboration – reviewing supplier base</i>	Account coordinators, merchandisers, customers' buyers	Face-to-face during visits to the company by the customer's buyers	Customer relationship management
<i>Systems collaboration – EDI solution and portal adoption</i>	BigApparel, customers manufacturers	Cloud based EDI solution adoption for interaction with major customers; linkage with manufacturers via a manufacturer portal (eventually all customers, forwarders and manufacturers are expected to be linked by the manufacturer portal)	Customer and supplier relationship management
<i>Supporting interactions – manufacturer development</i>	QA teams, manufacturer compliance staff, NGOs and manufacturers	Face-to-face (seminars, workshops)	Supplier relationship management

5.5 Development of Trust through Interactions

(i) Interorganizational Trust, Commitment and Risk

The link between trust and commitment is well exhibited in BigApparel's interactions with members of its relationship portfolio. As discussed earlier, a successful sample development process results in the customer's ability to place its trust on the competence of BigApparel and the relevant manufacturer. This results in a commitment in the form of a purchase order. Over time, a customer may come to realize that the performance of BigApparel and its manufacturers are predictable enough (in a positive way), resulting in an updated agency agreement that increases the number of product lines that the customer sources through the company. They may even choose to source some product lines exclusively through BigApparel. Thus reliability based trust seems to result in increased commitments from the company's customers.

BigApparel's also recognizes that its own reliability in bringing a steady volume of business to its core manufacturers is important for it to continue having their trust. From BigApparel's perspective this trust is important because it allows the company to provide its customers with the flexibility of delaying orders or changing specifications once the order has been placed. This reliability based trust is also important if the company expects the manufacturers to invest resources in developing their internal compliance programs:

"What we are trying to do is position ourselves so that compliance is not monitoring only but beyond monitoring - the factory ownership is important. This means that core manufacturers should have their own compliance teams set up in their own organizational structure. This is the only way you can keep compliance sustainable.... You need to gain the trust of these manufacturers - you need to develop a good partnership with them. Otherwise, if the manufacturer does not need you, if they only get one order and there are no more official orders, they are not interested in ownership of the program."

In turn, a certain amount of trust based on the customer's reliability and goodwill is required on the part of the manufacturer as goods generally need to be shipped to the customer's destination before the payment is made by the customer. The risk associated with this type of trust (from the perspective of the supplier) became evident during the GFC. In a particular instance, a supplier revisited his commitment to ship without advance payment:

"Recently there were some insolvency issues. [Customer Name] was one of the biggest. It was a huge group but 60% of the customer went into insolvency, about 40% was left. Since it was the same group the manufacturer refused to ship the goods. Ultimately we approached the customer. The customer wanted the merchandise first. The manufacturer wanted to get paid first. This is still happening. We are still raising the invoices to the customer and they are sending the advance payment."

(ii) Interpersonal Trust

BigApparel's BRPs appeared to have mixed experiences with interpersonal trust across organizational boundaries. Sometimes a customer's buyer may choose to bring their business to BigApparel because he/she has prior experience in working with a senior BRP in one of the business divisions and there is predictability based trust between them. However, this does not ensure that the success of the relationship:

"This particular customer was a friend of mine; we knew each other for 15 years. When she moved to a new company, she called me and said I want to work with you at [BigApparel]. I said, well, let's try. But despite the friendship and the fact that we knew each other for a long time, and in the past we used to work very well together, in this particular case it didn't work. After one year we came to the conclusion that we keep the friendship but don't continue the business."

Sometimes, however, relational trust between a BRP and the customer's staff may help to resolve a problem:

"Recently, one of our manufacturers was delayed in delivering the goods by road to the shipping port. The forwarder was refusing to accept the late delivery without instructions from the buyer. I contacted the buyer – he knew me and trusted me – he agreed to accept the goods when I assured him this manufacturer was reliable and this was a one-time problem."

5.6 Challenges in Governance of the Relationship

Portfolio

Given the size of BigApparel's interorganizational relationship portfolio (over a 1000 customers and over 10000 manufacturers), the challenges to governance of the relationship portfolio is substantial. The key issues are discussed below.

(i) Customer Complexity

Each customer tends to have different processes and within each customer the buyers tend to work differently, thus increasing the level of complexity. Moreover the customer may undergo internal restructuring during the course of the relationship. Being flexible and responsive can be essential for maintaining successful long term relationships with customers:

"Some customers will send us their technical files and we will start working from the technical files. Some will go to the showroom and select collections from the suppliers' collections. Some do a mix. Some send us just a shopping sample they found somewhere in the world that they want to duplicate...Within the same customer each buyer works differently. It is not that much streamlined... With a change of management in the customer company, you have a change of strategy, organization and timetable. One of the keywords

in this business is flexibility and it is even more important in these crisis times. Buyers expect us to be extremely flexible.”

At the micro-level addressing this challenge requires the relevant BRPs at BigApparel to be flexible and responsive and develop a clear understanding of the individual buyers through face-to-face interactions with them prior to each shopping season.

(ii) Customer Diversity

Although most of BigApparel’s customers are generally based in the western hemisphere, regional contexts may result in different emphasis on the relationship between BRPs and consequently between the organizations:

“...for [Southern] European buyers the relationship factor is more important than for American buyers...Particularly in France and Italy it counts a lot. The customer is with [BigApparel] but deals with Mr/Ms A/B/C at [BigApparel]. Sometimes a change in buyer in the customer’s side could lead to your business increasing or dropping. A change of people at [BigApparel] could lead to business dropping or increasing. So the human factor is extremely important.”

The process requirements could also be quite different depending on the regional contexts of the customers. In the case of manufacturer compliance BRPs, for example, this means spending considerably more time on compliance projects for some customers than for others.

“Europeans have more environmental requirements. They have their own compliance programs but they are more lenient in the execution of the program than the US customers. For US customers it is very straight forward. This is my program. I require 100% compliance with this program. For Europeans, if you meet 50% of their requirement it is considered very good. Other 50% they will give you time to reach compliance - completely different style of execution. So strictly speaking, the Europeans prefer to have more dialogue and US customers prefer more action. When you work with Europeans you need to spend longer time on the same project - may be a few months as opposed to a couple of days for US customers.”

BigApparel takes into account the regional variations amongst customers in its internal structuring. Business divisions and supporting functions are not only organised around products but around regions as well. The BRPs also have a variety of regional backgrounds and many are absorbed into the company from its acquisitions of buying offices of customer companies or other buying agents.

(iii) Manufacturer Complexity

Like customers, manufacturers can vary in terms of size and complexity. For manufacturer compliance BRPs from BigApparel, for instance, this means that they have to coordinate their visits and subsequently interact with a varying number of staff members with different job descriptions at the manufacture factories:

“Manufacturer factory size and scale will vary depending on a number of factors. An average factory would be around 500 people and in different countries the scale will vary as well....We would meet with a factory manager, a HR manager, social services (if they have that), a personnel manager or say a health and safety and environmental manager. So it is a cross-functional group that we need to interact with during the visits...If it is a small scale firm, they have to work with fewer resources. In this case we would work with maybe one individual who could be an HR manager or a factory manager.”

(iv) Manufacturer Diversity

Since the manufacturers are also based in different countries, nurturing the manufacturer base may require varying degrees of effort on the part of BigApparel’s BRPs:

“If we take a fashion brand, the fashion understanding [amongst manufacturers] in China is very poor...Then you need more people from our organization to train up the manufacturers, and go to the factories to make sure that they understand the fashionability needs of the customer.... if you go to India, where there is a cultural education about fashion, they will pick up much faster.”

(v) Paper-based Processes and Data Integrity Issues

While the goal is to eventually have EDI linkage with all customers, this is still an ongoing process. Given the volume of orders that the company receives per month and the corresponding amendment requests from the customers, significant amount of manual data entry work may need to be done by some BRPs:

“Sometime merchandisers feel that they are like clerks doing data-entry. This morning a senior merchandiser had 45 PMs that needed amending manually and was not looking forward to it. He feels his job is to develop products not do data entry.”

This, of course, has potential implications for data integrity. Data integrity issues may also arise from the fact that the forwarders' systems are not linked to BigApparel's or the respective customer's systems. While some of the larger forwarding companies are linked directly to their customers this is not the case for all:

"Sometimes the forwarders make mistakes – maybe the purchase order number is wrong or the quantities are not tallying, sometimes they have a different price and we have a different price [in our ERP system]. This can lead to delays [in shipping]."

Since the manufacturers are generally located in developing countries with different infrastructure issues, linking them to BigApparel via the manufacturer portal has also been a challenge, but remains an ongoing effort.

5.7 Opportunities in Governance of the Relationship Portfolio

(i) Manufacturer Diversity as an Opportunity

The region based diversity in manufacturer skills provides an opportunity for segmenting the manufacturer base to suit the requirements of different customers:

"...you have to adapt your attitude and expectations from one country to another. Turkey is a very fast reactive country and extremely fashionable. You don't go to Turkey for the same things as in India, Bangladesh or China. Every country has different strengths and weaknesses...If the customer wants a higher quality garment we won't go to Bangladesh. We will go to Turkey... If the customer is really mass market, based on price, then you have to spend much of your time in Bangladesh."

(ii) Increasing Systems Collaboration

There is scope for improving systems collaboration by eventually having EDI linkage with all customers and providing access to the manufacturer portal to all manufacturers, customers and forwarders. This could reduce data integrity issues significantly. With infrastructure improvements in developing countries, this is expected to be a realizable in the near future.

(iii) Opportunities Arising from the GFC

Although the GFC has brought its fair share of problems for the company, it has also provided opportunities in terms of many retailers looking to cut operational costs and consolidate their sourcing. An increase in the number of customers in the relationship portfolio provides BigApparel with an opportunity of bringing more business to its core manufacturers, thereby further strengthening their trust in the company. The growing strength of Asian economies like China and India also means that there is a scope for increasing the customer base in regions that primarily used to be thought of as manufacturer bases.

5.8 Key Findings

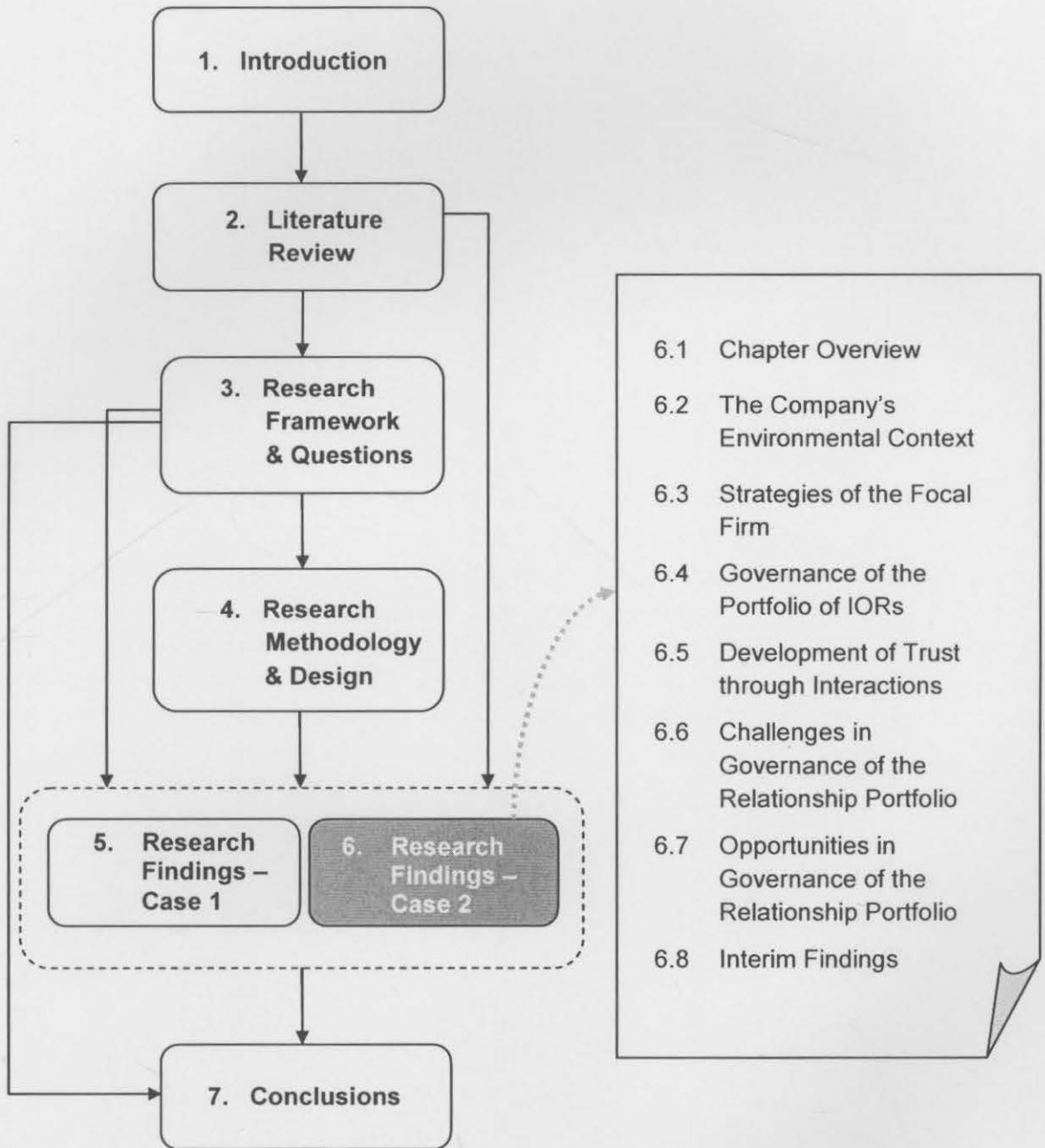
The key findings in the context of the governance of BigApparel's relationship portfolio are as follows:

- The company has well established interorganizational cooperation strategies for maintaining its manufacturer relationships and growing its customer base. Its acquisition based growth strategy has helped in growing its customer base and bringing in more business for its manufacturers. The success of its strategies is evident in its continued ability to generate profits throughout the financial crisis despite the insolvencies of some of its important customers.
- Its relationships with customers are structured through flexible agency contracts. There are no contractual arrangements with manufacturers. The relationships with manufacturers depend on the manufacturers' perception of the company's reliability in continuing to bring in business for them. Reliability is important from the customer's perspective as well as this may result in sourcing consolidation in favour of the company when agency contracts are renewed.
- While there is very little joint decision making, coordination and monitoring interactions across organizational boundaries are essential for the company's business processes. These are aided by the use of the company's proprietary ERP system (for internal coordination), EDI based linkage with customers and a portal

based linkage with manufacturers. However, face-to-face interactions play a substantial role in its business processes.

- The diversity within the customer and manufacturer base poses both challenges to and opportunities for governance. While different approaches to interactions are necessary in the context of diversity, identifying the right manufacturer segments for the right customers can lead to mutually beneficial long term relationships.

6 Research Findings – Case 2: Governance of SubLiquor’s Portfolio of Interorganizational Relationships



6.1 Chapter Overview

This chapter presents findings relevant to SubLiquor's portfolio of direct interorganizational relationships. Section 6.2 discusses the company's external environment in terms of its industry context, the regulatory environment and representative strategies of firms in its portfolio of IORs. Section 6.3 discusses the firm's own strategies with an emphasis on the interorganizational cooperation strategies that drive the governance of its portfolio of IORs. Section 6.4 presents the key aspects of governance in terms of relationship structure and interorganizational interactions embedded in its business processes in the execution stage of a relationship with a brand owner. The section also discusses the development of trust through these interactions. Finally, it also addresses the challenges and opportunities for the company in the context of governance of its portfolio of IORs. Section 6.5 discusses the interim findings.

Note: In accordance with the assurance of strict confidentiality given to each participating interviewee, the quotes used in this chapter do NOT identify the positions of the respective interviewees. This is consistent with the requirements for ethical research at the University of Sydney in cases where strict confidentiality agreements are in place between the participating firm and University researchers. The purpose of the quotes used here is only to illustrate key points from the perspective of participants whose lived experience of the phenomenon of governance of an interorganizational relationship portfolio is being investigated. The structuring of sections and subsections for the case and the associated tables and figures represent the outcomes of the analysis.

6.2 The Company's Environment Context

6.2.1 The Industry

The alcoholic beverage industry includes producers, distributors, wholesalers, hotels, restaurants, and cafés. The production and distribution of alcoholic beverages intersects with the agriculture, trucking, packaging and capital goods manufacturing industries. In its marketing efforts the industry spends heavily on sports, entertainment and advertising. Economic liberalization and associated global and

regional trade agreements have fuelled vertical integration within the industry. There are different degrees of vertical integration of production, distribution and sales within the industry in different countries based on national regulatory environments. (Jernigan, 2009)

The global informal production and trade of alcohol is quite substantial, accounting for about a third of the alcohol consumption in Latin America and Europe, about half the consumption in Africa and about two-thirds of the consumption in the Indian subcontinent (Rehm et al., 2003). According to the International Center on Alcohol Policies (ICAP), only 38% of the recorded global alcohol consumption consists of branded alcoholic beverages (ICAP, 2006). However, the branded alcoholic beverages which conduct regional or global marketing campaigns generally lead the national markets for alcohol (Jernigan, 2001).

While the industry is quite complex, it is generally classified into three key sectors by product: wine, beer and spirits (ICAP, 2006). There has been substantial integration within the industry since the 1950s resulting from a need for portfolio diversification and an increase in geographical presence. Consolidation efforts in the beer and spirit sectors are more advanced than those in the wine sector, where small local producers still dominate (Jernigan, 2009). ICAP identifies four waves of consolidation within the global alcohol industry. The first wave of mergers between the late 1950s and the early 1960s was of limited scope and involved only UK brewers and wine merchants whose consolidation efforts were oriented toward their domestic market. The second wave of mergers took place between 1968 and 1972 and involved leading brewers from other European nations. During this period firms producing processed wines and spirits also began to merge and acquire other firms. Globalization of markets led to the third wave mergers, which took place between 1985 and 1988. During this period, firms that owned spirit brands were targets for acquisition because of the global potential of these brands. Distributors were also targeted for acquisition in the hope that this would allow firms to capture greater value for themselves. The most recent wave of mergers which began in 1998 has seen firms restrict their businesses to a limited number of global brands and apply similar marketing strategies across these brands. This wave of consolidation involves not only firms producing spirits, but

those producing beer and wine as well. Three of the 10 largest global wine marketers, for instance, have significant holdings in beer and/or spirit industries (Barry, 2007).

A few large companies dominate within the global alcohol industry. In 2005, the 26 largest alcoholic beverage companies had a total net revenue of AUD\$ 155 billion and a total operating profit of AUD\$ 26 billion (Impact, 2006). Greater concentration of ownership has coincided with a greater dependence on marketing (Jernigan, 2009). In fact, the advertising focus of global alcohol producers is dominant feature of the global alcohol industry (Jernigan, 2000). While production, particularly in the context of beer, can be easily delegated and distribution coordinated between major players, marketing activities related to the propagation of the brand's identity generally remains in the control of the brand owners.

There are an estimated six million licensed points of sale for alcoholic beverages around the globe (CSFB, 2005). The two categories of distribution channels are referred to as on premise and off premise respectively. On premise outlets are those in which alcoholic beverages are sold at retail for on-premise consumption. In terms of volume, the off premise channel is more important accounting for 66% of beer sales (Euromonitor, 2005a) and 72% of spirit sales (Euromonitor, 2005b) in 2004. However, on-premise outlets take the lead in terms of value of sales due to the considerably higher mark-up on the prices of spirits in restaurants, nightclubs and bars. In developed markets there has been an increasing focus on convenience and low prices (ICAP, 2006). Supermarkets have experienced a strong growth in many product areas including alcohol. However, due to legal restrictions on the sale of alcohol, specialist stores continue to be important in global alcohol sales (Euromonitor, 2005b).

Although there has been extensive debate in the public arena regarding the effects of alcohol on public health, the alcohol industry is seen as a significant source of revenue for governments. According to the market research company International Wine and Spirit Research (IWSR), the sale of alcoholic beverages generated around AUD\$ 38 billion in excise duties for member national governments in the European Union in 2005 (<http://www.europeanspirits.org/OurIndustry/TaxationIndustry.asp>). In the US, industry sponsored research suggests that the beer sector alone generates

around AUD\$ 41 billion in taxes for local, state and federal governments (<http://www.beerservesamerica.org>). The industry also generates significant employment around the globe. Apart from direct employment in production, indirect employment in distribution activities is also significant (ICAP, 2006).

6.2.2 The Regulatory Environment

The liberalization of trade is seen as a challenge to effective alcohol policies since the implications of free trade are increased competition and lower prices which in turn promote alcohol consumption (Zeigler, 2009). For example, the Distilled Spirits Council of the United States (DISCUS) reported the growth of US exports of distilled spirits by 86% to AUD\$ 743 million in 2005 following the Uruguay round of WTO in 1994 (DISCUS, 2006). Regional trade agreements such as the Pacific Island Countries Trade Agreements (PICTA) have deferred inclusion of alcohol and tobacco for a number of years owing to NGO advocacy regarding the negative public health and economic consequences of increased availability and advertising of these products (SHORE, 2006).

From the perspective of the alcohol industry it has become increasingly important to engage in influencing policy for its continued success. The spirits sector is particularly well represented through the US based national trade association DISCUS and the European Spirits Organization (CEPS) in the EU (Zeigler, 2009). Social Aspects Organizations (SAOs), such as ICAP in the US and DrinkWise in Australia, provide the socially responsible public face of the industry. These organizations are generally fully funded by the alcohol industry. Their purpose is to seek to influence public opinion and alcohol policies at national and international levels and also operate and fund prevention programs (Jernigan, 2009). They are generally perceived as part of the branding and promotion strategies of industry players.

6.2.3 Cultural Contexts of Firms in the Company's Portfolio of IORs

While the majority of SubLiquor's customers are based in Australia, its parent company (BigLiquor) is based in Japan. Initially, the senior management in SubLiquor used to be brought in from Japan. According to interviewees, this was a problem for SubLiquor as the Japanese decision makers were quite conservative and

did not understand the needs of the Australian market very well. This has changed in the recent past (about seven years ago) when the current managing director was brought on. The local team has been developed substantially since then and other international brand owners (other than BigLiquor) have been brought on board as suppliers. This has led to a substantial increase in revenue. BigLiquor now operates as a pure holdings company giving SubLiquor sufficient flexibility in developing its strategies for the Australian market.

6.2.4 Strategies of Firms in the Company's Portfolio of IORs

Although strategies of key firms in SubLiquor's portfolio of IORs are reflective of the industry environment, it is useful to consider these in a little more detail as the strategies of these firms provide immediate contextual elements for the firm's own strategies. Based in Australia, SubLiquor, is a wholly owned subsidiary of BigLiquor which is based in Japan. For the purposes of the study, interviews were conducted with staff at SubLiquor and staff members of its SCM service provider who are co-located with SubLiquor's staff. Information about BigLiquor, key customers and brand owners were obtained during interviews with staff from both SubLiquor and the SCM service provider. Publicly available information from these various stakeholders was also analysed as part of the study.

(i) SubLiquor's parent organization BigLiquor

BigLiquor has recently restructured and started operating as a pure holdings company that oversees a group of almost 200 companies and is responsible for developing overall strategies across the group. The companies are grouped into three primary business areas: alcoholic beverages, food and non-alcoholic beverages, and restaurants and other services. In 2010, the company's overall sales amounted to over AUD\$ 20 billion. Its alcoholic beverages business segment accounted for 33% of the value of sales. The food and non-alcoholic beverages business segment and other businesses accounted for 60% and 7% of the value of sales respectively. This study focuses on one of the wholly owned subsidiaries (SubLiquor) in BigLiquor's alcoholic beverages business segment. There is little synergy between companies under different business segments. For example, BigLiquor has recently acquired a

non-alcoholic beverages company in the same geographical location as SubLiquor. However, they are run as very separate businesses:

"There are missed opportunities for synergy across the different companies of BigLiquor. [Company Name] is a recent local acquisition that would have been a massive opportunity for merging procurement, distribution and logistics. But there has been some joint purchasing of workers' compensation and nothing more. Other companies like Phillips use shared logistics and finance across their brands and gets value quicker."

While BigLiquor's strategy as a holding company is to continue the group's growth through mergers and acquisitions and expansion into new businesses in emerging markets, its overall strategy for its global alcoholic beverages business involves an emphasis on the growth in sales of its liqueur, single-malt whisky and cognac brands.

(ii) SubLiquor's Customer A

Customer A is a division of a large Australian company which has a diverse range of businesses ranging from retail to coal mining and insurance operating around the country. The division consists of a food, liquor and convenience retail business operating over 2000 outlets (including over 700 outlets across its three liquor store brands) across the country. SubLiquor is a supplier for the business's liquor stores. In 2010, the business experienced a growth of over 5.0% in its food and liquor store sales. Its annual revenue for 2009-2010 was over AUD\$ 30 billion. It attributes its success during this period to its focus on improving customer service and value as well as improved communication with customers.

(iii) SubLiquor's Customer B

Customer B is also a large Australian company which operates a number of brands in retailing. Its food and liquor business experienced solid growth during 2009-2010 and generated revenue of over AUD\$ 30 billion. All three of its liquor store brands experienced growth during this period. The company has also acquired stake in a brewery and launched an exclusive brand of beer and intends to expand its exclusive range of liquor. It has commissioned new liquor distribution centres in order to increase its capacity to respond to market volatility. It has undertaken successful inventory level reduction measures with respect to its liquor business and is engaged

in growing the business through the opening of around 20 new liquor stores around the country. The company has been growing its direct sourcing business through expansion into more countries and product categories and continues to make improvements in its international logistics capabilities. Its direct sourcing volume grew by over 70% over the past financial year.

(iv) SubLiquor's Customer C

Customer C is a brand umbrella and a subsidiary of a large wholesale distribution and marketing company. It is an outcome of increasing consolidation amongst independent liquor retail brands in Australia. Around 2000 stores (associated with four independent retail brands) operate under its banner around the country. It assists the independent retailers under its banner by increasing their buying power, building and maintaining their standards and compliancy and providing strong marketing support. It is allied with the liquor wholesaling division (which operates as a distinct business) of its parent company. Together with the wholesale division it works with liquor suppliers to provide its retailers with a single supply chain for their product requirements. The web portal developed by the wholesale division facilitates interactions between the suppliers and the retailers. The portal allows retailers to place orders, download invoices and view their order history. It also allows suppliers to view orders, override prices and enter deals. Customer C represents one of the three key independent groups supplied by SubLiquor.

(v) SubLiquor's Brand Owning Partners

SubLiquor provides local distribution and marketing services for a number of international brand owners of a variety of alcoholic beverages. The brand owners are responsible for manufacturing as well as marketing activities through brand-based websites and other media. While the relationships with brand owners tend to be long term, SubLiquor's brand portfolio may change over time. One of SubLiquor's international brand owning partners was recently acquired by another international brand owner. This resulted in three brands distributed by SubLiquor being pulled in-house by the new owner for its own Australian distribution operations. Another brand owning partner recently transferred the distribution of its product to another

distributor in Australia. However, SubLiquor has acquired distribution rights for other international alcoholic beverage brands in the same categories.

Table 6-1 SubLiquor's environment (parent company, representative customer and brand partner strategies)			
	Corporate Strategy	Competitive Strategy	Cooperative Strategy
BigLiquor	<ul style="list-style-type: none"> • Maintain a diverse business focus including manufacturing and marketing of alcoholic and non-alcoholic beverages and food products, and the provision of restaurant and other services • Restructuring to become a pure holdings company overseeing three businesses with a global presence 	<ul style="list-style-type: none"> • In the context of its alcoholic beverages business, to compete by increasing the global profile of its own alcoholic beverages including beers, wines, spirits and ready-to-drink beverages • Strong merger and acquisition strategy for growing its brand portfolio 	<ul style="list-style-type: none"> • In the context of its alcoholic beverages business the company conducts joint operation of distilleries and wineries with a number of international partners which in turn allows it to market and distribute the corresponding brands globally.
	Financial performance – In 2010, the company's overall sales amounted to over AUD\$ 20 billion. Its alcoholic beverages business segment accounted for 33% of the value of sales.		
Customer A	<ul style="list-style-type: none"> • Business focus on food, liquor and convenience retail 	<ul style="list-style-type: none"> • To compete through low prices, customer service and supply chain improvements across all retail businesses including liquor. 	<ul style="list-style-type: none"> • Establishing and maintaining relationships with local and international suppliers based on a relationship policy framework
	Financial performance – In 2010, the business experienced a growth of over 5.0% in its food and liquor store sales. Its annual revenue for 2009-2010 was over AUD\$ 30 billion.		
Customer B	<ul style="list-style-type: none"> • Business focus on a number of retail brands • In the context of its liquor business, it has acquired a stake in a brewery and commissioned a number of liquor distribution centres. 	<ul style="list-style-type: none"> • To compete through low prices, customer service and supply chain improvements across all retail businesses including liquor. 	<ul style="list-style-type: none"> • Sourcing products through a variety of local and international suppliers.
	Financial performance – Very similar to Company A. In 2010, the business experienced a growth of over 5.0% in its food and liquor store sales. Its annual revenue for 2009-2010 was over AUD\$ 30 billion.		
Customer C	<ul style="list-style-type: none"> • Focus on marketing activities for promoting independent retail brands under its umbrella. 	<ul style="list-style-type: none"> • Negotiate competitive retail trading terms with major suppliers and increase the buying power of all members • Build strong retail outlets 	<ul style="list-style-type: none"> • Their competitive strategy is based on cooperation externally with retailers and internally with the liquor wholesale division of its parent company which facilitates interactions between retailers and suppliers
	Financial performance – Varies by retail brand.		

Brand owning partners	<ul style="list-style-type: none"> • Varies by brand owner, but generally the business focus is on production and marketing 	<ul style="list-style-type: none"> • Generally competitive focus is on growing brands globally through various marketing strategies. 	<ul style="list-style-type: none"> • Generally focussed on engaging local distribution and marketing partners
	Financial performance – Varies by brand owner		

6.3 Strategies of the Focal Firm

Based in Australia, SubLiquor is a wholly owned subsidiary of BigLiquor. While BigLiquor sets the overall strategy across its businesses, SubLiquor has considerable flexibility in adapting these strategies to the Australian market. While it markets and distributes BigLiquor’s own brands, it has also chosen to market and distribute a number of alcoholic beverages produced by other international brand owners based in Europe and North America as these brands are well suited to the Australian market. Its range of products includes spirits, liqueurs, wines and ready-to-drink beverages (Appendix H). Reliance on a range of product categories protects the company from effects of sudden tax increases in any one category. The company supplies both off premise and on premise outlets. Off premise outlets include both national retail chains and independent retailers. On premise outlets include bars, restaurants and hotels. Although each national chain accounts for a much larger volume of sale than an independent retailer, the independent retailers are considered to be of great importance by the company. This is because the sales to independent retailers accounts for almost 60% of the value of SubLiquor’s total domestic sales and provide an important alternative when national chains do not follow through on tentative commitments. The company also exports liquor to south-east Asia, the Pacific Islands, New Zealand, United Arab Emirates and India. Most of this growth has been due to increase in sales related to brands other than those of BigLiquor. This is the outcome of a change in management strategy around seven years ago when the current managing director came on board and started developing the local team and bringing a number of international brands on board. Prior to this, the company was more directly controlled by BigLiquor. The company has delegated the management of its logistics and distribution activities to a SCM service provider.

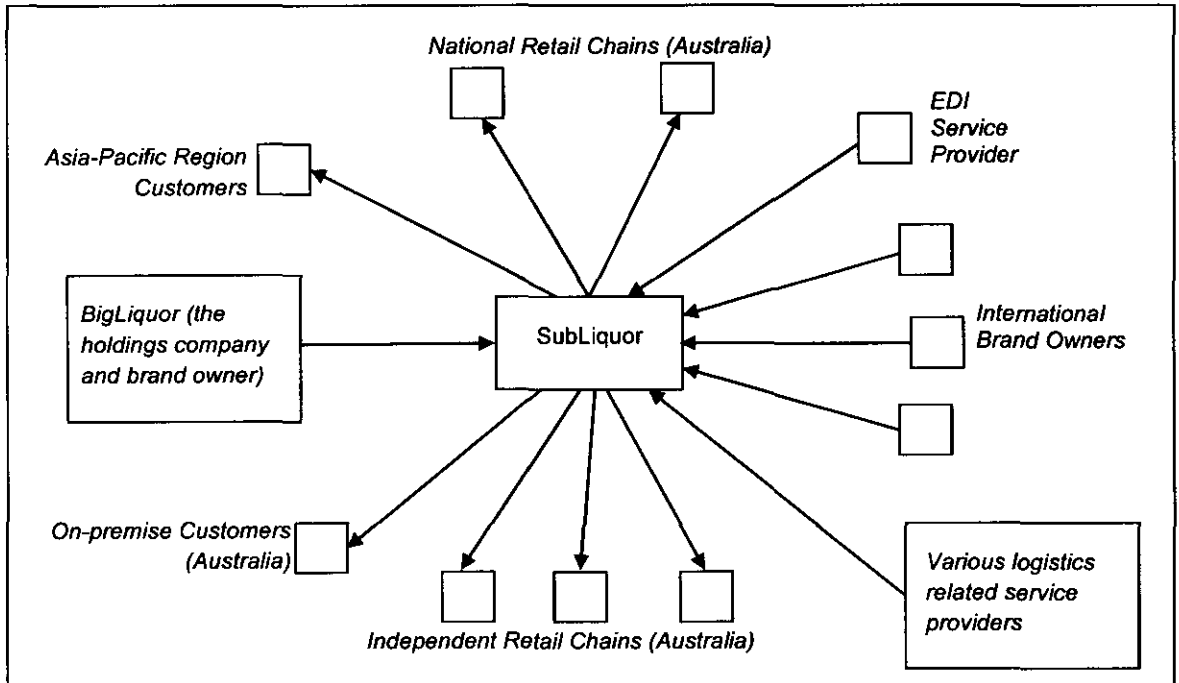
Table 6-2 Key elements of SubLiquor's environment and its strategies

Environmental Factors	<ul style="list-style-type: none"> • A global industry with a large number of brand owners producing and marketing similar products thus presenting a variety of options for SubLiquor's customers when selecting brands and distributors. • Other local distributors with similar brand portfolios and the potential for brand owners to switch to other distributors • Differences in cultural backgrounds between parent company and customer markets • BigLiquor's strategy of increasing the global profile of its own alcoholic beverage brands • Strategies of national retail chains to compete on prices • Regulatory environment in Australia: <ul style="list-style-type: none"> ○ Tax increases on ready-to-drink beverages and a volumetric tax on wine. ○ Spirit industry (through the Distilled Spirits Industry Council of Australia (DSICA – Appendix I) have made a voluntary agreement not to advertise on free to air TV during live sporting events (pressure on Government to ban all alcohol advertising/sponsorship and sport)) ○ More state restrictions including a freeze on new liquor licences in New South Wales (NSW) and increased restrictions on more bars and night clubs (from 48 to 130 venues). Other states now following the NSW lead in increasing restrictions 		
SubLiquor	Corporate Strategy <ul style="list-style-type: none"> • Business focus on marketing and distributing alcoholic beverages (particularly spirits, liqueurs and ready-to-drink beverages) produced by BigLiquor and other brand owners appropriate for the Australian market • Internal restructuring in order to organize around the management of national retail chain accounts and independent retailer accounts. • Invest management time in identifying staff training and development requirements 	Competitive Strategy <ul style="list-style-type: none"> • To compete both in off premise and on premise channels • Maintain the current differentiation of their on premise strategy through their exclusive membership program for bartenders around the country and bartender competitions 	Cooperative Strategy <ul style="list-style-type: none"> • Long term brand partnerships for sustainable growth • To develop and maintain profitable partnerships with key of-trade and on premise accounts through brand building and promotional activities. • Maximising sales representative productivity by focussing on independent retailers where it is possible to have greater influence • To delegate management of inbound and outbound logistics to a SCM service provider.
<p>Financial performance – Its annual revenue has grown from round AUD\$ 60 million in 2004 to around AUD\$ 250 million in 2010.</p>			

Based on a strong interorganizational cooperation strategy in the context of its non-core capabilities, SubLiquor's portfolio of IORs includes a wide range of partners (Figure 6-1). Its reliance on smaller independent customers alongside the national retail chains suggests recognition of the importance of weak ties in terms of volume (especially given the fact that the national chains do not provide any firm

commitments and are difficult to influence). The company also relies on a number of logistics related service providers including a forwarder, a trucking company, a shipping company and a SCM service provider.

Figure 6-1 SubLiquor's Portfolio of IORs



6.4 Governance of the Portfolio of IORs

6.4.1 Structures

(i) The Focal Firm's Internal Structures & Boundary Spanning Roles

SubLiquor's operations are overseen by a managing director. The senior management team consists of general managers for marketing, sales, finance and operations, and human resources as well as a corporate planning direction who represents BigLiquor and has a largely advisory role. The company has over 100 employees. The marketing division reports to the general manager of marketing and is organized around the two key product groups distributed by the company: spirits and liqueurs. The sales division reports to the general manager of sales and is organized around the national retail chain accounts, national independent retailer accounts, and the businesses in different states (including on premise and off premise outlets). The finance and operations division includes the finance, information technology and logistics and

distribution staff. The logistics and distribution staff are supervised by the staff of a SCM service provider who also report to the general manager of finance and operations. The company maintains three distribution centres for storing all domestic, duty free and export products.

(ii) Structure of IORs with Suppliers (Brand Owners) and Customers

SubLiquor’s relationships with international brand owners are structured through long term distribution agreements (three to five years) which spell out the respective responsibilities. With BigLiquor’s own brands, which constitute about 40% of SubLiquor’s distribution portfolio, the agreements stand as long as the brands are still owned by BigLiquor. Even though there is always some uncertainty about contract renewal with other brand owners once distribution contracts end (as discussed earlier, one international brand owner recently decided to bring the distribution activity in house and another decided to shift its business to a different local distributor), the importance of non-BigLiquor brands lies in the fact that they have contributed to most of SubLiquor’s revenue increase over the last five years. There are agreed trading terms with different customers that identify the roles and responsibilities of both parties. Customers issue purchase orders (POs) according to their needs. Since there is no fixed commitment from customers regarding purchase volume, SubLiquor’s marketing and promotion activities are of considerable importance.

The key elements of structure from the perspective of SubLiquor are summarized in the table below.

Internal/ IOR	Entities	Responsibilities
Internal	• Managing Director	• Responsible for setting the direction of SubLiquor with advice from BigLiquor’s representative in SubLiquor and the general managers.
	• General Managers	• Responsible for the overall management of business divisions, namely, sales, marketing, finance and operations, and human resources.
Internal (BRPs)	• Some are management, others are operational staff	• Senior management responsible for negotiating and signing distribution agreements with brand owners • State/territory sales representatives are responsible for visiting on and off premise outlets for promotional activities and understanding customer needs and eliciting orders.

		<ul style="list-style-type: none"> • National retail chain account managers are responsible for interacting with these customers and understanding their needs and eliciting orders • The national independent retail accounts manager has the same responsibility in the context of the accounts managed by him. • The logistics and distribution staff are responsible for assisting the SCM service provider with their supply and distribution management activities.
IORs	• Brand owners and SubLiquor	• As defined by distribution agreements which generally last for three to five years
	• Customers and SubLiquor	• As defined by agreed by open-ended trading terms with national chains and independent retailer groups
	• SCM service provider and SubLiquor	• As defined by consulting services contract (service provider's staff report to SubLiquor's general manager of finance and operations through their team leader).

6.4.2 The Evolution of Interorganizational Relationships (IORs) through Interactions

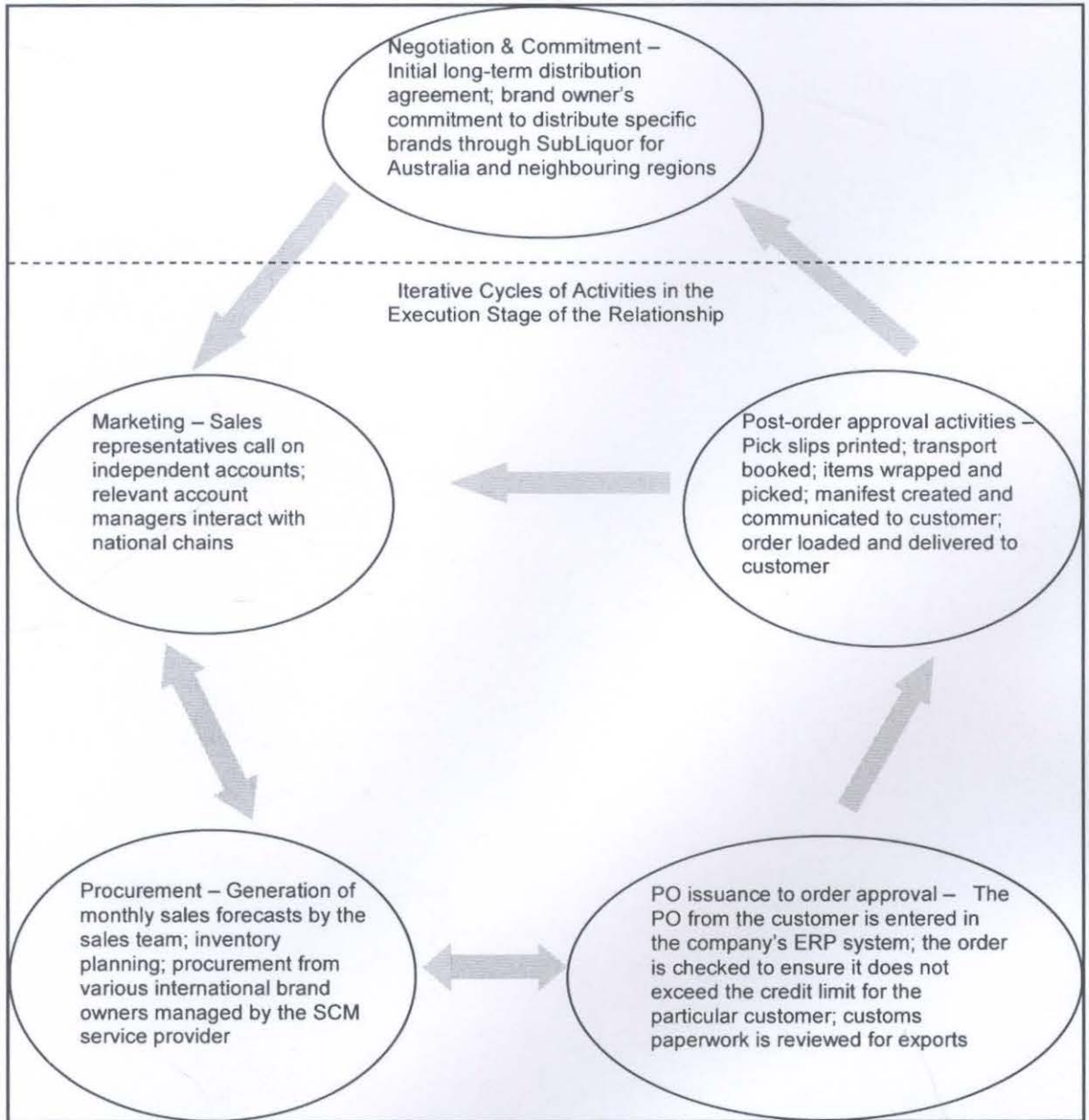
6.4.2.1 Stages of a Relationship with a Brand Owner

As discussed earlier, SubLiquor's distribution agreement with an international brand owner generally lasts for three to five years. At the end of the agreement period the contract is renegotiated and commitments are renewed or a cessation of the relationship occurs. The execution stage of SubLiquor's relationship with a brand owner involves marketing related interactions with a variety of customers based in Australia as well as neighbouring regions. Sales forecasts and inventory planning activities are carried out every month to ensure the availability of stocks. If there is a new brand in the company's portfolio procurement is carried out based on the sales of similar brands. If there are slow moving and obsolete items (SLOBS) on stock, the sales and marketing staff are alerted in order to ensure that these are promoted and sold in time. Procurement and distribution related activities are managed by SubLiquor's SCM service provider. The receipt of products from international suppliers requires the careful checking of the information on a number of documents by the logistics staff.

The customers provide purchase orders which are processed by the SCM service provider's staff and approved by SubLiquor's accounts staff to ensure the order is not

above the customer's credit limit. In the case of international customers, export documents also need to be checked. Orders are generally loaded for delivery to customers from SubLiquor's own warehouses by a trucking company. In the case of the case of ready-to-drink beverages, the local producer delivers from their own warehouses upon receipt of the pick slips from SubLiquor.

Figure 6-2 The evolution of SubLiquor's relationship with a brand owner



6.4.2.2 Interactions Embedded in Business Processes in the Execution Stage of a Relationship with a Brand Owner

(i) Relationship Marketing

The execution stage of the relationship with a brand owner involves marketing interactions with a variety of customers aimed at maintaining long term relationships with them. The key marketing related interactions are as follows:

- i. In the past, sales representatives in each state/territory used to visit both national retail chains and independent retailers. Over the last couple of years, SubLiquor has changed its strategy to improve the productivity of its sales force in light of the fact that independent retailers account for around 60% of the company's sales and there is a greater likelihood of influencing their buying decisions than those of the national chains. A survey of independent liquor stores around Australia by a market research company in 2009 suggested the need for improvement in sales force productivity (Source: SubLiquor's internal conference presentation). The survey showed that the national mean call cycle for the company's representatives (based on respondent feedback) was approximately 6.6 weeks. In comparison, the top three ranked suppliers had an overall average call cycle of 3.9 weeks. While 25% of SubLiquor's customers were satisfied with the call cycle, 56% were dissatisfied. As shown in the table below, the company showed higher overall satisfaction ratings amongst retailers with over \$3 million revenue.

Category	Overall % (Satisfied to very satisfied)	Up to \$1million	\$1-\$2 million	\$2-\$3 million	Over \$3 million
Satisfaction with call cycle	25%	10%	18%	29%	44%
Rep provides detailed info on products, pricing & deals	32%	11%	28%	36%	45%
Rep effectively merchandises, rotates stock & organises credits	25%	5%	22%	28%	39%
Rep delivers commitments on agreed plans & acts with integrity	31%	11%	28%	35%	42%
Rep understands my business by tailoring activities & looks for ways to assist sales & profit	26%	11%	22%	28%	39%

Base: Total number of SubLiquor customers: n=189; Customers with revenue upto \$1m: n=21, \$1-\$2m: n=60, \$2-\$3m: n=69, Over \$3m: n=32

The implementation of the new marketing and sales strategy since 2010 has meant that sales representatives now focus exclusively on the independent retailers.

"The independents are visited by reps [i.e., sales representatives] individually. There are about 300-400 accounts in each state/territory. 20% of the accounts provide 80% of the value. Top assets are visited most frequently. How often reps need to visit sites is based on industry research. Out of the 18000 accounts nationally, reps need to visit 4-5000."

The goal is to call on more independent accounts and more frequently. The aim is also to improve the perception of retailers and make sure that they perceive the visits as having added value to their businesses. The sales force is aided in achieving their objectives by an Excel-based activity tracking tool that has been developed over the past year by the applications support group which is part of the sales division:

"Both planned as well as historical activity can be tracked across states. Amongst other things, the report allows managers to see the effect of special prices...The managing director has made higher productivity a requirement. There is a yearly productivity review. With the activity tracker it is possible to track activities of individual representatives in terms of accounts called three or more times, accounts visited less than two times in three months and accounts planned but not yet visited. Based on this information actionable recommendations can be made."

- ii. The company's on premise marketing efforts are focused on relationship building with on premise outlets through its exclusive membership program for bartenders. The objectives are to support leading bartenders and to improve on premise distribution. The number of members has steadily increased from below 800 in 2007 to over 4000 in 2009. The membership program management team manage a number of activities apart from placing advertisements in the trade press. Members have access to an online resource which provides detailed information regarding SubLiquor's brand portfolio as well as contact details of relevant sales representatives. It also provides information regarding contemporary cocktail trends. Members are also able to participate in educational sessions which help them build their knowledge and skills and

provide them with opportunities to interact with their peers and industry leaders. Members can also participate in bartending competitions that involve creating original drinks using a product from SubLiquor's portfolio.

(ii) **Coordination**

Coordination activities generally require information sharing between SubLiquor and other parties in its relationship portfolio. The key coordination interactions are as follows:

- i. Promotional activities with national retail chains are generally coordinated by the chains. They generally provide SubLiquor with their promotional calendars in advance. There is very little influence that SubLiquor can bring to bear in this context. It can only check if the required stock is available in its warehouses or if there is adequate time to get a replenishment in order to participate in an upcoming promotion.
- ii. Inventory planning requires coordination between SubLiquor's sales division and the SCM service provider's staff. The inventory planning related forecasts are generated in a different system (managed by the SCM service provider's staff) from the sales forecasts (managed by the sales staff).

"For the most important brands, both [inventory planning] system and sales forecasts are taken into account. If there is a mismatch then we check with the sales division regarding possible reasons. If there is an agreement then we goes ahead with procurement. If not, the discussion is escalated to the executive level. The stock holding policy for the particular SKU [i.e., stock-keeping unit] for the next few months needs to be determined. For example, champagne moves fast during summer... For smaller brands the system forecast is more accurate. For more important brands this not the case."

The sales division is also provided with information regarding shelf life of inventory and SLOBs (slow moving or obsolete stock) by the supply chain integration provider's staff.

"The sales and marketing teams need to push the slow moving and obsolete stock somewhere. It is too expensive to send them back. One container can cost more than \$4000AUD depending on the location."

iii. The inbound logistics process is coordinated amongst multiple parties: the brand owner, SubLiquor, its SCM service provider and its forwarder. Customers' orders are generally keyed into the company's ERP system by the SCM service provider's staff and emailed to the brand owner. The brand owner generally confirms the receipt of the order by email or fax within a week to the SubLiquor's logistics coordinator who is co-located with and supervised by the SCM service provider's staff. The coordinator maintains both electronic and paper-based copies of documents sent by suppliers (including bill of lading, commercial invoice, packing declaration and packing lists with lot numbers) for customs clearance purposes. While the goods are in transit finance is also informed by the logistics coordinator as the payment has to be made within 60 or 90 days from the date of invoice (an average of 30 days being spent on water).

SubLiquor's freight forwarder receives information from the brand owner at the same time as the logistics coordinator. They send spreadsheets with weekly updates regarding estimated dates of departure and arrival to the logistics coordinator who updates the vessel names in the company's ERP system. They also send arrival notices to SubLiquor when the goods arrive in Australia. A Nature 20 form (import declaration for product with duty) is required for alcoholic beverages. The forwarder fills out the form and submits the paperwork via the customs website (Appendix J). The lodgement number issued by customs is keyed into SubLiquor's ERP system by the logistics coordinator and an internal document is produced with the amount of import duty to be paid. When the goods are ready for pickup the freight forwarder informs the transport company whose trucks bring the goods to SubLiquor's warehouses.

As is the case with customers and brand owners, in the context of logistics too the importance of long term nature of relationships is emphasized:

"Both the freight and shipping companies have long term relationships with us so they take care of our interests very well."

iv. Outbound logistics processes are also coordinated between multiple parties. Once a customer's order has been entered into the ERP system by the SCM

service provider's staff and checked and released by finance (as long the order does not go over the customer's credit limit), the order information can be made available to the relevant distribution centre and the pick slips printed. Ready-to-drink alcoholic beverages are produced by a local company which has its own warehouses. In this case the pick slips are provided to this company by the SCM service provider's staff. Delivery information is received from the beverage producer on the following day. For all other products, once the pick slips are printed, the transport is booked, the relevant items are picked, checked and wrapped, the manifest is created and communicated to the customer, and the orders are loaded from one of SubLiquor's distribution centres.

(iii) Monitoring

While SubLiquor is not involved in monitoring production activities, it recognizes the importance of monitoring stock levels in its warehouses in order to consistently meet the demands of its customers. This monitoring is undertaken by the SCM service provider's staff who compare out-of-stock issues for different products to the existing forecasts and raise these in sales and operational planning meetings with SubLiquor management.

(iv) Systems Collaboration

Since 2008 the company has begun to establish electronic business links with customers and brand owners (Appendix K). It is currently able to retrieve customer invoices electronically from the File Transfer Protocol (ftp) server of one brand owner via its own application integration server which emails the invoice to its warehouse staff and the SCM service provider's staff. It has established EDI linkages with the national retail chains. It is also able to send purchase order acknowledgements (POAs) and advanced shipping notices (ASNs) automatically to these customers via its application integration server.

The EDI implementation was driven by the adoption of a cloud-based EDI messaging service by the national retail chains (Appendix L). Since the solution is subscription-based, this has not required any additional infrastructure implementation on the part

of SubLiquor. However, EDI linkages with all customers are a long way off since most of the company's customers are not subscribers to this service.

As with EDI, portal based interactions are also driven by customer's capabilities. As discussed earlier, the wholesale division of customer C's parent company provides a web portal that facilitates interactions between the retailers (placing orders, downloading invoices and viewing order history) operating under customer C's brand umbrella and suppliers such as SubLiquor (entering deals and overriding prices).

Type of interaction	BRPs /organizations involved	Relevant media/IOISs or internal ICT based systems	Relevant business processes for SubLiquor (Croxtan et al. 2001)
<i>Relationship marketing – off-premise</i>	Sales representatives independent retail outlets	Face-to-face interactions supported by internal Excel based activity tracking tool	Customer relationship and service management, supplier relationship management (since the suppliers are the owners of the brands being promoted)
<i>Relationship marketing – on-premise</i>	Marketing staff and bartenders who work for various on-premise outlets	Face-to-face interactions; provision of website exclusively for member bartenders	Customer relationship and service management, supplier relationship management
<i>Coordination – Promotion related information sharing</i>	Account managers and buyers for national retail chains	Receipt of promotional calendar from national chains through face-to-face meetings and	Customer relationship and service management, supplier relationship management
<i>Coordination – inventory planning</i>	Sales team and SCM service provider's staff	Face-to-face meetings involving comparison of forecasts created in the sales forecasting and inventory planning systems	Demand management
<i>Coordination – inbound logistics</i>	Supply chain integrator's staff, SubLiquor's logistics staff, the forwarder, the shipping company, the trucking company, the brand owner	Involves email notifications from forwarder, faxes or email exchanges between brand owner and SubLiquor and updates on the internal ERP system by logistics staff	Demand management
<i>Coordination – outbound logistics</i>	SCM service provider's staff, SubLiquor's finance	EDI messaging service, internal ERP system, email	Order fulfilment

	staff, distribution centre staff, trucking company		
<i>Monitoring – out-of-stock issues</i>	SCM service provider's staff, SubLiquor's logistics staff, senior management	Email, face-to-face meetings.	Demand management
<i>Systems collaboration – EDI solution and other tools adoption</i>	SubLiquor, national chains, a brand owner, a wholesaler	Cloud based EDI solution adoption for national chains, ftp server download linkage with one supplier and portal access established with one customer	Customer and supplier relationship management

6.5 Development of Trust through Interactions

(i) Interorganizational Trust

To a great extent, the ongoing relationships between brand owners appears to be based on the competence of SubLiquor in successfully marketing and generating orders for their products over the duration of a contract period. This leads to renewal of contracts when renegotiations occur at the end of a contract period. However, in some instances, brand owners may choose not to continue their relationships with SubLiquor even when the relationship has been successful in terms of the performance of the brand(s). This generally occurs if the distribution is brought in-house by the brand owner or transferred to a distributor with which it has an existing relationship in other western countries. A track record of competence in marketing and brand growth in Australia in a particular product category has proved useful for SubLiquor even when a brand owner has moved to a different distributor. It is generally able to replace one global brand with another in the same category very quickly.

Since there are no fixed commitments from customers, SubLiquor's reliability in assisting the national chains in their promotion activities through timely replenishments is essential to its relationships with them. It has recently been recognized as 'Supplier of the year' in the liquor supplier category by one of the national chains.

SubLiquor has also worked with one forwarding company and one shipping company over a long period of time. Over time it has developed trust on the reliability of these two companies.

(ii) **Interpersonal Trust**

The ability of the retailers to trust in the competence of the sales representatives visiting them is also important to SubLiquor as it is trying to expand its business in the independent retail sector.

6.6 Challenges in Governance of the Relationship

Portfolio

(i) **Inadequate Information Sharing**

While the national retail chains expect efficient replenishment, they themselves do not provide all the necessary information that would aid SubLiquor's planning activities and its maintenance of adequate stocks:

"National chains are not very keen on sharing forecast or sales history... They share their promotional calendar for the next few months with us but they don't tell us how much order they are going to place. Since the products aren't exactly unique, customers can replace products via our competitors."

And:

"The key inventory issue is one of managing safety stock levels. Getting better visibility from the national chains regarding potential demand would be very useful. Data flow is largely unidirectional between the national chains and SubLiquor...The options for us is to either hold higher levels of inventory or miss a sales opportunity. Efficient inventory stock turnover is a challenge because of the need for balancing these two options."

In addition to the inadequate information sharing between organizations, the company's own sales forecasting and inventory planning tools are currently recognized to be inadequate for its needs.

(ii) **Uncertainty Associated with Commitments**

National chains can also choose to not follow through on tentative commitments:

“National chains can commit to special Christmas lines but they can also change their minds.”

This kind of situation can also lead to excess stock which then has to be distributed through independent channels.

The inadequate information sharing and commitment uncertainties have led to a lack of alignment between the perception of the sales staff regarding how far in advance forecasts can be generated and the needs of the SCM service provider’s staff. Given the unpredictability of customers, the sales staff appeared to view the prospect of generating forecasts three months in advance as being almost impossible. This poses a challenge for the service provider’s staff since the procurement process requires longer term forecasts in order to allow for time required for international shipments.

6.7 Opportunities in Governance of the Relationship

Portfolio

(i) Focussing on Independent Channels

The growth of sales through independent channels and the fact that it is possible to have more influence on the decision making of independent retailers been recognized as an opportunity by SubLiquor’s senior management. The sales force is now focussing its attention on visiting more independent retailers and more frequently as well as being perceived as adding greater value to the businesses of these retailers during their visits.

(ii) Increasing Systems Collaboration

Although the systems collaboration is currently fairly limited there are plans for continued efforts in this area:

“Our strategy is to build on and expand the use of e-commerce trading. The benefits would be in order accuracy, timeliness of order processing and freeing of processing resources to deliver more value adding benefits... A web portal is also being planned for other customers who don’t have B2B capabilities.”

(iii) Improving Forecasting Abilities

The need for improving tools as well as staff skills in order to improve forecasting has also been recognized:

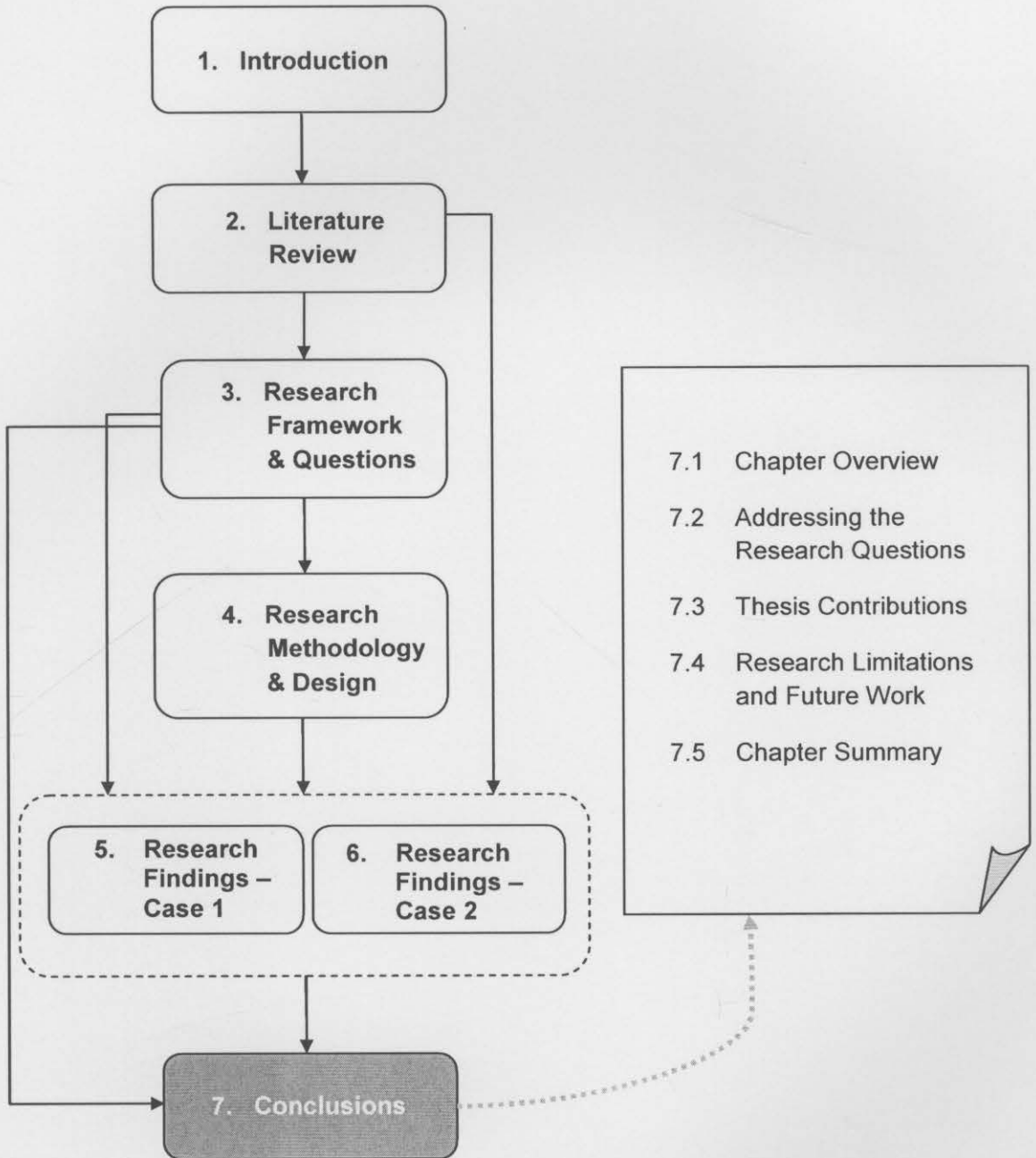
“Cognos has been in use for at least six year for budgeting and forecasting... We need to improve both skills and systems to forecast better. There needs to be more automation and integration between Cognos and the inventory planning system. The reporting capabilities of Cognos are inadequate. A better reporting format is required. The ERP system is being used for reporting. We are currently scoping new business intelligence tools.”

6.8 Key Findings

The key findings in the context of the governance of SubLiquor’s portfolio of IORs are as follows:

- Over time, the company has refined its interorganizational cooperation strategies for maintaining relationships with brand owners as well as for strengthening its relationships with a diverse customer base. The success of its strategies is evident in its revenue growth over the last five years.
- Its relationships with brand owners (suppliers) are structured through distribution contracts of three to five year duration. The relationships with customers involve open-ended trading terms but no firm commitments. The relationships with brand owners is based on SubLiquor’s competence in building the brand in Australia while the company’s reliability in fulfilling orders is important from a customer’s perspective.
- While there are no joint decision making processes, interactions across organizational boundaries are essential for the company’s business processes. These are aided by a number of ICT based tools including the company’s ERP system (for internal coordination), EDI based linkage with some customers, an Excel based activity tracking tool for sales representatives, a sales forecasting system and an inventory planning system. However, face-to-face interactions play a substantial role in its business processes.
- While there are uncertainties associated with lack of information sharing by the national chains, there are opportunities for increasing revenue by focussing on developing the company’s relationships with independent retailers. There are also opportunities for increasing systems collaboration with different partners.

7 Conclusions

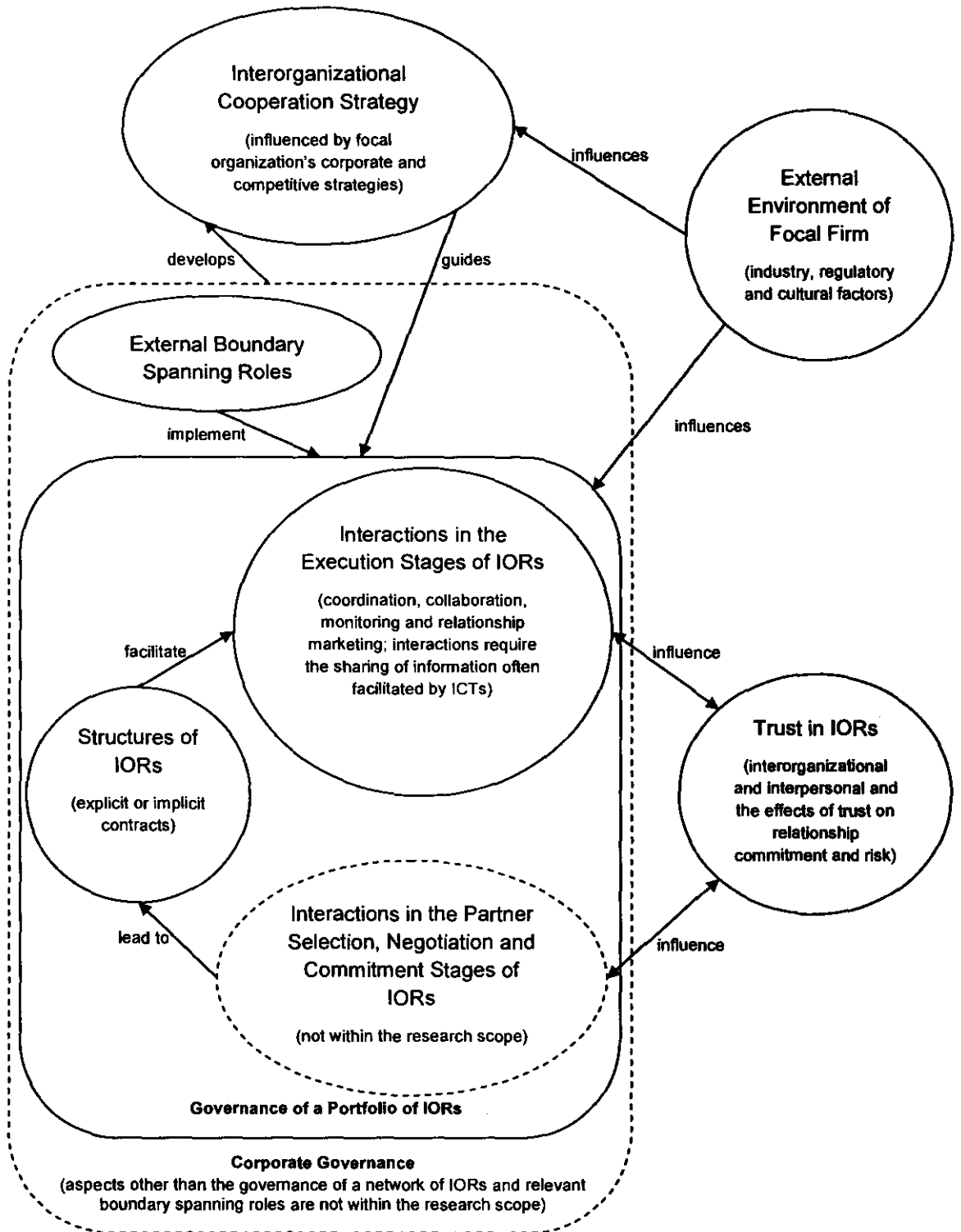


7.1 Chapter Overview

This chapter synthesises the findings presented in Chapters 5 and 6 and addresses the research questions outlined in Chapter 3. The related discussion is presented in Section 7.2. Section 7.3 summarises the contributions of this research. Section 7.4 presents the limitations of this research and the future directions for investigation. This is followed by the chapter summary in Section 7.5.

7.2 Addressing the Research Questions

The following research framework was presented in Chapter 3:



This section addresses the key elements in the above research framework through discussions organized around the following research questions raised in Chapter 3:

- 1) *How does a firm engaging in relationships with globally distributed customers and suppliers, govern its portfolio of direct interorganizational relationships (IORs) with customers and suppliers in a value chain network (VCN)?*
 - (a) *How do a firm's external environment and its interorganizational cooperation strategies influence the governance of its portfolio of direct IORs in a VCN?*
 - (b) *How do firms use ICTs to facilitate interorganizational interactions with customers and suppliers in its portfolio of direct IORs in a VCN?*
 - (c) *What forms of trust emerge during the course of interorganizational interactions and how does trust facilitate these interactions?*
- 2) *Are there performance implications for a focal firm based on how it governs its portfolio of globally distributed direct IORs? If so, how could such a firm improve the governance of its portfolio of IORs?*

These questions are addressed in subsections 7.2.1 and 7.2.2 in the context of the extant literature presented in Chapter 2 and the two case studies presented in Chapters 5 and 6.

7.2.1 Research Question 1

How does a firm engaging in relationships with globally distributed customers and suppliers, govern its portfolio of direct interorganizational relationships (IORs) with customers and suppliers in a value chain network (VCN)?

Based on conceptualizations of corporate governance (Zingales, 2000, OECD, 2007), relational governance in the context of dyadic interorganizational relationships (Zaheer and Venkatraman, 1995) and relational/implicit contracts (Jones et al. 1997, Baker et al., 2002), the governance of a network of IORs has been defined in this thesis as follows:

The governance of a network of interorganizational relationships is driven by its interorganizational cooperation strategy and involves: (i) the establishment of explicit (i.e., formal) or implicit (i.e., relational) contracts which distribute appropriate rights and responsibilities, and rules and procedures that constitute the structures of interorganizational relationships, as well as (ii) ongoing interorganizational interaction processes. It is an essential component of the overall corporate governance of an organization that engages in two or more interorganizational relationships.

Specifically, this thesis has investigated the governance of a *firm's portfolio of IORs in a relational VCN* in the context of two firms: BigApparel, which operates in the apparel and accessories industry, and SubLiquor, which operates in the alcoholic beverages industry. The term 'portfolio' refers to the direct interorganizational relationships of a firm (Das and Teng, 2000, Ozcan and Eisenhardt, 2009).

The two organizations are quite different in a number of aspects. While BigApparel focuses on sourcing, SubLiquor's focus is on marketing and distribution. In the case of the former the brands are owned by the customers whilst in the case of the latter the brands are owned by the suppliers. The two firms are quite different in terms of revenue and number of employees as well. BigApparel generated annual revenue of over AUD\$ 10 billion in 2009 and has over 10,000 employees around the globe. SubLiquor on the other generated annual revenue of around AUD\$ 250 million in 2009-2010 and has just over a 100 employees. Moreover, while BigApparel controls the strategic directions of its subsidiaries centrally, SubLiquor has considerable autonomy over selecting its own strategic direction as the parent company (BigLiquor) operates primarily as a holdings company.

Despite these differences in sizes of the two firms and their business focus, there are a couple of similarities between them as well:

- (i) Both firms have a portfolio of direct IORs which include globally distributed customers and suppliers.

- (ii) In both cases, the governance of these IORs involves structures (i.e., rights and responsibilities) established through explicit or implicit contracts and a variety of interorganizational interactions. These structures and interorganizational interactions are discussed and summarized below.

(i) Structures

This thesis explores the portfolios of IORs of two organizations in relational VCNs. Thus the IORs examined here do not involve rigid contractual mechanisms (Gereffi et al., 2005).

Structures associated with the governance of the respective portfolios of IORs of the two focal organizations are discussed in Sections 5.4.1 and 6.4.1 respectively. The following observations were made based on the data analysis:

- (i) In both cases, the flexible open-ended agreements (agency agreements in the case of BigApparel and terms of trade in case of SubLiquor) with customers are set up to work in the customer's favour in the sense that customers are not required to commit to buying any specific volumes periodically during the course of these multi-year agreements. This allows customers to adjust their purchase levels based on demand. This was particularly important for customers during the global financial crisis (GFC).
- (ii) BigApparel's relationships with its suppliers (i.e., manufacturers) are based on implicit agreements. This involves an understanding between the manufacturers and BigApparel that the company will continually work towards bringing them a certain volume of business. Since the company considers its relationships with manufacturers to be essential to its ability to deliver for its customers, it attaches considerable importance on bringing in business for its manufacturers.
- (iii) SubLiquor's relationships with its suppliers (i.e., brand owners) involve multi-year distribution agreements. Although there is no specific volume commitment for SubLiquor, its continued relationships with these brand owners depend on its ability to increase the distribution of their products in

Australia and the neighbouring region. These relationships are important in order for it to be able to deliver for a diverse customer base as well.

- (iv) While on the macro-level, a firm needs to specify the structures of their relationships with partner firms, on the micro-level they need to specify the roles and responsibilities of different boundary role persons (BRPs) within their firms who are required to facilitate the establishment of the structures of the IORs and/or carry out the ongoing interaction processes across organizational boundaries. This is evident in the case of both firms.

The structures of the IORs and the relevant BRP responsibilities discussed in Sections 5.4.1 and 6.4.1 in the context of BigApparel and SubLiquor are summarized in Table 7-1 below.

Macro/micro	Entities	Responsibilities
Structures of IORs	<ul style="list-style-type: none"> Customers and <i>BigApparel</i> 	<ul style="list-style-type: none"> As defined by flexible but explicit agency agreements
	<ul style="list-style-type: none"> Forwarders and customers 	<ul style="list-style-type: none"> As defined by agreements between customers and their respective forwarders. Although there is no agreement between forwards and BigApparel, the company's logistics staff members need to interact with the forwarders as and when required.
	<ul style="list-style-type: none"> Manufacturers and <i>BigApparel</i> 	<ul style="list-style-type: none"> As defined by purchase orders (these relationships are essentially based on implicit agreements)
	<ul style="list-style-type: none"> Brand owners and <i>SubLiquor</i> 	<ul style="list-style-type: none"> As defined by distribution agreements which generally last for three to five years
	<ul style="list-style-type: none"> Customers and <i>SubLiquor</i> 	<ul style="list-style-type: none"> As defined by open-ended trading terms with national chains and independent retailer groups
	<ul style="list-style-type: none"> SCM service provider and <i>SubLiquor</i> 	<ul style="list-style-type: none"> As defined by consulting services contract (service provider's staff report to SubLiquor's general manager of finance and operations through their team leader).
Facilitating BRPs	<ul style="list-style-type: none"> <i>BigApparel</i> BRPs (some are management, others are operational staff) 	<ul style="list-style-type: none"> Senior management responsible for negotiating and signing agency agreements with customers The business division staff members are responsible for understanding the requirements of the customers, finding the right vendors, monitoring sample development and production. The vendor compliance staff members are responsible for ensuring the manufacturers' factories meet compliance requirements before production can begin. The logistics staff members gets involved when production is completed and are responsible for liaising with the manufacturer, the customer-nominated forwarder
	<ul style="list-style-type: none"> <i>SubLiquor</i> BRPs (some are 	<ul style="list-style-type: none"> Senior management responsible for negotiating and signing distribution agreements with brand owners

	management, others are operational staff)	<ul style="list-style-type: none"> • State/territory sales representatives are responsible for visiting on and off premise outlets for promotional activities and understanding customer needs and eliciting orders. • National retail chain account managers are responsible for interacting with these customers and understanding their needs and eliciting orders • The national independent retail accounts manager has the same responsibility in the context of the accounts managed by him. • The logistics and distribution staff are responsible for assisting the SCM service provider with their supply and distribution management activities.
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This study suggests that firms in relational VCNs may engage in multiple IORs in the context of their core businesses and these relationships may be structured quite differently. For instance, in the case of both BigApparel and SubLiquor the relationships with customers are structured quite differently from those with suppliers. Moreover, in BigApparel’s case the number of product lines included in an agency agreement and the duration of the agreement may vary considerably from one customer to another. In SubLiquor’s case, the number of products included in a distribution agreement and the duration of the agreement may also vary from one brand owner to another. In general, the relationships either rely on implicit agreements or flexible open-ended explicit agreements. Thus for these IORs to be sustainable, the development of trust through ongoing interactions (Section 7.2.4) becomes a necessity.

The extant literature on IORs generally focuses on the macro-level aspects of dyadic relationships. This study goes a step further and identifies the contributions of BRPs with a variety of responsibilities in facilitating these IORs. Some BRP responsibilities may have to be designated when the structure of the IOR is agreed upon by a focal organization with a new customer. In the case of BigApparel, account coordinators have to be designated when a new customer comes on board. In SubLiquor’s case a change of strategy resulting in a greater focus on the business of independent retailers has led to the appointment of new account coordinators and a change in the responsibilities of sales representatives in the local states and territories. In general, BRPs function at various levels in a focal organization and have responsibilities ranging from contract negotiations with customers to the day-to-day interactions

across organizational boundaries. These interactions are essential for carrying out the essential business processes of the focal firm.

(ii) Interorganizational Interactions

In this thesis interorganizational interactions have been defined as follows: *On the macro-level, interorganizational interactions in business networks are voluntary activities between organizations undertaken with the purpose of establishing or maintaining interorganizational relationships and generating benefits for the stakeholders involved. These activities may involve the transfer of intangible items such as information and knowledge or tangible items (physical goods/services/cash) or both. Perceived at the micro-level, interorganizational interactions, in essence, involve voluntary activities between boundary role persons separated by organizational boundaries.*

Gereffi et al. (2005) suggest that relational VCNs depend on a rich array of interactions. Four types of interorganizational interactions relevant to the execution stage of an IOR have been discussed in Chapter 2 based on the extant literature: coordination, collaboration, monitoring and relationship marketing. All four types of interactions have been identified in the data. Specific interactions in relation to BigApparel and SubLiquor have been discussed in Sections 5.4.2 and 6.4.2 respectively and synthesized here:

- (i) **Coordination:** This is broadly defined by Malone and Crowston (1994) as “*managing dependencies between activities*” (p. 88). In order to distinguish this from collaboration, which is viewed as a type of coordination, this thesis both extends and narrows the definition of Malone and Crowston as follows: **Coordination across interorganizational boundaries is the management of dependencies between *sequential* activities (including planning and forecasting) undertaken by organizations that are participating in interorganizational relationships.** The term ‘sequential’ distinguishes this definition from that of strategic collaboration which involves the joint undertaking of activities. Information sharing is an important mechanism in the management of such dependencies.

Observations made in the context of this study: A number of coordination activities have been identified in the context of both BigApparel and SubLiquor and summarized in Table 7-2. Coordination related information sharing across internal boundaries within an organization was also seen to be important in supporting coordination across interorganizational boundaries. For example, in BigApparel's case the quality assurance inspectors need to upload the results of inspection conducted at a manufacturer's factory onto BigApparel's ERP system so that the logistics staff are alerted and can proceed with logistics related coordination with the manufacturer's logistics staff.

- (ii) **Collaboration:** This type of interaction has been seen as a form of managing dependencies between activities (i.e., coordination) which requires participants to be working jointly on issues of mutual benefit (Malone and Crowstone, 1994, Miles et al., 2005). Two types of collaboration have been identified by Kim and Lee (2010): (i) systems collaboration and (ii) strategic collaboration. This thesis adopts the classification of Kim and Lee (2010) and provides the following expanded definitions: (i) **Strategic collaboration between organizations is the extent to which these organizations undertake relevant strategic activities (such as demand forecasting, planning, technology development, problem resolution, etc.) jointly while taking into account each other's long term success.** (ii) **Systems collaboration is the extent to which organizations strive to make and keep their communication systems compatible with partner firms in order to facilitate other interorganizational interactions.**

Observations made in the context of this study: While there is substantial coordination activity undertaken by both companies, there is very little strategic collaboration between the two focal companies and their trading partners. This may be characteristic of the industries in which the two firms operate. The type of collaboration in technological innovation necessary amongst high-technology firms (e.g., (Malhotra et al. (2001)) may not be essential in relatively low-technology environments. Systems collaboration appears to be ongoing in both relationship portfolios but appears to be driven by more downstream partners as discussed in Section 7.2.3.

- (iii) **Monitoring:** Based on the extant literature on monitoring partner firms for compliance against international standards (Bremer and Udovich, 2001) or for the purpose of limiting opportunistic behaviour (Kim et al., 2006), the term has been defined in this thesis as follows: **In an interorganizational relationship, monitoring involves the gathering of information by one organization from another as well as associated decision making to ensure that the other party performs as expected in a given context.**

Observations in the context of this study: Monitoring activities are particularly important in the context of BigApparel which undertakes the monitoring of suppliers on behalf of its customers. SubLiquor is not responsible for monitoring the processes of brand owners (i.e., their suppliers) on behalf of their customers. The primary monitoring activity in the context of this company is the one undertaken by its SCM service provider of SubLiquor's warehouse stock to ensure the company is able to meet the expectations of its customers in a timely manner.

- (iv) **Relationship marketing:** This has been described as: "*all marketing activities directed toward establishing, developing, and maintaining successful relational exchanges*" (Morgan and Hunt, 1994, p. 22).

Observations in the context of this study: Relationship marketing activities were found to be particularly important for SubLiquor because of its business focus on marketing and distribution. These activities varied based on the type of customer (i.e. off-premise or on-premise). Such activities were not found to be significant in the context of BigApparel.

- (v) An additional type of interaction was found in the context of BigApparel which could not be satisfactorily classified as coordination, collaboration, monitoring or relationship marketing. These interactions relate to training and development of the manufacturer base and are part of the supplier relationship management category of business processes. It is useful to note that it was possible to map **all** the interorganizational interactions identified in the study to one of the business process categories identified by Croxton et al. (2001), even though the

supporting interaction of manufacturer training could not be easily mapped to one of the four interaction categories identified from the literature. It is referred to as a supporting interaction in this thesis as it facilitates other interactions between BigApparel and the manufacturers.

A number of BRPs were found to participate in the interactions between the focal organizations and organizations in their portfolios of IORs (Table 7-2). Many of the interactions were conducted face-to-face in the context of both organizations but these were often supported by information flows through internal or interorganizational systems (IOISs) which are discussed in more detail in Section 7.2.3.

The interorganizational interactions identified in the context of the two organizations are summarized in the table below according to interaction type.

Table 7-2 Interactions Embedded in the Execution Stage of BigApparel's IORs with Customers and SubLiquor's IORs with Brand Owners			
Type and purpose of interaction	BRPs /organizations involved	Relevant media/IOISs or internal ICT based systems	Relevant business processes (Croxtan et al. 2001)
Coordination (BigApparel)			
<i>Coordination – sample development</i>	Account coordinators, merchandisers, customer's buyer	Face-to-face interactions for understanding customer needs and video conferencing for approval of sample	Product development, customer service
<i>Coordination – manufacturer compliance</i>	Vendor compliance staff, manufacturer's staff with compliance related responsibilities	Factory visits coordinated centrally; manufacturer status update in internal ERP system so that placement memorandum (PM) can be released.	Customer service
<i>Coordination – order receipt and communication</i>	Customer's buyer merchandiser, manufacturer	EDI; ERP system; manufacturer portal	Order fulfilment
<i>Coordination – production</i>	Merchandisers, buyer and manufacturer, QA	Time-and-action calendar (generated in the ERP system and then shared)	Manufacturing flow management, customer service
<i>Coordination – logistics</i>	Logistics staff, manufacturer, customer's nominated	Couriers, phone calls (there are plans for all documents to be	Order fulfilment

	forwarder	uploaded by the manufacturers using the manufacturer portal in the future)	
Coordination (SubLiquor)			
<i>Coordination – Promotion related information sharing</i>	Account managers and buyers for national retail chains	Receipt of promotional calendar from national chains through face-to-face meetings and	Customer relationship and service management, supplier relationship management
<i>Coordination – inventory planning</i>	Sales team and SCM service provider's staff	Face-to-face meetings involving comparison of forecasts created in the sales forecasting and inventory planning systems	Demand management
<i>Coordination – inbound logistics</i>	Supply chain integrator's staff, SubLiquor's logistics staff, the forwarder, the shipping company, the trucking company, the brand owner	Involves email notifications from forwarder, faxes or email exchanges between brand owner and SubLiquor and updates on the internal ERP system by logistics staff	Demand management
<i>Coordination – outbound logistics</i>	SCM service provider's staff, SubLiquor's finance staff, distribution centre staff, trucking company	EDI messaging service, internal ERP system, email	Order fulfilment
Monitoring (BigApparel)			
<i>Monitoring – sample development</i>	QA inspectors, manufacturer's sample development staff,	Face-to-face at factory location	Product development, customer service
<i>Monitoring – manufacturer compliance</i>	Vendor compliance staff, manufacturer's staff with compliance related responsibilities	Face-to-face at factory locations	Customer service
<i>Monitoring – quality assurance during and after production</i>	Merchandisers, QA inspectors, manufacturer	Face-to-face at factory location; Inspection results uploaded by QA inspectors to the ERP system using PDAs, merchandisers approve inspection outcomes	Manufacturing flow management, customer service
Monitoring (SubLiquor)			
<i>Monitoring – out-of-stock issues</i>	SCM service provider's staff, SubLiquor's logistics staff, senior management	Email, face-to-face meetings.	Demand management

Collaboration (BigApparel)			
<i>Strategic collaboration – reviewing supplier base</i>	Account coordinators, merchandisers, customers' buyers	Face-to-face during visits to the company by the customer's buyers	Customer relationship management
<i>Systems collaboration – extension of EDI and manufacturer portal access</i>	BigApparel, customers manufacturers	Cloud based EDI solution adoption for interaction with major customers; linkage with manufacturers via a manufacturer portal (eventually all customers, forwarders and manufacturers are expected to be linked by the manufacturer portal)	Customer and supplier relationship management
Collaboration (SubLiquor)			
<i>Systems collaboration</i>	SubLiquor, national chains, a brand owner, a wholesaler	Cloud based EDI solution adoption for national chains, ftp server download linkage with one supplier and portal access established with one customer	Customer and supplier relationship management
Relationship Marketing (SubLiquor)			
<i>Relationship marketing – off-premise</i>	Sales representatives independent retail outlets	Face-to-face interactions supported by internal Excel based activity tracking tool	Customer relationship and service management, supplier relationship management (since the suppliers are the owners of the brands being promoted)
<i>Relationship marketing – on-premise</i>	Marketing staff and bartenders who work for various on-premise outlets	Face-to-face interactions; provision of website exclusively for member bartenders	Customer relationship and service management, supplier relationship management
Supporting Interactions (BigApparel)			
<i>Supporting interactions – manufacturer development</i>	QA teams, manufacturer compliance staff, NGOs and manufacturers	Face-to-face (seminars, workshops)	Supplier relationship management

While the identified interaction categories have been investigated in the context of the IOR portfolios of these two focal companies, they may be just as applicable to other

companies operating in other industries. Further research is necessary to investigate the applicability of these categories in other industry contexts.

7.2.2 Research Question 1(a)

How do a firm's external environment and its interorganizational cooperation strategies influence the governance of its portfolio of direct IORs in a VCN?

(i) External Environment

Three aspects of the external environment of both focal firms have been discussed in detail in section 5.2 and 6.2. These include their industry, regulatory and cultural environments. Strategies of key firms in their portfolios of IORs have also been discussed in some detail although these firms are essentially part of the industry environment of the focal organizations and have a more immediate impact on the focal organizations.

Industry environment:

Both BigApparel and SubLiquor operate in industries where retailers and brand owners have more power than the focal companies. This is because the distribution of decision making authority is a determinant of an organization's power in a network (Lehman, 1975). In both industries, brand owners are focussed on their global marketing efforts and generally choose to delegate non-core activities to trading partners. The GFC had both negative and positive outcomes for BigApparel because of the effects on its customers. While some customers declared bankruptcy, BigApparel benefitted from the operational cost-cutting measures of others. One customer, for instance, has chosen to close its sourcing offices and consolidate its sourcing through BigApparel. In SubLiquor's case it is easier to replace one global brand owner with another if the distribution contract is lost to another distributor or brought in-house by the brand owner as there are a number of global brand owners with the same or similar product lines. While SubLiquor has to consider competition from other distributors or the brand owners themselves (in some instances), BigApparel has to compete with the buying offices of retailers which have access to

the same sourcing markets as well as contract manufacturers who are also capable of providing customers with sourcing services.

Regulatory environment:

While SubLiquor is primarily concerned with the regulatory environment in Australia, BigApparel has to stay abreast of international labour standards and the specific requirements of its customers who are mostly based in developed countries (Appendix G). This is because the latter is responsible for ensuring manufacturer compliance while the former is not. BigApparel has also benefitted from the removal of quota restrictions related to the apparel trade. This has meant that western retailers/ brand owners have greater flexibility of sourcing from low cost countries where BigApparel maintains sourcing offices. In SubLiquor's case the tax increases across some alcohol categories in Australia has required it to shift its distribution focus to other brands. The company also engages in lobbying activities through the Distilled Spirits Industry Council of Australia (Appendix I).

Cultural contexts of firms in the IOR portfolios of the focal companies:

The cultural contexts of firms in their IOR portfolios seem to have been important considerations in the hiring of boundary role persons (BRPs) in both companies.

Most of the firms in BigApparel's portfolio of IORs are based in the western hemisphere in Europe or North America. The quality of the interpersonal relationships between BRPs at BigApparel and those in customer firms appear to be of greater importance from the perspectives of European customers than American ones. Manufacturers too tend to display varying levels of skills and cultural awareness of fashion based on the countries in which they are based. Manufacturers in Turkey, for example, tend to be far better suited for customers who require highly fashionable garments than manufacturers in Bangladesh who are ideal for producing mass market apparels. The abilities of BRPs to deal with this diverse set of IORs are important from the perspective of BigApparel. It generally hires staff locally for its offices in all regions where its manufacturers are based. It also hires BRPs based on their experience in and dealing with customers from different regional backgrounds.

While the majority of SubLiquor's customers are based in Australia, its parent company (BigLiquor) is based in Japan. Initially, the senior management in SubLiquor used to be brought in from Japan. According to key interviewees, this was a problem for SubLiquor as the Japanese decision makers were quite conservative and did not understand the needs of the Australian market very well. BigLiquor now operates as a pure holdings company giving SubLiquor sufficient flexibility in developing its strategies for the Australian market. SubLiquor now has a primarily local senior management team who have brought on board a number of international brand owners whose products are more suitable for the Australian market. This has led to a significant growth in revenue.

Generalizability of findings on a firm's external environment:

While the discussion here has been specific to the IORs of these two companies, these issues could be just as relevant to other companies operating in the same industries. Regulatory factors (such as international labour laws) and cultural backgrounds of trading partners could be applicable to players in other industries as well. The key aspects of these environmental factors for both focal companies in this study are summarized in Table 7-3.

(ii) Strategies

In Chapter 2, three interrelated aspects of a company's overall strategy have been identified: corporate, competitive and interorganizational cooperation strategies:

- (i) Corporate strategy is concerned with the selection, resourcing and control of businesses and operational areas (Bowman and Faulkner, 1997).

As seen in the case of some customers of BigApparel, a company's decision to focus on a particular area of business (e.g., design and marketing) may suggest the need for interorganizational cooperation in related areas (e.g. sourcing).

- (ii) The two streams of thought on competitive strategy focus on the importance of industry structure and an organization's unique capabilities and resources respectively. Porter's (1985) notion of competitive strategy highlights how a firm can gain superior profits by pursuing generic strategies, such as cost

leadership or differentiation, in ways that suit the industry structure within which it operates. The second perspective on competitive strategy emphasizes how a firm's unique resources and capabilities – which are difficult to imitate – can be combined to deliver a valued product (Collis, 1996). However, maintaining cost leadership or differentiation may require interorganizational cooperation (e.g., the involvement of suppliers based in countries where the cost of labour is low).

Having a set of unique core capabilities also does not obviate the need for reliance on the resources of others. As seen in the case of both companies their ability to compete depends on cooperation with other companies. Not being a manufacturer itself, BigApparel needs the capabilities of the manufacturers in its portfolio of IORs in order to be able to compete for sourcing relationships with customers in the western hemisphere. SubLiquor too needs its relationships with a range of international brand owners in order to continue increasing its revenues in the Australian and regional markets. In both cases the competitive advantage of the focal firm arises from the complementary capabilities embedded in its IORs. This is keeping with the relational view of competitive advantage (Dyer and Singh, 1998) discussed in Chapter 2.

According to the social exchange theory perspective, an organization has greater power if it has access to alternative relationships in a network that can provide it with the same resources (Cook, 1977). BigApparel's strategy of acquiring the sourcing arms of western retailers as well as other apparel sourcing companies in Asia appears to be aimed at reducing this power of retailers. The GFC appears to have helped the company in this effort as retailers increasingly attempt to consolidate their sourcing arrangement. Their dependence on BigApparel and the manufacturers in its portfolio results in increasing the power of the company. The fact that there are multiple manufacturers in its portfolio of IORs also increases BigApparel's power. However, the manufacturers also tend to have multiple direct customer relationships of their own. This helps to restore some of the balance of power in their relationships with BigApparel.

In SubLiquor's case the retailers have greater power as they can access similar products through multiple distributors/brand owners. For the company this necessitates ongoing brand building activities and the development of strategic relationships with international brand owners.

- (iii) Child et al. (2005) describe interorganizational cooperation strategy as *“the attempt by organizations to realize their objectives through cooperation with other organizations rather than in competition with them. It focuses on the benefits that can be gained through cooperation and how to manage the cooperation so as to realize them. A cooperative strategy can offer significant advantages for companies that are lacking in particular competencies or resources to secure these through links with others possessing complementary skills or assets; it may also offer easier access to new markets, and opportunities for mutual synergy and learning”* (p.1).

Interorganizational cooperation is necessary for both companies as neither engage in manufacturing activities. However, they have skills and competencies that are complementary to their customers and suppliers. One important aspect of the cooperation strategies of both companies is the reliance on multiple customers with whom there are different tie strengths in terms of volume of business. This has proved to be a successful strategy for both companies helping them to weather the GFC and continue increasing their revenues. Their success has been achieved despite the insolvency of some of BigApparel's major customers during this period and the lack of fixed commitments from SubLiquor's major customers. This observation has some resonance with Uzzi's (1997) findings regarding the importance of both weak and strong ties in relationship portfolios.

Key environmental factors and elements of strategy for both companies are summarized in Table 7-3 below.

Table 7-3 Key elements of the external environments and the strategies of BigApparel and SubLiquor

	<i>BigApparel</i>	<i>SubLiquor</i>
External environment	<ul style="list-style-type: none"> • Emergence of large retailers and large contract manufacturers over the past decade • Removal of import quota restrictions since 2005 • International labour standards • Cultural diversity among customers (retailers and brand owners) and manufacturers • Strategies of retailers in the wake of the GFC: Reduce cost of operations; consolidation of outsourcing activities • Strategies of some large manufacturers: building increasing numbers of direct relationships with retailers; forward integration into the retail space; engaging in third-party manufacturing • Bankruptcies of retailers during the GFC 	<ul style="list-style-type: none"> • A global industry with a large number of brand owners producing and marketing similar products thus presenting a variety of options for SubLiquor's customers when selecting brands and distributors. • Other local distributors with similar brand portfolios and the potential for brand owners to switch to other distributors • Differences in cultural backgrounds between BigLiquor and customer markets • BigLiquor's strategy of increasing the global profile of its own alcoholic beverage brands • Strategies of national retail chains to compete on prices • Regulatory environment in Australia: <ul style="list-style-type: none"> ○ Tax increases on ready-to-drink beverages and a volumetric tax on wine. ○ Spirit industry (through the Distilled Spirits Industry Council of Australia (DSICA – Appendix I) have made a voluntary agreement not to advertise on free to air TV during live sporting events (pressure on Government to ban all alcohol advertising/sponsorship and sport)) ○ More state restrictions including a freeze on new liquor licences in New South Wales (NSW) and increased restrictions on more bars and night clubs (from 48 to 130 venues). Other states now following the NSW lead in increasing restrictions
Corporate strategy	<ul style="list-style-type: none"> • Business focus on one-stop sourcing services for retailers and brand owners based in Europe and America as well as distribution and retailing • Hire BRPs with understanding of regional characteristics of customers and manufacturers • Reducing operational costs in the wake of the GFC 	<ul style="list-style-type: none"> • Business focus on marketing and distributing alcoholic beverages (particularly spirits, liqueurs and ready-to-drink beverages) produced by BigLiquor and other brand owners appropriate for the Australian market • Internal restructuring in order to organize around the management of national retail chain accounts and independent retailer accounts. • Invest management time in identifying staff training and development requirements
Competitive strategy	<ul style="list-style-type: none"> • Competing through an acquisition strategy focused on buying other sourcing companies and the sourcing operations of retailers. It also engages in 	<ul style="list-style-type: none"> • To compete both in off premise and on premise channels • Maintain the current differentiation of their on-premise strategy through their

	<p>brand acquisition and licensing agreements.</p> <ul style="list-style-type: none"> • Establishing office locations in key manufacturing bases • Increasing distribution focus in Asia through acquisitions. 	<p>exclusive membership program for bartenders around the country and bartender competitions</p>
Inter-organizational cooperation strategy	<ul style="list-style-type: none"> • Establishing sourcing agreements with customers of acquired sourcing companies • Establishing sourcing agreements with companies whose sourcing operations have been acquired. • Ensuring a steady flow of business for core manufacturers • Reducing costs for customers through the provision of teams which act as shared resources for customers • Using its trust-based relationships with manufacturers to allow sourcing customers the flexibility of delaying orders as long as possible or even modifying them after the orders have been placed. • Distribution agreements with international brand owners (beyond the scope of this study which focuses on the company's sourcing business). 	<ul style="list-style-type: none"> • Long term brand partnerships for sustainable growth • To develop and maintain profitable partnerships with key off and on premise accounts through brand building and promotional activities. • Maximising sales representative productivity by focussing on independent retailers where it is possible to have greater influence • To delegate management of inbound and outbound logistics to a SCM service provider.

The review of relevant environmental factors and strategies above, suggests that a firm's external environment and its interorganizational cooperation strategies influence how a firm governs its portfolio of IORs in a number of ways:

- (i) Given the nature of the two industries, the decisions regarding the structures of IORs tend to lie in the hands of the customers/brand owners. As discussed earlier, the strategies of firms in its portfolio of IORs may lead to changes in the structures of relationships when agreements are renegotiated. In BigApparel's case, some customers have chosen to increase the number of product lines that they are sourcing through the company. In SubLiquor's case a brand owner chose to discontinue the relationship because of its decision to undertake its own distribution activities.
- (ii) The regulatory environments in customer countries as well as in manufacturer locations determine the nature of interactions that BigApparel needs to undertake with manufacturers as part of its compliance monitoring activities. In

SubLiquor's case, the regulatory environment in Australia necessitates more interactions with the lobbying body DSICA.

- (iii) The diverse cultural contexts of customers and suppliers necessitate BigApparel's hiring of BRPs with the appropriate cultural knowledge. In SubLiquor's case the building of a local management team has led to a better understanding of the local market and increased revenues.
- (iv) A firm's interorganizational cooperation strategy arises from and is closely linked with its corporate and competitive strategies. It is also influenced by the environment. For BigApparel, uncertainty in the global economic climate necessitates multiple customer relationships of varying strengths. For SubLiquor, the lack of fixed commitments from customers also necessitates the same. An interorganizational cooperation strategy is implemented through governance in the form of structures (implicit/explicit agreements) and interorganizational interactions. For example, in BigApparel's case, the importance of the supporting interactions for manufacturer development lies in the fact that a skilled and compliant manufacturer base ensures BigApparel's continued ability to bring in business from its customers. The increase in frequency and quality of interactions between SubLiquor's sales representatives and independent retailers is a direct outcome of its shift in strategy to focus more attention on the development of its relationships with independent retailers.

7.2.3 Research Question 1(b)

How do firms use ICTs to facilitate interorganizational interactions with customers and suppliers in its portfolio of direct IORs in a VCN?

Based on the cases of BigApparel and SubLiquor (Sections 5.4.2.2, 5.6, 5.7, 6.4.2.2, 6.6 and 6.7) even when face-to-face interactions play a central part in IORs, companies rely on an array of ICTs to facilitate the flow of information between organizations as well as for transferring information internally between BRPs.

(i) Internal systems

ERP systems:

Both companies appear to be far more satisfied with their ERP systems than they are with the current capabilities in relation to interorganizational information systems (IOISs).

BigApparel uses a proprietary ERP system for internal coordination. Time-and-action calendars in relation to different orders, manufacturer compliance information, and quality inspection results are updated in the ERP system for the relevant BRPs to stay informed regarding the interorganizational interactions that have taken place and those that are required.

SubLiquor uses a commercial ERP system for small and medium businesses. Orders are processed in this system but manual data entry is often required as in the case of BigApparel. The use of different modes of linkage with different customers has made corresponding linkages with the internal ERP system a challenge for both organizations.

Other internal systems:

Whilst BigApparel does not need to undertake any demand forecasting activities, SubLiquor needs to do so in order to avoid out-of-stock situations when orders are received from customers. This presents the latter with another area where improvements are required. The reporting capabilities of the current sales forecasting system are deemed to be inadequate. Additionally the system does not interface well with the inventory planning system managed by the company's SCM service provider. The company also has an Excel-based activity tracker for sales representatives in different states and territories. Although these systems are primarily for internal use, the different types of information provided by these systems are important for guiding the interactions that the company undertakes with organizations in its portfolio of IORs. While the company has recognized the need for addressing the interfacing issues and data integration problems arising from the use of many disparate systems,

the progress on improvements has been slow due to resource limitations and general cautiousness in the wake of the GFC.

Interorganizational information systems (IOISs):

In terms of IOISs, apart from email the key systems being used are cloud-based EDI solutions, portals and video conferencing.

EDI adoption:

Despite being in different industries, both companies use the same cloud-based EDI solution. This adoption of the particular EDI solution appears to be driven by major retailers in both industries. From a transaction cost economics (TCE) perspective (Williamson, 1991), the use of relatively open standards for EDI and cloud-based computing have lowered the asset specificity associated with electronic exchange of data with a trading partner base.

However, not all customers use the same EDI solution in the case of either company. The use of different modes of data exchange has meant that relevant staff members in both companies need to enter a large number of orders manually into their ERP systems. Thus data integrity issues remain an ongoing concern for both companies.

Portal adoption:

The use of portals also lower the asset specificity associated with data exchange with trading partners. BigApparel has now rolled out its portal solution to all its manufacturers. This allows it to provide manufacturers with purchase memoranda in a paperless way and requires no specific infrastructure investments on the part of the manufacturers. In the future, the company expects to roll out the portal solution to customers and their forwarders as well. This is expected to be particularly useful in the context of smaller forwarders who are not electronically integrated with their customers leading to data integrity issues.

SubLiquor currently logs into a portal solution provided by one customer in order to view the customer's stock on hand levels and enter deals. However, it plans to develop a portal solution of its own in the near future. This would be particularly

useful in its information exchanges with suppliers (brand owners). At the moment the company is linked to the file-transfer-protocol (ftp) server of one brand owner and exchanges information via email or fax with others. Its interactions with its forwarder are email-based as well. Currently the company maintains a website for bartenders in its membership program. But this is very narrowly focussed and primarily used as an informing and marketing tool.

Video conferencing:

Of the two companies, only BigApparel appeared to be making substantial use of videoconferencing (VC). Many of its customers and manufacturers are linked to its VC facilities. The system has helped to reduce the garment fit approval process (part of sample approval) quite dramatically as the company can now display the fit on camera using a dummy and a measuring tape. The system has also been used extensively for training BRPs distributed around the globe. This use of the system has also facilitated the company's ability to cut down on travel costs in the wake of the GFC.

Although the two companies have vastly different size and scope both companies currently have IOIS implementation across their respective portfolios of IORs. Their experiences with cloud-based EDI solution adoption and the fact that this is being driven by the initiatives of major retailers operating in different industries suggest that this may be an ongoing trend. In fact, the particular solution provider boasts of having over 70% of all Fortune 500 companies as its clients. Portals also appear to be becoming increasingly popular in both industries. The interfacing between IOISs and internal ERP systems (and consequent manual data entry and data integrity issues) seems to be an ongoing challenge for both companies. As the deployment of these EDI and portal solutions become more widespread across trading partners such issues could be significantly addressed. In the case of EDI such changes would have to be driven by the changes in practice of downstream partners.

There is limited progress in the adoption of RFID based systems in both industries. This is probably due to implementation challenges, lack of standards, inadequate collaboration between involved parties and high operational costs highlighted in the

literature (Alvarez et al., 2005, Quaadgras, 2005, Rogers, 2003). BigApparel has recently joined large retailers in exploring the adoption of RFID in the context of apparel but such initiatives are a long way from actual implementation. Future research may provide further insight into the enablers and inhibitors of adoption of RFID technologies as well as cloud-based solutions in these industries.

7.2.4 Research Question 1(c)

What forms of trust emerge during the course of interorganizational interactions and how does trust facilitate these interactions?

Unlike most existing studies on dyadic IORs, this research began with the intention of examining trust at both the interorganizational and interpersonal level. It found evidence for both types of trust developing through interactions between a focal organization and its network of direct interorganizational relationships (Sections 5.5 and 6.5).

(i) Interorganizational trust

Competence based trust and commitment:

Competence trust is one based on the ability of the other party to perform as expected (Ghosh and Fedorowicz, 2008). The importance of competence based trust was evident in BigApparel's relationship with its customers. Even though there is an agency agreement between BigApparel and its customers, the competence of BigApparel *as well as* the relevant manufacturer in developing an acceptable sample for the customer is an absolute necessity in order for the customer to make a commitment in the form of a purchase order.

Reliability based trust and commitment:

Ring and Van de Ven (1992) suggest that as an organization interacts with different types of organizations more frequently, the more information it is likely to be able to gather regarding the reliability of different parties. Thus in the course of long term IORs reliability based trust becomes important. For instance, BigApparel's reliability

in meeting a customer's requirements over the course of a multi-year agency agreement may result in the customer increasing the number of product lines they source through BigApparel when the agreement is revisited. Some customers may even choose to source some product lines exclusively through BigApparel. Thus reliability based trust also appears to influence a customer's commitment.

Like BigApparel, SubLiquor has flexible agreements (open-ended terms of trade) with its national retail chain customers. The company's reliability in assisting these chains with their promotional activities and timely replenishments is important for the continuation of its relationships with them. Such reliability can also bring recognition of efforts from the customer in the form of awards, e.g., one of the chains has recently recognized the company as a 'Supplier of the Year' for its ongoing efforts.

Reliability based trust can also be important from a supplier's perspective. In BigApparel's case, although there is no formal agreement with any manufacturer, the company realizes that its own reliability in continuing to bring a steady volume of business from its customers is important from the perspective of its manufacturers. The manufacturers' trust provides the company the ability to provide flexible ordering options to its customers. This includes letting its customers delay orders or change specifications once the order has been placed.

From the perspective of SubLiquor's suppliers, the brand owners, the company's reliability in marketing and generating orders for their products during the course of multi-year distribution agreements becomes important at the contract renewal or renegotiation stage. Even when distribution activities are pulled in-house by a particular customer due to a change in its own strategy, SubLiquor's track record of reliability helps it build relationships with other international brand owners.

Goodwill and reliability based trust and risk:

This study found that a past history of successful transactions (and the associated existence of reliability and goodwill based trust) does not always decrease the information asymmetry and associated risk in IORs. This is in contrast to suggestions made by Ring and Van de Ven (1992) and especially true in the context of rapid changes in a firm's environment. The GFC resulted in a number of the customers of

BigApparel becoming insolvent. This affected the trust that some suppliers had in BigApparel and its customers. In one particular instance a manufacturer refused to ship goods without prior payment to a company (part of a group) because of prior experience of not getting paid when another company (part of the same group) suddenly declared insolvency.

(ii) Interpersonal trust

Two types of interpersonal trust were alluded to by interviewees: relational trust (Paul and McDaniel, 2004) and competence based trust (Rousseau et al., 1998). BRPs appeared to have mixed experiences with interpersonal trust. For instance, one senior BRP at BigApparel reported lack of success when working with a particular buyer from a customer organization with whom she had a long friendship and previous work experience. In this particular instance, the existence of relational and competence based trust did not result in a successful working relationship, i.e., an IOR can be severed even when there is interpersonal trust between key BRPs.

On the other hand the existence of relational trust between a BRP at BigApparel and the buyer in a customer organization facilitated the resolution of a logistics issue when a manufacturer was delayed in delivering the goods to the customer's forwarder. This suggests that the usefulness of the existence of a particular type of interpersonal trust may be quite context specific.

Competence based interpersonal trust may also play an important role in IORs. In SubLiquor's case the ability of independent retailers to place their trust in the competence of SubLiquor's sales representatives is seen as increasingly important as the company focuses on increasing its business in the independent retail sector. It is interesting to note here that in SubLiquor's case different levels (macro or micro) of trust are important in the context of different customers. The national retail chains are difficult to influence so building interpersonal trust is not as important in this context. The company has realized that it is possible to bring more influence to bear on the purchasing decisions of the independent retailers. Thus the company's sales representatives have now started to focus exclusively on visiting independent retailers

since an increase in interpersonal trust in this context may result in a positive performance outcome for the company.

There has been little research on the role of interpersonal trust in IORs and the coexistence of both interorganizational and interpersonal trust in these relationships. This study provides some interesting insights and suggests the need for more research to provide a more holistic understanding of the role that both the macro-level and the micro-level trust play in long term IORs that are structured through either open-ended or implicit contracts.

7.2.5 Research Question 2

Are there performance implications for a focal firm based on how it governs its portfolio of globally distributed direct IORs? If so, how could such a firm improve the governance of its portfolio of IORs?

While interorganizational cooperation strategies involving the development of relationships with multiple customers have a positive effect on performance for both BigApparel and SubLiquor (Section 7.2.2), their governance of their IOR portfolios have a positive influence on their performance as well.

In BigApparel's case, the structures of the agency agreements with the customers are driven by the needs of the customers. In turn BigApparel exercises its power over manufacturers by refraining from entering into explicit agreements with them regarding fixed volumes of business. Nor does the company make any explicit or implicit commitments regarding payment if one of its customers fails to pay one of its manufacturers. This governance tactic worked in the company's favour during the GFC when a number of its customers declared insolvency. While some manufacturers bore substantial losses, BigApparel continued to maintain its high revenue levels and continued to take on new customers. Having a large manufacturer base as part of their cooperation strategy also assisted them in this context since the impact on the company from the loss of a few manufacturers who were severely affected by the non-payment of customers was negligible.

The interorganizational interactions undertaken by BigApparel as the other key aspect of the governance of its IORs are also essential for its business processes. The successful execution of the business processes means the continued satisfaction of its customers. In the longer term, this implies the renewal of agency contracts and sometimes an increased commitment from customers. Thus effective interaction processes have an impact on the long term success of the company.

However the company recognizes the need for efficiency improvements in its interactions. Its ongoing systems collaboration with its trading partners is a result of this recognition. Full integration with all trading partners in relation to videoconferencing would help to significantly reduce travel expenses. EDI integration with all customers and linkage with internal ERP system could eliminate manual data entry requirements and associated data integrity issues. Extending the access to its portal to customers and their forwarders could also reduce discrepancies between information held in the forwarders' systems and BigApparel's ERP system. However, it is evident from BigApparel's case that such systems collaboration needs to be a gradual process when a company has a large portfolio of IORs. For example, the company first rolled out its portal solution to its manufacturers. The company's ability to interface electronically with all customers in the same way is hampered by the fact that not all customers use the same EDI solution. Since it is difficult to influence customer practices, rolling out its portal solution to customers may help to eliminate some of the data exchange related problems.

In SubLiquor's case, both customers and suppliers (brand owners) have more power than the focal company in decisions related to the structural aspects of governance. While the company is doing well financially, it has realized that it can improve its performance through improvements in the interactions aspects of governance. The company's sales representatives now visit more independent retailers more often and are required to make sure that each visit is being perceived as adding value to the customers' businesses. This is important because perceived frequency and usefulness of interactions could result in increased sales for the company. Thus training is being offered to these representatives internally in order to ensure their productivity with customers.

There is also a recognition that there needs to be better communication between the company's sales staff and the SCM service provider's staff as well as better integration between internal systems in order to improve forecast accuracy. Thus, monthly sales and operational planning meetings have been instituted and the company is exploring the market for an appropriate demand forecasting solution. As in the case of BigApparel, EDI integration with customers is ongoing. A portal solution is being planned but at a present the company relies on a lot of manual data entry processes.

Although both companies have performed well financially through the GFC, both recognize the need for effective and efficient interaction processes and the role that ICTs could play in facilitating these interactions. Even when a company does not have an upper hand in terms of the structure of all its IORs it can build a track record of performance through appropriate interaction processes. Since this study focuses on the governance of IOR portfolios in the context of two organizations only, further research is necessary to gain a better understanding of the effect of the governance of IOR portfolios on the performance of companies in other industries.

7.3 Thesis Contributions

This thesis set out to address the following research gaps identified by Gulati (2007):

- (i) The need for further research shedding light on managerial practices and their consequences in the context of a firm's portfolio relationships.
- (ii) The need for more research to understand the role that boundary spanning individuals play in managing these relationships.

It has made the following contributions discussed in Sections 7.3.1 and 7.3.2.

7.3.1 Theoretical Contributions

The research is multidisciplinary in nature and contributes to the value chain management/supply chain management literature and the information systems literature in following ways:

- (i) A research framework has been developed which synthesises key concepts associated with the governance of a portfolio of IORs from the perspective of a focal firm. Here the term 'portfolio' refers to the direct IORs of a firm.
- (ii) Based on synthesis of the extant literature, a number of definitions have been developed in order to address the lack of consensus definitions in the literature in the context of governance of IORs. These include definitions for the governance of a network of interorganizational relationships, interorganizational interactions, coordination, strategic collaboration, systems collaboration and monitoring.
- (iii) The research suggests that based on their interorganizational cooperation strategies, firms participating in relational VCNs engage in governance practices that involve diverse structural arrangements (explicit and open-ended or implicit) and a rich array of interactions. The analysis found evidence for all four types of interactions identified from the literature (coordination, collaboration (strategic and systems level), monitoring and relationship marketing). In addition to the four types of interactions identified from the literature, a fifth, termed *supporting interactions*, was identified. Manufacturer training related interactions undertaken by BigApparel did not fit the original four categories well and were recorded as supporting interactions. All interaction categories were found to map to different business processes classified by Croxton et al. (2001) in the context of VCNs.
- (iv) The perceived importance of interorganizational information systems (IOISs) and internal ICTs in facilitating interorganizational interactions have also been highlighted by the study. While the information systems literature normally focuses on the role of either internal or interorganizational systems this study shows that both play an important part in supporting interorganizational interactions as BRPs often need to coordinate with other BRPs within their own organizations.
- (v) The thesis shows that the execution stage of a relationship with one member of a focal company's IOR portfolio (a customer in the case of BigApparel; a brand

owner in the case of SubLiquor) may involve a rich set of interactions with other members of a company's IOR portfolio (manufacturer(s) in the case of BigApparel; the company's forwarder customers and SCM service provider in the case of SubLiquor).

- (vi) This thesis distinguishes itself from most of the literature on dyadic IORs and the limited literature on networks of IORs by exploring interorganizational interactions as both macro level phenomena between organizations and micro level phenomena between boundary role persons (BRPs).
- (vii) This thesis also contributes to the literature by exploring the role of trust more holistically in relation to the governance of IOR portfolios by examining both its macro and micro level aspects. At both levels trust was found to develop through ongoing interactions. The study also shows that there may be risks associated with interorganizational trust even when companies have had a long term relationship. This was evident in the context of BigApparel's IORs in the wake of the global financial crisis
- (viii) The research also provides insight into the influence of a firm's environment (its industry environment including strategies of partner firms, its regulatory environment and cultural contexts of members of its IOR portfolio).
- (ix) The thesis highlights the importance of cultural considerations in the recruitment of BRPs. Since the cultural contexts of the members of a firm's portfolio of IORs may be quite diverse, a firm may benefit from hiring BRPs who have a good understanding of the cultural contexts of these organizations.
- (x) Finally, the results suggest that the interorganizational interactions aspect of governance may play an important role in maintaining or improving the financial performance of a firm.

7.3.2 Practical Contributions

The study could be used to inform managers regarding the challenges and opportunities associated with governance of IORs. It could also inform them of some necessary characteristics of BRPs, namely their ability to respond to the cultural

characteristics of customers/suppliers as well as their ability to generate trust in interorganizational relationships. It could also assist firms that are participating in relational VCNs to reflect on how they could achieve performance improvements through their interorganizational interactions. The categorization of different types of interactions and their mapping to different business processes could potentially also be used as a planning tool by management.

7.4 Research Limitations and Future Work

The current study has the following limitations:

- (i) Only two organizations and their corresponding industries were included in this study, thus limiting the ability to generalize the research framework. Since the findings are limited by the available number of cases, they need to be interpreted cautiously. But nevertheless, the findings do suggest there to be a strategy-structure link that can be enhanced by a formal approach to an interactions component in the strategy development process and its subsequent implementation.
- (ii) Interviews were conducted with BRPs across multiple functions in the focal organizations. However, it is possible that staff members who declined to be interviewed could have provided further insights related to the governance of their IOR portfolios. Additionally, the interviews conducted in both organizations were limited by the time constraints of staff members and sometimes interrupted by their job related priorities.
- (iii) Data regarding the IOR portfolios was based on direct interviews with BRPs in focal and partner organizations as well as from publicly available sources. Staff members at two manufacturer organizations were interviewed in the case of BigApparel and the SCM service provider's staff members were interviewed in the case of SubLiquor. Information regarding the perspectives of other organizations incorporated in the analysis was obtained from the interviewees at the focal organizations and/or publicly available sources. It is possible that additional direct interviews may have revealed further insights in the context of governance.

- (iv) The research scope is also limited in the sense that the study focuses on the IORs of the focal organizations with adjacent members in VCNs. Indirect relationships have not been investigated in this study.
- (v) The research scope also does not cover the interactions in the negotiations and commitments stages of IORs and how these interactions may evolve as organizations learn from their prior experiences.

These limitations on the current study suggest some directions for future research:

- (i) The study could be extended to organizations in other industries in order to validate the current findings.
- (ii) Future research needs to include more partner organizations in a focal organization's portfolio of IORs in order to develop a richer set of perspectives on the structural and interactions aspects of governance.
- (iii) The current study provides a snapshot in time of the governance of IOR portfolios in the context of two focal organizations. A longitudinal study could provide further insight into the evolution of governance in terms of structures and interactions. This could also provide insight regarding the effects of improvements in IOISs and internal ICT systems on interorganizational interactions.
- (iv) Future research involving a longitudinal approach could develop a more integrated picture of interorganizational interactions in all three (negotiation, commitment and execution) stages of IORs.
- (v) Future research also needs to further investigate the link between a firm's governance of its portfolio of IORs and its performance. A survey based approach could potentially be adopted in this context.

7.5 Chapter Summary

This final chapter has addressed the research questions through a synthesis of key findings from the two case studies. The contributions of the study have been summarised and directions for future research discussed.

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Appendix A. Letter of Introduction

This thesis was developed as part of an ongoing project titled: “An Investigation of B2B Information Exchange Interactions in Value Chain Networks”. The project protocol was approved by the University of Sydney Human Research Ethics Committee.

The text of the general letter of introduction provided to participating organizations is as follows:

LETTER OF INTRODUCTION

PROJECT TITLE: AN INVESTIGATION OF B2B INFORMATION EXCHANGE INTERACTIONS IN VALUE CHAIN NETWORKS

Dear <Name of Contact Person >

Your company is invited to participate in a study by the University of Sydney which will investigate business-to-business information exchange interactions in value chain networks.

Companies increasingly work with distributed supplier networks which assist them in responding flexibly to the needs of their customers. Focusing on the Asia-Pacific region, this study investigates the issues and challenges faced by such organizations when interacting to exchange information with a diverse network of suppliers. It will also examine how network structure facilitates or inhibits such interactions.

Despite the fact that organizations increasingly depend on distributed supplier networks, to date there is limited research on the challenges faced by organizations interacting to exchange information in such networks. This research aims to address this limitation. It will provide an integrative framework to assist organizations in developing better interaction strategies. The will also contribute to the advancement of academic knowledge about information exchange interactions in distributed interorganizational networks.

The study will involve face-to-face interviews with participants. The interviews will be taped with the express permission of the interviewees. Interviews will be transcribed and emailed to participants for their feedback.

You are requested to identify colleagues within your organization who are directly involved in information exchange interactions with key suppliers and who may be interested in volunteering to participate in the study. You are requested to provide these potential participants with the contact details of our research team so that they may independently volunteer to participate in the study. They will in turn be asked to identify two to three key long-term suppliers and requested to discuss the study with them. They will also be asked to provide these suppliers with the contact details of the research team so the suppliers too may independently volunteer for the study.

Further details are available in the attached Participant Information Sheet. You are requested to forward this Letter of Introduction and the Participant Information Sheet to interested colleagues for their consideration when you inform them about this study when you provide them with the contact details of our research team. If you have any further questions, please do not hesitate to discuss these with the researcher, Ms Jyotirmoyee Bhattacharjya, during your preliminary meeting with her. You may also reach her via email (jyotirmoyee.bhattacharjya@sydney.edu.au) or telephone (61 2 9351 0163).

Please note that participation in this study is entirely voluntary. You or your colleagues are under no obligation to participate.

<signed>

David Walters

Professor of Management in Logistics and Supply Chain

Institute of Transport and Logistics Studies

The University of Sydney

NSW 2006 Australia

Appendix B. Participant Information Sheet

The following information was provided to all interview participants using the participant information sheet:

(1) What is the study about?

Organizations increasingly work with globally distributed supplier networks which assist them in responding flexibly to the needs of their customers. The study investigates the issues and challenges faced by such organizations (network leaders) when interacting to exchange information with a diverse network of suppliers. It will also examine how network structure facilitates or inhibits such interactions. The result will be an integrated framework that will help organizations design better interaction strategies and allow them to extract more value from their interactions.

(2) Who is carrying out the study?

The study is being conducted by Ms Jyotirmoyee Bhattacharjya and will form the basis for the degree of Doctor of Philosophy at The University of Sydney under the supervision of Professor David Walters.

(3) What does the study involve?

The study will involve face-to-face interviews with participants. The interviews will be taped with the express permission of the interviewees. Interviews will be transcribed and emailed to participants for their feedback.

Participants in a customer organization will also be asked to identify two to three key long-term suppliers and requested to discuss the study with them. They will also be asked to provide these suppliers with the contact details of the research team so the suppliers too may independently volunteer for the study.

(4) How much time will the study take?

Each interview will take at most an hour.

(5) Can I withdraw from the study?

Being in this study is completely voluntary - you are not under any obligation to consent and - if you do consent - you can withdraw at any time without affecting your relationship with The University of Sydney.

You may stop the interview at any time if you do not wish to continue, the audio recording will be erased and the information provided will not be included in the study.

(6) Will anyone else know the results?

All aspects of the study, including results, will be strictly confidential and only the researchers will have access to information on participants. A report of the study may be submitted for publication, but individual participants or organizations will not be identifiable in such a report.

(7) Will the study benefit me?

The study will contribute to the body of knowledge on business-to-business information exchange interactions. The outcomes of the study will provide useful knowledge that may help you design better information exchange interaction strategies and allow you to extract more value from your interactions with your suppliers.

(8) Can I tell other people about the study?

Yes.

(9) What if I require further information?

When you have read this information, Ms Jyotirmoyee Bhattacharjya will discuss it with you further and answer any questions you may have. If you would like to know more at any stage, please feel free to contact Ms Jyotirmoyee Bhattacharjya by sending email to jyotirmoyee.bhattacharjya@sydney.edu.au or calling her office number 61 2 9351 0163.

(10) What if I have a complaint or concerns?

Any person with concerns or complaints about the conduct of a research study can contact the Deputy Manager, Human Ethics Administration, University of Sydney on +61 2 8627 8176 (Telephone); +61 2 8627 8177 (Facsimile) or ro.humanethics@sydney.edu.au (Email).

This information sheet is for you to keep.

Appendix C. Participant Consent Form

The contents of the form were as below:

I,.....[PRINT NAME], give consent to my participation in the research project

TITLE: AN INVESTIGATION OF B2B INFORMATION EXCHANGE INTERACTIONS IN VALUE CHAIN NETWORKS

In giving my consent I acknowledge that:

1. The procedures required for the project and the time involved have been explained to me, and any questions I have about the project have been answered to my satisfaction.
2. I have read the Participant Information Statement and have been given the opportunity to discuss the information and my involvement in the project with the researcher/s.
3. I understand that I can withdraw from the study at any time, without affecting my relationship with the researcher(s) or the University of Sydney now or in the future.
4. I understand that my involvement is strictly confidential and no information about me will be used in any way that reveals my identity.
5. I understand that being in this study is completely voluntary – I am not under any obligation to consent.
6. I understand that I can stop the interview at any time if I do not wish to continue, the audio recording will be erased and the information provided will not be included in the study.
7. I consent to: –

i)	Audio-taping	YES	<input type="checkbox"/>	NO	<input type="checkbox"/>
ii)	Receiving Feedback	YES	<input type="checkbox"/>	NO	<input type="checkbox"/>

If you answered YES to the “Receiving Feedback Question (iii)”, please provide your details i.e. mailing address, email address.

Feedback Option

Address: _____
 Email: _____

Signed:
 Name:
 Date:

Appendix D. Interview Guide

Interview Topics for Participants at the Focal Organization

This schedule provides an outline of the themes that are to be explored during interviews with participants in a focal organization whose interactions with a network of suppliers are of interest in this study.

1. Background:

- a. Could you please describe your role and responsibilities in this organization?
- b. How long have you been with this organization and in what capacity?
- c. How long have you been in this industry?

2. Nature of structure:

- a. How are your relationships structured with customers?
- b. How are your relationships structured with suppliers?

3. Nature of interactions with suppliers/customers:

- a. What types of interactions do you engage in with your suppliers/customers?
- b. How frequently do you interact with your suppliers/customers?
- c. How do these interactions facilitate trust?
- d. What modes of interactions do you use with your suppliers/customers?
- e. Do your interactions vary significantly from one long term entity to another?
- f. How do your interactions with your customers influence your interactions with suppliers?

4. Use of information and communication technologies (ICTs):

- a. How do you use ICTs in your interactions with suppliers and internally?
- b. How has this evolved over the years and what have you learnt from your experiences?
- c. Have these changes improved your productivity significantly?
- d. How have your suppliers adapted to your adoption of new technologies?
- e. Are there any further plans for new systems or system upgrades? How are these expected to help improve your interactions with your suppliers?

5. Nature of information exchange

- a. What information do you normally provide your suppliers?
- b. What information do your suppliers normally provide you?
- c. Do you have clear visibility of your supplier's costs and processes? Do they have clear visibility of yours?
- d. How effective are your current information exchange processes with your suppliers? What are your key concerns in this respect?
- e. How do you see your information exchange capabilities and processes changing over the next five years?

Is there anything else you would like to add?

Thank you for your time today. Could you please identify two or three long-term suppliers who might be interested in participating in this study? Please ask them to contact us if they wish to participate in the study.

Interview Topics for Participants at a Supplier Organization

This schedule provides an outline of the themes that are to be explored during interviews with participants in supplier organizations which have been identified by the focal organizations whose supplier networks are of interest in this study.

1. Background:

- a. Could you please describe your role and responsibilities in this organization?
- b. How long have you been with this organization and in what capacity?
- c. How long have you been in this industry?

2. Nature of interactions with the focal company:

- a. What types of interactions do you engage in with <the focal company> and other customers?
- b. How frequently do you interact with <the focal company> and other customers?
- c. How do these interactions facilitate trust?
- d. What modes of interactions do you use with <the focal company> and other customers?
- e. Do your interactions vary significantly from one long term customer to another?
- f. How do your customer value drivers influence your interactions with them?

3. Use of information and communication technologies (ICTs):

- a. How do you use ICTs in your interactions with <the focal firm> and other customers?
- b. How has this evolved over time and what have you learnt from your experiences?
- c. Have these changes improved your productivity significantly?
- d. How have you adapted to technological changes implemented by your customers?
- e. Are there any further plans for new systems or system upgrades? How are these expected to help improve your interactions with your suppliers?

4. Nature of information exchange

- f. What information do you normally provide <the focal firm> and other customers?
- g. What information do they normally provide you?
- h. Do you have clear visibility of their costs and processes? Do they have clear visibility of yours?
- i. How effective are your current information exchange processes with <the focal firm> and other customers? What are your key concerns in this respect?
- j. How do you see your information exchange capabilities and processes changing over the next five years?

Is there anything else that you would like to add?

Appendix E. Coding

Descriptive and structural codes and an example of a pattern code are listed in this section. The coding was done in NVivo 8.

Examples of Descriptive Codes (Free Nodes in NVivo)
Organizational characteristics
Office wall mural
Work area artifacts
BRP responsibility
BRP cultural background (later included as 'supporting factors for interorganizational interactions' in the coding tree structure below)
BRP experience (later included as 'supporting factors for interorganizational interactions' in the coding tree structure below)
Internal interactions (later included as 'supporting factors for interorganizational interactions' in the coding tree structure below)
Internal information systems (later included as 'supporting factors for interorganizational interactions' in the coding tree structure below)
Other interactions (later included as 'supporting interactions' in the coding tree structure below)

Structural Codes (Tree nodes in NVivo)

Governance → Structure → Structure of relationships with customers

Governance → Structure → Structure of relationships with suppliers

Governance → Interorganizational interactions → Interactions with customers → Coordination

Governance → Interorganizational interactions → Interactions with customers → Collaboration → Strategic Collaboration

Governance → Interorganizational interactions → Interactions with customers → Collaboration → Systems Collaboration

Governance → Interorganizational Interactions → Interactions with customers → Monitoring

Governance → Interorganizational interactions → Interactions with customers → Relationship marketing

Governance → Interorganizational interactions → Interactions with suppliers → Coordination

Governance → Interorganizational interactions → Interactions with suppliers → Collaboration → Strategic Collaboration

Governance → Interorganizational interactions → Interactions with suppliers → Collaboration → Systems Collaboration

Governance → Interorganizational interactions → Interactions with suppliers → Monitoring

Governance → Interorganizational interactions → Interactions with customers → Relationship marketing

Governance → Interorganizational interactions → Supporting interactions

Firm's external environment → Industry environment

Firm's external environment → Regulatory environment

Firm's external environment → Cultural context of trading partner

Strategy → Corporate strategy

Strategy → Competitive strategy

Strategy → Interorganizational cooperation strategy

Trust → Interorganizational trust

Trust → Interorganizational trust

Trust → Interpersonal trust

Supporting factors for interorganizational interactions → Internal interactions

Supporting factors for interorganizational interactions → BRP cultural background

Supporting factors for interorganizational interactions → BRP experience

Supporting factors for interorganizational interactions → ICTs → Internal information systems

Supporting factors for interorganizational interactions → ICTs → Interorganizational information systems

Example of a Pattern Code (Tree node in NVivo)

Initial descriptive codes:

Manual data entry

Limited forecast accuracy

Disparate internal systems

Limited integration with trading partner systems

Paper-based processes

Pattern code:

= Inadequate ICT implementation

(Note: has consequences for interorganizational interactions)

Appendix F. Export Documents and Information

Reviewed by BigApparel's Logistics Staff

The logistics related interactions between BigApparel and a manufacturer are conducted to ensure the accuracy and completeness of export documentation. The key documents that may be necessary include:

- (i) **Commercial invoice:** This “is a bill for the goods from the seller to the buyer. These invoices are often used by governments to determine the true value of goods when assessing customs duties. Governments that use the commercial invoice to control imports will often specify its form, content, number of copies, language to be used, and other characteristics”.
- (ii) **Consular invoice:** This “is a document that is required in some countries. It describes the shipment of goods and shows information such as the consignor, consignee, and value of shipment. Certified by the consular official of the foreign country stationed here [in the manufacturer's country], it is used by the country's custom officials to verify the value, quantity, and nature of shipment”.
- (iii) **Generalized System of Preferences (GSP):** This “is a preferential tariff system extended by developed countries (also known as preference giving countries or donor countries) to developing countries (also known as preference receiving countries or beneficiary countries)”.
- (iv) **Certificate of origin:** This “is a document that is required in certain nations. It is a signed statement as to the origin of the export item. Certificates of origin are usually signed through a semi-official organization, such as a local chamber of commerce. A certificate may still be required even if the commercial invoice contains the information”.
- (v) **Bill of lading:** This “is a contract between the owner of the goods and the carrier. There two types: a straight bill of lading which is nonnegotiable and a negotiable or shipper's bill of lading. The latter can be bought, sold or traded while the goods are in transit. The customer usually needs an original as proof of ownership to take possession of the goods. Airfreight shipments are handled by **airway bills**, which can never be in negotiable form”.
- (vi) **Inspection certification:** This “is required by some purchasers and countries in order to attest the specifications of goods shipped. This is usually performed by a third party and often obtained from independent testing organizations”.
- (vii) **Packing list:** This “itemizes the material in each individual package and indicates the type of package, such as a box, crate, drum, or carton. It shows the individual net, legal, tare, and gross weights and measurements for each package. Package markings should be shown along with the shipper's and

buyer's references. The list is used by the shipper or forwarding agent to determine the total shipment weight and volume and whether the correct cargo is being shipped".

- (viii) **Insurance certificate:** This "is used to assure the consignee that insurance will cover the loss of or damage to the cargo during transit".
- (ix) **Dock receipt and a warehouse receipt:** These "are used to transfer accountability when the export item is moved by the domestic carrier to the port of embarkation and left with the shipping line for export".

The commercial invoice specifies two key pieces of information amongst others – the **terms and cost of shipping and the mode of payment for goods received.**

The **terms of shipping** differ in the extent of the shipping costs borne by the customer vs. those borne by the manufacturer. Some of the common terms of shipping are as follows:

- (i) *****FOB (Free on Board):** This is the most common shipping scenario. In this case, the manufacturer's primary responsibilities are as follows: "deliver the goods on board, provide export clearance (export license, pay export taxes and fees, if required), provide a clean on board receipt, pay loading costs according to the custom of the port to the extent that they are not included in the freight". The process is facilitated by the customer's freight forwarder. The customer's primary responsibilities are as follows: "nominate carrier; contract for the carriage and pay the freight; pay loading costs to the extent that they are included in the freight; pay unloading costs".
- (ii) **FCA (Free Carrier):** In this case, the manufacturer's primary responsibilities are as follows: "deliver the goods at the named point into the custody of the carrier named by the buyer; provide export clearance (export license, pay export taxes and fees if required); provide evidence of delivery of goods to the carrier". The customer's primary responsibilities are as follows: "nominate carrier; contract for the carrier and pay the freight".
- (iii) **CFR (Cost and Freight):** In this case, the manufacturer's primary responsibilities are as follows: "contract for the carriage and pay the freight to the named port of destination, deliver the goods on board, provide export clearance, furnish the buyer with the invoice, the usual transport documents, pay loading cost and handling, pay unloading costs to the extent that they are included in the freight". The customer's primary responsibilities are as follows: "accept delivery of the goods upon shipment, when the invoice, the cargo insurance policy or other evidence of insurance document are tendered to him, and receive the goods from the carrier at the named port of destination; pay unloading costs to the extent that they are not included in the freight".

- (iv) *****CIF (Cost, Insurance, Freight):** In this case, the manufacturer's primary responsibilities are as follows: "contract for the carriage and pay for the freight to the named port of destination; deliver the goods on board; provide export clearance; contract for the insurance of the goods during the carriage and pay the insurance premium; pay loading cost and handling; pay unloading costs to the extent that they are included in the freight". The customer's primary responsibilities are as follows: "accept delivery of the goods; pay unloading costs to the extent that they are not included in the freight".
- (v) **DDU (Delivered Duty Unpaid):** In this case, the manufacturer's primary responsibilities are as follows: "deliver the goods at the named place of destination; provide documents to enable the buyer to take delivery at the named place (e.g. delivery order, warehouse warrant or document of transport)". The customer's primary responsibilities are as follows: "take delivery of the goods at the named place of destination; provide import clearance (import license, pay import duties, taxes and fees, if required)".
- (vi) **DDP (Delivery Duty Paid):** In this case, the manufacturer's primary responsibilities are as follows: "deliver the goods at the named place of destination; provide import clearance (import license, pay import duties, taxes and fees, if required); provide documents to enable the buyer to take delivery at the named place of destination". In this case, the customer's responsibilities are to "take delivery of the goods at the named place of destination".

*** These terms of shipping that are applicable to SubLiquor's suppliers (i.e. brand owners).

The mode of payment specified in the commercial invoice can be one of the following:

- (i) **L/C (Letter of Credit):** This "is a document typically issued by a bank or financial institution, which authorizes the recipient of the letter (the "customer" of the bank) to draw amounts of money up to a specified total, consistent with any terms and conditions set forth in the letter. This usually occurs where the bank's customer seeks to assure a seller (the "beneficiary") that it will receive payment for any goods it sells to the customer".
- (ii) **T/T (Telegraphic Transfer):** In this case money is wired directly from customer's bank account to manufacturer's (seller's) bank account. This method is not used as often because it is a risky option from the perspective of the customer to transfer money prior to the receipt of goods.
- (iii) **D/P (Documents against Payment):** This is an "arrangement under documentary collection in which an exporter instructs the presenting bank to hand over shipping and title documents to the importer only if the importer fully pays the accompanying bill of exchange or draft".

(iv) **D/A (Documents against Acceptance):** This is an “arrangement under documentary collection in which an exporter instructs the presenting bank to hand over shipping and title documents to the importer only if the importer accepts the accompanying bill of exchange or draft by signing it”.

(Note: The payments are made by the customers to the corresponding manufacturers through BigApparel.)

(Source: Internal presentation on logistics documentation, BigApparel)

Appendix G. Standards Guiding Manufacturer Compliance Audits Conducted by BigApparel

Three types of standards guide BigApparel's interactions with manufacturers during manufacturer compliance audits:

- (i) National or regional labour laws and regulations where the manufacturer factories are located, e.g., national law and provincial regulations in China and regional laws in Taiwan.
- (ii) Internationally standards including those produced by the International Organization for Standardization (ISO), World Health Organization (WHO), Occupational Safety and Health Administration (OSHA) and International Labour Organization (ILO).

Of particular importance (aligned with common requirements of most customers) are the ILO Core Conventions:

- No. 87 – Freedom of Association
- No. 98 – Right to Organize and Collective Bargaining
- No. 29/105 – Abolition of Forced Labour
- No. 111 – Discrimination (Employment & Occupation)
- No. 100 – Equal Remuneration
- No. 131 – Minimum Wage
- No. 132 – Minimum Age
- No. 155 – Occupational Safety and Health

- (iii) Civil standards including NGO recommendations and company codes.

These include:

- Worldwide Responsible Apparel Production (WRAP)
- Social Accountability (SA8000)
- Ethical Trade Initiative (ETI)
- Responsible Supply Chain Association (CSC9000T)
- Clean Clothes Campaign Code (CCC)
- Brand owner's Code of Ethics/Conduct
- BigApparel's Code of Conduct

In keeping with the ILO conventions the company's code of conduct includes the following key elements:

Child Labor

Manufacturers shall not use child labor. "Child" is defined as a person who is not older than the local age for completing compulsory education but in no

event is less than 15 years of age. Manufacturers must verify the age of their workers and maintain copies of their workers' proof of age. Manufacturers must follow all applicable laws and regulations regarding working hours and conditions for minors.

Involuntary Labor

Manufacturer shall not use involuntary labor. "Involuntary Labor" is defined as work or service which is extracted from any person under threat or penalty for its non-performance and for which the worker does not offer himself or herself voluntarily, and includes all manner of prison, bonded, indentured and forced labor.

Disciplinary Practices

Manufacturers shall not use corporal punishment or any other form of physical or psychological coercion or intimidation against workers.

Non-discrimination

Manufacturers shall employ workers solely on the basis of their ability to do the job, and shall not discriminate on the basis of age, gender, racial characteristics, maternity or marital status, nationality or cultural, religious or personal beliefs or otherwise in relation to hiring, wages, benefits, termination or retirement.

Health and Safety

Manufacturers shall maintain a clean, safe and healthy workplace in compliance with all applicable laws and regulations. Manufacturers shall ensure that workers have access to clean drinking water, sanitary washing facilities and an adequate number of toilets, fire-extinguishers, and fire exits and that workplaces provide adequate lighting and ventilation. Manufacturers shall ensure that the aforementioned standards are also met in any canteen and/or dormitory which is provided for workers.

Environmental Protection

Manufacturers shall comply with all applicable laws and regulations in respect of protecting the environment and maintain procedures for notifying local authorities in the event of an environmental accident resulting from Manufacturers' operations.

Wages and Benefits

Manufacturers shall provide wages and benefits that comply with all applicable laws and regulations or match the prevailing local manufacturing or industry rates, whichever is higher. Overtime pay shall be calculated at the legally required rate, regardless of whether workers are compensated hourly or by piece rate.

Working Hours

Manufacturers shall not require workers to work, including overtime, more than 60 hours per week or more than any maximum number of hours per week established by applicable laws and regulations, whichever is less.

Manufacturers shall guarantee that workers receive at least one day off during each seven-day period.

Freedom of Association

Manufacturers shall respect the right of workers to associate, organize and bargain collectively in a legal and peaceful manner.

Familiarization and Display of This Code of Conduct

Manufacturers shall familiarize workers with this Code of Conduct and display this Code of Conduct, translated in the local language, at each of their facilities in a place readily visible and accessible to workers.

Legal Requirements

Manufacturers shall comply with all legal requirements applicable to the conduct of their businesses, including those set out above.

Contractors and Suppliers

Manufacturers shall ensure that their contractors and suppliers adhere to this Code of Conduct.

Monitoring of Compliance

Manufacturers authorize BigApparel and its principals to conduct scheduled and unscheduled inspections of Manufacturers' facilities for the purpose of ensuring compliance with this Code of Conduct. During these inspections, BigApparel and its principals shall have the right to review all employee-related books and records maintained by Manufacturers and to interview workers.

Corrective Action

When violations are found, BigApparel and the Manufacturer concerned will agree on a corrective action plan that eliminates the problem in a timely manner. If it is determined that a Manufacturer is knowingly and/or repeatedly in violation of this Code of Conduct, BigApparel and its principals shall take appropriate corrective action, which may include cancellation of orders and/or termination of business with the Manufacturer in question.

(Source: Internal presentation on manufacturer audit guidelines, BigApparel)

Appendix H. Alcoholic Beverage Definitions for Taxation Purposes

There are three main categories of alcoholic beverages: wine, beer and spirits. Liqueurs and Ready-to-drink alcoholic beverages have also gained popularity in the Australian market. The presence of a variety of product categories in SubLiquor's portfolio of brands usually shields it to an extent from the effects of such tax increases. Marketing and lobbying efforts are also of importance in the context of the taxation environment. Since all alcohol beverages are sources of substantial tax revenues, they are clearly defined in the Australian Taxation Office database (<http://law.ato.gov.au/atolaw/browse.htm?ImA=MainMenu>) as follows:

(i) Wine:

The Alcohol Industry - Excise Technical Guidelines (Chapter 13 - Glossary of Alcohol Industry Terms) –

“Wine means:

- grape wine
- grape wine products
- fruit or vegetable wine
- cider or perry
- mead
- sake.

However, wine does not include beverages that do not contain more than 1.15% by volume of ethyl alcohol.”

ATO ID 2003/951 –

“In the wine industry **wine** is generally depicted by its type and style.

Type distinguishes **wines** with significant differences in terms of the general description or characteristics of the wine. For example, wine is red or white, dry or sweet, high or low percentage of alcohol, sparkling or still, fortified or non-fortified.

The style of the **wine** is determined by factors such as its aroma, flavours and whether the wine is light, medium or heavy. These styles can be influenced by any number of different factors such as the type of grape used or blend of grapes, the location at which the grapes were grown, the type of oak used (if the wine is matured in oak), the influence of the wine maker, etc.

Wines that fall into a particular type can be produced in a number of different styles. Flavours that make up the **wine** style are determined by the type of fruit used. These

flavours are extracted from the flavour compounds present in the juice and skins of the fruit.

It is thus evident that in the **wine** industry, the sweetness of a wine is not part of the flavour description of the wine (i.e. the style). Sweetness determines the type of wine rather than the style of the wine.”

(ii) Beer:

The Alcohol Industry - Excise Technical Guidelines (Chapter 13 - Glossary of Alcohol Industry Terms) –

“A fermented drink brewed with hops. Lager, ale, stout, porter and so on are included in the general term beer. Section 4 of the Excise Act defines beer as any liquor on which, under the name of beer, any duty of excise imposed by the Parliament is payable.

Beer is also defined in the Schedule to the Excise Tariff Act as a brewed beverage which:

- a. is the product of the yeast fermentation of an aqueous extract of malted or unmalted cereals, whether or not containing other sources of carbohydrates
- b. contains hops, or extracts thereof, or other bitters
- c. has not had added to it, at any time, any alcohol from any other source, and
- d. contains more than 1.15% by volume of alcohol.”

(iii) Spirit:

ATO ID 2008/29 –

“Spirit means a potable alcoholic distillate, including whisky, brandy, rum, gin, vodka and tequila, which, unless otherwise required by this Standard [Standard 2.75 of the Food Standards Code], **contains at least 37% alcohol by volume**, produced by distillation of fermented liquor derived from food sources, so as to have the taste, aroma and other characteristics generally attributable to that particular spirit.”

Types of Spirit:

The Alcohol Industry - Excise Technical Guidelines (Chapter 7 – Spirits – Distilleries) –

“Brandy

- a. brandy is defined in the preamble to the Schedule to the Excise Tariff Act and means a spirit distilled from wine in such a manner that the spirit possesses the taste, aroma and other characteristics generally attributed to brandy, being a spirit that contains not less than 25% of spirit distilled at a strength of not more than 83% by volume of alcohol.

- b. section 12 of the Spirits Act requires that brandy must be matured in wood for not less than 2 years.

Whisky

- a. whisky is defined in the preamble to the Schedule to the Excise Tariff Act and means a spirit obtained by the distillation of a fermented liquor of a mash of cereal grain in such a manner that the spirit possesses the taste, aroma and other characteristics generally attributed to whisky.
- b. section 12 of the Spirits Act requires that whisky must be matured in wood for not less than 2 years.

Rum

- a. rum is defined in the preamble to the Schedule to the Excise Tariff Act and means a spirit obtained by the distillation of fermented liquor derived from the products of sugar cane, being distillation carried out in such a manner that the spirit possesses the taste, aroma and characteristics generally attributed to rum.
- b. section 12 of the Spirits Act requires that rum must be matured in wood for not less than 2 years.

Gin, vodka and ouzo

Although these products can be, and often are manufactured in a distillery, they are classified within item 2H of the Schedule to the Excise Tariff Act as other excisable beverages. There is no requirement for these products to be aged in wood. They are dealt with in this manual in chapter 8, which deals with liqueurs and other excisable beverages.”

(iv) Liqueur:

The Alcohol Industry - Excise Technical Guidelines (Chapter 13 - Glossary of Alcohol Industry Terms) –

“The product obtained by mixing or by distillation of spirit with or over fruits, flowers, leaves or other vegetable substances or their juices either singly or in combination or with extracts derived by distillation, infusion, percolation or maceration of such vegetable substances and containing not less than 25 grams per litre of sugars and not less than 17% a/v (The Schedule to the Excise Tariff Act).”

(v) RTDs:

The Alcohol Industry - Excise Technical Guidelines (Chapter 8 – Liqueurs and Other Excisable Beverages) –

“Ready-to-drink (RTD) beverages (pre-mixed alcoholic drinks) are classified as *other excisable beverages* and have become an integral part of the liquor market. RTDs are manufactured from either a distilled spirit or a fermented/brewed alcohol base.” Recent tax increases have affected SubLiquor’s sale of RTDs.

Appendix I. SubLiquor's Engagement in Lobbying Activities

The Distilled Spirits Industry Council of Australia Inc (DSICA) is a lobbying body that represents the interests of manufacturers and importers of distilled spirits in Australia (<http://www.dsica.com.au/>):

“DSICA’s major goals are to:

- provide strong representation at all government levels on public policy, regulatory, trade and commercial matters, and on other issues affecting the integrity, growth and profitability of the distilled spirits and liqueurs industry in Australia;
- ensure our members are able to responsibly conduct their businesses free from unwarranted interference, in a fair and competitive market place;
- create informed political and social environments that recognise the benefits of moderate alcohol consumption and provide opportunities for balanced community discussion on alcohol issues; and
- ensure public alcohol policies are soundly and objectively formed, that they include industry input, are based on the latest relevant national and international research, and do not disadvantage the spirits industry.

DSICA’s ongoing activities include:

- lobbying governments at all levels to inform decision-making and to protect the interests of our members* and the integrity, growth and profitability of the distilled spirits and liqueurs industry in Australia;
- preparing and lodging submissions to government, statutory authorities and the bureaucracy on a variety of matters of interest to our members;
- making recommendations to government and other organisations on a variety of alcohol-related matters and issues;
- collecting and disseminating scientific research and other information to government and its agencies, to the alcohol industry, and to various organisations working in the fields of drug and alcohol abuse;
- discussing ideas, developing policies, and collaborating with government and other agencies on strategies to address the social issues involved with alcohol use and misuse;
- conducting public and industry information and education campaigns that address alcohol misuse; and
- providing advice to a variety of groups on industry matters and alcohol issues.”

* includes SubLiquor

Appendix J. Customs Declarations Made by Forwarder on Behalf of SubLiquor

Nature 20 declarations are necessary for all alcoholic beverage imports. The document requires the alcohol content to be declared as a percentage of the total volume. The accuracy of information reported in this document is very important from the perspective of both SubLiquor and the forwarder. The following information is provided by Australian Customs regarding Nature 20 declarations (Source: Nature 20 Warehouse Declarations, Industry Imports Manual – V1.1 25/10/2007, p. 4-5):

“WHAT IS A WAREHOUSE DECLARATION?”

A Nature 20 warehouse declaration is a document lodged with Customs to enter goods imported for warehousing in a Customs licensed warehouse. Warehouse declarations must be lodged by the importer, or their representative licensed Customs broker. Warehouse declarations can be lodged electronically using the Integrated Cargo System (ICS) using either:

- Customs Interactive
- Electronic Data Interchange (EDI).

Warehouse declarations can also be lodged as a physical document at Customs premises or at an authorised external agency. An Evidence Of Identity (EOI) check is required when lodging a documentary declaration. When warehouse declarations are lodged at authorised external agency outlets a charge is levied for each EOI check. EOI charges are not levied at Customs premises.

WHEN IS A WAREHOUSE DECLARATION USED?

A warehouse declaration is required for all goods to be entered for warehousing with a value that exceeds the entry threshold. The warehouse declaration includes information that relates to the goods being imported:

- importer/broker details
- value of the goods
- transport details of how the goods arrived in Australia
- tariff classification of the goods, including tariff classification number, instrument, dumping and valuation details
- Australian Quarantine and Inspection Service (AQIS) processing information, including types/codes, permits, container details, document and package details
- community protection information associated with the goods
- lodgement declarations.

The warehouse declaration may be lodged at any time before the ship or aircraft carrying the goods first arrives at a port or airport in Australia and must be lodged once the ship or aircraft has arrived.

HOW IS THE WAREHOUSE DECLARATION USED?

The Warehouse Declaration is used:

- to calculate duty/dumping & GST obligations

- as a primary risk assessment document for Customs and Quarantine – some of this risk assessment occurs through the answering of community protection questions
- to quote permits etc for goods requiring such authorisation

The main manifest is the final document in the export chain. It is the highest-level document and contains the information about all cargo loaded onto a vessel or aircraft. There is one main manifest per vessel or aircraft. The main manifest cannot be used within another document.”

Associated Legislation (Source: Nature 20 Warehouse Declarations, Industry Imports Manual – V1.1 25/10/2007, p. 7):

“Customs Act 1901

Section 68 requires all imported goods to be entered for home consumption or warehousing and lists goods that are not subject to the requirement (including those that do not meet the entry threshold value. Once goods have been entered for warehousing they must be entered for home consumption in order to remove them from the warehouse.

Section 71DH applies to goods entered for warehousing. Goods are temporarily stored in a licensed Customs warehouse. Imported goods declared on a Nature 20 warehouse declaration do not require payment of duty or taxes until they are removed from the warehouse and entered for home consumption.

Section 71F specifies that, if a person changes any information on a declaration at any time after that declaration has been communicated to Customs, and before the goods are dealt with in accordance with the declaration, the person is taken to have withdrawn the declaration as it previously stood and any authority to deal with the goods is revoked.

Section 71L specifies the manner and effect of communicating electronically with Customs.

Section 79 refers to licensing of warehouses by Customs.

Section 181 specifies that only the owner of the goods, an employee of the owner, or an authorised licensed Customs broker acting on the owner’s behalf can lodge warehouse declarations.”

Appendix K. SubLiquor's Electronic Business Related Interactions

This implementation of EDI based transactions between the national retail chains and SubLiquor as well as e-business processes between the company and one of its suppliers are outlined here. The electronic processes are being gradually implemented since 2008 but are still limited to a few partners. Even with those with whom there is electronic integration, the interactions can vary by individual partner (Source: SubLiquor's internal information dissemination document):

"The e-Business system has been implemented for SubLiquor to offer the ability to transact business electronically with trading partners.

Benefits of implementing e-Business

- Increased accuracy of the information on business documents
- Reduced paper work and manual processes
- Reduced errors afferent to manual processes.
- Increased the speed of the cycle order-delivery-payment
- Better visibility and control of the delivered goods circulation
- Reduced routine operations by replacing them with automations
- Faster and more reliable business document transmission
- Participating on global standards.

2. SCOPE

The procedures and operations described on the current document shall be applicable to selected SubLiquor staff involved in management of the supply chain and finances using the ERP system.

3. DEFINITIONS

The following abbreviations are used:

- SO - Sales Order
- PO - Purchase order
- ASN – Advanced Shipping Notice
- POA – Purchase Order Acknowledgement
- SSCC – Serial Shipping Container Code
- REMADV – Remittance Advice
- RCTI – Recipient Created Tax Invoice
- GTIN - Global Trade Item Number
- DSD – Direct Delivery to Store
- CP – Continuing Permission

4. RESPONSIBILITY AND AUTHORITY

This procedure shall be maintained, reviewed and issued under the authority of the General Manager, Finance & Operations.

The e-Business system offers the ability of electronic processing and transmission of business documents between SubLiquor and its customers.

The e-Business system mainly includes the IT systems below:

- the ERP system
- the ERP application server and
- the application integration server which provides the electronic transmission of documents as EDI messages.

Processes occurring within an electronic trading transaction

Application integration server and ERP system – EDI documents circulation process

- The customer sends Purchase Orders electronically to SubLiquor through SubLiquor's application integration server.
- In the ERP system, SubLiquor's customer service checks and accepts the Purchase Orders which are transformed into Sales Orders
- Customer service adjusts the quantities ordered to deliverable quantities
- Customer service enters the promised delivery date.
- The items on the Sales Orders are assigned appropriate physical locations and lot numbers
- 'Accounts receivable' staff service releases the Sales Order.
- Warehouse staff changes the shipment date from the defaulted value to the date on which the goods are expected to be shipped.
- The warehouse staff prints the Order Confirmation and sends it to the customer (hard copy) - applicable to Customer A and Customer B and not applicable to Brand Owner X
- The system sends the EDI Purchase Order Acknowledgement electronically to customers from The ERP (via the application integration server) – automated process

- The warehouse staff ships and invoices the Sales Orders, prints the Invoice for internal records only. The customer service DOES NOT send the invoice hard copy to customer – applicable to Customer A DCs and Brand Owner X only.
- For Brand Owner X the shipping and invoicing is done with zero value.
- The system sends the Advanced Shipping Notification electronically to customers from the ERP system (via the application integration server) – automated process – applicable to Customer A only

Other document circulation between SubLiquor and the customer or supplier (Brand Owner X)

- The customer sends to SubLiquor an email containing the Remittance Advice – applicable to Customer A only
- The customer sends the Recipient Created Tax Invoice electronically to SubLiquor (The application integration server) – applicable to Customer A only
- SubLiquor’s customer service receives an email with the content of the Recipient created Tax Invoice (from the application integration server) – applicable to Customer A only
- Brand Owner X places the customer invoice on their FTP server– applicable to Brand Owner X only.
- The application integration server retrieves the invoice from Brand Owner X’s ftp server and sends an email with the attached invoice to the warehouse staff and SCM service provider’s staff – applicable to Brand Owner X only.
- The warehouse staff prints the pdf tax invoice and attaches it to the goods – applicable to Brand Owner X only”

Step no.	Step on the former process	Step on e-Business process	Comment	Applicability
1	The Customer Service Officer receives customer PO by fax	The Customer Service Officer checks the pending POs in Navision (they would be also notified by an email about new POs)	Process changed	Customer A, Customer B & Brand Owner X
2	The Customer Service Officer enters the PO as a SO in Navision	The Customer Service Officer accepts the POs and they are transformed into SOs	Process changed	Customer A, Customer B & Brand Owner X

3	The Customer Service Officer photocopies the PO adding the SO number in Navision and sends it to the warehouse office.	The Customer Service Officer adjust the quantities to deliverables and enters the delivery information (date, time and carrier)	Process changed	Customer A, Customer B & Brand Owner X
4	The Customer Service Officer assigns location codes based on item description and allocates lot numbers.	The Customer Service Officer assigns location codes based on item description and allocates lot numbers	Not Changed	
5		The Customer Service Officer enters promised delivery date	Additional step	Customer A, Customer B & Brand Owner X
6	The Accounts Receivable Officer releases the SO	The Accounts Receivable Officer releases the SO	Not Changed	For Brand Owner X the releasing is done with zero value
7	Warehouse office updates the Shipment Date	Warehouse office updates the Shipment Date	Not Changed – but should be done before printing the purchase order confirmation	Customer A, Customer B & Brand Owner X
8	Warehouse office prints the SO Confirmation	Warehouse office prints the SO Confirmation	Not Changed	
9		The system automatically sends the electronic POA to the customer. The warehouse office is notified by a message.	Additional step – Completely automated	Customer A, Customer B & Brand Owner X
10	Warehouse office ships and invoices the SO printing the delivery docket and the invoice	Warehouse office prints the labels, and scans the SSCC numbers on the SO lines in Navision	These two steps have been reversed. Process changed. Additional	Customer A
11	Warehouse office prints the labels	Warehouse office ships and invoices the SO, printing the delivery	sub-step: scanning of the SSCC	Customer A, Customer B & Brand

		docket and the invoice.	numbers of the labels.	Owner X – for Brand Owner X the value of the invoice is zero.
12		The system automatically sends the electronic ASN to the customer. The warehouse office is notified by a message.	Additional step – Completely automated.	Customer A
13		Warehouse staff receives the pdf tax invoice by email from Brand Owner X.	Additional step – completely automated	Brand Owner X
14	Warehouse staff does the effective picking based on the documents printed by the office	Warehouse staff does the effective picking based on the documents printed by the office	Not Changed	
15	Warehouse sends the goods and the documents to the customer	Warehouse staff sends the goods to the customer. SubLiquor Tax Invoice: <ul style="list-style-type: none"> • is not sent to Customer A or to Brand Owner X customers • is sent to Customer B • Brand Owner X pdf Tax Invoice is sent to Brand Owner X customers 	Process changed Changes are applicable to Customer A and Brand Owner X	Customer A & Brand Owner X
16	SubLiquor receives the remittance advice via email	SubLiquor receives the remittance advice via email	Not Changed	
17		SubLiquor – accounts receivable - receives an email with Customer A RCTI content	Additional step. Applicable to Customer A only	Customer A

(Source: SubLiquor’s internal information dissemination document)

Note: Partner organization names have been masked in the above discussion in order to protect participant identity as in the rest of the thesis.

Appendix L. The Cloud-based EDI Solution Adopted by BigApparel and SubLiquor

Both BigApparel and SubLiquor with their diverse business focus and scope have taken advantage of the advances in cloud computing and rely on an external service provider, GXS, for their EDI messaging service requirements. In the case of both companies, the adoption of GXS's services appears to be driven by the practices of large retail customers.

GXS provides business-to-business (B2B) e-commerce solutions to companies around the globe including over 70% of Fortune 500 companies. On the infrastructure side, GXS has two data centres, one in Cleveland, Ohio (which houses the primary systems) and the other in Amstelveen, Netherlands (which houses the backup systems). There is asynchronous data replication between the two sites. (Source: Presentation by Rob Minns, Sales Director, GXS, 2007)

According to GXS (http://www.gxs.com/products/technology/gxs_trading_grid):

“Trading Grid ® [the B2B e-commerce platform] was started in 2004 and built as a cloud computing platform. The physical hardware architecture consists of modular blade servers, storage area networks and a high capacity, intra-data center WAN. There are no mainframes or antiquated dial-up networks. The logical architecture is a virtualized implementation of Linux with centralized management software.

By connecting to Trading Grid you gain access to the world's largest electronic business community. Over 100,000 businesses in 50 countries use Trading Grid every day to facilitate the transfer of goods, money and information with their customers, suppliers and service providers.

- **Manufacturing**—Tens of thousands of manufacturing companies utilize Trading Grid daily for demand forecasting, materials management and financial settlement. GXS customers include many of the world's largest apparel & footwear, food & beverage, consumer packaged goods, automotive parts, electrical components and computer OEM brands.
- **Service Sector**—Trading Grid supports a wide range of business activities in the service sector as well. Most of the world's largest banks, wholesale distributors and transportation providers support their manufacturing client's international trade activities using Trading Grid. GXS also hosts large communities in the retail, insurance, utilities and telecommunications sectors.
- **Interoperability**—To further extend our reach we have established interoperability and interconnect agreements with EDI VANs, B2B exchanges, GS1 data pools and e-invoicing networks—providing access to an even larger community of business partners worldwide.

Benefits to customers include:

- **No Software Licenses**—Users of GXS Trading Grid need not license any software or purchase any server hardware to leverage our extensive suite of B2B integration services. Many of our customers are choosing to connect their SAP or Oracle ERP application to GXS Trading Grid directly, enabling seamless integration with their business partner community.
- **Subscription Pricing Model**—GXS offers its B2B integration services for a monthly subscription fee that is much more aligned with actual usage of the services than traditional software license models. Companies can choose to pay an up-front implementation fee to reduce their monthly subscription cost or pay nothing up front with a higher monthly recurring fee. Both fixed-fee and usage-based monthly pricing are available.
- **Scalability and Flexibility**—Trading Grid’s cloud-style architecture enables GXS to dynamically scale up and down processing capacity with the same economics. As a result, Trading Grid has the scalability to support extreme transaction loads for short periods of time and enables GXS to reduce planned downtime. Our cloud infrastructure offers the ability to move application footprints across different hardware nodes in just a few hours.

All of GXS cloud-based applications leverage a common Service Oriented Architecture (SOA) platform for development and runtime environments.

- **Shared, Reusable Components**—All applications on Trading Grid leverage shared components. The common services range from identity, context and accounting to document translation, protocol mediation and data quality. Applications share content repositories, which contain trading partner profiles, configurable business rules and a centralized data store.
- **Trading Grid Online**—Customers benefit from the SOA platform with support interfaces such as Trading Grid Online, a single, web-based portal by which customers can access all GXS applications and services. Additionally, Trading Grid Online also allows end users to perform account administration, initiate billing inquiries and submit trouble tickets.
- **GridStream**—The benefits of the SOA strategy extend to business partners as well. GXS recently introduced a set of GridStream services, which allow third-party developers to program to Trading Grid. As a result, remote, third-party applications can perform web service calls to Trading Grid to access B2B integration functionality.”

According to the company, the platform’s messaging services enables the customer “to exchange business documents electronically in a secure, fast and reliable manner. Documents can be sent in both the latest XML standards as well as traditional EDI document standards. Trading Grid Messaging Service can be then accessed via the Internet using a variety of communications options such as FTP and AS2.” (Source: http://www.gxs.com/products/transact_messaging/edi/trading_grid_messaging_service)

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