



**PHD**

**The antecedents and consequences of relational capabilities in strategic alliance management**

**A study of Thai manufacturing sector**

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*Award date:*  
2014

*Awarding institution:*  
University of Bath

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**THE ANTECEDENTS AND CONSEQUENCES OF  
RELATIONAL CAPABILITIES IN  
STRATEGIC ALLIANCE MANAGEMENT:  
A STUDY OF THAI MANUFACTURING SECTOR**

**Rapeeporn Rungsithong**

A thesis submitted to the degree of Doctor of Philosophy

University of Bath

School of Management

July 2014

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## LIST OF ABBREVIATIONS

BC	Bias Corrected
c	Total effect of independent variable on dependent variable
c'	Direct effect of independent variable on dependent variable
CFA	Confirmatory Factor Analysis
CFI	the comparative fit index
CI	Confidence Interval
DC	Dynamic Capabilities
HR	Human resource
MNEs	Multinational subsidiaries
OLS	Ordinary Least Square
p	Significance Level
r	Pearson Correlation Coefficient
RBV	Resource Based View
R&D	Research and Development
RMSEA	the root-mean-square error of approximation index
SCM	Supply Chain Management
SEM	Structural Equation Modelling
TCE	Transaction Cost Economics
TLI	the Tucker-Lewis index

## ACKNOWLEDGEMENTS

Completing my PhD degree is probably the most challenging activity of my life and giving me invaluable life lessons. The challenges of living in UK and the overcome the hardships during my doctoral journey have been shared with many people. My sincere thanks go to Professor Dr. Klaus Meyer and Dr. Anthony Roath. I am grateful for their academic guidance and continuous encouragement. I want to particularly thank Professor Klaus Meyer for giving me an invaluable opportunity to work with him on my research project and his continuous support. My thanks also go to Dr. Christian Stadler, Dr. Sarah Dixon, Professor Michael Lewis, Dr. Elena Novelli, Dr. Sinéad Carey and Dr. Waranya Patarasuk for their academic advice and helpful comments.

I would like to express my deepest gratitude to the 156 anonymous purchasing managers and staff of multinational companies in Thai manufacturing sector for their participation into this research. I also want to thank Mr. Akanit Smitabindu, President of Purchasing and Supply Chain Management Association of Thailand, my friends and seniors in Thailand, Prompong Charoenwongrerk, Pairin Kraisor, Piraya Pholbhumirak, Sakorn, Somjit and Teeraporn Chalermisiri, Hongsuda Sornklin for their enormous effort in helping me obtain access to the collect data from companies, and Max Harris for proof reading the thesis. I would like to thank my PhD colleagues in the School of Management, University of Bath who share joyful and depressed moments along my PhD study, especially Patchara Popaitoon, Jeff Lin, Sasipatch Chaisiribodin, Pawitra Chiravirakul, Sarah Zhao and Ms. Ines Laidler for their moral and intellectual support throughout the course of my PhD.

Last but not least, I dedicate this dissertation to my parents, Yutthana and Puangsiri Rungsithong and my younger sisters, Taiy and Toon. They not only give me their endless love and encouraging me to pursue my higher education in the UK, but also provided their fortunes to financing my doctoral degree. Thanks for always believe in me that I could achieve my life's ambition in becoming a scholar and bring out the best in me. Any remaining errors are solely my own responsibilities.

## **ABSTRACT**

This research investigates the antecedents and consequences of relational capabilities in the context of strategic alliance projects between MNE subsidiaries and local suppliers in the Thai manufacturing sector. The need to understand the relational capabilities approach is recognised in management literature, especially the ambiguous effects of the relational and economic dimensions, on relational capabilities in cross-cultural alliance projects. In particular, academics have highlighted the importance of relational capabilities, trust and transaction cost factors in that they play important roles in determining alliance success, especially in the context of cross-cultural alliances. A theoretical framework is developed which, first, explores the antecedents and barriers of relational capabilities and second, examines the multiple mediation effect of these on the link between inter-organizational conditions and alliance performance.

The research design is aligned with quantitative methodology. The theoretical frameworks were tested using the data obtained from 156 strategic alliance projects between MNE subsidiaries and local suppliers in the Thai manufacturing sector with hierarchical regression analysis and the bootstrapping technique. The empirical results indicate that inter-personal trust, inter-organizational trust and asset specificity are antecedents of relational capabilities, while HR distance between alliance partners is not a barrier of these capabilities. Moreover, the empirical outcomes in relation to the indirect effect of the relational and economic dimensions on alliance performance through knowledge sharing routines and complementary capability are supported. However, the remaining hypotheses pertaining to the expectation that effective governance mechanisms are mediators on those relationships are rejected. This is explained by the fact that trust-based relationships are so deeply embedded in the Thai manufacturing sector that they predominate over such mechanisms.

The contribution of this research is twofold: first, in terms of academic advancement, it combines the arguments of trust and TCE to provide a holistic view in explaining antecedents and consequences of relational capabilities. Second, in terms of practical contribution, it improves the understanding of practitioners both purchasing managers of MNE subsidiaries and sales managers, regarding the alignment of trust and asset specificity with relational capabilities to achieve better performance in cross-cultural strategic alliance projects.

# CHAPTER 1

## INTRODUCTION

### 1.1 Introduction

This study analyses the antecedents and consequences of relational capabilities in strategic alliance projects between MNE subsidiaries and local suppliers by adopting three approaches, including relational capabilities, trust and transaction cost economics (TCE), to develop the theoretical framework. This chapter introduces the fundamental concepts of the research and sets out the structure of the study. The remainder of the chapter is organised as follows: Section 1.2 describes the research motivation and presents the problem statement in the context of strategic alliance projects between MNE subsidiaries and local suppliers. Section 1.3 discusses the academic and practical significance of this research, whilst Section 1.4 describes the aims and objectives. Section 1.5 presents the structure of the thesis and finally, Section 1.6 contains the chapter summary.

### 1.2 Research motivation

A strategic alliance between business partners is an important strategy to compete and grow in the uncertainty of today's global business (Kale and Singh, 2009). In particular, it is a fast and flexible way to access complementary resources and skills that reside in other companies (Dyer et al., 2001). Moreover, a strategic alliance is a source of sustainable value for everyone involved (Peng, 2009). For example, Cisco Systems Inc., a global leader of the telecommunication industry, has used strategic alliances with key global IT leaders, such as Microsoft, IBM, and Accenture, as part of the growth strategy for their firm over the last decade (Dyer and Kale, 2007). Nevertheless, a recent study by McKinsey & Company found that only half of all strategic alliances yield returns above the cost of capital (Kaplan et al., 2010). Even though their failure rate is high, the number of alliances being formed is growing because they have the potential to create value (Dyer et al., 2001; Ireland et al., 2002; Lunnan and Haugland, 2008). Consequently, the search for the drivers of alliance performance has become a critical issue to both practitioners and scholars (Dyer and Singh, 1998; Koka and Prescott, 2002; Schilke and Goerzen, 2010). In recent years, strategy scholars have increasingly agreed that non-imitable and

non-substitutable organizational capabilities and resources are a key source of inter-firm performance differences (Barney, 1991; Dosi, Nelson, and Winter, 2000; Nelson, 1991; Rumelt, 1984; Wernerfelt, 1984).

Strategic management scholars have paid particular attention to explaining why some firms succeed in strategic alliances, but their opinions are still inconsistent. The alliance literature has provided tools for evaluating value creation and appropriation at the dyad or network level. From previous studies, alliance performance is a central focus for strategic alliance management (Peng, 2009) and three main factors that may influence it have been put forward: (1) equity (Dhanaraj and Beamish, 2004; Barden et al., 2005), (2) learning and experience (Meyer, 2007) and (3) firms' nationalities (Sirmon and Lane, 2004). In addition, it has been contended that a company requires robust experience and know-how from previous alliances in order to build a proficient and successfully managed business (Simonin, 1997; Kale et al., 2001).

Despite the importance of understanding alliance performance, alliance management capabilities research has received less attention than other areas. Consequently, there is limited understanding in the literature of where capabilities come from or what kinds of investment in money, time, and managerial effort is required in building them in order to leverage alliance performance. Dyer and Kale (2007) called for detailed study on the exact contents and antecedents of relational capabilities. Hence, in recent years scholars have devoted a lot of attention to studying alliance management capability and understanding how firms benefit from it (Kale et al., 2002; Heimeriks and Duysters, 2007; Schreiner, Kale and Corsten, 2009; Schilke and Goerzen, 2010). Most have found the existence of alliance capabilities from a firm's prior alliance experience or from a higher level of performance between firms (see e.g. Anand and Khanna, 2000; Zollo and Reuer, 2003; Heimeriks, 2004), but operationalization of relational capabilities and their constructs remains contested. That is, they have only provided a partial solution to providing an explanation for the persistent differences in alliance performance between firms.

In order to better understand why some firms persistently outperform competitors in terms of alliance performance, another stream of research has emerged that is distinct from intra-firm antecedents research and looks at factors that promote alliance

performance at the inter-firm level (e.g. Simonin, 1997; Dyer and Singh, 1998; Kale et al., 2000). The need to complement early alliance research that centered on inter-firm antecedents of alliance performance is also evident from Ireland et al. (2002), who recently underscored the need for firms to concentrate on both content and process elements simultaneously in order to enhance alliance performance. In their view, it is insufficient to understand the critical issues at the dyadic level without addressing the specific inter-organizational dimensions that underlie successful alliance management at the alliance project level. Other studies, such as Heimeriks and Duysters, 2007 and Schilke and Goerzen, 2010, have confirmed the need to pay attention to the role of inter-firm factors in order to provide a better understanding of the antecedents of alliance performance. That is, these authors take the view that inter-organizational factors are of key importance to come to a better understanding of the factors involved in enhancing a firm's alliance performance.

Peng (2009) pointed out that alliance capabilities are intangible resources and capabilities that are harder to observe and more difficult, or sometimes impossible to quantify when compared to tangible ones. Yet, it is widely acknowledged that they must be present together with tangible resources and capabilities in order to generate firms' competitive advantage. In order to unpack them, Luo (2002) and Krishnan et al. (2006) combined the TCE and relational exchange perspectives and changed the focus from predicting make or buy to other intermediate outcomes like inventory turnover, buyer control, and a supplier's delivery performance. In addition, Doz (1996) used longitudinal multi-industry data and his results were consistent for both the relational and economic perspectives, thus indicating the importance of incorporating both streams of thought in understanding inter-organizational ties. Despite these efforts, however, the understanding of the antecedents of alliance capabilities that generate from inter-organizational conditions remains quite limited. This thesis therefore provided an important opportunity to advance the understanding of resources and capabilities focusing on inter organizational relationship management and developing the concept of alliance management based on the relational capabilities approach in order to contribute to alliance management studies and recommend strategy to scholars and alliance managers. The following subsections explain the motivation for this researcher to adopt a relational capabilities approach as well as describing the research setting.

### **1.2.1 Relational capabilities approach**

The relational view (Dyer and Singh, 1998) complements the RBV by arguing that critical resources may extend firm boundaries and consequently that firms earn relational rents, which are jointly generated by alliance partners. That is, relational capabilities are seen as important sources of inter-organizational competitive advantage of alliance firms. Relational capabilities refer to firms' capacity purposefully to create, extend, or modify their resources and routines, augmented to include the resources and capabilities of the alliance partners (Dyer and Kale, 2007). From this perspective, firms need to dedicate their own time and effort, in the form of specific organizational routines in order to build relational capabilities in the collaboration (Kale et al., 2002). In general, the relational capabilities approach is an emerging theory explaining the inter-organizational management of strategic alliances (Pagano, 2009). Building on the extant literature, this researcher views alliance management capability as a multidimensional construct comprising skills that address three main aspects in managing a given alliance: knowledge sharing routines, complementary capability, and effective governance mechanisms (Dyer and Kale, 2007). More specifically, relational resources tend to be intangible, relatively rare, hard to measure, difficult for rivals to replicate and therefore cannot be nurtured (Srivastava, Fahey and Christensen, 2001). Such resources and capabilities are by definition not available to competitors in the factor markets and therefore can provide competitive advantage (Schroeder, Bates and Junttila, 2002). The challenge for managers is to develop relational capabilities that enable them to connect their resources to their alliance partners both at the individual (Fang et al., 2008) and organizational level (Gulati, 2000; Dyer and Kale, 2007). Examining the relationship between these levels may facilitate a better understanding of the inter-organizational relationship management in the form of relational capabilities development in terms of its strategic impact.

The relational capabilities approach is a strategy of alliance management that emphasizes the modification of organizational routines in order to have better integration with alliance partners and higher alliance performance (Dyer and Kale, 2007; Pagano, 2009). For instance, the joint venture between Pfizer and Warner Lambert in 1996 achieved success, because the alliance partners applied relational capabilities in their collaboration (Dyer and Kale, 2007). Another example is that Aventis and Millennium pharmaceuticals

encouraged collaborative behaviours at the individual level by creating a list of behavioural protocols that were not stated in the formal agreement of the alliance. Although 70% of companies have developed formal management systems for at least some of their alliances, fewer than 10% have established set initiatives to promote relational behaviours (Hughes and Weiss, 2007). Hence, many alliance managers still need to acquire relationship management skills to modify their resources and capabilities in order to enhance alliance performance and promote competitive advantage over competitors.

To date, the relational capabilities concept has some limitations, in particular, regarding understanding of their antecedents, which hence opens up a new research avenue. Regarding these, extant literature has shown that previous alliance success is a source of alliance management capability (Dyer and Kale, 2007). Moreover, companies that achieve their alliance goals tend to dedicate organizational routines to manage collaborations (Kale et al., 2002) and the alliance management functions should focus on the deployment of tacit knowledge that a company learns from their alliances (Kale et al., 2001; Heimeriks, 2004; Kale and Singh, 2007; Schreiner et al., 2009; Nielsen and Nielsen, 2009). As a result of these findings, strategic scholars have called for research to consider additional conditions for relational capabilities that have as yet not been identified. Moreover, previous studies have adopted the relational capabilities approach to examine alliance management between alliance partners and buyer–supplier relationships (Arz and Brush, 2000; Dyer and Chu, 2003; Lavie, 2006; Paulraj et al., 2008; Mesquita et al., 2008). However, these empirical studies have provided an inconsistent view of the interaction among relational variables and what is more none has considered the identified variables in simultaneous examinations. Therefore, additional studies are required to investigate the effect of a full and robust set of relational capabilities parameters on relational rents.

The extant research has examined the role of both economic and relational dimensions in strategic alliance management. Regarding which, economists tend to focus on using asset specificity to facilitate exchange by preventing opportunism (Shelanski and Klein, 1995), while with the relational view the concentration is on trust and resources as well as the capabilities to promote collaborative exchanges in dyadic relationships. Few studies, however, have effectively integrated these two dimensions on relational capabilities

building. Hence, in this researcher's view taking account of both the economic and relational dimensions will promote inter-dependence and commitment to positive outcomes of the alliances, because it is believed that they work together to enhance relational capabilities. In addition, the links between the competence of individuals and organization performance as well as between the competence of organizations and network performance are matters of importance (Cox, 1994), but they not clearly understood. In particular, important questions still remain unanswered regarding which aspects of trust and transaction cost factors are relevant to such relational capabilities, how they can be measured, and how they are related to other key constructs.

Regarding the relational dimension, sharing proprietary resources and capabilities in strategic alliances, under a pure resource-based perspective, would place the firm at significant risk of leakage to the partner and spill over to competitors (Gulati, 2000). Thus, this research is aimed at uncovering the conditions under which firms promote the risky actions and behaviours of sharing resources and capabilities with their alliance partners. Furthermore, the relational capabilities approach overlooks the influence of transaction cost factors that can cause risk for collaborations owing to the uncertainty from business partners' opportunistic behaviours (Mayer et al., 1995; Lui et al., 2006). Economic constraints, as suggested by TCE, are positively related to the quality of relationships between the alliance partners because of the lock-in situation (Young-Ybarra and Wiersema, 1999). For instance, Inkpen and Currall (1998), Joshi and Stump (1999), and Subramani and Venkatraman (2003) found a positive relationship between asset specificity and the quality of inter-organizational relationships in that cooperative behaviours play a role as a safeguard to prevent these investments from being opportunistically exploited by the supplier. However, some research has found a negative relationship between asset specificity and alliance performance, being explained as that investments are not easily redeployable and alliance partners are at risk if their suppliers behave opportunistically, (Artz, 1999; Suh and Kwon, 2006). Hence, it is important to address these ambiguous effects of transaction cost factors on the relational capabilities approach.

### **1.2.2 Research settings**

The study offers some important insights into the relational capabilities approach in the context of strategic alliance projects between MNE subsidiaries and local suppliers in the Thai manufacturing sector. Previous studies found that alliance experiences and alliance functions are antecedents of relational capabilities in the context of alliance portfolios (Kale et al., 2000; Hong and Rothermel, 2005; Dyer and Kale, 2007). However, the antecedents of relational capabilities at the dyadic relationship level have been overlooked. Moreover, strategic alliance research that has investigated these alliances at the project level has helped to uncover the reasons why projects have failed or been successful (Ariño et al., 2005). An increasing number of firms use projects to achieve strategic and operational objectives and to adapt to a rapidly changing technological and market environment. For these firms, learning through and from projects is increasingly important to competitive success. However, previous research has emphasized the difficulties that firms face when they attempt to capture the learning gained through projects and transfer it to their wider organizations (e.g. DeFillippi 2001; Keegan and Turner 2001). Furthermore, empirical research focusing on strategic alliances at the project level allows the researcher to study the role of the individual. Previously, the management field has also suffered from a lack of research spanning individual behaviours and organizational processes, i.e. there has been a lack of integration of individual behaviours in their organizational context (Cox, 1994; Ariño et al., 2005; Felin et al., 2012). Therefore, part of the aim of this thesis is to carry out an empirical study that focuses on relational capabilities in the context of strategic alliance projects. More specifically, this strategic alliance projects study provides a detailed look at the purpose served by specific relationships between buyers and suppliers, thereby offering a guide to firms and project managers in relation to successful strategic alliance management.

In addition, the importance of managing cross-cultural alliances is reflected in the extensive literature on this topic, which has focused primarily on the structuring of cross-border partnerships. For example, a number of studies have examined the rationale for international partnerships, including joint ventures and international strategic alliances (Sirmon and Lane, 2004; Krishnan et al., 2006), and cross-border marketing partnership (Aulakh et al., 1996; Ling-yee and Ogunmokun, 2001; Skarmeeas et al., 2002). Because the unit performance of a MNE subsidiary is shaped by the behaviour of suppliers in

achieving the required standards in terms of cost, quality and delivery, MNEs are increasingly being pushed to implement effective international supplier management practices in order to align their strategic and performance objectives with those of the local suppliers. Such efforts might require the development of specific relational capabilities (Pagano, 2009). Moreover, it is possible to establish strategic alliances with suppliers, namely upstream vertical alliances, as exemplified by the Japanese Kiretsu networks (Peng, 2009) and the deeper relationship between airlines and Rolls-Royce (Peng and Meyer, 2011). Strategic alliances between buyers and suppliers transform the relationship from market-oriented to a relationship-oriented by sharing resources and capabilities (Dyer, 1996; Dyer, 1997). These collaborations usually rely on a smaller number of key suppliers that are awarded long-term contracts instead of dealing with a large number of suppliers that are awarded contracts in the form of an arm's length transaction.

Since firms rarely have adequate resources to compete effectively, especially MNE subsidiaries that operate in global markets, they access those needed through formal and informal relationships with other firms (Hitt et al., 2002). Moreover, MNE subsidiaries are increasingly encouraged to implement effective cross-cultural supplier management practices in order to align supplier's activities to their strategic and performance objectives in host countries (Ling-yee and Ogunmokun, 2001). Such efforts might require the development of specific "relational capabilities", which comprise organizational solutions, procedures and competences concerning both the intra and inter-organizational dimensions (Goerzen, 2005). Nevertheless, in the relational capabilities literature the MNE manufacturers and local suppliers' relationship remains under explored. In addition to factors considered in the literature on relational capabilities in domestic contexts, the relationships between MNE subsidiaries and their suppliers in transnational contexts are constrained by human resource distance between the MNE and the local firm (Estrin, Baghdasaryan and Meyer, 2009). This effect potentially negatively affects the development of trust and the other constructs in the model. This study provides important insight into the relational capabilities between MNE subsidiaries and their local suppliers in the host country in order to understand the interaction between MNEs and the local environment. Furthermore, the researcher views cross-cultural task development in a successful strategic alliance as a major challenge, especially in the global business

environment. In sum, this study demonstrates organizational and individual views of relational capabilities in the context of strategic alliance projects between MNE subsidiaries and local suppliers in the Thai manufacturing sector.

### **1.3 Research significance**

This research is significant in light of the limited understanding of the relational capabilities approach in the context of cross-cultural alliance projects. To address the literature gaps, the researcher integrates two perspectives, trust and TCE, into the theoretical framework, which is because the crafting of relational capabilities requires drawing from multiple theories since no single theory can explain all the elements of alliance management capabilities. These perspectives can uncover exchange hazards and so are often used strategically to enhance value and capability development (Argyres and Mayer, 2007). The important issues are which aspects of trust and TCE are relevant to such relational capabilities and how they can be measured. It also will be interesting to conceptualize a broader alliance level capability to manage an alliance that not only includes the capabilities to manage strategic alliances, but also includes other factors needed to handle the formation and governance aspects in a focal alliance. Hence, this research considers three influential factors in the literature, relational capabilities, trust and transaction cost, as sources of firms' superior resources and capabilities that can help enhance alliance performance.

In recent years, increasing research attention has been focused on alliance development processes, especially with regards to how the initial alliance conditions or antecedents can impact on outcomes. For instance, Das and Teng (2002) argued that the initial negotiation stage among prospective partner firms is unique to strategic alliances. Also, the interactions between an alliance and its environment are much more complicated than in the case of single organizations as there are at least two firms involved. Importantly, the dynamics of alliance conditions that influence the unfolding of these processes across stages is associated with the co-evolution of the alliance and the partner firms. During which, managers must deal with multiple dimensions of their relationships, including individual and organizational levels of analysis, in their decisions regarding both interdependence and risk on whether to rely on trust as a complement to or a substitute for formal mechanisms of governance (Williamson, 1993).

Furthermore, if the development of capabilities requires deliberate and sustained investment of financial and managerial resources, both of which have alternative uses, it becomes important to understand the costs and benefits of such investments. In other words, different capabilities may entail different financial and managerial costs and yield dissimilar performance benefits. This thesis aims to address this gap by reporting research pertaining to the extension of the relational capabilities approach. The focus of the analysis is on the inter-organizational conditions fostering or blocking relational capabilities in strategic alliance projects, and on the impact of these conditions on alliance performance. This researcher believes that a more comprehensive conception of developmental processes is critical for an adequate understanding of strategic alliances. This recognition has, in turn, led to the emphasis being placed in the current investigation on where and how these capabilities emerge and how they influence firm performance.

This research, by considering how the initial conditions and characteristics of strategic alliances among firms or antecedents influence relational capabilities and alliance outcomes seeks to fill a gap in the extant literature. Based on several empirical studies, Das and Teng (2002) uncovered four inter-organizational factors that have been shown to influence partner selection and subsequent alliance performance, including trust, commitment, complementarity and value or financial payoff. For this research two inter-organizational factors are selected, namely relational and economic dimensions, which have been consistently identified as being important to cooperative capabilities and alliance performance (e.g. Young-Ybarra and Wiersema, 1999; Inkpen and Currall, 1998; Joshi and Stump, 1999; Dyer and Chu, 2003; Suh et al., 2006), to examine empirically their impact on relational capabilities and this performance. By pursuing the matter discussed above, not only will this offer a better descriptive understanding of relational capabilities approach, but also elucidate prescriptive implications for alliance research and management practice. The following paragraph explains the importance of relational and economic dimensions in strategic alliance management.

First, trust in an economic exchange is an aspect of social capital that pertains to a firm's relationship with other companies that have important resources. More specifically, Ireland et al. (2009) suggested that a trust-based relationship must be developed in alliance management. Many scholars have argued that risk, or having something invested, is requisite to trust (Yong-Ybarra and Wiesma, 1999; Poppo et al., 2008). In general, risk

in alliances will be present and trust necessary, in settings where alliance partners make transaction-specific investments (Dyer and Chu, 2003) and where there is the possibility of opportunistic behaviours from alliance partners. Trust is defined as the willingness to take risk when faced with vulnerability owing alliance partners' potential opportunistic behaviours and other threatening actions (Mayer et al., 1995; Das and Teng, 1998; Abrams et al., 2003; Schoorman et al., 2007). It is considered an important factor that can lower transaction costs between alliance partners (Artz and Brush, 2000; Dyer and Chu, 2000; Dyer and Chu, 2003) in that a high trust environment boosts the convenience of working with business partners, which lowers opportunistic behaviours by alliance partners (Dyer and Chu, 2000; Child & Möllering, 2003; Peng, 2009), facilitates firm capabilities (Yli-Renko et al., 2001; Paulraj et al., 2008; Nelson and Nelson, 2009) and enhances alliance performance (Aulakh et al., 1996; Dyer and Chu, 2003; Krishnan et al., 2006). Previous research suggests that alliance successes and failures can be attributed to lack of trust (Ariño and De la Torre, 1998; Peng, 2009). Realizing its importance, practitioners and researchers have recently paid attention to understanding trust in several forms, viewing this as an important management task (Hosmer, 1995; Parkhe, 1998; Chua et al., 2008).

In addition, researchers have argued that alliance management capabilities occur at multi-levels since individuals play important roles in initiating and operating alliance routines and capabilities that subsequently have an impact for the whole firm. According to Cox (1994), the links between the competence of individuals and organization performance as well as between the competence of organizations and alliance performance are salient matters, but as yet are not particularly well understood. Moreover, there is a growing body of work that has sought to incorporate the insights of individual factors, such as cognition and emotions, into the nature and sources of strategic decision making (Hodgkinson and Healey, 2011), for it is held those of managers can have a significant impact on whether or not a firm's relational capabilities enhances alliance performance. Some research on trust in strategic alliances also indicates that at both the individual and inter-organizational levels it influences the quality of inter-organizational relationships (Doney and Cannon, 1997) and alliance performance (Zaheer et al., 1998; Nicholson et al., 2001). However, Currall and Inkpen (2002) have called for greater clarity of measurement at these levels so as to allow more rigorous theory testing than hitherto.

Second, economic hostage behaviour between alliance partners is another factor that can have an influence on various aspects of alliance management, such as mode of governance and cooperative behaviours (Williamson, 1991; Dyer and Singh, 1998). Since this can be considered as a source (e.g. Subramani and Venkatraman, 2003; Inkpen and Currall, 1998; Young-Ybarra and Wiersema, 1999; Joshi and Stump, 1999) or a barrier to relational exchange, the debate regarding its impact on alliances remains ongoing (e.g. Artz, 1999; Dyer and Chu, 2000; Lunnan and Haugland, 2008).

Some previous studies have adopted transaction cost economics (TCE) to explain strategic decisions relating to the economic hostage nature of any transactions. That is, TCE focuses on transactions (i.e. transfers of goods or services) and the costs that occur when completing transactions by one organizational form (e.g. market, hybrid, hierarchy) rather than free choice (Williamson, 1985). According to David and Han (2004), with TCE it is predicted that under high asset specificity and high uncertainty the firm will embrace a highly integrated channel. That is, TCE assumes that decision makers are marginally rational and that at least some people or firms in any setting will be opportunistic (Shervani, Frazier and Challagalla, 2007). Furthermore, transaction cost factors can have impact on alliance performance. For example, Krishnan et al. (2006) found that behavioural and environmental uncertainty moderates the trust-performance relationship in strategic alliances.

Transaction cost has repeatedly been shown have an influence strategic alliances since a distinctive characteristic of them is that partners have to take risks with the uncertainty arising from each other's behaviour, both of which normally evolve from two transaction cost factors. First, a certain level of asset specificity and HR distance in inter-organizational relationships is needed to support the exchange, namely, internal uncertainty or performance ambiguity, and external uncertainty, respectively (Zaheer and Venkatraman, 1995). Second, managing uncertainty through various strategic arrangements has been noted as a key issue in organizational design (Beckman et al., 2004). Regarding which, researchers such as Monteverde and Teece (1982) and Masten (1984), who used the transaction cost framework, have traditionally examined the impact of asset specificity or uncertainty on the decision to make or buy, without directly examining the costs of coordinating exchange. With specific investment, the firm in order

to realize the potential gains from alliance involvement has to identify the factors that determine these coordination costs in strategic alliances (Pilling and Zhang, 1992).

#### **1.4 Research aims and objectives**

The main objective of this study is to identify the antecedents and outcomes of relational capabilities in order to engender a deeper understanding of strategic alliance management. In this researcher's opinion, this cannot be achieved without a systematic examination of trust and TCE factors using a relational capabilities approach, it is their effective combination that jointly increases the odds for successful strategic alliances. To this end, the empirical research framework for this study integrates trust, TCE and relational capabilities into the investigation of strategic alliance management, the testing of which seeks to address the following research questions:

*1. What are the antecedents of relational capabilities in cross-cultural alliance projects?*

*2. What is the role of relational capabilities in strategic alliance management to achieve alliance performance in cross-cultural alliance projects?*

In this study, the researcher examines trust and relational capabilities by adopting Dyer and Kale (2007) approach to buyer-supplier alliances of MNE subsidiaries and the context is MNEs in the Thai manufacturing sector, because social capital has been widely elicited as being a success factor of doing business in Asia at both the organizational and personal levels (Kasuga et al., 2005; Kohpaiboon, 2010). Since Asian economies have had high investment opportunities for the last two decades (Beinhocker et al., 2009), MNEs of all origins increasingly need to understand relational oriented management of Asian business in order to gain competitive advantages in this market. Hence, it anticipated that the research results will help MNEs to gain valuable insights in the collaborative management in cross-cultural business environments. Moreover, the findings of this research are expected to have important implications for the design of alliance management strategies of the firms, especially in the cross-cultural business context. In sum, it is predicted that firms that dedicate time and effort to building relational capabilities are likely to achieve competitive advantage, especially in the

context of cross-cultural alliances between MNE subsidiaries and local suppliers in the Thai manufacturing sector.

### **1.5 Structure of the thesis**

This thesis is divided into seven chapters, the contents and composition of which are illustrated in Figure 1.1. In addition to this introductory chapter, the remaining ones serve the following purposes.

Chapter 2: Literature Review – reviews the literature on alliances according to three approaches: relational capabilities, trust and TCE. More specifically, extensive literature on supply chain management, alliance projects between MNE subsidiaries and local suppliers in the Thai manufacturing sector is discussed in this chapter. The chapter ends with consideration of the key themes and issues, which need to be taken into account in devising and operationalising the theoretical framework.

Chapter 3: Theoretical Framework – a number of hypotheses are proposed based on the antecedents and barriers of relational capabilities. These hypotheses are developed through detailed discussion of the potential mediation effects of relational capabilities on the relationship between inter-organizational factors, namely the relational and economic dimensions, and their impact on alliance performance.

Chapter 4: Research Methodology – discusses the research philosophy and methods used to address the research questions and objectives. The chapter provides explanation and justification regarding the selected research strategy and design. Furthermore, the data collection techniques are shown to be appropriate for addressing the research questions. Finally, the operational measures of the dependent, independent and control variables are presented.

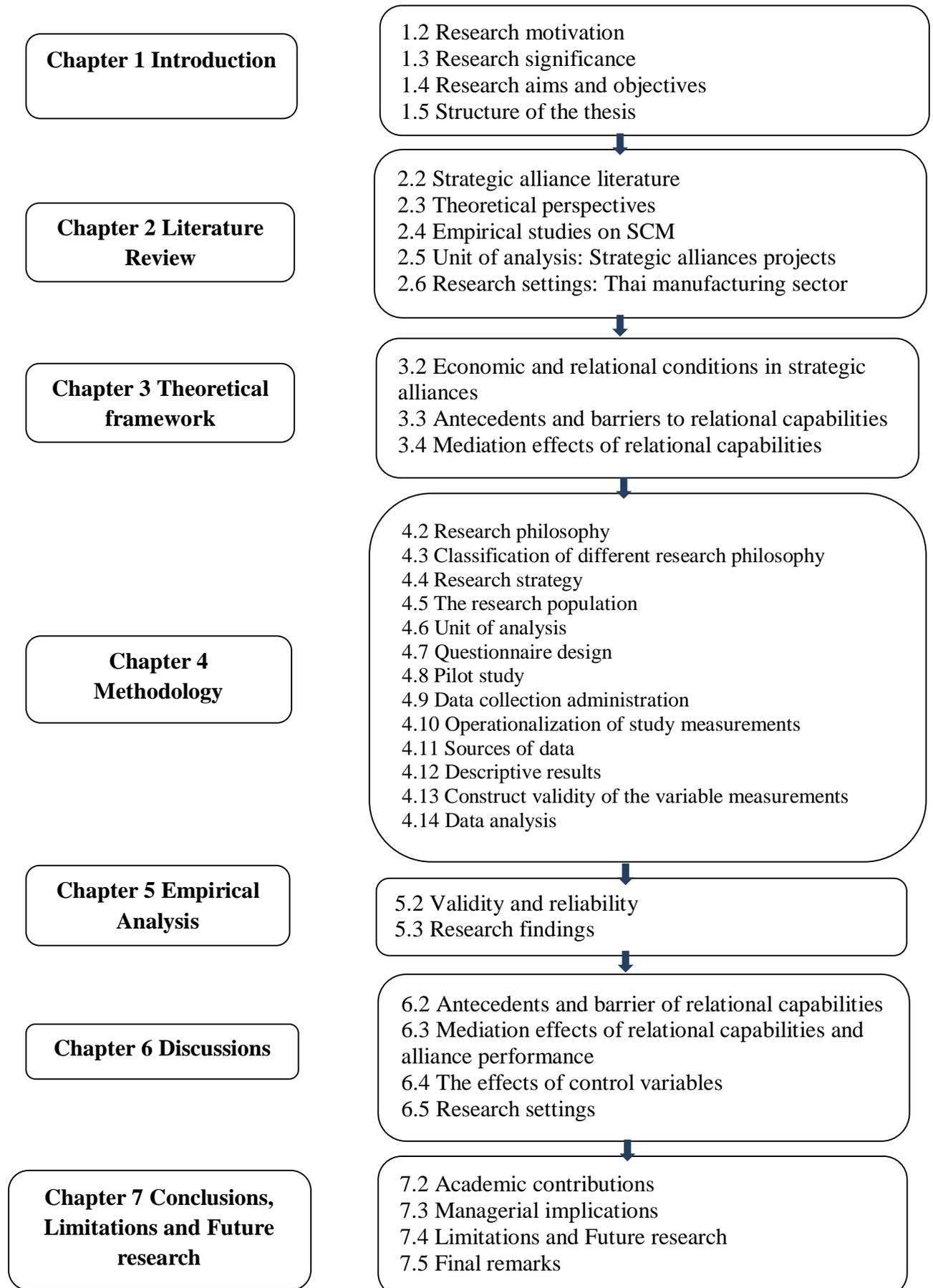
Chapter 5: Empirical Analysis – presents the statistical analysis of the data collected during the research process. The chapter discusses the techniques used for preliminary data preparation as well as the confirmatory factor analysis and bivariate correlation that are also employed to test the research hypotheses. Subsequently, the findings of the mediation analysis are presented and discussed.

Chapter 6: Discussion – interprets the results obtained during the data analysis phase. In particular, the level of importance of trust-based relationships in the focal research

settings is assessed. In addition the effect of the control variables on the results obtained is discussed.

Chapter 7: Conclusion and Reflection - presents the theoretical and practical contributions of this research. Finally, the research limitations are considered and proposals for future research directions put forward.

**Figure 1.1 Structure of the thesis**



## **CHAPTER 2**

### **LITERATURE REVIEW**

#### **2.1 Introduction**

An alliance is a strategy of acquiring resources and capabilities from business partners in order to increase competitiveness and share the risk of the investment (Helfat et al., 2007). However, there is rich evidence of the failure of alliances. A recent study by McKinsey & Company found that only half of all strategic alliances yield returns above the cost of the capital input (Kaplan et al., 2010). Hence, strategic management scholars have studied the theories that can explain and predict the phenomenon together with the managerial implications for business. The relational view is another perspective in the strategic alliance literature, which was introduced by Dyer (Dyer, 1996; Dyer, 1997; Dyer and Singh, 1998) and suggests that firms apply this in order to manage inter-organizational coordination and achieve success. In the last two decades there has been a substantial increase in research devoted to understanding strategic alliances, however, there are few studies specifying conditions that are appropriate for alliance managers to apply a relational approach in inter-organizational management.

This chapter reviews the literature on strategic alliance management and the related empirical evidence, which are then drawn upon to develop the theoretical framework and hypothesis of the current study. In particular it discusses the differences between early alliance research, which was mainly concerned with the role of multi-levels of trust and transaction cost, and the more recent alliance research that has been concerned with relational capabilities. The remainder of this chapter discusses the theories underlying this study as well as the gaps in the literature, which the theoretical framework drawn up for this research aims to address. This chapter is organised as follows: Section 2.2 discusses the strategic alliance literature, whilst Section 2.3 probes the theoretical perspectives and presents the relational capabilities in strategic alliances. Section 2.4 describes empirical studies based on the supply chain management literature and Section 2.5 discusses unit of analysis, namely, strategic alliances at the project level. Section 2.6 discusses research setting, namely, the Thai manufacturing sector and finally, Section 2.7 summarises the key topics covered in this chapter.

## **2.2 Strategic alliance literature**

In the last two decades scholars have studied strategic alliances regarding corporations around the world who have applied this strategy in the expectation of creating value (Inkpen, 2009). This section explains the strategic alliance motivations and related theories, the alliance management process as well as the gaps in the literature.

### **2.2.1 The strategic alliance definitions**

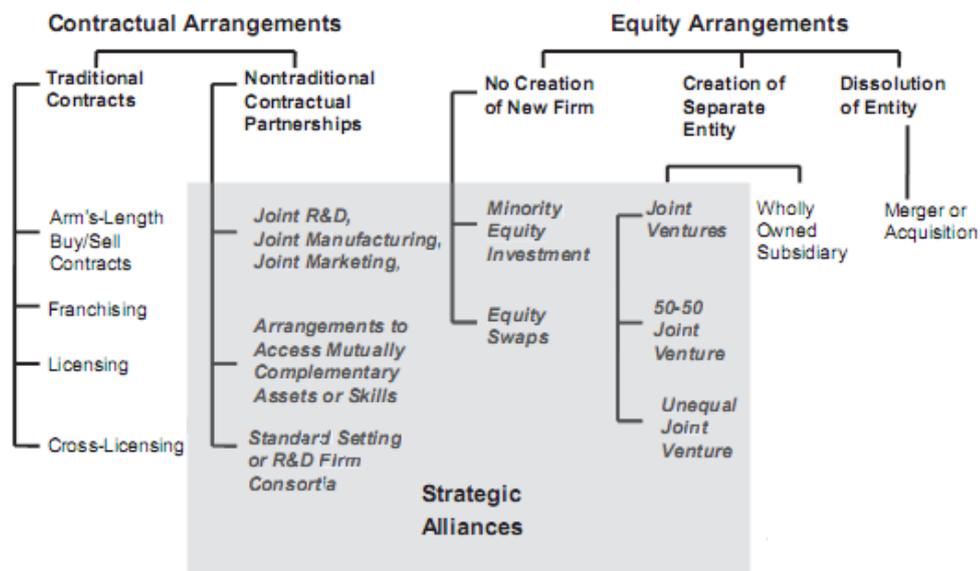
There are several of strategic alliances definitions from previous studies. From the organizational perspective, they are collaborative organizational arrangements that involve the use of resources and/or governance structures by more than one existing organization (Inkpen, 2009). That is, a strategic alliance between two or more independent firms pertains to the exchange, sharing, or co-development of resources or capabilities to achieve mutually relevant benefits (Gulati, 1995) and to gain competitive advantage (Hitt et al., 2005; Culpan, 2009; Schreiner, Kale and Corsten, 2009). There are three developmental stages of such an alliance (Kale and Singh, 2009) and researchers have devised different theories to explain each of these stages as will become apparent in this literature review. In the formation stage, there is the selection of an appropriate partner and negotiation of terms and conditions of the agreement. During the operation stage, the firm and the partner have to implement all the agreements regarding the alliance using the governance mechanisms to monitor and control the on-going process. Any party that is not satisfied with the alliance may terminate the agreement at this stage. In the last stage, the alliance outcome becomes tangible and can be evaluated at both the firm and dyadic levels (Dyer et al., 2001).

### **2.2.2 Alliance mode choices**

Strategic alliances are unlike simple buy-sell arrangements, for they involve short-term mutual dependence, shared managerial control, and/or continuing contributions of technology and products (Monczka, Petersen, Handfield, and Ragatz, 1998). That is, although the partners remain independent entities, they possess the feature of mutual interdependence, which involves some form of sharing control and management (Inkpen, 2009). In general, there are two broad types of strategic alliance formation: equity-based and non-equity based. The first and most collaborative form, equity joint venture, has an

extremely high level of inter-organizational interaction, while the second, which remains simply contractual for such matter as technical training of buyers involves much lower levels of cooperation (Inkpen 2009). In addition, alliances can be specified in sub-forms, including joint ventures, R&D partnerships, affiliation in research consortia, franchising, contractual agreements, management/marketing service agreements, know-how licensing contracts and technical training (Culpan, 2009). The different possible domains of inter-firm linkages are shown in Figure 2.1 (Kale and Singh, 2009), with the potential range for strategic alliances spanning non-traditional contracts, equity arrangements with no new entity created, and non-subsidiary joint ventures.

**Figure 2.1 Scope of Inter-firm relationships**



Source: Kale and Singh (2009)

This research focuses on buyer-supplier strategic alliance projects, which refers to an agreement between the two organizations to cooperate in either equity or non-equity forms. This buyer-supplier relationship is a process, whereby the two organizations form strong and extensive social, economic, service, and technical ties over time, with the intent of lowering total costs and/or increasing value, thereby achieving mutual gains (Cravens et al., 1993). In this research, the researcher adopts the strategic alliance definition from previous research (Gulati, 1998; Luo, 2000; Ireland et al., 2002; Lavie, 2006; Peng, 2009). That is, a strategic alliance refers to a voluntary arrangement between

the buyer and supplier that involves the exchange or sharing resources or engaging in the co-development of supply chain activities and technologies.

## **2.3 Theoretical perspectives**

To date, scholars have based their theoretical and empirical explanations of strategic alliance motivations or factors driving the alliance formation on three main strategic management theories: transaction cost economics (TCE), the resource based view (RBV) and social exchange theory (Inkpen, 2009). Relational capabilities is another approach that focuses on the firm's routine modification as a source of relational rents in strategic alliances (Dyer and Kale, 2007). This review considers these three main theoretical perspectives from the point of view alliance success and hence, what they can contribute to the relational capabilities approach.

### **2.3.1 Relational capabilities approach**

As mentioned earlier, the relational capabilities approach has been developed from several theoretical perspectives. That is, Dyer and Kale (2007) integrated the concepts of RBV, dynamic capabilities, the capabilities approach (Nelson and Winter, 1982) and the relational view (Dyer and Singh, 1998) to form the perspective of relational capabilities in strategic alliances. Hence, it is essential to probe the roots of the relational capabilities approach before including other theoretical positions have contributions to make to this more recent theory.

#### **1) Resource based view (RBV)**

The resource-based view of the firm (RBV) emphasizes its idiosyncratic resources (e.g. Barney, 1991; Penrose, 1959), especially those that reside within organizations. Most conspicuous among these resources are those that are valuable, scarce, imperfectly tradable, and hard to imitate (Barney, 1991; Peteraf, 1993; Reed and DeFlippi, 1990). With this view, firms are characterised by their tendency to accumulate surplus resources, physical, human and organisational. In other words, under RBV the firm is regarded as a bundle of resources and their attributes significantly affect its competitive advantage and, by implication, its performance (Barney, 1986, 1991; Penrose, 1959; Peteraf, 1993). Moreover, organizational capabilities, which are socially complex practices aimed at

performing a certain task, can act as an important bargaining tool when undertaking inter-firm collaboration (Dyer and Singh, 1998; Eisenhardt and Martin, 2000).

The primary benefit of an alliance with the RBV stance is access to previously unavailable resources and the joint development of new resources (Ireland, 2002). A resource bundle might include, for example, the integration of cutting edge technological resources held by one partner with another firm's complementary resources like access to and knowledge of specific markets (Stuart, 2000). That is, under this lens the firm is viewed as a bundle of resources and capabilities that can be utilized to realize sustainable economic rents. Economic rents, in this setting, derive from asymmetry in initial resource endowments, resource scarcity, limited transferability of resources, imperfect substitutability, and appropriability (Amit and Schoemaker, 1993). Moreover, resources are converted into final products or services by using a wide range of other firm assets and bonding mechanisms, such as technology, management information systems, incentive systems, trust between management and labour (Lee, Lee & Pennings, 2001).

## **2) Routines and capabilities**

Routines and capabilities have emerged as central constructs in a host of fields in management research. For example, they have played a prominent role in the analysis of organizational and competitive heterogeneity. According to Winter (2000), an organizational capability is 'a high level routine (or collection of routines) that, together with its implementing input flows, confers upon an organization's management a set of decision options for producing significant outputs of a particular type'. This definition casts learning, experience, resources, and routines as inputs to capabilities. For example, routines can also be capabilities, whereas inputs, such as experiences and resources may contribute to capabilities, which are associated with putting resources (and other inputs) into action (Dosi et al., 2000; Eisenhardt and Martin, 2000; Winter, 2003; Felin et al., 2012).

Unlike resources, routines and capabilities are based on developing, carrying, and exchanging information through the firm's human capital. Capabilities, in contrast to resources, refer to a firm's capacity to deploy these, usually in combination, using organizational processes, to affect a desired outcome (Amit and Schoemaker, 1993). As such, they can abstractly be thought of as 'intermediate goods' generated by the firm to

provide enhanced productivity of its resources, as well as strategic flexibility and protection for its final product or service. Teece et al. (1997) propose similar distinctions between resources and capabilities, arguing that sustainable competitive advantage involves not only what assets a firm owns, but also how the firm integrates and transforms these through appropriate capabilities, since they are difficult to acquire and imitate. Thus, capabilities are different from resources as they enable firms to create economic rent more effectively than rivals by enhancing the productivity of their resources. Moreover, organizational abilities tend to absorb, integrate, and transform internal and external resources into sustainable competitive advantages that, in turn, drive superior performance (Amit and Schoemaker, 1993; Sirmon et al., 2007; Lu et al., 2010).

There are inconsistent definitions of organizational capabilities among scholars. For instance, Foss (1996) conceptualises higher-order capabilities as non-proprietary and intangible assets that are shared among a group of firms, and may yield rents to incumbents even in the absence of explicit coordination. Examples of such higher-order capabilities may include, for example, standards, knowledge-sharing in R&D networks, collective invention, and shared behavioural norms. Kogut and Zander (1992) introduced the notion of competitive capabilities, which refers to the set of organizing processes and principles a firm uses to deploy its resources to achieve strategic objectives. That is, by shaping the ways in which knowledge, skill, and expertise are coordinated and communicated within a firm, capabilities fundamentally determine what the firm can do (Zander and Kogut, 1995). Another identified form of capability, dynamic capability, involves the ‘capacity of an organization to purposefully create, extend or modify’ its products or service offerings, the processes for generating and/or delivering these, and/or its customer markets (Helfat et al., 2007; Winter, 2003), as is explained in more detail next.

### **3) Dynamic capabilities (DC)**

Dynamic capabilities refer to the (inimitable) capacity firms possess for shaping, reshaping, configuring and reconfiguring their asset base so as to respond to changing technologies and markets (Augier and Teece, 2007). They can usefully be thought of as belonging to three clusters of activities: sensing, seizing and transforming (Teece, 1997; Helfat et al., 2007), which are required if the firm is to sustain itself as markets and

technologies change, although some will be stronger than others in performing these tasks (Helfat et al., 2007; Augier and Teece, 2009). Sensing is an inherently entrepreneurial set of capabilities that involve exploring technological and market opportunities, and listening to customers, along with scanning the other elements of the business environment. Seizing capabilities includes designing business models to satisfy customers and capture value. They also refer to securing access to capital and the necessary human resources. Transforming capabilities are needed most obviously when radical new opportunities are to be addressed. These capabilities aim to maintain competitiveness through enhancing, combining, protecting, and, when necessary, reconfiguring the business enterprise's intangible and tangible assets (Teece, 1997; Teece, 2007). However, the empirical work in this area is novel and requires further exploration to measure those capabilities that are still somewhat ambiguous (Newbert, 2007; Culpan, 2009). The generalization or context specifics of dynamic capabilities also need to be proved by strategy scholars (Ambrosini and Bowman, 2009). In recent years, the strategic alliance is another business context where scholars have adopted a dynamic capabilities approach as an explanation. Regarding this, as firms have become increasingly reliant on external growth mechanisms, alliance capabilities are more needed to create the conditions for long term success. Moreover, a firm will benefit from acquiring heterogeneous resources at the multinational level in the form of a large stock of new ones, market understanding, supplier relationship and government ties (Helfat et al., 2007).

Researchers have devoted a lot of attention to the study of alliance management capabilities and understanding how firms benefit from them (Schreiner et al., 2009). These capabilities are embedded in organizational routines, which are repetitive activities that a firm develops in order to deploy its resources in alliances (Heimeriks and Duysters, 2007). There are two aspects of alliance management capability that when aligned correctly can capture value from strategic alliances: intra-organizational and inter-organizational. First, in order to achieve alliance goals at the firm level, firms need to dedicate the organizational routines as an alliance function (Ireland et al., 2002). That is, a mandate for an internal dedicated alliance management function refers to coordinating all alliance-related activities within the organization, i.e. its processes and teaching systems, sharing and codifying prior alliance management experience and know-how

throughout the company (Dyer et al., 2001; Kale and Singh, 2009). Second, the firm must also dedicate an alliance function to manage coordination between partners. Much of the alliance research from this perspective is concerned with how to manage the collaborative process and maximize value creation (Inkpen, 2009). Regarding which, it is held that effective inter-organizational alliance management requires integration of partners' cultures and the skills of the human capital involved within the alliance (Ireland et al., 2002).

The intra-organizational management literature focuses on RBV and DC to increase the level of resources and capabilities of the firms themselves by enhancing absorptive capacity and utilizing acquired know-how, whereas that pertaining to the inter-organizational emphasizes the relational view aimed at finding a solution that works effectively with alliance partners. This research is aimed at extending the second stream of research on the relational view by focusing on relational capabilities of firms in inter-organizational management. Hence, the following section contains a literature review on the relational view and relational capabilities in strategic alliances in order to understand these concepts in more depth as well as to identify the gaps in the extant works.

#### **4) Alliance management capabilities approach**

The alliance management capabilities approach draws upon the RBV concept of organizational routines and capabilities to explain strategic alliance management. Under this lens, the ability to manage effectively inter-firm alliances is considered a source of competitive advantage to firms (Dyer and Singh, 1998; Ireland et al., 2002), which in other work is broadly referred to as alliance capability (Anand and Khanna, 2000). If the capability to manage alliances is heterogeneously distributed across firms and difficult to imitate, then a firm's alliance management capability has the potential to create a firm-level competitive advantage (Barney, 1991; Ireland et al., 2002).

Alliance management is a critical strategic domain that allows the organization to alter its resource base. However, the management of alliances is a difficult organizational activity due to the complexities and uncertainties inherent in managing projects across organizational boundaries. It is not surprising, therefore, that most alliances fail or do not live up to expectations (Kogut, 1989). Yet, the ability to manage alliances effectively has been suggested as being a firm-level dynamic capability that enables a firm to integrate,

build and reconfigure internal and external competences to address rapidly changing environments in order to create innovative forms of competitive advantage (Teece et al., 1997). How to achieve superior alliance management and thus contribute to firm-level competitive advantage has become a key concern for strategic scholars in recent years (Dyer and Singh, 1998; Ireland et al., 2002). Expanding on the core ideas in evolutionary economics, Zollo (1998) and Kale and Singh (1999) argue that firm capabilities are developed on the basis of incremental learning and fine-tuning of relevant day-to-day activities in the firm. Other researchers have suggested that organizational capabilities can also be developed by replacing or supplementing such incremental learning by higher-order learning activities or establishing clear principles through which individual and group knowledge is structured and coordinated within the firm.

Researchers have contrasting views on the definitions of alliance management capabilities. Rothaermel & Deeds (2006), for example, define them as a firm's ability to manage multiple alliances effectively. Whilst Schileke and Goerzen (2010) developed alliance management capability as a second-order construct to capture the degree to which organizations possess relevant management routines that can enable them to manage effectively their portfolio of strategic alliances. More specifically, they conceptualize alliance management capability as a second-order construct pertaining to the organizational routines of inter-organizational coordination, alliance portfolio coordination, inter-organizational learning, alliance proactiveness, and alliance transformation. Similarly, according to Makadok (2001) and Thomke and Kuemmerle (2002), an alliance capability is a higher-order resource, which is difficult to obtain or imitate and has the potential to enhance the performance of the firm's alliance portfolio. Some authors propose the integrative concept of "cooperative competency", which depends on the degree of trust, communication and coordination of a specific relationship among different organisational units (Sivadas and Dwyer, 2000). Earlier researchers refer to these organizing principles as the firm's 'combinative capabilities' (Zander and Kogut, 1995) or 'architectural competence' (Henderson and Cockburn, 1994). Essentially, they comprise organizational processes that are used to integrate and coordinate knowledge and activities across various people and subunits within the firm. These integrative mechanisms act as an important locus of firm learning, by enabling generation and facilitation of feedback from prior and on-going experiments and experiences in various

parts of the firm (Pisano, 1994). Schreiner, Kale and Corsten (2009) suggested that (1) this essentially involves the knowledge/skills to address key issues that arise in managing any individual inter-firm collaboration after it has been set up, (2) they get reflected at the level of a particular alliance in a firm, and (3) they are mainly embodied in the practices and behaviours of individuals that are involved in managing that alliance on an on-going basis. Alliance management capabilities can be considered as firms' internal capabilities which point to skills for the transformation of inputs into outputs, while corporate social capital pertains to the availability of channels for securing inputs and disposing of outputs as well as to the possibility of identifying and developing more rewarding opportunities (Burt, 1992; Pennings et al., 1998). Hence, internal capabilities help firms to accumulate social capital, as potential partners are more willing to collaborate with the firms having a higher level of internal capabilities (Lee, Lee, Pennings, 2001).

## **5) Relational view**

The relational management approach was first identified in strategic alliances between organizations in the automotive industry. That is, the research of the collaboration between world-class automakers and their first-tier suppliers, conducted by J.H. Dyer and colleagues in 1990s, led to the development of relational view theoretical stance. From these studies, Dyer and Singh (1998) introduced the relational view concept, which focuses on the importance of the (dis)advantage of inter-firm alliance and the network of relationships in which the firm is embedded. The relational view places a premium on transaction cost factors and behavioural phenomena; including asset specificity, effective governance, complementary resource endowments and knowledge sharing routines as the drivers of relational rents (Dyer and Singh, 1998). This four foundations of this view are as follows:

### **5.1) Relation-specific assets**

A firm often invests in firm relationship asset specificity in order to enhance its uniqueness and competitive advantage (Balakrishnan and Fox, 1993). The specialization of assets is a necessary condition for rent, and strategic assets by their very nature are specialized (Dyer, 1996). The terms relationship-specific asset refers to those of a partner that are customized to the relationship with little value outside the exchange (Aulakh,

1996; Li et al., 2010). Such customization would create some barriers to imitation by competitors and would be aimed at transferring associated knowledge to partners (Helfat et al., 2007). There are four types of asset specificity: (1) site specificity (2) physical asset specificity (3) dedicated asset and (4) human asset specificity (Dyer and Singh, 1998; Simonin, 1999).

### **5.2) Inter-organizational knowledge sharing routines**

Knowledge sharing routines are a very important source of new ideas to a firm alliance with strategic partners. The firm's knowledge base in a business context includes technological competences, knowledge of customer need and supplier capabilities (Teece, 1998). An organization either creates information and knowledge or acquires it from various internal and external sources. Moreover, firms can derive significant benefits from consciously, proactively, and aggressively managing their explicit and implicit knowledge. Knowledge sharing is defined as partner specific absorptive capacity and is an incentive to encourage transparency as well as discouraging free riding (Dyer and Singh, 1998).

### **5.3) Complementary resource endowments**

Complementary resources are viewed as a driver of strategic partnerships and in particular, firms search for partners having specialized resources that are not readily available from others. Complementary capabilities imply the possibility of synergy when their resources are pooled together, thereby enhancing the likelihood of alliance formation (Chung et al., 2000). Firms frequently search for partners with resources they lack and thus, their resource profile plays an important role in any alliance formation.

### **5.4) Effective governance**

Effective governance plays a key role in the creation of the effectiveness in the collaboration cycle because it is the way to monitor and manage an ongoing collaboration (Simonin, 1997). Well designed and well enforced alliance governance systems provide the legally or institutionally bound framework guiding the course of the cooperation. In general, there are two classes of governance used by alliance partners: third-party enforcement of agreements (e.g. legal contracts) and self-enforcing agreements (Dyer and Singh, 1998).

The relational view of strategic alliance management provides better understanding than the earlier theories of how relational competencies enable firms to gain and sustain collaborative advantage. This, however, neglects the fact that the firm is also influenced by a rapidly changing environment. In other words, this approach cannot capture the dynamics of partners' behaviour and interaction over the course of their alliance (Lavie, Haunschild and Khanna, 2012). Thus, strategic scholars have integrated the dynamic capabilities approach with a relational view to focus on associated organizational process that can enable firms to access the resources and capabilities of others through strategic alliances, namely, a relational capabilities approach. Furthermore, while the relational view has been theorized as pertaining to the key features of the inter-organizational ties that facilitate the acquisition of competitive capabilities, this researcher posits that these mechanisms provide an incomplete explanation, because they do not fully address the partially tacit nature of the knowledge that underlies competitive capabilities.

#### **6) Relational capabilities approach**

Relational capabilities is found to correlate well with ongoing alliance management and take the form of superior screening functions, better integration and improved evolutionary fitness, thus leading to higher alliance performance. Scholars have introduced the concepts of “relational capability” (Lorenzoni and Lipparini, 1999; Capaldo, 2007; Kale and Singh, 2007), “alliance capability” (Kale, Dyer & Singh, 2002; Heimeriks, 2004; Heimeriks and Duysters, 2007) and “alliance competency” (Zajac, 1998) as the internal attributes of a firm shaping the performance of joint activities with external partners. They define relational capabilities by emphasizing the characteristics of organizational routines and capabilities as adopted from RBV theory. Consequently, the common definition of relational capabilities is the ability and routines of a firm to manage cooperative activity between organizations. That is, a firm's relational capabilities are embedded in organizational routines, which are repetitive activities that a firm develops in order to deploy its resources in alliances (Helfat and Peteraf, 2003; Nelson and Winter, 1982; Winter, 2003; Heimeriks and Duysters (2007).

Dyer and Kale (2007) have extended the relational view by adopting a dynamic capabilities approach. They noted that relational capabilities are a precondition for firms to access the benefits from their network ties. Analogous to Eisenhardt and Martin's

(2000) definition of dynamic capabilities and consistent with Helfat et al. (2007), relational capabilities can be considered a type of dynamic capability with the capacity to create, extend, or modify purposefully the firm's resource base, which is then augmented to include the resources of its alliance partners. Consistent with the work of previous authors (Eisenhardt and Martin, 2000; Rothaermel and Deeds, 2006; Zollo & Winter, 2002), in this study it is contended that relational capabilities is a distinct form of dynamic capability. From this perspective, these mechanisms are related to the alliance management process and are structured into three main elements: complementary capability, inter-firm knowledge sharing routines and effective governance (Dyer and Singh, 1998; Dyer and Kale, 2007). A firm's high degree of complementary resources and capabilities with its alliance partners will bring more benefit to its performance in a dynamic environment. That is, these both contribute to ongoing alliance performance by stimulating higher quality and more novel inventions (Lin et al., 2009).

Although complementary to the relational view, this view differs somewhat in terms of the firm's strategic behaviours and actions. For, whilst the relational view emphasizes resources and capabilities that a firm dedicates to achieve relational rents within a static picture, relational capabilities imply to a set of specific organizational routines that represent a firm's capacity to utilize resources and capabilities from the collaboration with business partners. Since the relational capabilities approach was obtained from the relational view and the dynamic capabilities framework, it embodies similar characteristics as both these perspectives. Specifically, these capabilities emphasize the importance of coordination, learning, and reconfiguration routines. Regarding which, coordination routines are aimed at allocating resources, assigning tasks, and synchronizing activities, whilst learning routines pertain to the process of generating new knowledge and building new thinking. The relational capabilities approach advances the relational view in that it refers to the tangible routines and mechanisms at the operational level rather than the strategic aspect at the managerial level.

According to Dyer and Kale (2007), the four drivers of alliance success are similar to those of the relational view, but these scholars have incorporated RBV and a dynamic capabilities approach to develop the traditional perspective. That is, the four foundations of relational capabilities include, asset specificity, knowledge sharing routines, complementary capability and effective governance capability. Since the main purpose

of strategic alliances is sharing resources and capabilities between alliance partners, the relational capabilities approach suggests that firms need to integrate these four foundations in order to achieve successful outcomes. That is, firms have to customize their associated resources and capabilities so as to manage alliance activities effectively. In terms of physical resources, firms have to invest in intangible and tangible asset specificity to facilitate alliance projects. Regarding intangible resources and capabilities, firms need to dedicate their routines to facilitate alliance projects, i.e. they need to exploit their complementary capability, knowledge sharing routines and effective governance mechanisms.

### **6.1) Asset specificity**

With the traditional view, asset specificity was regarded as property-based investment. However, recently, scholars have included intangible assets as one form of specificity in strategic alliances. Regarding which, Subramani and Venkatraman (2003) classified it into three types of inter-organizational relationships: business process specificity (the degree to which the critical business processes of one firm are specific to the requirements of the other), domain knowledge specificity (an organization's ability to access and deploy a specific body of prior knowledge) and physical asset specificity (the specific investments in the form of tangible assets such as plant and machinery and in location choices that are advantageous in working with a specific business partner).

Relationship specific assets also are distinguished into knowledge-based and property-based assets (Das and Teng, 2000; Hoetker and Mellewigt, 2009). Knowledge-based ones are a firm's intangible know-how and skills, whereas property-based assets are legal properties owned by firms including physical resources (e.g. buildings, infrastructure), financial capital, capital investments in customized machinery, tool dies, operating and procedure system, etc (Heide and John, 1990; Dyer and Chu, 2003).

### **6.2) Knowledge sharing routines**

Under the RBV and dynamic capabilities perspective, the acquisition of collective production know-how is defined as the implementation of a broader set of capabilities involving far-reaching organizational and technological adaptations inherent in advanced production systems (as opposed to the implementation of one or another specific

technique). In these circumstances, the firm can learn at a faster rate than competitors and also has a positive relationship with firm-level alliance success (Kale and Singh, 2007; Paulraj et al., 2008).

### **6.3) Complementary capability**

Complementary capability refers to that of being able to identify and evaluate potential complementarities in other firms, and thus how to benefit from such strategic resources (Dyer and Kale, 2007). In order to utilize the complementary resources from strategic partners, firms need to have an ongoing activity of screening for alliance partners by dedicating resources specifically to this end (ibid). That is, strategic alliances provide opportunities for strategic renewal, if firms are able to verify those potential alliance partners with capabilities that differ markedly from its existing skills (Heide and John, 1990; Makri et al., 2010). By pooling and exchanging their resources and capabilities with those of other companies, firms can initiate projects that they could not have successfully completed alone and hence, add value to each other (Sarkar et al., 2001; Das and Teng, 2003; Bjorkman et al., 2007).

### **6.4) Effective governance mechanisms**

Effective governance mechanisms refers to the capacity of the firm to assign an appropriate mix of formal and informal safeguards to govern the partnering relationship (Dyer and Kale, 2007). According to Luo (2008), there are two key templates of alliance governance: (1) stipulated contractual codifications and (2) formalized and routinized control principles, procedures, rules, norms, practices and policies. Examples involving both include establishing teams, task forces, and committees, direct managerial contact through trips, meetings, the transfer of managers, mechanism for shared decision making and formal systems for conflict resolution that rely on two-way communication and joint problem solving (Hoetker and Mellwig, 2009).

Like other approaches, the relational capabilities concept has some limitations and hence needs to be developed further. Previous studies (e.g. Kale et al., 2000; Heimeriks, 2004) have suggested that the firm's resource-based factors, such as alliance experiences and alliance functions, are sources of relational capabilities in strategic alliances. Therefore, strategic scholars have called for research to consider additional conditions for relational

capabilities that have as yet not been identified. Moreover, the extant research has examined the role of economic and relational dimensions in strategic alliance management. Regarding which, economists tend to focus on using asset specificity to facilitate exchange by preventing opportunism (Shelanski and Klein, 1995), while with the relational view the concentration is on trust and resources as well as the capabilities to promote collaborative exchanges in dyadic relationships. Few studies, however, have effectively integrated these two dimensions on relational capabilities building. That is, in this researcher's view taking account of both the economic and relational dimensions will promote inter-dependence and commitment to positive outcomes of the alliances, because they work together to enhance relational capabilities. In addition, previous research has shown that there is tremendous uncertainty surrounding strategic alliances (Zaheer, et al., 1998) and according to the transaction cost perspective, cultural distance is a key concern regarding cross-cultural collaboration. In relation to this, Brouthers and Brouthers (2000) have argued that cultural context includes investment risks associated with different host countries' institutional systems, as well as market attractiveness. In general, uncertainty from cultural differences between alliance partners can be a barrier to relational capabilities in strategic alliances. This study involves extending the relational capabilities conceptual framework found in the literature in relation strategic alliances by investigating the first research question: *What are the antecedents of relational capabilities in cross-cultural alliance projects?* In particular, it is proposed that inter-organizational trust, interpersonal trust, asset specificity and HR distance are antecedents of capabilities.

Regarding the second research question, previous empirical studies adopting a relational capabilities approach have provided inconsistent findings regarding the interaction among relational variables as well as there being a lack of a concordant view on the nature of relational capabilities. As a result how these alliances interact is still a matter of contestation. Under Dyer and Kale's (2007) definition of relational capabilities, a firm is likely to implement complementary competencies, specialized investments, knowledge exchange processes, and various governance modes to create alliance advantages. However, these authors do not specify how these factors interrelate to build these advantages. For example, Lu et al. (2010) found the relationship between relational capital and performance to be the mediating role of learning capabilities. In contrast,

Paulraj et al. (2008) argued that communication capability is a mediator of the link between a firm's resources and capabilities (i.e. asset specificity, complementary capability and network governance) and buyer-supplier performance. However, it is contended here that the chosen relational variables from previous studies were incomplete as they did not analyze the effect of relationship capabilities on relational rents, simultaneously. Therefore, additional studies are required to investigate the effect of a full set of relational capabilities parameters on relational rents.

Additional variables need to be taken into account when adopting a relational approach including trust, similarity between partners, social capital and embeddedness, IT and communication, network governance and conflict management, etc. (Saxton, 1997; Kale et al., 2000; Paulraj et al., 2008) In this research, the aim is investigate to of the aforementioned aspects of relational capabilities, namely trust and asset specificity to probe the second research question: *What is the role of relational capabilities in strategic alliance management to achieve alliance performance in cross-cultural alliance projects?* Regarding relational matters, as confidence in a partner's goodwill increases, there is closer cooperation, a more open information exchange, and a deeper commitment between the partners (Lui & Ngo, 2004). That is, trust is likely to promote positive attitudes regarding the facilitation of communication and the sharing of information. From the economic point of view, asset specificity helps to ensure an alliance is ongoing. This researcher posits that firms that have higher relational and economic constraints need to be able to apply relational capabilities to manage strategic alliance projects. This is because, they have an indirect effect on alliance performance through the mediating effects of relational capabilities and hence, they perform better than others in strategic alliances. Next, the literature pertaining to trust and asset specificity is reviewed.

### **2.3.2 The concept of trust**

The concept of social capital was originally used in community studies to describe relational resources embedded within personal ties in the community and it since been applied in a wide range of intra- and inter-organization studies (Yli-Renko et al., 2001). There are three dimensions of social capital theory: cognitive, structural and relational (Nahapiet and Ghoshal, 1998). The cognitive dimension refers to the resources providing parties with shared representations, interpretations and systems of meaning, while the

structural dimension pertains to the structural configuration, diversity, centrality and boundary-spanning roles of network participants. Finally, the relational dimension refers to the personal relationships people have developed with each other through a history of interactions and thus leading to relations of trust, obligation and reciprocity (e.g. the relationship established through previous interaction). In this study, the relational dimension in social capital theory, namely trust, will be highlighted as the factor that influences relational capabilities in strategic alliances.

To be more precise, the concept of trust is a particularly important aspect of relational quality in alliances, because it increases transparency, lowers transaction cost, facilitates disputed resolutions and lowers investment risk (Das and Teng, 1998). Like in personal relationships, business partners need to build inter-organizational trust in their networks in order to reduce uncertainty and transaction costs. Earlier literature defines trust as one party's confidence that the other in the exchange relationship will not exploit its vulnerabilities (Doney et al., 1998; Rousseau et al., 1998; Dyer and Chu, 2000; Krishnan et al., 2006; Nielsen and Nielsen, 2009). That is, with trust, it can be expected that an exchange partner will not engage in opportunistic behaviour, despite there being short term incentives and uncertainty about long-term rewards.

### **1) Trust literature in different research settings**

The definition of trust in the literature varies across different disciplines and according to different context (Fichman, 1997). Regarding the former, economists tend to view trust as either calculative (Williamson, 1993; Sako and Helper, 1998) or institutional (North, 1990), whereas sociologists see it terms of socially embedded properties of relationships among people (Granovetter, 1985) or institutions (Zucker, 1986). In terms of context, the majority of the trust literature pertains to that at the national level in the US (e.g. Zaheer et al., 1998), although inter-organizational trust has also been studied in the Netherlands (Nooteboom et al., 1997; Neilson and Nielson, 2009), Canada (Smith and Barclay, 1997), China (Coote et al., 2003), and the United Kingdom (Mollering, 2002). Some studies have had a more international research focus, however, such as Aulakh et al. (1996), who included firms from across Asia. Trust between trading partners may vary, not only in terms of the attributes of transaction, but also with the trading environment of which they are a part. Regarding which, societal culture, politics,

regulation, professionalization, networks and corporate culture are said to form a relevant set of attributes in which a bilateral relationship may be embedded (Granovetter, 1985).

Nevertheless, as implied above, the factors that are most salient regarding trust are dependent on the particular context. For example, Park and Ungson (1997) argued that Asian firms, as result of their collectivist mentality, may believe that building in-groups of firms is the most effective means of reducing in-group or out-group opportunism. Having invested in cultivating in-group relationships, as evidenced in their alliances with US firms, Japanese firms may be more reluctant to dissolve joint ventures because Japanese firms have the sense of group identification and collective responsibility, loyalty, and a sense of reciprocal obligation. These goodwill attitude toward in-group members facilitate cooperation, attenuate opportunism, and resolve disputes between venture partners. Notably, Sako (1992) provides evidence that Japanese companies are more predisposed to trusting their trading partners than are British companies, which is in part due to the prevailing business norms which are determined by societal-level cultural values.

Sako and Helper (1998) compare the concept of trust in Japanese and US firms, finding that the conceptualization was more complex for the Japanese suppliers than for the US citizens, and that the overall level of trust was higher in Japan. Dyer and Chu (2000) stress in their study that supplier trust is highly correlated with stable and consistent buyer processes and routines, which represent commitment towards long-term interactions. They also found that the absolute level of supplier trust differed by country, with Japanese supplier-buyer relations characterized by relatively high levels of trust compared to their Korean and US counterparts and they suggested that this was due to differences in the institutional environment.

On the other hand, Western firms, based on their individualistic tradition, may be more comfortable in undertaking arm's-length transactions with stand-alone entities, since they do not assume that in-group status itself safeguards against opportunism. Such an assumption may reduce a firm's incentive to organize or maintain costly in-groups of firms (i.e. alliances), even with domestic partners (Park and Ungson, 1997). Furthermore, empirical comparative research between Britain and Germany has shown that trust-based relations between buyer and supplier firms are highly dependent on the existence of stable

legal, political and social institutions rather than the individual level of interaction (Lane and Bachmann, 1996).

## **2) Process-based and institutional based trust**

Zucker (1986) introduced two types of trust, namely, process-based and institutional-based. The former refers to that arising out of long-standing relationships, or which is 'characteristic-based', that is to say, resting on common family, ethnic or religious characteristics, whilst the needs to be supported, in modern economies, by a form of trust which is rooted in stable institutions. That is, this system of trust (Lane and Bachmann, 1995) operates when it is tied to formal, societal structures, which have an existence separate from the immediate material preferences, motivation and actions of individuals. Institutional forms, therefore, are not reducible to rational choice considerations, but play an independent role in structuring individual agency.

The concepts of process based and institutional based trust are the dominant view in relation to the inter-firm relationships in the context of European regions, especially Germany and the UK. That is, in these contexts, the institutional environment looks for 'the foundations of trust in the social order' and law is one important mechanism for dealing with the essential riskiness of trust, such as legal arrangements which lend special assurance to particular expectations, thus making them sanctionable and thereby lessening the risk of conferring trust (Luhmann, 1979). However, Lane and Bachmann (1996) carried out a comparative study of Germany and the United Kingdom and found that long-term relations with customers and suppliers are the rule in former, but not in the latter. Moreover, German managers not only show a stronger commitment to long-term relationships, but are also significantly more likely to enter into long-term contracts. By contrast, British firms indicated that they favour short-term repeat contracts, because of the flexibility they provide. However, firms from both countries expressed a strong preference for a process-based mode of trust creation, putting particular value on the continuity of personal contact. Nonetheless, only in Germany is there a solid structural basis exist for long-established personal ties, for the British industrial order impedes the development of process based trust, hence reducing the chances of individual efforts in this direction. Moreover, such institutionalization and actual observance of legal and technical norms by the German business community is greatly enhanced by the existence

of strong intermediary organizations which aid implementation and recognition, particularly if members have contributed to the process of norm creation. Finally, German inclusive trade associations play an important role in this respect, while British fragmented ones have more difficulty in undertaking such tasks, although there is some variation between them (ibid).

### **3) Contract, Competence and Goodwill trust**

Sako (1992) created a typology of trust which has three different levels: contractual trust, competence trust and goodwill trust. Competence trust focuses on the other party's capability to do what it promises, while goodwill trust is genuinely interested in people or groups of the other partner's welfare and motivated to take initiatives for mutual benefit while eliminating unfair advantage taking (Doney and Cannon, 1997; Sako and Helpers, 1998). Sako describes it as the partners' willingness to take initiatives (or exercise discretion), to exploit new opportunities over and above what was explicitly promised. The important point is that while the roles of contractual and competence trust are specified within existing technical and contractual relationships between trading partners, the role of goodwill trust extends beyond existing relations and includes the transfer of new ideas and new technology. Thus, while contractual and competence trust mainly benefit operational efficiency, goodwill trust also contributes to the dynamic efficiency of productive systems (Burchell and Wilkinson, 1997).

Contractual trust and competence trust have been studied in the European context. For example, Burchell and Wilkinson (1997) studied these in relation to Germany, Italy and the UK. They elicited that trust was seen as being able to depend on other firms to be honest, reliable, open, fair, cooperative and to keep their word whether given contractually or otherwise. In addition, in the process of building and maintaining trust the respondents identified the importance of establishing or investigating reputation, experience of performance, personal contacts and long-term relationships. In Italy, the belief that one's word is one's bond, supported by the convention within business communities that the failure to live up to these expectations brings to an end business relationships, provides the context in which business relationships are generated based on trust. In Germany, contracting is strengthened by, among other things, the statutory support given to the weaker party in the contract and by the General Business Conditions

issued by the Trade Associations (Lane and Bachmann, 1995), which forms the framework in which long-term trusting relationships between trading partners develop. In this environment, any firm will respond to a risk of breakdown of trust by looking for greater contractual protection. By contrast, in Britain, where inter-firm relations are embedded neither in a business culture with strong beliefs in fair trading nor in strong legal and institutional regulation, trust generation and maintenance depends more exclusively on individual relationships developed over a long period.

Obligational collaborations in the context of Germany and United Kingdom, based on goodwill trust, are relatively rare (Lane and Bachmann, 1996). In contrast, some studies have suggested that goodwill trust is critical for long-term commitment and sustainable partnership in the Asian context. Chua et al. (2008) argued that trust lies at the heart of successful long-term intercultural business relationships. They found that affective trust (or goodwill trust), generated from feelings of emotional closeness, empathy and rapport, is important for capturing the confidence of Chinese executives. One salutary lesson regarding this was reported by Chua (2012) from an interview with an American executive of an engineering consulting company in China who had embarked upon trust building with a Chinese counterpart. Realizing the importance of trust in the Chinese business environment, he focused on building competence trust by developing the technical capability, but did not nurture goodwill trust, viewing it as too complex and time consuming to develop. As a result, conflict developed owing to different working styles, and finally their business contract was terminated. Given this outcome, this research aims to focus on goodwill trust in order to better understand the other partner's behaviours, at the firm and individual level, and find ways to build effective business relationships from a benevolent perspective.

#### **4) Personal trust and collective trust**

Trust at the personal level has been studied in various contexts as with that at the firm level. From European scholars' perspective, inter-personal trust is based on close, long-term relations, a sharing of goals and expectations and the suppression of short-term self-seeking. Moreover, it is related to social networks in the sense that information sources are from the group of directly and indirectly (friend of a friend) known people. When personal trust is based on information received from a direct acquaintance in the social

network other than the trustee, this acquaintance acts as a go-between and becomes the target of trust (Nooteboom, 2002). Inter-personal trust plays an important role in inter-firm collaborations in some European contexts. In the cases of Germany and Italy, it was found that the factors that influence inter-personal trust are institutional support and the social environment, respectively. In particular, personal relationships were found to be a major factor when choosing and maintaining the information and support exchange linkage in the context of a German electronic installation company (Welter and Kautonen, 2005). However, the cooperation in this context emerged due to the supporting role of an institution in the form of the local guild (division of the Chamber of Crafts) through which people got to know each other. That is, collective trust supplied by the guild provided a platform for personal trust to emerge. One entrepreneur stated that “personal chemistry” and “keeping confidence” were his most important criteria when choosing these partners. He also added that if confidence is broken, then cooperation would cease.

The importance of personal ties in Italian industrial districts is revealed in a study by Ottati (1994). He found that the shared social environment is the principal feature of such people who are living in one naturally and historically bounded area, whereby they tend to have a common culture and frequent direct face-to-face contact, which allows them to get to know each other and hence, build trust. In particular, it is relationships of trust between agents which make transactions, such as informal credit possible. In this vein, trust is a pre-condition for concluding transactions which are potentially profitable but subject to a high risk of opportunism. In particular, trust based on personal reputation assumes features of a true, although intangible, capital, which is both capable of producing future gains and fostering economic development. Also, Lazerson (1988) elicited that a closed network of trusted people is important for partner selection in Italian industrial district. He found that while firms in this context preserved the intimate work relation between owner and employee, they often required the selection of new partners to manage them; the necessity of “having someone there” as two partners of a firm expressed it. This strategy it is argued preserves the advantages that Italian small firms enjoy in terms of state support, labour-market flexibility, and organizational efficiencies.

In addition, inter-personal trust is a success factor of doing business in Asian countries, especially China, where personal ties or “guanxi” is necessary in business exchange. There are at least three differences between Chinese guanxi and personal relationships in

the West. First, the Chinese concept can be distinguished from personal relationships in the West by its focus on reciprocation of favours in an unequal sense (Yi & Ellis, 2000), whereby one person gives a favour and the other person must repay it, but increase the value of that received in the process. Second, Chinese *guanxi* always involves the cultivation of long-term personal relationships through rituals, such as gift-giving and wining-and-dining, for the purpose of obtaining some goods and services (Yang, 1994), while personal networking in the West does not necessarily involve these forms of exchange. Third, *guanxi* is utilitarian rather than emotional (Luo, 1997); it is based entirely on the exchange of favours, not on emotional attachment (such as friendship). Thus, *guanxi* does not necessarily involve friendship. According to Hwang (1987), that between buyers and suppliers is typically connected by “instrumental” or “mixed” ties used as tools for the exchange of goods and services, and relationship maintenance (Chen, Huang and Sternquist, 2011).

**Table 2.1 Different types of trust and definitions**

<b>Authors</b>	<b>Types of trust</b>	<b>Definition</b>	<b>Research settings</b>
Sako (1992), Sako (1998), Möllering (2002)	1) Goodwill trust	The expectation that a partner intends to fulfil their role in the relationship	Japan, other Asian countries UK
	2) Competence trust	The expectation that partners have the ability to fulfil their roles	
	3) Contract-based trust	The willingness to depend on other firms to be honest, reliable, open, fair, cooperative and to keep their word whether given contractually or otherwise.	UK
Zaheer et al. (1998)	1) Inter-organizational trust	The extent of trust placed in the partner organization by the members of a focal organization	US
	2) Inter-personal trust	The extent of a boundary-spanning agent's trust in her counterpart in the partner organization	US
Zucker (1986), Lane and Bachman (1996), McKnight and Chervany (2002),	1) Institutional-based trust	The subjective belief with which organizational members collectively assess that favourable conditions are in place, which are conducive to transaction success.	Germany
	2) Process-based trust	The type of trust that is dependent on past transactions, repeated purchases (e.g. reputation), or expected future exchanges (e.g. gift-giving)	UK
Ottati (1994)	Collective trust	Capital in which the business community invests and which creates an environment where high business standards are expected.	Industrial districts in Italy
Hwang (1987), Luo (1997), Chua et al. (2008)	Guanxi	A web of connections to secure favours in personal and organizational relations.	China

Having reviewed the main dimensions of trust, the aim in this thesis is to study trust in strategic alliances at the inter-personal and inter-organizational levels. More specifically, this is to be probed in the context where there is lack of institutional support, namely, Asian countries, with their societies embedded in collectivism. In addition, personal bonds are a success factor of doing business in these circumstances. These variations in

societal arrangements illustrate that scholars need to identify the specific types of trust that are valued in their research settings. Thus, given the focal context, this research focuses on goodwill trust at the firm and personal levels in Thailand.

### **5) Inter-organizational trust and interpersonal trust definitions**

Working together often involves interdependence, and people must therefore depend on others in various ways to achieve their personal and organizational goals (Mayer et al., 1995). A phenomenon as complex as trust requires theoretical underpinning and a research methodology that can capture its many facets and levels. In the literature, trust has been defined with the emphasis being placed on different aspects owing to the variation in the research settings. However, a widely accepted common general definition of trust is the willingness to take risks with the opposite parties. For instance, Rousseau et al. (1998) defined it as a psychological state comprising of the intention to accept vulnerability based upon positive expectations of the intentions or behaviour of other individuals, dyads and firms. Moreover, interpersonal and interorganizational trust operate quite differently within relational exchange. Thus, scholars have suggested that trust should be tested at different levels, because of the different characteristics and types of risk are involved, in particular, regarding the firm and personal levels. According to Nguyen et al. (2005), inter-organizational trust involves the cognitive assessment of the partner's organizational capabilities, management integrity and interdependence. Interpersonal trust, however, involves both cognitive assessments and emotional attachment between contact persons. Furthermore, Currall and Inkpen (2002) noted that there are different types of risk in joint ventures that have different impacts at the individual, group and firm levels. For example, there is the risk that an alliance partner lacks the skills necessary to achieve a mutual outcome and the risk of them opportunistically appropriating the firm's knowledge. From this discussion, it becomes apparent that researchers need to employ a multiple level approach in order to examine trust corresponding to different level of unit of analysis.

The micro-macro links in inter-organizational relations, namely, inter-organizational trust and interpersonal trust, are another area of social capital theory that scholars have studied (Zaheer et al., 1998; Rousseau et al., 1998). However, most of the empirical studies on trust have not made any distinction between the two, because it has been

contended by some that the measures used apply to both levels (Young-Ybarra and Wiersema, 1999). However, it may not be appropriate to study inter-organizational trust and inter-personal trust using similar measures drawn from data provided by key informants (Seppanen et al., 2007). Hence, it is posited here that trust should be conceptualized and measured differently at the inter-organizational and interpersonal levels in order to avoid the potential problem of misspecification, thereby enhancing the methodological rigour of empirical work on trust in strategic alliances (Currall and Inkpen, 2002).

The definition of trust adopted for this research is the willingness of the firm to undertake risk and vulnerability regarding the alliance partners' opportunistic behaviour and other actions. Further, the definition of inter-personal trust and inter-organizational trust employed draws upon that of Zaheer et al. (1998). That is, the term interpersonal trust refers to the extent of a buyer's representative trust in her counterpart in the supplier organization, whereas inter-organizational trust is defined as the extent of trust placed in the supplier organization by the members of another.

### **2.3.3 Transaction cost economics (TCE)**

Transaction cost economics (TCE) is one of the leading theoretical perspectives in management and organization research (David and Han, 2004). TCE refers to consideration of the transaction cost involved in economic exchanges and their minimization. A transaction cost is defined as a cost incurred in making an economic exchange (Culpan, 2009) and include: search and information costs, bargaining costs, contract costs and governance costs (Dyer, 1997). TCE focuses on transactions (i.e. transfer of goods or services) and the costs incurred when completing these by one organizational form rather than another, from amongst: market, hybrid, hierarchy choices. (Williamson, 1975). Under TCE, the goal of the firm is to choose the organizational form that minimizes transaction costs, the key determinants of which are: frequency, specificity, uncertainty, limited rationality and opportunism (Williamson, 1981).

### **1) Asset specificity**

Asset specificity is a key construct in inter-firm cooperation research, which Williamson (1985: 45) defines as the “durable investments that are undertaken in support of particular transactions, the opportunity cost of which investments is much lower in best alternative uses or by alternative users should the original transaction be prematurely terminated.” Alliance partners invest in specific assets for a partnership out of task needs and goodwill. As asset specificity is a non-redeploy commitment with little value outside a specific transaction, it is an important managerial decision that ultimately affects partnership performance. The relationship between asset specificity and partnership performance under the TCE optic is that the specific assets invested in a partnership increase the hazards of opportunism and hence transaction costs (Heide and Stump, 1995; Parkhe, 1993). Consequently, firms select an appropriate governance structure for the partnership so as to reduce the hazards of opportunism based on the level of asset specificity (David and Han, 2004). That is, partnership performance will be maximized when opportunistic behaviour on asset specificity is reduced (Lui, Wong, Lui, 2009).

### **2) Frequency**

Low frequency transactions are likely to be organized through market interactions or with the help of any general governance mechanism available in the community. When parties interact frequently, it may be more economical to design a governance mechanism that is specifically adapted to the situation at hand and thus, internalization of transactions by the firm is only efficient for recurrent ones. For low-frequency transactions, the firm will prefer to bear the risk associated with opportunism and uncertainty, rather than support the cost of creating a new governance mechanism or expanding an existing one (Williamson, 1985; Aubert et al., 1996).

### **3) Uncertainty**

When asset specificity is low, market governance should be preferred whatever the degree of uncertainty, since continuity matters little and new transaction arrangements can easily be arranged by both parties (Williamson, 1985). Uncertainty in TCE arises either when the relevant contingencies surrounding an exchange are too unpredictable to be specified in a contract (environmental uncertainty) or performance cannot be easily

verified (behavioural uncertainty) (Parkhe, 1993; Geyskens, Steenkamp, Kumar, 2006). Moreover, TCE predicts that when there is nontrivial asset specificity and as environmental uncertainty increases, the hierarchy is more efficient than the market, and the latter is more efficient than hybrid forms of governance (Williamson 1991). Furthermore, Klein, Frazier, and Roth (1990) and McNaughton (2002) argued that there are two forms of environmental uncertainty to be considered in the international environment: volatility (environmental uncertainty) and diversity (behavioural uncertainty). These authors argue that greater unpredictability in the environment surrounding a transaction leads to greater channel integration, whereas greater diversity regarding this leads to less channel integration. The findings of their studies provide some support for these claims, thus leading to the conclusion that the external environment in an international context has additional complexity that is less manageable than any that exists in a domestic setting (Rindfleisch and Heide 1997).

#### **4) Bounded rationality**

The second assumption of TCE is that decision makers are limited by bounded rationality, i.e. the limited capacity of the human mind that prevents decision makers from developing objective and rational solutions to complex problems (Simon 1957). In other words economic agents have limited information and hence an unpredictable future (Das and Teng, 2000). If bounded rationality did not exist, all economic activity could be efficiently organized by contracts. TCE not only assumes that decision makers are boundedly rational, but also that some people or firms in any setting will be opportunistic (Shervani, Frazier and Challagalla, 2007). A bounded rationality view (Simon, 1979) can nonetheless predict some overriding biases. Hence, Williamson's arguments are not only inapplicable to most decision-making situations in firms but, if so applied, are also likely to adversely affect their performance (Ghoshal and Moran, 1996). In sum, as a consequence, transactional mechanisms are derived from economic rationality and emphasize governing relationships through monitoring and incentive-based structures (Liu et al., 2009).

#### **5) Opportunism in TCE**

In TCE theory, opportunism refers to “calculated efforts [by an exchange agent] to mislead, distort, disguise, obfuscate, or otherwise confuse” (Williamson, 1985: 47) an

exchange party. That is, opportunism refers to the behavioural assumption that economic agents are primarily oriented toward their own personal interests and will disregard the those of their partners if they can get away with it. Therefore, appropriate governance mechanisms are needed to protect the alliance from these potential transaction cost factors (Das and Teng, 2000). Some examples of self-seeking interest behaviour, which can be pursued with guile (Williamson, 1985), include lying, stealing, or violating agreements and is of particular concern when one of the parties to the transaction has invested assets specific to the relationship with little or no value outside that specific transaction (Williamson 1991). In such instances, firms are faced with the safeguarding problem, whereby assets become vulnerable to exploitation and the partner making these investments becomes weak in their defence against opportunism, because it cannot resort to the market and thus escape the opportunistic behaviour within the relationship (Williamson 1975, 1985).

The presence of opportunism increases transaction costs. Ex ante, opportunism is associated with greater costs of initiating and writing extensive contingent-claims contracts intended to curb guileful behaviour of an exchange, whereas ex post it imposes additional transaction costs in the form of monitoring, modifying, and enforcing the terms of the exchange contract (Williamson, 1985). Under the TCE model, it is also argued that high levels of asset specificity are most efficiently managed in a hierarchical form of governance, whilst low levels are most efficiently managed in the market, and intermediate levels are best dealt with using a hybrid form of governance (Williamson 1991).

## **6) TCE in strategic alliances literature**

TCE has been used to guide a variety of empirical research investigations, into such as joint ventures and strategic alliances (David and Han, 2004). For instance, it has been found that there are levels of asset specificity and contextual backgrounds of inter-organizational relationships required to support the exchange, internal uncertainty or performance ambiguity, and external uncertainty (Williamson, 1988; Zaheer and Venkatraman, 2007). Moreover, all economic activity revolves around a transaction, which is simply some form of exchange of a good or service between two or more economic actors (Williamson, 1985). Scholars have defined TCE factors in strategic

alliances in order to understand the effects on these factors on alliance management and performance. Transaction cost factors in alliance literature pertain to three main forms, namely: asset specificity, uncertainty and opportunistic behaviours (David and Han, 2004). From a TCE perspective, strategic alliances are considered to be arrangements that minimize such TCs for firms by working with business partners, with alliance transaction costs including those concerned with negotiating and writing contingent contracts, monitoring partner performance relative to the contract and dealing with the breaches of contractual commitments (Gulati, 1995; Ireland et al., 2002). Further, under the TCE perspective alliances are more efficient than markets or hierarchies when they minimize the firm's transaction costs (Jarillo, 1988). Thus, successful alliances are the product of organizing a firm's boundary-spanning activities to minimize the sum of its transaction and production costs (Barringer and Harrison, 2000).

Numerous researchers have criticized the TCE perspective of alliances for its singular focus on partner opportunism and its advocating the use of contractual agreements or equity to resolve this (Kale et al., 2000). Consequently, this approach fails to capture an important element in alliance partnerships, namely, the inter-partner relationships or relational capabilities and management. Previous research has shown that there is tremendous uncertainty surrounding strategic alliances (Zaheer, et al., 1998). In particular, in cross-cultural collaboration studies, cultural distance is one source of uncertainty. Regarding which, according to Brouthers and Brouthers (2000), the cultural context includes investment risks associated with different host countries' institutional systems, as well as market attractiveness and uncertainty from cultural differences between alliance partners, all of which can impact on trust and alliance performance (Luo, 2002).

#### **2.3.4 Compatibility of theories**

The capacity to bring multiple and often competing perspectives to bear on important organizational phenomena is one of the appealing qualities of strategic management research. A growing body of literature now exists in the area of inter-organizational relationships (Casson, 1998; Dyer and Singh, 1998; Poppo and Zenger, 1998). Indeed, some consider strategic management's status as a pluralistic arena for examining complex problems to be its distinctive competence (Meyer, 1991). The relational capabilities and

TCE are two perspectives on organizations that have gained attention in recent years in that they have made valuable contributions to understanding strategic alliances, because both these theories offer rich and powerful explanations for inter-organizational collaborations. The purpose of this work is to examine how relational capabilities and TCE differ and to take a steps towards reconciling these so as to help managers in the strategic decision making process. The comparative theories can be classified into the independent, conflict and complementary views.

### **1) Independent view**

Proponents of this literature – sometimes referred to as the relational view – propose it is a means of understanding how firms can gain and sustain competitive advantage. For example, Dyer and Singh (1998) argue that it is possible for organizations to combine resources in unique ways across organizational boundaries to obtain an advantage over their competitors. The relational view has evolved from the limitations of TCE in relation to potential governance structures and as an extension to the RBV. Subsequently, as mentioned above, the relational capabilities approach was developed from the relational view and dynamic capabilities approach by introducing a set of organizational routines that, if employed in distinctive ways, can create relational rents (Dyer and Kale, 2007). In sum the relational capabilities approach includes complementary capability, knowledge sharing routines and effective governance mechanisms, tasked with acquiring resources and capabilities from business partners in order to learn and create value from the collaboration.

The relational capabilities approach, as yet, has not generated empirical predictions as with TCE, only ex-post explanations (Argyres, 1996). For instance, it has been elicited that learning from an alliance partner may lead to negative outcomes for the partner whose knowledge has been appropriated (Lorange, 1997), but that strategic alliances may help a firm absorb or learn some critical information or capability from its partner. Moreover, they also increase the likelihood of unilaterally or disproportionately losing one's own core capability or skill to the partner (Kale et al., 2000) and such asymmetrical learning may result in the creation of a new or stronger competitor. Thus, firms are faced with the challenging task of managing the balance between trying to learn and trying to protect. Oxley and Sampson (2004) considered the choice of alliance scope as an alternative way to control the threat of knowledge leakage and protect technological

assets. Their results suggested that partnering firms narrow the scope of their alliance activities in response to competitive threats and the fear of knowledge leakage.

## **2) Conflict view**

In addition to the independent view, the relationship between the relational capabilities approach and TCE can be conflictive. As detailed in this thesis, however, some resource-poor firms confront a dilemma in that the relational capabilities approach points them towards cooperation, whereas TCE discourages cooperation because of the threat of partner opportunism in inter-firm relationships. Hence, managers may confront a dilemma when resource constraints point them towards inter-firm cooperation in situations where this is not an efficient response to exchange conditions.

In contrast to the TCE perspective, collaboration should be employed to minimize the cost of governing the activity (Madhok, 2002). According to TCE, cooperation is advisable only if it minimizes the cost of governing (i.e. monitoring and controlling) organizational activities (Hesterly, Liebeskind, and Zenger, 1990). Moreover, under this perspective it is advised that organizations should consider the level of transaction specific investment in the economic exchange as the principal determinant of whether an economic exchange should be managed internally within the organization or not (Williamson, 1985). However, the limitation of transaction cost perspective is that inter-firm relationships may be established for other reasons than a desire to enhance transactional efficiency. That is, TCE has been criticized for paying exclusive attention to cost minimization and neglecting value creation in strategic alliances (Das and Teng, 2000). In particular, an internationalization approach of inter-firm relationships may be adopted for direct strategic reasons, not only foreign market entry, knowledge and technological transfer, but also a desire to foreclose the market or supply access in the host countries (Heide and Stump, 1995). Furthermore, one widely acknowledged weakness of TCE is its focus on a single firm and single transactions, thus providing little insight into the processes by which multiple firms, working collaboratively, develop individual and common capabilities.

Some of the proponents of the relational capabilities approach have argued that it is more appropriate for explaining the boundary of the firm than TCE. For example, in a critique of TCE, Conner (1991) argued that TCE emphasized the existence of firms as a way of

minimizing the opportunistic potential that arise when asset-specific investments are made. While the relational capabilities perspective the firm is seen as a bundle of capabilities that create relational rents even it has to encounter with the risk of opportunistic behaviours from alliance partners (Kale et al., 2000). Firms that use inter-firm cooperation according to the predictions of the relational capabilities may perform quite differently from those whose use of inter-firm cooperation is best explained by TCE. Hence, management scholars have called for investigation into what is a firm to do when resource constraints push managers towards inter-firm cooperation even though this may not be the efficient choice from the TCE perspective.

### **3) Complementary view**

A third view is that the relational capabilities approach and TCE are complementary, each offering unique insights that generally point managers in similar directions. That is, the relational capabilities approach proposes a similar aspect to TCE, namely, a relation-specific asset, to capture the long-term investment in the people, assets, and procedures of a partnership (Anderson and Weitz, 1992; Ganesan, 1994; Gundlach et al., 1995; Morgan and Hunt, 1994). This study follows Dyer and Singh (1998) and Rokkan et al., (2003) in treating asset specificity and a relation-specific assets as interchangeable. However, in contrast to the TCE framework, under the relational capabilities approach it is claimed that a relation-specific asset signals the desire to invest in an enduring relationship. That is, the investment increases the cooperative behaviour and transaction value of the partnership (Dyer, 1997; Dyer and Singh, 1998; Saxton, 1997). In general, the relational capabilities approach therefore focuses on cooperative behaviour to explain the relationship between asset specificity and partnership performance. The complementary view is also reflected in Gray and Wood's (1991) suggestion that neither resource nor economics-based perspectives adequately explain collaboration and hence both perspectives are needed (Combs and Ketchen, 1999).

### **4) The conflict view between Trust and TCE**

In the context of inter-organizational collaborations, advocates of TCE theory (e.g. Williamson, 1985, 1993) have accentuated the economic man assumption in that they have focused on the choice of mode of economic governance that minimizes transaction costs, arising in part from an inherent tendency of exchange parties to behave

opportunistically. In contrast, advocates of inter-organizational and inter-personal trust (Zaheer et al., 1998) imply the heroic man assumption, i.e. they emphasize trust as critical to promoting and maintaining value-enhancing collaborations. Researchers from each standpoint have provided empirical evidence in support of the different assumptions of their espoused theory (for examples of empirical corroboration of TCE-based tenets, see Heide and John, 1992; for examples of empirical support of trust, see Dyer, 1997; Zaheer and Venkatraman, 1995). Although these works have yielded insights, they have also presented dilemma regarding these two perspectives, as discussed next.

Researchers have attempted to validate or refute the claim of the TCE regarding trust (Young-Ybarra and Wiersema, 1999; Zaheer and Venkatraman, 1995; Lado et al., 2008) that this engenders neutral outcomes. This claim rests on the assumption that within principal-agent exchange relationships, trust and opportunism tend to counteract each other, such that the positive effects of trust tend to neutralize (or diminish) the negative effects of opportunism on relationalism. Researchers have found some empirical support for the neutralizing effect in exchange-related behaviours, such as information sharing, performance monitoring, negotiation, and conflict resolution (e.g. Dyer and Chu, 2003; Zaheer and Venkatraman, 1995; Zaheer et al., 1998), although the cross-sectional nature of these works tends to preclude making causal inferences.

Furthermore, researchers very often relax some core assumptions of, or integrate trust variables into the TCE framework in order to reconcile the two different perspectives to explain the same phenomenon. But by doing so, they may reduce the uniqueness and simplicity of TCE theory and the concept of trust. For example, Zand (1972) argued that a relationship exists between trust and bounded rationality and that it is mediated by information. That is, the existence of trust in a contractual relationship may lead to information exchange that is more accurate, greater receptivity to influence by others and relaxation of controls on others, which, in turn, reduces behavioural uncertainty/complexity, which, in turn, economizes on bounded rationality. According to Dyer and Chu (2003), trust in supplier-buyer relations may be an important source of competitive advantage in industrial settings in which transaction costs are expected to be high due to conditions that create transactional difficulties (e.g. environmental uncertainty and high inter-organizational asset specificity). Under such circumstances, trust increases strategic or operational flexibility to deal with unanticipated environmental

and/or organizational challenges (Young-Ybarra and Wiersema, 1999) and may be the primary organizing principle to safeguard against opportunistic behaviour (McEvily et al., 2003).

### **5) Research assumptions**

This research incorporates the relational capabilities approach, the concept of trust and TCE theory in order to understand a complicated inter-firm relationship, namely strategic alliances. This is because the review of the literature has revealed the need for researchers to look beyond a single theoretical explanation of how inter-organizational relationships are developed and maintained. This researcher posits that relational capabilities can help companies successfully balance the acquisition of new resources and capabilities with the protection of existing asset specificity in alliance situations. More specifically, it is contended that relational capabilities facilitate learning and sharing through close one-to-one interaction between alliance partners, whilst at the same time minimizing the likelihood that an alliance partner will engage in opportunistic behaviour in the trust-based relationship.

Moreover, the focus in this study is on ex post opportunism (Jap and Anderson, 2003), since the researcher investigated ongoing alliance project management that had been in existence for at least one year. Further, in accordance with TCE theory, it was assumed that alliance managers have bounded rationality as well as being aware of uncertainty and opportunistic behaviours of their alliance partners, at the personal contact level, because they had dedicated resources and capabilities as well as investing their asset specificity. Nevertheless, inter-personal trust and inter-organizational trust increase their willingness to take risk, which act as safeguards of transaction factors in strategic alliances. Specifically, these assumptions provide strong support for the complementary effects of trust and asset specificity, which represent commitment and dependence between alliance partners and enhance alliance performance.

### **2.4 Empirical studies on Supply chain management**

Supply chain management (SCM) is the integration of key business processes from end user through to the original suppliers that provide products, services, and information that add value for customers and other stakeholders (Lambert and Cooper, 2000).

Increasingly, firms are building collaborative relationships with their supply chain partners in order to achieve efficiencies, flexibility, and a competitive advantage (Nyaga et al., 2010). Management scholars have devoted substantial attention to the study of buyer–supplier alliances and how they impact on supplier (and buyer) performance. There is a great deal of evidence, for example, that through such vertical collaboration, suppliers and buyers are able to revamp production processes, reduce transaction costs and deliver better products to consumers (e.g. Dyer, 1997; Helper, 1991; Kotabe et al., 2003; Martin et al., 1995; Srinivasan and Brush, 2006; Lazzarini et al., 2008). This section reviews empirical studies of relational capabilities, trust and TCE, which have been studied in the SCM literature, with the aim of enhancing understanding of this context. More specifically, the contributions to the literature include increased comprehension of the factors that influence the perceived success of collaborative relationships from both a buying and a supplying firm perspective, as well as a comparisons of these two perspectives.

#### **2.4.1 Relational capabilities and SCM**

A number of empirical studies relating to inter-organizational collaboration have adapted the concept of relational view into a specific context, for instance, the buyer-supplier relationship, collaboration in a range of industries and in the context of different institutions (Pagano, 2009). Most of the extant research has concluded that relational capabilities can help improve dyad alliances and firm performance significantly. For instance, Nyaga et al. (2010) viewed relational capabilities as collaborative activities between buyers and suppliers, such as information sharing, joint relationship effort, and dedicated investments. They contended that these promote successful buyer-supplier collaborations in both the quality of inter-firm relationships and overall alliance performance. In SCM research, relational capabilities represent each party's willingness to give and take in the relationship and this allows it to adapt over time in response to changes in the business environment (Williamson, 1993). These capabilities deter opportunism, encourage cooperative behaviour, and increase the potential value of the exchange relationship (Srinivasan and Brush, 2006).

Moreover, researchers have provided evidence of the important role of social capital in the context of supply chain management in the UK as opposed to investigating trust in

this context. They found that key suppliers and buyers exhibit closeness in the relationship through their flexibility to supply requests, help assisting in emergencies, and reliability built through repeated exchange. In doing so, a collaborative relationship is established where relational capital appears to accrue (Heide and Miner, 1992). Krause et al. (2007) showed that relational capital accumulation can improve company performance, whilst Lawson et al. (2008) elicited that relational capital is a mediator between relational embeddedness of buyer-supplier relationships and buyer performance improvement. More specifically, they adopted the notion of social capital and applied it to the relationship between buyer firms and their key suppliers. In addition, they viewed trust as a foundation of the relational dimension, which refers to the personal relationships people have developed with each other through a history of interactions, leading to relations of trust, obligation and reciprocity. They found that the linking of relational embeddedness and structural embeddedness can enhance buyer performance.

In general, trust contributes to improving alliance performance and alliance satisfaction in prior SCM research. According to Doney and Cannon (1997), trust in the context of the buyer-supplier relationship refers to the perceived credibility and benevolence of a target. In other words, a buying firm that faces some degree of risk in a purchasing situation, turns to a supplier or salesperson whom it believes is able to perform effectively and reliably and is interested in the customer's best interests. Evidence of trust-based performance improvement in supply chain management has been found by comparing supplier relationships in the auto industry in Japan and the U.S. (Cusumano and Takeishi, 1991; Dyer, 1996). That is, these studies found that Japanese automakers, such as Toyota, perform better than Western automakers, such as GM, due to their higher ability to integrate with their supplier network. Moreover, Cusumano and Takeishi (1991) elicited that buyer-seller relationships in the auto industry in Japan tend to be longer term, more stable, and with earlier supplier involvement in product development than in the U.S., where heavier reliance is placed on direct market forces among suppliers. They also discovered that GM has had to deal with the threat of opportunism by reducing the level of transaction specific investment in its suppliers (i.e. by having multiple competing partners), by insisting on elaborate contractual protections, or by vertically integrating the supply relationship (ibid). Further, Dyer and Chu (2003) found that supplier trust in a buyer results in lower TC, greater information sharing and better collaborative performance. Similarly, Johnson et al. (2004) reported that cooperative behaviours, such

as shared planning and flexibility, have a positive impact on supplier trust in the buyer firm. Furthermore, much research has studied the trust building process and the roles of trust in supply chain management. Dyer and Chu (2000) argued that a buyer's routines that represent commitment, assistance giving and supplier selection routines increase supplier trust. Vinella et al. (2010)'s study of buyer-supplier relationship in Spanish manufacturing sector support the importance of trust in this context. That is, they found that personal interaction at multiple levels, mutual respect, and trust were significantly positively related to performance improvements in the buyer's operational performance along the dimensions of product design, process design, lead time and product quality.

Some researchers have not only acknowledged the important role of trust in inter-firm collaborations, but also considered it as risk investment since it increases dependence between firms. Close relationships emerge as a response to the need for safeguarding those risks and adapting to uncertainty (Heide and John, 1990) by establishing governance mechanisms to reduce risk from opportunistic behaviours. For example, Srinivasan and Brush (2006) compared the effect of formal and informal governance mechanisms on performance in buyer-supplier alliances. They found that relational safeguards, such as relationship length and volume stability and increased supplier performance, while formal safeguards, such as contract duration and quantity agreement, do not impact on alliance performance. Carey et al. (2011) suggested that firm should have the formalization of expectations relating to operational requirements and protection of shared knowledge when buyers and suppliers have a relationship characterized by mutual trust and reciprocity to help lower product cost and total cost, and drive improvements in products and processes.

#### **2.4.2 TCE in SCM**

Transaction cost theory is a well-established framework for examining supply chain governance options. In the early stage of the theoretical development of the relational view, this theory played an important role in the empirical studies found in the strategic alliance literature. In particular, it was discovered that collaboration among supply chain partners may result in greater economic benefits in comparison to traditional (market exchange) relationships (Paulraj et al., 2008). These greater investments place each party in the exchange at risk (e.g. uncertainty, opportunism), thus making the governance

decision more important as this can significantly affect relationship performance and success.

Scholars have studied the influence of TC factors, including asset specificity and uncertainty that are bounded in the exchange between buyer-supplier (Croom et al., 2000). For example, Dyer (1996) suggested that human asset specificity and site specialization have a positive impact on operational performance. Consistent with this Dyer (1997) later claimed that human asset specificity in the form of a specialized supplier group lowers transaction cost in alliances, because this type of asset involves greater information sharing, has a longer payback period and is the cost of safeguarding the relation-specific investments. Uncertainty is another factor that plays an important role in the supply chain management context. For, when compared to risk, it is a condition under which it becomes more difficult to predict the likelihood of future events (Gaur et al., 2011; Milliken, 1987; Sutcliffe and Zaheer, 1998). It is widely accepted that risks and environment uncertainty are inherent in supply chain relationships (Hult, Christopher, and Ketchen, 2010). Heide and John (1990) found evidence of three forms of uncertainty, including volume unpredictability, technological unpredictability, and performance ambiguity, having a significant impact on buyer-supplier partnerships. Other studies have also linked the nature of relationships to environmental uncertainty and resource interdependence (Hayes and Pisano, 1994). Furthermore, exploring their contingency effects can help provide better understanding why certain supply chain partnerships result in higher performance (Luo, 2002; Krishnan et al., 2006).

In sum, it is clear that the importance of transaction cost economics and trust has been recognised by a number of researchers in SCM literature. This researcher recognises that the understanding of supply chain management allows for examination of the conditions under which relational capabilities affect collaborative performance between buyers and suppliers. However, the theoretical development of this study that is concerned with buyer-supplier alliance phenomena requires a more integrated approach than that used previously regarding relational capabilities, one which incorporates a combination of TCE and trust disciplines. That is, as such, the current research differs from previous models in that it highlights resources and capabilities from buyers' perspective for managing strategic alliance projects with suppliers. More specifically, it contains economically-oriented constructs traditionally associated with TCE, namely asset

specificity and relational-oriented constructs as well as organisational trust in buyer-supplier relationships, while being mediated by the relational capabilities to achieve relational rents in this context.

## **2.5 Unit of analysis: Strategic alliances at the project level**

Alliances have been the subject of a great deal of empirical research in the field of strategy. The literature suggests the term “alliance” to be a broad one covering many types of independently initiated inter-firm linkages, such as long-term purchasing (supply) agreements, licensing, collaborations on R&D, technology exchanges and joint ventures (Gulati, 1995; Nooteboom et al., 1997). When defining an alliance, virtually all researchers use terms such as cooperation, collaboration, value creation, or similar ones, which convey the idea that they involve a closer and more interdependent relationship than standard supplier transactions. This ambiguity in how alliances are defined makes them difficult to study, because the results of any given work will depend critically on the definition that the researcher has used.

The broad classification of strategic alliance contains two types: horizontal and vertical. Although both have been the subject of investigation in prior research, the two streams of literature appear to have developed in relative isolation. Horizontal alliances focus on more radical innovations in relation to the size, complexity, and uncertainty of the particular alliance. While vertical alliances are concerned with cost reduction or on reducing time to market (Carr and Pearson, 1999; Oxley and Sampson, 2004). According to Mayer and Teece (2008), alliances and long-term buyer–supplier relationships are different and that failure to differentiate between them would hurt the chances of collaborative success. However, what has been largely missing from the literature on alliances is detailed examination of how they differ from traditional supplier relationships. Hence, scholars need to make the distinction between buyer-supplier relationships, alliance projects and alliance portfolios (ibid).

### **2.5.1 Buyer-supplier relationships**

General relationships between buyers and suppliers are at the heart of business exchange. Regarding these, scholars have focused on long-term buyer–supplier contracts and how they are used to create proper incentives and/or overcome exchange hazards. Supplier management represents an investment by the buying firm in the supplier that may reduce

transaction costs and yield a more cooperative relationship. Any effort to manage the flow of information or materials across the supply chain is likely to be successful, if there are active supply chain organisational relationships (Handfield and Nichols, 1999). Peterson et al. (2005) describes three different types of buyer–supplier relationship ranging from arm’s length relationships to alliances, in the following sequential order:

- 1) Discussions are held with suppliers about specifications/requirements but the buying company makes all design and specification decisions;
- 2) The buyer and supplier enter into an informal, or sometimes a formal joint development effort, which may include information and technology sharing and joint decision making regarding design specifications;
- 3) The supplier is informed of customer requirements and then is given almost complete responsibility for the purchased item, with only review and concurrence on the purchased item’s specifications being left with the buying company.

While many have moved away from strict arm’s length relationships with some of their suppliers, examples of sustained co-operative risk-sharing interactions are much less common. Consequently, alliances and other “hybrid” organizational forms are typically viewed as mechanisms for governing exchanges or relationships rather than standard market exchange or full integration (e.g. Williamson, 1991; Gulati, 1998). Some researchers who have studied strategic alliances have set out to elicit whether an alliance or partner level of analysis is the appropriate one (Levinthal, 2000). This is because alliance portfolios (as researched by e.g. Rothaermel and Deeds, 2006; Heimeriks and Duysters, 2006) and individual alliance projects (as investigated by e.g. Hoang and Rothaermel, 2005; Kale and Singh, 2007; Mesquita et al., 2007; Nelson and Nelson, 2009) have different characteristics and underpinning strategies in several respects.

### **2.5.2 Alliance projects**

Alliance projects differ from more traditional longer-term buyer–supplier contracts in several important respects. To start with, project work by definition is specific and unique, thus often requiring creative problem solving and novel solutions (Prencipe and Tell, 2001). In order to achieve a positive outcome, a firm certainly needs to have a sound

strategic logic for its alliance and to adopt the appropriate best practice in each stage. However, the management of alliances is a difficult organizational activity due to the complexities and uncertainties inherent in working across organizational boundaries (Rothaermel and Deeds, 2006). A project alliance only binds the parties together for the duration of one project (Scheublin, 2001) and it is through this alone the means for enforcement are determined as well as the defining of the roles and responsibilities of each party (Mayer and Teece, 2008). Therefore, strategic alliance project management places the emphasis on process management, which is defined as the degree of interaction, including communication and coordination, perceived to be required by the initiating partner in the process of implementing and sustaining the alliance tasks of the particular alliance project (Shah and Swaminathan, 2008). The specific personnel who are directly associated with the alliance is the key to this process. Hence, process manageability takes into consideration the degree of emotional stress experienced by managers and other personnel involved in the alliance and the amount of communication by partners for the effective coordination and control of alliance activities.

### **2.5.3 Alliance portfolio**

While an individual alliance project involves a single and independent transaction, a company can simultaneously participate in more than one project alliance at the same time. A firm can gain additional advantages by considering its entire set of individual alliances as one portfolio, and managing it as such (Lavie and Miller, 2008). A strategic alliance portfolio refers to temporary cooperative agreements in which two or more firms share reciprocal inputs to realize improved competitive positions, whilst maintaining their own corporate identities (Heimeriks and Duysters, 2006). Alliance strategies, derived from the business strategy, determine the goals of all alliances of the business unit (e.g. developing a new technology or entering a new market) and the configuration of the business alliance portfolio (Hoffmann, 2007). Researchers who have probed the problems associated with managing multiple dyads have used the terms multilateral alliance (Doz and Hamel, 1998), alliance constellation (Gomes-Casseres, 1996), alliance network (Das and Teng, 2002), and alliance portfolio (Powell, Koput, and Smith-Doerr, 1996). At the portfolio level, top executives provide strategic direction by defining the current and future scope of the alliance's activities, assessing values obtained from and contributions

made to the alliance, examining the partners' strategic compatibility, and handling shifts in the relative value of partners' contributions over time (Doz and Hamel 1998).

#### **2.5.4 Different characteristics of inter-organizational relationships**

While there has been a lot of empirical work on the characteristics and scope of strategic alliances, relatively little is known about how they differ from general buyer–supplier relationships, alliance projects and alliance portfolios. Alliances pose some unique challenges due to their broader scope and need for more administrative structure and information exchange. Oxley and Sampson (2004) have suggested that choosing the scope of activities to include in an alliance linking a particular set of firms establishes both the probability and the cost of opportunistic behaviour by the partners. This is because the extent of coordination and more intimate face-to-face contact necessary to achieve success increases along these dimensions (Kogut, 1988; Kogut and Zander, 1992; Gulati and Singh, 1998) and uncertainty raises the costs of monitoring and assessing partner behaviour (Pisano, 1989). This could partially explain why many studies have found that alliances have a higher failure rate, i.e. their wider scope involves more complex interaction and joint effort than do traditional long-term relationships. If firms enter an alliance negotiation and treat it like a supplier contract, then they run the risk of having a poorly designed contract that could hurt their chances for success (Mayer and Teece, 2008). Therefore, they need to pay close attention to the four dimensions of the contract identified above, which delineate how alliance contracts differ from standard supplier ones (even complex supplier contracts). The different characteristics of these collaboration types are summarized in Table 2.2

**Table 2.2 Key differences in alliance and supplier relationships**

	<b>Buyer-Supplier relationships</b>	<b>Alliance projects</b>	<b>Alliance portfolio</b>
Scope	Narrow Dyadic relationship	Broad Dyadic relationship	Broad Multi-alliance projects
Decision-making	Mainly autonomous	Mainly joint with alliance partners	Mainly autonomous at the top level management
Managers	Purchasing department	Project managers	Alliance managers, CEOs
Administrative structure	Minimal	Detailed	Alliance guidelines
Information and knowledge exchange	Minimal (mainly specifications)	Extensive and broad	Extensive and broad
Learning from other party	Minimal Organizational learning	Extensive Relational capabilities	Alliance guidelines Dynamic capabilities, Alliance management capabilities
Contract duration/time horizon	Longer	Shorter	-
Variance in contracts	Relatively narrow across suppliers	Relatively narrow across alliance partners	Broad—high variance across alliance partners
Dispute resolution	Arbitration or termination	Detailed procedures followed by arbitration	Alliance guidelines
Governance mechanism	Formal and informal governance	Effective governance mechanisms	Guidelines, Alliance functions
Performance evaluation	Operational performance	Project performance	Strategic performance

**Sources:** Adapted from Mayer and Teece (2008)

Buyer-supplier alliances are long-term, cooperative relationships designed to leverage the strategic and operational capabilities of individual participating companies to achieve significant on-going benefits for each party. By their very nature, they provide a fruitful environment for knowledge sharing and learning. Buyer-supplier relationships, on the other hand, lack the necessary administrative structure for fostering the same firm level outcomes among exchanging parties. Mayer and Teece (2008) compared the different characteristics between buyer-supplier relationships and alliances regarding a number of aspects. That is, they assessed the alliance and supplier contracts around four key issues:

1) specified payment terms and incentives for each party; 2) the structure of the relationship and how the parties interact; 3) specified information, resources and knowledge would be exchanged; 4) the warranties, liabilities and how disputes would be resolved. In terms of administration, alliance contracts tended to have a longer duration, involve more complex administrative structures and dispute resolution mechanisms, specified the exchange of much more firm-specific information such as technical knowledge and capabilities.

Alliances were found to be broader in scope, had very different payment terms, and involved more joint decision-making. Moreover, under these arrangements an umbrella agreement usually codifies overall guidelines for organizing new product development projects, but the specificity of each project means that the partners must work out organizational details on a project-by-project basis. Deciding whether to work alone or in an alliance is different to deciding whether one partner in an alliance or both will do a specific project, for the latter decision requires the partners' joint agreement on who will work alone. Supply contracts, on the other hand, were shorter and more directly focused on describing the direct interaction and what was necessary for each party in terms of payments and quantity as well as the quality details for the supplier. Further, the governance structure of an alliance portfolio (i.e. a contractual alliance for multiple projects, a contractual alliance for one project, or a joint venture) influences the number of organizational options available at the project level. Although, alliance-level governance in a contractual relationship does not include an ultimate individual authority, the partners may agree to have one manager lead a specific project (Gerwin and Ferris, 2004).

In terms of learning, knowledge exchange and learning from the other party is extensive and broad in alliances as compared to being minimal in buyer-supplier relationships. Consequently, alliance contracts have to serve many functions that are largely absent in traditional supplier ones, including facilitating learning, knowledge transfer, joint decision-making, and so on. These are important aspects of a strong alliance relationship and should not be neglected when the relationship is being negotiated. Regarding relationship governance, there was seen to be an overlap in the issues covered under both types of agreements, but the alliance contracts were much longer, more complex and covered a wider range of issues due to the broader scope of the relationship (Mayer and

Teece, 2008). Not only did the contracts differ, but the overall management of the alliance relationships was also different than for supplier relationships, in particular, in relation to the procedural differences (e.g. how a relationship begins, what to do when someone wants to exit the relationship but refuses to comply with the termination clause). Moreover, at the alliance level, firms typically have either broadly similar or broadly co-specialized skills (Hennart et al. 1999), but the distribution of specific skills between the partners at the project level may vary across the different projects.

Each individual alliance project is important, and a firm certainly needs to have a sound strategic logic for it as well as adopting appropriate best practices at each stage of its life cycle (Parise and Casher, 2003). These routines range from valuing resource contributions, protecting confidential technical information, creating relational capabilities among project participants, maintaining a balance of power, and preventing cannibalization of their firms' products by the jointly exercised procedures (Doz and Hamel 1998; Mowery 1992; Gerwin and Ferris, 2004). Participating in alliance projects has risen in popularity despite the difficulties encountered when trying to implement such an approach. Previous studies have investigated individual projects in relation to territorial restraints in licensing agreements (e.g. Mueller and Geithman, 1991), up-front fees and royalty rates in franchising agreements (e.g. Lafontaine, 1992), and alliance project governance (e.g. Mayer and Agyres, 2007). However, few have attempted to understand the relationship between these partner characteristics and the way in which they operate under different alliance project types.

Alliance project levels have distinct organizational issues because they involve different tasks performed by different types of people. At the project level, mid- and low-level managerial and technical people implement activities by actually developing new products (Gerwin and Ferris, 2004). Studying strategic alliance management at the individual project allows researchers to understand the emotions and experiences of middle level managers and staff at the operational level whilst modifying organizational routines to achieve relational rents. Such research, on the other hand, has much less to say about the lower-level project organization issues of jointly conducted new product development. An increase in the vertical scope of an alliance predictably remedies the complexity of the collaborative challenge (Reuer, Zoilo, and Singh, 2002). From the literature, alliance experiences and alliance functions are antecedents of relational

capabilities (Kale et al., 2000; Hong and Rothermel, 2005; Dyer and Kale, 2007) in the context of alliance portfolios. However, antecedents of relational capabilities at the individual project level between two companies have been overlooked. This researcher contends that relational capabilities can be also derived from inter-firm factors, namely, relational and economic dimensions, for these can have an impact on alliance project outcomes. In addition, Reuer and Ariño (2007) have suggested that firms craft more detailed alliance contracts in successive collaborations. Consequently, they have called for future research on alliance contracts to examine whether, and when, managers or firms develop the capabilities to draw up better contracts. Hence, it is important to identify those skills that comprise a firm's capability to manage an individual alliance, in addition to those needed to run an entire alliance portfolio.

In sum, this research focuses on a measure of vertical scope that is particularly relevant to R&D-related alliances, i.e. comparing alliances that involve R&D activities alone with those that combine them with other activities, specifically, manufacturing and/or marketing. That is, the most accessible dimension of alliance scope in terms of conceptual clarity and data availability is the functional or 'vertical' scope of the alliance, i.e. to what extent the partners combine multiple and sequential functions or value chain activities within the alliance, such as R&D, manufacturing and/or marketing.

## **2.6 Research settings: Thai manufacturing sector**

For this thesis, trust, specific transaction cost factors and relational capabilities are considered the most important factors in cross-cultural strategic alliances. This research extends the concept of relational capabilities of Dyer and Kale (2007) by integrating trust and TCE, thereby addressing a gap in the literature. Two theoretical frameworks are developed by drawing on these three perspectives. The research setting is that of strategic alliances between MNE subsidiaries and local suppliers in the Thai manufacturing sector as there is rich evidence of trust and up-stream relationship management in this context (Brimble and Urata, 2006).

Inter-organizational relationships provide an appropriate research setting to study the relational capabilities approach since this involves investigating how firms can leverage their resources and capabilities to achieve relational rents. Previous research has tested this concept in the context of joint ventures, international strategic alliances, buyer-

supplier relationships. However, few studies have set out to investigate empirically the relationship among cross-cultural buyer–suppliers in relation to alliance projects. In order to address this gap, this research is aimed at investigating as well as testing the relational capabilities approach in cross-cultural buyer-supplier alliance projects in the Thai manufacturing sector. This context allows the researcher to study the impact of economic and relational dimensions on the dyadic relationships as well as to examine whether relational capabilities work effectively.

Strategic alliance between buyers and suppliers are unlike simple buy-sell arrangements, which involve no long-term mutual dependence, shared managerial control, or continuing contributions of technology and products. Moreover, such alliances continue so long as significant value accrues to both parties. Further, strategic alliances require that the following necessary and sufficient conditions are present: independence of the parties, shared benefits among the parties and on-going participation in one or more key strategic areas, for example, technology, products, markets, etc (Yoshino and Rangan, 1995). Under such arrangements, purchasing organizations typically buy not only their suppliers' products or services, but also their systems and capabilities. Further, when the buying firm extensively manages its suppliers, the activities that may be included are exchange of personnel, training and education of personnel as well as the possibility of direct capital investment. These activities represent investment in transaction specific assets that may provide the benefits of vertical integration, i.e. lower costs, better communication, coordination and quality without the costs of actual ownership (Carr and Pearson, 1999). For instance, suppliers may collaborate with buyers to reduce inventory and promote timely delivery (e.g. just-in-time production). Also, a supplier can collaborate with the buyer in the process of designing a new product or improving existing ones. Intense vertical alliances typically exhibit considerable amounts of joint effort in the activities in which the partners are involved. Such intense vertical alliances have been found to positively influence the performance of buyers and suppliers, in terms of both production efficiencies and innovation (Clark, 1989; Cusumano and Takeishi, 1991; Kotabe et al., 2003; Srinivasan and Brush, 2006).

## **MNE buyers and local suppliers in Thailand**

Most of the empirical studies that have studied the relational view have focused on Asian economies, since this context is rich with trust and in-group business relationships. Regarding this, past studies on Japan and South Korea compared the relational view among Japanese, Korean and US automakers (Martin et al., 1995; Dyer and Singh, 1998; Sako and Helper, 1998; Dyer and Chu, 2003). They found that the Japanese and South Korean's deployed social capital and networking within supplier groups to benefit the alliance, whilst their Western counterparts did not. Recently, Li et al. (2010) put forward that managers in international subsidiaries in China need to understand that relational mechanisms, such as brokered access, shared goals and trust are a viable means for acquiring local knowledge from their Chinese suppliers. However, alliance trust and the relational view are relatively under-studied in Thailand, which is an emerging economy (Hoskinson et al., 2000) in which inter-organizational relationship management is also a critical success factor. The outcomes of this research will also benefit organizations from other individualist cultures as it will provide understanding regarding how individuals and organizations from collectivist cultures view strategic alliance management.

MNEs create linkages with local business partners through local sourcing and supply relationships (Giroud and Scott-Kennel, 2009). Both local firms and MNEs benefit from inter-organizational networks and linkages, because they enhance industrial growth, knowledge sharing, technology transfer, and job creation while strengthening national self-reliance in the host countries (Lim and Fong, 1982). The development of Taiwan's IT industry shows that the strategic alliance between MNE buyers and local suppliers in Taiwan are amongst the fastest growing, and probably constitute the most important form of cross-border cooperation (Engardio and Einhorn, 2005). That is, close interaction with MNE buyers has been providing great opportunities for Taiwanese local firms to learn leading-edge production technology, quality control, and product design.

MNEs have played an important role in Thai economic growth and technology transfer, especially in the manufacturing sector, e.g. automotive, auto parts and supplies industries as well as the rubber tires and inner tubes industries. Almost 50% of gross output was manufactured by foreign plants, accounting for 48.3% of total manufacturing value added

in 2003 (Kohpaiboon, 2006). MNEs establish a foreign subsidiary as the vehicle for vertical integration in order to assure reliable availability of needed resources or materials, and to avoid the higher costs involved when buying from an independent source (Herbert, 1984). There is a general tendency for MNE affiliates to become increasingly embedded in their host countries the longer they are present and the more conducive their host's overall investment climate becomes over time (Kohpaiboon, 2010).

Most MNEs in the Thai automotive and electronic industries are linked, to a certain degree, to the vertical supply chain of Thai industrial clusters and share related information with regard to specific product related issues, especially regarding new products. Most MNEs in the Thai automotive and electronic industries are linked, to a certain degree, to the vertical supply chain of Thai industrial clusters and share related information with regard to specific product related issues, especially regarding new products. For instance, Suwannaporn and Speece (1998) interviewed with five MNE subsidiaries in Thailand's food processing industry and found that MNEs operated new product development (NPD) in Thailand to localise products and imported NPD from other regions to response to market changes. Also, Rungsithong (2004) found that MNEs in Thailand's vegetable and fruit processing industry conducted product and process innovation in collaboration with local and foreign suppliers to increase competitive advantage in the host market. Furthermore, Punyasavatsut (2008) found that Toyota motor Thailand is an example of an MNE initiative that has been bringing in closer collaborative and technical ties between parts suppliers and local suppliers. While this relationship has helped lower costs and enhanced productivity among large firms, it also opened up opportunities to local suppliers for mutual benefits from technical collaboration. Kohpaiboon and Poapongsakorn (2011) examined MNE involvement in the Hard Disk Drive (HDD) industry in Thailand since 1983 to present. They noted that Seagate Technology Inc. trained numerous technical workers and enlarged the availability of skilled labour. These created a magnetic effect, enticing other key players such as IBM (1991), Fujitsu (1991), Western Digital (2001), Hitachi Global Storage (2004), and Toshiba (2008) to set up operations in Thailand. These MNEs subsidiaries also cooperated with local suppliers in product and process development in order to strengthening supply side capabilities for several decades. This shows that the

establishment of long-term relationships between MNEs and local suppliers results in a strong commitment to increase the competitiveness these suppliers.

From the above discussion, it can be seen that MNE subsidiaries are increasingly becoming embedded in the Thai manufacturing sector by vertical integration with local suppliers. Moreover, inter-firm relationships between MNE subsidiaries and local suppliers are not only important drivers of the Thai economy, but are also salient features of the international business strategy in the Thai manufacturing sector. It appears from this earlier research that it is now increasingly important for MNEs to devote greater attention to developing closer linkages with local suppliers and institutions in Thailand in order to strengthen their ability to manufacture quality products and process related activities (Brimble and Urata , 2006; Kohpaiboon, 2010) as well as to enhance firms' competitiveness.

Strategic alliance projects between MNE buyers and local suppliers in Thai manufacturing is the focus of this thesis. More specifically, the focus of this study is on alliances that fall into the "non-traditional contracts" classification, where transactions take place between buyers and suppliers of industrial goods and services. This type of alliance is defined as a "strategic alliance project" in that it consists of a vertical value-chain relationship between MNE buyers and their suppliers. In most cases, these alliances seek to add value, increase flexibility, and allow the company to focus more on its own core competences. This research concentrates on bilateral dyadic alliances based on formal and informal inter-firm agreements. A better understanding of how relational capabilities are applied will help managers to make better choices. Consequently, the key aims are to provide some insights into what are sources of and barriers to relational capabilities as well as how to conduct the relational capabilities process so as to have successful alliance projects.

## 2.7 Chapter summary

In the quest to find an appropriate theory for addressing the research question and research objectives, relational capabilities, trust and TCE are combined to build the analytical framework. It is evident in past literature that economic and relational constraints both have the ability to promote relational capabilities and generate relational rents. With regard to this, the two main objectives for this study are: *1) to identify the antecedents of relational capabilities; and 2) to investigate the mediating effects of relational capabilities which have an impact on alliance performance.* This researcher views trust and asset specificity as inter-party resources that promote the firm's confidence to share resources and capabilities with alliance partners. The firm utilizes these resources by applying relational capabilities and gaining relational rents in terms of alliance performance. The objective of this study is to examine the impact of inter-organizational commitment, namely, the economic and relational dimensions, and relational capabilities on alliance performance as well as providing insights into cross-cultural alliance management at the project level. The next chapter discusses the theoretical framework and hypothesised relationships proposed for this research.

## CHAPTER 3

### THEORETICAL FRAMEWORK

#### 3.1 Introduction

In this chapter, the concept of alliance management capabilities is developed focusing on relational capabilities between organizations, which as has been demonstrated in Chapter 2 has been largely overlooked in the extant literature. To this end, a number of hypotheses are presented which explore the antecedents and consequents of relational capabilities. The chapter is organized as follows: Section 3.2 explains the importance of economic and relational conditions in strategic alliances, whilst Section 3.3 predicts the nature of antecedents and barriers of relational capabilities in the form of a number of hypotheses that are empirically investigated. Finally, Section 3.4 considers the mediating role of relational capabilities, namely, trust and asset specificity as well as performance, in strategic alliance projects by also proffering several hypotheses which are to be tested in this research.

#### 3.2 Economic and relational conditions in strategic alliances

Previous studies have shown that a company requires greater alliance experience and know-how from previous alliances in order to build a proficient and successfully managed business (Simonin, 1997; Kale et al., 2001). However, theories such as the resource-based view (RBV), TCE and social exchange theory cannot provide sufficient explanation as to how firms gain competitive advantage while collaborating and maintaining relationships with alliance partners (Lavie, 2006). This research develops theoretical frameworks with this purpose in mind based on two research questions: *1) What are the antecedents of relational capabilities in cross-cultural alliance projects? and 2) What is the role of relational capabilities in strategic alliance management to achieve alliance performance in cross-cultural alliance projects?*

Inter-organizational conditions in inter-firm exchange play a key role in alliances in that they can either act as barriers to progress or serve advantages that can help support cooperative activities. Regarding this, previous research has elicited that a firm's alliance function and alliance experiences are drivers of relational capabilities (Kale et al., 2000; Hong and Rothermel, 2005; Dyer and Kale, 2007). According to Doz (1996), these

conditions can facilitate or hamper partner learning along five dimensions: environment, task, process, skills and goals. That is, these authors found that these dimensions play a key role in fostering or blocking learning, in that, for example, in some alliances they have engendered cognitive learning (what the managers understand of how the relationship should be handled), whilst at the same time stifling behavioural learning (what managers can do to better manage the relationship). However, some literature overlook the dual role of relational and economic dimensions that facilitate cooperative capabilities of firms in managing alliances, which is important for any business exchange. Thus, the researcher needs to explore whether these inter-organizational factors drive firms to build relational capabilities to manage strategic alliances. In addition, alliance experiences and alliance functions are antecedents of relational capabilities in the context of alliance portfolios and the dyadic relationships regarding these have also been largely ignored. This researcher posits that relational capabilities can be also derived from inter-firm factors, namely, the relational and economic dimensions, since these are commitments underpinning alliance projects, which contrasts with the literature that suggests that intra-firm factors, such as experiences and alliance functions, are most salient in alliance portfolios. Further, the dyadic factors that are critical for alliance success, such as inter-personal trust, inter-firm trust, asset specificity and human resource distance all hold the potential to promote or hinder relational capabilities, but few studies have considered these aspects. Accordingly, it is posited here that the formation of an inter-firm exchange requires an investment in the relational and economic dimensions in order to develop the necessary complementary competencies for success. In support of this, Parise and Casher (2003) are take strong view that trust, transparency (i.e. visibility and openness), commitment, communication, and compatibility are critical success factors in alliances. In sum, the objective of this study is to explore the sequential relationships between the economic constructs and trust, at both the inter-personal and inter-organizational levels, that contribute to or hinder relational capabilities building and alliance performance.

### **3.2.1 The importance of economic conditions**

Alliances may require one of the partners to make financial investment in an asset that would have significantly less value outside the alliance. Such transaction specific investment is also an important transaction attribute in the alliance governance context

(Hansen, Hoskisson, Barney, 2008). As with information asymmetries, such investment may present both a high threat of opportunism and on the plus side, substantial opportunities for gains from trade. Therefore, traditional transaction cost logic suggests that increasing levels of transaction specific investment calls for opportunism minimizing governance to avert the threat of opportunism. That is, when entering into an alliance contractual governance arrangements can provide incentives to refrain from opportunistic behaviour like hold-up by attaching costs to such behaviour and thus create enough confidence among the collaborating partners to move forward with the exchange (Mayer and Agyres, 2004).

### **3.2.2 The importance of relational conditions**

The presence of trust in exchange is a basic postulate of a socialized view of relationships (Granovetter, 1985). Defined in contracting behaviour terms, trust reflects the extent to which negotiations are fair and commitments are upheld (Anderson and Narus, 1990) and one party's belief that its requirements will be fulfilled through future actions undertaken by the other. As discussed in Chapter 2, there is strong argument in the extant literature that relational exchange is heavily dependent on trust and hence, this is the focus relational capabilities in the current research. By way of further explanation in support of this, the parties involved in relational exchange strive for non-economic satisfaction and therefore, engage in social exchange as well as economic. A high trust environment boosts the convenience of working with business partners, because this can help the firm to reduce transaction costs and opportunistic behaviours by the alliance partners (Dyer and Chu, 2000; Child and Möllering, 2003; Peng, 2009), facilitate capabilities (Yli-Renko et al., 2001; Paulraj et al., 2008; Nelson and Nelson, 2009), promote adaptive and flexible adjustment to change circumstances in the context of joint utility maximization (Carney, 1998) and thus enhance alliance performance (Aulakh et al., 1996; Dyer and Chu, 2003; Krishnan et al., 2006). The logic underlying the above discussion is in line with Granovetter's (1985) suggestion that strong relational ties between individuals and/or organizations "lubricate" social exchange, promote cooperation, and generally facilitate relational coordination and communication. Moreover, strong social ties among partners are a function of prior favourable interactions, interpersonal and professional similarity, and general affective states such as liking and friendship (Doney and Cannon, 1997). That

is, all of these factors tend to encourage the extensive interactions that are required during knowledge sharing and joint problem-solving.

Economic and relational dimensions have distinct and common attributes in the business exchange literature. Regarding the former, first, trust is viewed as the basis for the relationship underlying social exchanges (Blau, 1964), while economic exchanges are impersonal and hence, trust is not relevant. Second, investment in the relationship is critical to social exchange (Rousseau, 1995), but is not an aspect of economic exchange. Third, trust requires a long-term orientation, since the exchange is ongoing and based on feelings of obligation, whereas economic exchanges do not necessarily imply long-term or open-ended and diffuse obligations, but rather, focus on economic agreements such as pay for performance. Thus, alliance partners' expectations about the duration of the exchange, as long-term and open-ended (relational exchange) or narrowly defined financial obligations without long-term implications (economic exchange), is usually a critical distinction between these two forms of exchange. A final distinction is the emphasis on financial (e.g. pay and benefits) as compared with socio-emotional (e.g. give and take, being taken care of by the organization) aspects of exchange (Doney and Cannon, 1997; Young-Ybarra and Wiersema, 1999). Similarly, research on relational exchange has emphasized socio-emotional aspects of the alliance partner relationship (i.e. feelings of obligation and trust), while economic exchange has emphasized the financial and more tangible aspects of the collaboration (Schore et al., 2006).

The major common attributes of relational and economic exchange relationships that have been emphasized in the literature include inter-organizational commitment for value creation and interdependence relationships. Regarding the former, Williamson (1985) recognized the abundance of intermediate governance forms and suggested that, under certain conditions, such relationships are maintained by economic weapons, such as hostage and credible commitments to keep opportunistic behaviour at bay. As the inter-firm relationship develops with recurrent transactions between the two parties trust becomes established (Ring and Van de Ven, 1992). Subsequently, the parties come to rely on non-economic factors, such as trust, to move the project along, thereby contributing to a more durable, stable and long-term form (Zaheer and Venkatraman, 1995). Parkhe (1993) found that the commitment of non-redeployable investments in a sample of strategic alliances was positively related to performance. Moreover, these

studies elicited that relational rents generated through relation-specific investments are realized through lower total value chain costs, greater product differentiation, fewer defects, and faster product development cycles. Kwon and Suh (2005) also suggested that commitment is a key success factor in achieving supply chain integration and trust is a root to fostering such commitment, for if one party is threatening to quit the exchange or reduce their efforts, trust cannot be fostered (Coff, 1993). Moreover, proximity facilitates the transferring of tacit knowledge through information-rich media, such as face-to-face communication, which in turn brings with it commitment (Lengel and Daft, 1988; Nohria and Eccles, 1992). Regarding this, in the automotive industry, resident engineers who are employed by one firm, but work at another, have been known to enhance the transfer of knowledge and routines, which has resulted in improved product and process quality (Dyer, 1994; Nishiguchi, 1994). Thus, commitment between alliance partners, in the form of trust and asset specificity, promote repeat exchanges which in turn enhance alliance outcomes.

Another common attribute of the economic and relational dimensions is inter-dependent relationships between organizations. Economic constraints, as suggested by transaction cost economics, are positively related to cooperative between alliance partners because of the lock-in situation (Young-Ybarra and Wiersema, 1999). The key strategic implication of asset specificity investment is that alliance partners may need to make bundles of related routines, such as adaptation, coordination and safeguarding, in order to realize the full potential of those investments involved in an alliance relationship (Dyer & Singh, 1998; Jones, Hesterly, and Borgatti, 1997). For instance, Inkpen and Currall (1998), Joshi and Stump (1999), and Subramani and Venkatraman (2003) found a positive relationship between asset specificity and the quality of inter-firm relationships (joint actions and trust) in that cooperative behaviours play a role as a safeguard to prevent these investments from being opportunistically exploited by the supplier. Also, once firms make a financial commitment to support their business partners, they are dedicated to working closely with the partners to ensure the return of the investment (Hanfield and Bechtel, 2002). Moreover, trust is also a factor that creates lock-in relationships between business partners. To be precise, Dore (1987) invoked examples from the Japanese textile industry to argue for the significance of sociological elements in exchange. Specifically, he discussed the role that continuity, mutual dependence, trust, and social norms play in

the maintenance of exchange relationships between supplier and buyer firms. Therefore, this researcher posits that a higher degree of commitment and dependence due to higher investments and trust between alliance partners requires efforts at both the inter-personal and inter-firm levels.

### **3.3 Antecedents and barriers to relational capabilities**

#### **3.3.1 Inter-personal trust as an antecedent to relational capabilities**

This researcher expects that trust at the two levels, as discussed in Chapter 2, leads to knowledge sharing through different processes. Regarding trust at the individual level, this should be treated as a personal belief about the degree to which a particular referent is trustworthy and to which one is willing to accept vulnerability (Zaheer et al., 1998). To begin with, inter-personal trust refers to the willingness to accept vulnerability based on positive expectations of a specific other or others, ranging from the individual level (a psychological state), the team level (a shared psychological state among team members) and the organizational level (a shared psychological state among organizational members) (Fulmer and Gelfand, 2012). In other words, inter-personal trust is the bond that allows any kind of significant relationship to exist between people (Song, Kim, Kolb, 2009).

Most trust literature has evidence to support that it facilitates relational capabilities at the inter-organizational level. However, this researcher posits that trust at the individual level also enhances inter-organizational routines in the same direction as inter-organizational trust. By way of explanation regarding this stance, in strategic alliances collaborating firms control their resource investments, but the use of these resources depends on the people directly involved in the day-to-day operations of the alliance (Fang et al., 2008). Hence, inter-personal trust between staff of two parties allows inter-organizational routines to run smoothly and gain high quality resources and capabilities from alliance partners (Williams, 2007). In support of this perspective, Luo (2001) suggested that personal attachment can help firms complete the evolutionary process of knowledge exchange in relational contracts, such as joint ventures, because trust, which is derived from attachment, makes boundary spanners more willing to transfer knowledge needed by their counterparts. Moreover, personal interactions ease the settlement of disputes or conflict between parties in alliances and thus contribute to their performance. In addition,

inter-personal cooperation and teamwork necessitate a high degree of involvement on the part of individuals. In particular, each individual must not only contribute fully, but also must be highly involved in the activities of others; high involvement requires members of a team to commit fully to the team endeavour (Jones and George, 1998). Since routines involve patterns of interdependent actions carried out by multiple actors, an individual's ability to engage or interact with other individuals, may affect the execution and outcome of a routine or capability (Felin et al., 2012). Specifically, as an alliance project proceeds, the alliance team will probably require more resource input and more sensitive information from their alliance partners. If the firms do not have sufficient inter-personal trust with their counterparts, they will not provide such information and resources (Fang et al., 2008).

Inter-personal trust is a foundation for knowledge sharing in strategic alliances between people or organizations (Abrams et al., 2003). More specifically, as human behaviour is inherently opportunistic, adverse selection and moral hazard may influence the individual's motivation to share knowledge in a negative manner. Therefore, the provider of knowledge needs to trust that the receiver will not exploit that shared for purposes other than those agreed upon and close personal interaction between the partnering entities can enable individual members to develop this understanding (Bouty, 2000). Learning or transfer of such know-how is then contingent upon the exchange environment and mechanisms that exist between the alliance partners. Inter-personal trust can lead to an increase cooperative behaviours and communication between alliance partners. That is, social climates that facilitate high levels of trust, cooperation, and shared language may result in employees investing greater effort in alliance activities, an increasing efficiency of interactions between employees, and greater risk taking and experimentation (Collins and Smith, 2006). In sum, it is expected that high interpersonal trust, based on previous experiences with another colleague in repeated interactions, tends to result in the decision to establish knowledge sharing routines between organizations in collaborations and from this the first hypothesis is formulated as:

*Hypothesis 1a: The higher the level of inter-personal trust in strategic alliances, the higher the level of knowledge sharing routines.*

By capturing, disseminating and applying alliance management knowledge, individuals within the firm are more likely to engage in stable and repetitive activity patterns (Winter, 2003). A firm's complementary capability can thus be seen as its ability to internalize complementary resources and capabilities from alliance partners (Kale et al., 2002). However, the development of the complementary capability that results in access to alliance partners' resources depends on the existence of trust between people, since this can act as an organizing principle that facilitates the transfer of and adaptation of knowledge and practices to a wider circle of individuals (Jones and George, 1998; Heimeriks and Duysters, 2006). Individual experiences and skills account for an essential part of the organizational memory and entail a set of repetitive activities ensuring a smooth functioning of organizational operations (Coriat, 2000). Further, inter-personal trust enhances the degree of shared understanding between individuals, which is required for comprehending and integrating new resources and capabilities acquired from collaborations (Collins and Smith, 2006).

Moreover, complementary capability is concern with learning complementary resources and capabilities between alliance parties, which may lead to a free-riding problem after sharing resources in terms of knowledge leakage. However, inter-personal trust can create a positive environment that facilitate learning. Learning success also rests upon an iterative process of exchange between the member firms and the extent to which personnel from them have direct and intimate contact to further an exchange (Badaracco, 1991). This is because under such circumstances team members do not feel that they have to protect themselves from the others' opportunistic behaviour. Therefore, the shared values that underlie good will trust provide individuals with the high degree of confidence in each other necessary for synergistic team relationships to emerge. That is, the sharing of values promotes high confidence in others, because one can be assured of the others' ultimate intentions and objectives (Bateson, 1988) and consequent displays of positive affect promote social bonding. Interpersonal trust is an essential condition of a functioning organization, because it creates the necessary commitment and confidence in the acquisition and dissemination of knowledge (Hoe, 2007). Researchers have found that positive affective states promote social interaction and creativity (Isen and Baron, 1991) two important contributors to the development of synergistic team relationships.

Inter-personal trust also increases the willingness and ability of partners to engage in a mutual exchange of information and know-how to achieve reciprocal learning with confidence. In addition, von Hippel (1988) and Marsden (1990) have argued that close and intense interaction between individual members of the concerned organizations acts as an effective mechanism to transfer or learn sticky and tacit know how across the organizational interface. According to Jones and George (1998), the sharing of values characteristic of inter-personal trust provides individuals with the assurance they need to become fully involved in a team endeavour. In addition, inter-personal trust can also increase “interpersonal citizenship behavior”, i.e. increased assistance, a desire to help peers meet personal objectives, and the tangible expression of care and concern. Interpersonal trust can therefore be invaluable to organizations, in general, but especially to firms using cross-functional teams or other collaborative structures to coordinate work (Massey and Kyriazis, 2007). From this discussion, the next hypothesis is put forward as:

*Hypothesis 1b: The higher the level of inter-personal trust in strategic alliances, the higher the level of complementary capability*

From the TCE perspective, although the intent of the contracting parties is to work together, the potential for opportunistic behaviour does exist (Williamson, 1991). However, inter-personal trust facilitates informal cooperation and coordinated social interaction, and thus reduces the need to monitor others’ behaviour, formalise procedures, or create specific contracts (Williams, 2001). Importantly, McAllister (1995) found that peer managers who trust each other are more sensitive to each other’s personal and work-related needs. In particular, they are less likely to engage in “control-based monitoring”, i.e. trying to manage the inherent uncertainty when they cannot count on the reliability of the other manager (Massey and Kyriazis, 2007). Interpersonal trust also increases “need-based monitoring”, i.e. a sensitivity to and keeping track of colleagues’ needs (Clark et al., 1989). Conversely, in low trust relationships managers may behave defensively to protect themselves against the effects of unreliable peers. This can involve requesting assistance well before it is actually required, drawing on multiple, redundant sources of assistance, “working around” and avoiding others, and making requests more formally than would ordinarily be done (Jones and George, 1998).

Since developing trust relies heavily on human relationships, the governance mechanisms involved will tend to be more informal rather than structural. Regarding this, informal governance mechanisms allow the verification of trust and mutual understanding. According to Jeffries and Reed (2000), two people in a collaboration may not only be confident in each other's abilities, but may also have trust in each other because of the mutual concern for well-being and the emotional attachment of friendship. As a result, inter-personal trust may influence the nature of the customizing of the alliance contractual process. For example, inter-personal relationships might sensitize managers and their organizations to potential disturbances to contractual relationships about which they were previously unaware, thus enabling them to foresee contingencies that may have an impact in the future better (Mayer and Argyres, 2004). Makhija and Ganesh (1997) identified a number of governance mechanisms at the personal level in strategic alliances, including teams and taskforces, meetings and organized personal contact, transfer of managers, and lateral movements, as well as certain rituals, traditions, and ceremonies. Also, in empirical research, mechanisms such as personnel transfers (Dyer and Singh, 1998; Inkpen and Dinur, 1998) and training programmes (Inkpen, 1997; Lane et al., 2001; Lyles and Salk, 1996) have been found to be particularly effective at supporting the alliances, as they establish contact between the employees of the partners (Janowicz-Panjaitan and Noorderhaven, 2009). Furthermore, many cooperative behaviours between alliance team members have been seen to serve governance, production, and communication purposes, simultaneously, such as those concerning project scheduling, which are aimed at communicating plans, and at reaching common understanding as well as avoiding self-serving actions. Hence, this researcher posits that:

*Hypothesis 1c: The higher the level of inter-personal trust in strategic alliances, the higher the level of effective governance*

### **3.3.2 Inter-organizational trust as an antecedent of relational capabilities**

According to Dyer and Singh (1998), knowledge sharing routines are particularly important since know-how transfers typically involve an iterative process of exchange, and the success of such transfers depends on whether personnel from the two firms have direct, intimate, and extensive face to face interactions. That is, after observing the operationalization of knowledge sharing routines through mechanisms, such as regular

team meetings and best practice, these authors concluded that this can enhance performance by engendering organizational capability development (ibid). In other words, trust fosters openness and transparency that may smooth the knowledge exchange (Lee and Cavusgil, (2006). Moreover, inter-firm trust can benefit a firm by way of more access to tacit knowledge, increased risk sharing, and higher qualitative information since organizational actors are expected to be more willing to share sensitive and proprietary details about themselves or their organization when this is in place (Kale, Singh and Perlmutter, 2000; Zollo, et al., 2002; McEvily, Perrone and Zaheer, 2003; Williams, 2007). However, since the costs of sharing know-how in collaborations are high, inter-firm trust must be in place to allow knowledge sharing and to discourage free-riding (Dyer and Singh, 1998). Perceived trustworthiness reduces transaction costs and is positively correlated with greater information sharing in buyer-supplier collaborations and if the alliance partners can trust each other, they can predict the partners' behaviours will not take the form of opportunism and hence, this will result in good faith regarding confidential information sharing (Dyer and Chu, 2003). In addition, as confidence in a partner's goodwill increases, there is closer cooperation, a more open information exchange, and a deeper commitment between the partners (Lui and Ngo, 2004). Inter-firm trust is expected to promote positive attitudes that may facilitate communication and the sharing of information between alliance partners and thus, the following hypothesis is formulated:

*Hypothesis 2a: The higher the level of inter-firm trust in strategic alliances, the higher the level of knowledge sharing routines.*

It is posited that "close and intense interaction between organizations" is an effective mechanism for the sharing of complementary resources and capabilities across organizational boundaries (Inkpen and Dinur, 1998; Kale et al., 2000). That is, such informal commitment, which manifests itself as trust can result in learning for both the collaborating firms, which is because these efforts are considered as a sign of benevolence by both partners (Wasti and Wasti, 2008). As a corollary to this, when confidence in a partner's good intention increases, there is more open information exchange and a deeper commitment between partners (Fryxell et al., 2002; De Jong and Klein Woolthuis, 2008). Therefore, trusting an alliance partner to be benevolent should increase the chance that

the firm will gain access to the complementary resources and capabilities through the interaction (Levin and Cross, 2004).

Inter-firm trust encourages partners to minimize redundancies in exploiting each other's complementary resources and capabilities. That is, if inter-firm trust or a sense of trustworthiness can be safeguarded, cooperative interactions are more probable and the firms' efforts to cooperate should be more productive (Tyler, 2001). As such, the firm's ability to acquire from and transfer complementary resources to their partners, is important for the ultimate outcome of an alliance (Björkman et al., 2007). At the organizational level, the performance benefits deriving from inter-firm trust include the competitive advantage that accrues from an organization's ability to reap the value added produced by teamwork, synergy, and the development of valuable organizational capabilities (Jones and George, 1998). In strategic alliances, where partners need each other's resources and where reciprocal needs exist, they are less likely to resort to opportunism. That is, the resource interdependence created through mutual trust is likely to result in reciprocity, thereby reducing incentives for opportunistic behaviour, as both partners perceive value in their relationship (Sarkar et al., 2001). Thus, firms with high levels of mutual trust should be more confident in applying complementary capability with their alliance partners, because they are secure in their behaviour against opportunism and expect to receive reciprocal actions from them.

*Hypothesis 2b: The higher the level of inter-organizational trust in strategic alliances, the higher the level of complementary capability*

Inter-organizational trust stands as being relevant in situations where firms make substantial and open commitments to a partnership (Krishnan et al., 2006). However, one important concern with alliances is that conflict between partners can occasion high costs or a premature breakdown of relationships (Zaheer et al., 1998). Inter-firm trust helps defuse such conflict in alliances, because trusting partners are more likely to interpret each other's actions in a manner conducive to the stability of the relationship. Regarding this, Doz (1996) argued that if a firm encounters unexpected actions by its partner that could be ascribed to both good and bad intentions, the presence of trust reduces the likelihood of a negative interpretation. For instance, when confronted with disappointing sales of a product line, a partner might either explain the inadequate performance on the

basis of an ineffective promotional campaign, or view the failure as signalling a lack of commitment on the part of the other party. Managing inter-organizational relationships involves using appropriate governance mechanisms, developing inter-firm knowledge sharing routines, making appropriate relationship-specific investments, and initiating necessary changes to the partnership as it evolves, while also managing partner expectations (Dyer and Singh, 1998; Gulati et al., 2000). Moreover, effective governance capability is the capacity of the firm to assign an appropriate mix of formal and informal safeguards to govern the partnering relationship, which helps mitigate potential opportunism through the interaction of organizations and personnel across the organizations (Dyer and Kale, 2007). The resulting inter-firm trust reduces the need for time spent on monitoring and bargaining over agreements and allows firms to invest more effort in acquiring resources and capabilities from the alliance partners (Yli-Renko et al., 2001). Under high levels of inter-organizational trust, firms are expected to apply effective governance capability to alliances based on open communication and preference for non-opportunistic, win-win solutions (Zaheer and Venkatraman, 1995; Kale et al., 2000; Hoetker and Mellewigt, 2009). This discussion suggests that inter-organizational trust facilitates relational governance mechanisms between alliance partners, which leads to:

*Hypothesis 2c: The higher the level of inter-organizational trust in strategic alliances, the higher the level of effective governance*

### **3.3.3 Asset specificity as an antecedent of relational capabilities**

Transaction value maximization is another important outcome of inter-organizational cooperation, for greater interdependence will lead to provision for information sharing and communication between the parties, in order to prevent potentially damaging contingencies from upsetting the relationship (Williamson, 1991). In addition, when partners are bilaterally dependent, the partner with greater impact on the relationship may require key decision rights in order to participate in the exchange (Grossman and Hart, 1986; Hart and Moore, 1990). Furthermore, Dyer (1997) explained that in addition to enjoying economies of scale and scope with an increasing volume of exchange, partners also have the substantial benefits of information sharing and the reduction of information

asymmetry and the potential for opportunism, which in turn, minimizes transaction costs (Lui et al., 2009).

Greater asset specificity would also be likely to increase the need for information sharing, because idiosyncratic exchanges tend to require greater coordination than standardized ones with alliance partners. Information exchange is broadly defined as the formal as well as informal sharing of rich, intensive, meaningful and timely information between firms (Corsten et al., 2011). It is closely related to learning routines, which are sometimes defined as a regular pattern of interactions among individuals that permits the transfer, recombination, or creation of specialized knowledge. Regarding which, effective firms have developed routines that allow them to develop, store and apply new knowledge systematically (Nelson and Winter, 1982). In addition, existing research suggests that knowledge sharing routines reduce the fear of opportunistic behaviour (Gulati, 1995; Zaheer et al., 1998), thus allowing for greater transparency during knowledge sharing and hence the next hypothesis is:

*Hypothesis 3a: The higher the level of asset specificity, the higher the level of knowledge sharing routines.*

Clearly, one of the reasons that firms enter into alliances is because they lack certain capabilities needed to be successful in a desired arena (Das and Teng, 2000). The key factor to be considered in the alliance formation phase is partner complementarity, which concerns the contribution of non-overlapping resources by partners and interdependence between them. Complementary capability refers to the degree to which firms in an alliance are able to eliminate deficiencies in each other's portfolio of resources (and, hence, enhance each other's ability to achieve business goals) by supplying distinct capabilities, knowledge, and other things that lead to a more even resource distribution. Complementarity ensures that both partners bring different, but valuable, capabilities to the relationship and also creates the potential for each firm to learn from its partner (Kale et al., 2000). Mowery et al. (1996) found that complementarity between alliance partners correlates positively with inter-partner learning across the alliance interface. That is, when firms have complementary abilities, each partner can concentrate on the part of the value chain where it can make the greatest contribution. For example, in airline alliances, although partner airlines may have complementary geographic capabilities, the ability of

such alliances to be successful is based on the development of idiosyncratic systems that effectively integrate these capabilities so as to provide passengers with seamless travel (Varadarajan and Cunningham, 1995).

According to Cohen and Levinthal (1990), complementary capability results from specific investments in strategic alliances. Asset specificity requires the development of complementary capability, because this motivates the development of higher order routines that can be used to combine and deploy the complementary resources pooled by the partner firms successfully. It helps firms to manage an alliance in a way that allows them to combine and synthesize successfully their complementary resources over time, thus creating idiosyncratic resources (Hunt, 2000; Spekman et al., 1999). Given the high stakes involved, suppliers will be very attentive to buyer needs and will apply their knowledge throughout the stages of innovation to develop novel solutions (Song and Di Benedetto, 2008). That is, suppliers stand at risk that the buyer will behave opportunistically and exploit their dependence, they will be more engaged and strive harder to meet and exceed the buyer's requirements in order to safeguard their investment which, in turn, will enhance the innovativeness of products and processes. For instance, suppliers who feel they belong to the Honda supplier network are more willing to exchange information with that company than with competitive buyers (MacDuffie and Helper, 1997) and similarly, at Toyota, suppliers feel a sense of obligation to the network, which has stirred considerable sharing of tacit and explicit knowledge (Dyer and Nobeoka, 2000). Hence, it would appear that more intensive and richer information exchange is engaged in by suppliers who identify with their buyers, which gives rise to:

*Hypothesis 3b: The higher the level of asset specificity in strategic alliances, the higher the level of complementary capability*

TCE implies that when alliance parties are dependent, i.e. when their joint activities are interrelated in ways that create asset specificity, they will make greater effort to identify potential contractual hazards and to incorporate safeguards into their contract, in particular, in terms of requiring constant monitoring effort in the market (Williamson 1985). That is, firms need effective governance mechanisms to protect relationship-specific assets as a safeguard of the transaction and the devising of contractual forms to minimize any ill effects (Mody, 1993). Such safeguards could take many forms, including

provisions: for dispute resolution to prevent or adjudicate conflicts, for “hostages” to be exchanged, and for longer contract duration to enhance commitment (Williamson 1983, 1985). Moreover, a firm can guard itself against opportunistic behaviour by using both formal and informal governance mechanisms (Sambasivan et al., 2013). According to Aoki (1990), in situations of ‘moderate’ uncertainty, the learning incentive will dominate and alliances will be formed, whereas when uncertainty is high, the risk of cheating and opportunism will be the major influence and hierarchical modes of organization will be sought. With regard to governance, several provisions can be added that are clearly aimed at preventing behaviour that is self-interested, if not opportunistic. For example it has been found that several such provisions serve governance, production, and communication purposes simultaneously, such as those concerning project scheduling, and those defining major and minor engineering changes (Mayer and Argyres, 2004).

Because asset specificity creates relational routines that are alliance-specific and not tradable, partners are exposed to opportunism through negotiation (Dyer and Kale, 2007), but governance capabilities can help a firm deal with such situations. Recently, scholars have explored the possibility that firms can develop capabilities for governing activities in ways similar to those in which they develop production capabilities (e.g. Anand and Khanna, 2000; Azoulay and Shane, 2001; Dyer and Singh, 1998; Mayer and Argyres, 2004). Capabilities in monitoring, a key component of governance capabilities, could help a firm track the progress of the contractor's investment and head off any attempts to shirk responsibility. Furthermore, knowing how to craft an effective contract could assist it in aligning better expectations so as to avoid misunderstandings, better specify milestones to facilitate monitoring, and to provide pecuniary incentives to discourage opportunistic renegotiation. Hence, this suggests:

*Hypothesis 3c: The higher the level of asset specificity in strategic alliances, the higher the level of effective governance*

### **3.3.4 HR distance as a barrier of relational capabilities**

The importance of managing cross-cultural alliances is reflected in the extensive literature on this topic, which has focused primarily on the structuring of cross-border partnerships. For example, a number of studies have examined the rationale for international partnerships, including joint ventures, international strategic alliances

(Sirmon and Lane, 2004; Krishnan et al., 2006), and cross-border marketing partnership (Aulakh et al., 1996; Ling-ye and Ogunmokun, 2001; Skarmeas et al., 2002). More specifically, national culture is a type of organizational context that reflects the values of a society that establish the norms for behaviour and hence, can lead to behavioural uncertainty in collaborations. In other words, it encompasses the deeply-set values that are common to the members of a nation (Sirmon and Lane, 2004). At the firm level, organizational capabilities are embedded in the national environment, e.g. ways to interact with business partners, how to perceive the business environment, processes for allocation of organizational resources, human resource management policies and practices, characteristics of innovation processes and the technological products and services developed and exploited, all of which tend to differ across cultures (Kogut and Singh, 1988; Björkman et al., 2007). Consequently, different cultures between alliance partners is a form of uncertainty in transactions, which has been termed 'behavioural uncertainty' (Williamson, 1985) and arises from the difficulty in predicting the actions of the other party in the relationship, in view of the potential for opportunistic behaviour.

According to Minbaeva et al. (2003), HRM practices of MNEs, such as training and competence, have an influence on employees' abilities to transfer knowledge between organizations. Human resource distance can be defined as the culture-based factors that impede the flow of information between the firm and its partner or environment. Internal development opportunities, such as cross-training, promotion from within and mentoring, facilitate the development of shared language among employees by exposing them to the jargon and perspectives used by different functional areas and levels of their firm (Collins and Smith, 2006). Consequently, different types of human resources require a variety of structures to achieve their full potential. For instance, highly skilled employees may prosper under a regime of high personal autonomy, while less skilled ones may need more hierarchical structures, less delegation, and closer monitoring (Hofstede, 1993). Existing human resource management practices, transferred to another context, may thus not achieve the same results (Fey and Björkman, 2001; Fey et al., 2009; Estrin et al., 2009).

HR management policies and practices (Cyr and Schneider, 1996) play an important role in signalling to employees what behaviour is valued. As discussed in these scholars' work, communication, training, staffing, appraisal and reward systems have the potential to facilitate or hinder employee performance in relation to the accomplishment of

strategic business objectives. However, consideration of the compatibility of the partners' employees who actually interact in the primary value-creating activities of an alliance may be underdeveloped (Pothukuchi et al., 2002; Simon and Lane, 2004). As Madhok and Tallman (1998) pointed out, many alliances fail to achieve their goals, in part, because the partners underestimate the difficulty of working together. One common cause of this shortcoming is a failure to attend to the differences in how each firm approaches the processes involved in the primary value-creating activities of the alliance. Based on the above notion of HR distance, this researcher proposes that the development of the unique capabilities that lead to tacit knowledge depends on the context of the alliance. Furthermore, Estrin et al. (2009) argued that differences in HR distance between countries of origins contribute to different organizational and administrative practices and employee expectations. Top management of MNEs from the same country may share assumptions about the generalizability of HR management competence, because cultural beliefs that are prominent in a country influence the values, beliefs, and hence the decisions of managers (Abo, 1994; Rosenzweig and Nohria, 1994; Rosenzweig and Singh, 1991). As a result, the HR policies of MNEs based in the same country are likely to be more similar to each other than those of MNEs based in others. Regarding this, there is evidence that Japanese firms that face home environments with strong homogeneous institutional pressures, often adopt similar HR policies when operating overseas (Sing, 1991; Thong, 1991; Yeh, 1991).

Knowledge sharing between alliance partners can be affected by HR distance since individual behaviour is embedded in a broader institutional context that differs in its characteristics (Hofstede, 2001; Michailova and Hutchings, 2006; Makela et al., 2012). Previous research indicates that the different business environments may affect the firms' perceptions of their alliance partners' opportunistic behaviours, because uncertainty poses difficulties for the firms meeting their obligations (Birkinshaw and Hood, 1998; Skarmeas et al, 2002; Hitt et al., 2006). For competitive reasons, alliance partners may be highly protective of their knowledge resources. That is, knowledge sharing can be hampered by a lack of common understanding of market-oriented systems or of the corporate strategy intended for the venture (Cyr and Schneider, 1996). Consequently, clear communication of firms' strategies and policies, of their goals, and of individual responsibilities and objectives are said to be crucial to promoting employee

understanding of new strategic directions in collaborations. Regarding which, shared codes and language comprise a common set of terms, symbols, and understandings that allow individuals to communicate effectively with one another (Nahapiet and Ghoshal, 1998). Moreover, some researchers have found that although language differences exist, these are not as problematic as might be expected, because many local managers and employees have expressed a strong desire to learn a foreign language (Cyr and Schneider, 1996). HR distance creates additional difficulties and challenges for managers, whereby they have to spend more time on inter-organizational communication, such as knowledge-sharing and knowledge-transfer routines (Birkinshaw and Hood, 1998; Hitt et al., 2006), design of compatible work routines, and development of common managerial approaches (Simonin, 1999). Specific to learning, Mowery et al. (1996) contended that the forbidding barriers of culture, language, educational background, and distance with cross national partners are likely to result in lower levels of learning and knowledge transfer. These barriers have also been noted as accentuating partner tendencies to engage in opportunistic behaviours (Kale et al. (2000). This debate leads to the following:

*Hypothesis 4a: The higher the level of HR distance between alliance partners, the lower the level of knowledge sharing routines.*

Cultural sensitivity on the part of foreign managers is considered to be an important aspect in joint learning. In particular, the different business environments may affect firms' perceptions of their alliance partners' opportunistic behaviours, because behavioural uncertainty poses difficulties regarding their meeting their obligations (Skarmeas et al., 2002). Creating and learning a new corporate culture, which fits with the values and requirements of the locals, whilst at the same time being consistent with the foreign partner's policies and practice for the accomplishment of specific company strategic objectives becomes crucial (Cyr and Schneider, 1996). In a stable, predictable environment, organizations might efficiently achieve complementary capability by using bureaucratic systems that focus on developing a human capital pool with a narrow range of skills and HR systems that elicit restricted employee behaviour (Wright and Snell, 1998).

To what degree these assets are shared with the parent depends largely on the parent's receptivity to new ideas, and on the quality of the interaction between the cooperative

venture and the parent firm. When learning from the outside, in particular from abroad, is seen as an admission of weakness, the receptivity will be poor (Westney, 1988) and low receptivity to inputs from the partnership will naturally encourage a passive attitude towards the transfer of knowledge among staff. This tendency is further reinforced if the socialization activities in the partnership are controlled by the local parent, as is often the case in Western joint ventures in Japan (Pucik, 1988). For example, the American managers in the Alpha-Hito JV were convinced that Alpha manufacturing processes could be substantially improved if an effort was made to learn from the alliance. The Japanese partner, as well, was quite willing to share its technology. However, at the executive level in Alpha, several levels above the alliance manager level, there was a very different perspective in that they questioned the learning potential, given the JV's modest financial results, and the applicability of what they referred to as "Japanese" management techniques in the American plants. This case illustrates what Edgar Schein referred to as a lack of alignment between different organizational cultures in that there were two cultural communities directly involved in the alliance and when compared to the assumptions of the parent executives, the alliance managers had very different assumptions about the alliance relationship, objectives, and performance. Because the two communities had different assumptions, when the organization attempted to learn from its alliance, the cultures collided and accessing complementary resources and capabilities was frustrated, which gives rise to:

*Hypothesis 4b: The higher the level of HR distance between alliance partners, the lower the level of complementary capability*

HR distance between the partners also may influence alliance governance mechanisms. Under TCE perspective, governance structures of market and hierarchy are more dependent upon broader environmental factors, such as legal and institutional contexts, that are not under the direct control of transaction partners (Lu, 2002; Peng, 2009). An MNE that establishes an overseas affiliate in partnership with a local firm will experience greater institutional pressures to utilize local HR practices, because the local operation, prior to the arrival of the MNE, had functioned under a local system. Arguably, HR distance creates barriers to the use of incentives as well as to authoritative and relational governance mechanisms, such as trust and relational norms (Estrin et al., 2009). To be precise, fit and flexibility between alliance partners are important conditions for

establishing effective governance mechanisms. The latter is defined as the capacity of HR management to facilitate the organization's ability to adapt effectively and in a timely manner to changing or diverse demands from either its environment or from within the firm itself (Taylor et al., 1996). As the firm becomes increasingly dependent, the need for flexibility will increase, and the highest level will be required during the most advanced stage of inter-firm collaboration. The concept of coordination flexibility, as applied to HR management practices, addresses the issue of how quickly the practices can be resynthesized, reconfigured, and redeployed. In much of the literature on achieving fit between strategy and HR management practices, scholars assume that the HR department quickly, efficiently, and effectively develops and implements new practices consistent with a firm's strategic needs in an environment free of obstacles (Wright and Snell, 1998). However, alliance firms which have greater HR distance are unlikely to be fit and flexible due to different HR practices among them and it must be assumed that the partner is doing the same, as much of the necessary information is actually in the public domain (Taylor et al., 1996). Therefore, this researcher expects that the larger are these HR differences, the greater the integration and coordination challenges to establish mutual governance decisions for alliance partners and hence puts forward:

*Hypothesis 4c: The higher the level of HR distance between alliance partners, the lower the level of effective governance*

### **3.4 Mediation effects of relational capabilities**

Firms engage in buyer-supplier alliances because they expect to benefit from the relationship and only as long as they perceive this to be the case do they continue with the collaboration (Carr and Pearson, 1999). Alliance performance in this study is seen as being in alignment with the definition of 'relational rent' as presented in Dyer and Singh's (1998) relational view perspective. The relational view leads to competitive advantage for the firm, because the relationship-specific resources and capabilities result in (1) the attainment of extra marginal performance that is unavailable in the market and (2) impose difficulties for a partnership outsider to comprehend the value of specificity and hence to be able to achieve superior performance (Dyer and Singh, 1998; Lavie, 2006; Dyer and Kale, 2007).

This researcher expects to find inter-organizational trust and alliance performance at the root of the causal relationship through the relational capabilities mechanism. Previous research focused on the influence of inter-firm trust and alliance performance (Luo, 2002; Krishnan et al., 2006; Krause et al., 2007; Robson et al., 2008; Robson et al., 2008; Carey et al., 2011), but the mixed results in these studies suggest that relational resources alone, such as trust and partner commitment, are not enough to achieve good outcome (Kale et al., 2002; Heimeriks and Duysters, 2007; Kale et al., 2007; Nielsen and Nielsen, 2009; Mesquita et al., 2008). According to the literature, trust strongly influences alliance performance. Regarding this, Kanter (1994) reported trust to be a key element of alliance success for almost 40 companies competing in 11 countries, while Sherman (1992) cited a lack of trust to be a major cause of alliance failure. Cooperative behaviour can be rooted in many different factors, two in particular are focused upon here: calculative and trust (Peccei and Guest 2002). In line with the concept of capabilities in the study of Dosi, Nelson and Winter (2000), the firm needs capabilities to transform those resources in order to achieve alliance performance. Relational capabilities are the routines of the firm that enable it to deliver alliance goals to the organization. Inter-personal and inter-organizational trust can enhance a firm's relational capabilities by: (1) improving inter-firm coordination and resource support of alliances; (2) acting as a focal point for learning and leveraging complementary resources and capabilities from ongoing alliances; and (3) monitoring and controlling alliance governance. All these activities should help the firm in generating greater value and success with its alliances. The existence of alliance capability, due to the dedicated alliance function and its specific role described above, may be useful in generating alliance performance. The following subsections consider in detail the mediation roles of relational capabilities on the link between relational dimensions and alliance performance, which includes inter-personal and inter-organizational trust.

With a high level of inter-personal trust in strategic alliances, team members are likely to use cooperative routines, such as knowledge sharing, to manage projects. That is, inter-personal trust promotes the exchange of valuable ideas between core knowledge workers that will, in turn, lead to greater alliance success. In contrast, when trust among employees is low, individuals will be cautious about exchanging information and ideas with one another, and the alliance performance will suffer (Collins and Smith, 2006). In addition,

inter-personal trust develops as people exchange information and develop positive attitudes towards each other, thus allowing them to take the role of the other. Through inter-personal trust people develop stable expectations of each other that routinize their interactions and thus, makes them predictable and reliable. In particular, knowledge sharing routines can facilitate the communication and the quality of the exchanged information. Moreover, if there is high level of trust among alliance team members, they are likely to be more open to sharing their knowledge (Nahapiet and Ghoshal 1998). Trusting the other makes one party more open and willing to accept the knowledge offered by this person (Chiles and McMackin 1996) and trustworthiness of the source can thus be conceived of as a proxy for the quality and veracity of the knowledge conveyed (McEvily et al. 2003). As a result, alliances which have robust inter-personal trust are likely to achieve alliance success, which leads to the hypothesis.

*Hypothesis 5a: Inter-personal trust affects operational performance through knowledge sharing routines*

*Hypothesis 5b: Inter-personal trust affects strategic performance through knowledge sharing routines*

Inter-personal trust reflects a trustor's belief that a trustee will not act opportunistically, thereby increasing their willingness to access complementary resources and capabilities with alliance partners (Kale et al., 2000). Through inter-personal trust people develop stable expectations of each other that routinize their interactions and make them predictable and reliable. Positive attitudes characteristic of inter-personal trust may provide an individual with a certain degree of confidence in others, but this is often guarded, in that the individual can never be sure about the others' real intentions or ultimate goals (Dasgupta, 1988). Therefore, alliance team members are more likely to engage in synergistic social behaviours and make organizational-specific investments (Jones and George, 1998). This higher-order resource consists of or is captured by complementary capability, which can increase a firm's ability to perform repeatable patterns of action with respect to, for instance, identifying complementary resources and capabilities in alliances (Dyer et al., 2001; Simonin, 1997).

Furthermore, shared values result in a strong desire to cooperate, even at personal expense, which overcomes problems of shirking and free riding (Jones and George,

1998). That is, a climate for shared codes provides a common base of understanding through which individuals with different experiences and backgrounds can integrate new resources and capabilities and benefit from collaboration. Moreover, a greater level of inter-personal trust between alliance staff will positively affect alliance performance by facilitating complementary capability in alliance projects, whereby members are more likely to cooperate and develop synergistic team relationships. In turn, these relations lead to superior performance benefits, such as the development of unique organizational capabilities and extra-role behaviours that can give an organization a competitive advantage. Hence, this researcher hypothesizes that:

*Hypothesis 6a: Inter-personal trust affects operational performance through complementary capability*

*Hypothesis 6b: Inter-personal trust affects strategic performance through complementary capability*

The existence of a high level of inter-personal trust provides negotiators with an opportunity to obtain more complete information, thus allowing project team members to feel comfortable with any deal that is reached (Jeffries and Reed, 2000). Moreover, a high level of inter-personal trust provides an environment in which questions can be asked and answered without fear of creating irreparable damage to a friendship, which permits a more aggressive stance in the offers and counter-offers that are made. Consequently, the range of options considered will be more extensive and the probability of finding the best possible solution increased (Thompson, 1991). In addition, such inter-personal trust might also help firms to more effectively use contracts to facilitate adaptation to change and flexible adjustment, or how to craft agreements that better safeguard vulnerable assets and enhance alliance performance. Thus, this researcher predicts that effective governance mechanisms are likely to mediate the relationship between inter-personal trust and alliance performance.

*Hypothesis 7a: Inter-personal trust affects operational performance through effective governance mechanisms*

*Hypothesis 7b: Inter-personal trust affects strategic performance through effective governance mechanisms*

Kale et al. (2000) found that trust and commitment enables the quick and accurate movement of potentially useful and important information through the network. Mutual trust also has a direct influence on acquiescence and cooperative behaviour (Morgan and Hunt, 1994), which stabilizes and strengthens an alliance. As a result, such trust improves communication between alliance partners (Schreiner, Kale, and Corsten, 2009). A firm's superior communication ability should make it easier for its partner to increase its own knowledge about the focal firm's competences, idiosyncrasies, and alliance motives, and thereby lead to higher sales or profit for the firm. This can reciprocally enhance the partner's willingness to disclose relevant information about its own customers to the focal firm. A firm's open and honest communication with its partner also demonstrates its reliability and trustworthiness, which consequently may lead the latter to feel secure in granting a preferred partner status to the former. This researcher proposes that firms who have higher levels of trust with alliance partners and have developed knowledge sharing routines are more likely to be successful in managing alliance projects. That is, inter-organizational collaboration, which creates conditions for organizations to access and share each other's organizationally embedded, knowledge-based resources, is considered to be a particularly effective means of mutual learning (Inkpen 1997; Muthusamy and White 2005). A high level of relational bonds between the partners can also enhance the efficiency and effectiveness of the alliance, because these bonds reduce costly safeguarding needs against opportunistic behaviour and facilitate the transfer of knowledge (Schreiner et al., 2009). Moreover, knowledge sharing between alliance partners at the organizational and personal levels can increase information volume and diversity, which will allow for better planning, goal setting, problem solving and adjustments that, in turn, improve buyer performance (Lawson et al., 2008). Therefore, it is posited that:

*Hypothesis 8a: Inter-organizational trust affects operational performance through knowledge sharing routines*

*Hypothesis 8b: Inter-organizational trust affects strategic performance through knowledge sharing routines*

For a collaborative relationship to start and flourish, signs of each parties' goodwill, i.e. responsibility and positive intentions need to be demonstrated by behaviour that is open,

communicative, honest, and ethical. Each party needs also to become convinced about the other's technical and business capabilities (Doney and Cannon, 1997; Sako and Helper, 1998). In other words, one's maturity and ability to participate in interaction where the benefits can be equally and mutually seen is likely to result in the desired alliance outcomes. In particular, when a firm has a strong self-reference based on previous interactions, it is able to trust alliance partners (Blomqvist, 2002) and thus create confident learning environment between those involved. Various studies have suggested that firms which consistently generate above-average rents in alliances possess specific alliance capabilities (Anand and Khanna, 2000; Kale and Singh, 1999). More specifically, inter-firm trust encourages firms to grant others access to their tacit knowledge (Dirks and Ferrin 2001; McEvily et al. 2003), which leads to better understanding of the demands of customers, and faster identification of the complementary resources and capabilities appropriate for acting on such information (Dow, 2006; Ellis, 2000). Moreover, closer inter-organizational relations with alliance partners enables firms to change product attributes more rapidly than competitors (Bruton et al., 2007). In addition, by proactively taking on and effectively nurturing inter-organizational trust, firms are likely to become more flexible and adaptive in responding to the requests of alliance partners and the changing needs of dynamic environments. Moreover, Mesquita et al. (2008) found that firms' relational resources and relational capabilities develop suppliers' production efficiency in strategic alliances, the additional value from which could eventually be reflected in improved sales or profitability for the focal firm. Hence, complementary capability could facilitate the fulfillment of several key strategic goals in a given alliance, which gives rise to:

*Hypothesis 9a: Inter-organizational trust affects operational performance through complementary capability*

*Hypothesis 9b: Inter-organizational trust affects strategic performance through complementary capability*

Effective alliance governance reduces coordination and integration costs relative to those associated with the use of other transaction mechanisms to form alliances (Ireland et al., 2002). However, goodwill trust extends beyond contractual obligations in that partners commit themselves and make contributions to their relationship that go beyond what was

explicitly guaranteed (Sako, 1991). In fact, with a high level of inter-firm trust, firms can lower expected governance costs over all three modes whenever exchange hazards are present. Put differently, trust always complements a firm's governance choices with respect to performance, because it facilitates making adjustments that lower costs (Poppo and Zenger, 2002). Furthermore, inter-organizational trust can act as a substitute for formal governance by enabling the use of less-formal modes and thus enhancing performance in all three recognised governance modes (Gulati and Nickerson, 2008), and in turn improves exchange performance. In addition, inter-organizational trust facilitates mutual understanding between alliance partners, thereby allowing for the benefit of the doubt, which thus reduces the costs of inter-partner conflict as well as other transaction costs (Dyer and Chu, 2003; Zaheer et al., 1998). With high level of inter-organizational trust in alliance projects, firms could make decisions regarding the governance mechanisms that lower their costs while maintaining strong relational ties with alliance partners. Hence, it is hypothesized that:

*Hypothesis 10a: Inter-organizational trust affects operational performance through effective governance mechanisms*

*Hypothesis 10b: Inter-organizational trust affects strategic performance through effective governance mechanisms*

Compared to general purpose investments, idiosyncratic assets that are tailored to the requirements of the buyer create unique innovative products and processes, because these assets are not available to the buyer's competitors (Stump and Heide, 1996). Furthermore, asset specificity makes possible the integration of the partner firms' individual resources, that is, allows alliances to extract the competitive advantage potential from the combination of their respective resources (Hunt 2000). Since asset specificity is unique to the alliance and is constantly evolving, this helps to maintain the durability and inimitability of their resource advantage (Dyer and Singh 1998; Jap 1999). In addition, according to Dyer (1997), after observing Toyota's affiliated suppliers, asset specificity impacts on cost performance and in many situations, the primary objective of making relation-specific investments is to obtain a differential cost advantage. Furthermore, asset specificity represents a greater level of commitment as it reflects higher switching costs to a lock-in relationship, whereby rational strategic alliance partners would certainly try

to make the current collaborative relationship as effective as possible (Corsten et al., 2011). Based on TCE, asset specificity is useful in strengthening the ties among members by weakening the flexibility of pursuing other alternatives or severing the inter-organizational relationships (Young-Ybarra and Wiersema, 1999). Some researchers have claimed that a partner's specific asset investment indicates the expectation of commitment of the relationship, because this is created or purchased for a particular strategic purpose, which may not be easily transferred to other functions (Young-Ybarra and Wiersema, 1999) and hence, is likely to lose value upon transfer (Parkhe, 1993). Moreover, asset specificity investments provide strong incentives for firms to work with alliance partners on joint value creation initiatives (Corsten et al., 2011). Therefore, partnering firms involved in a collaborative relationship characterized by high levels of asset specificity are more likely to be highly interdependent in terms of task, goal and achievements. In addition, the value of any specialized investments will vary according to the degree of task interdependence, which refers to 'the extent to which the items or elements upon which work is performed or the work processes themselves are interrelated so that changes in the state of one element affect the state of the other' (Scott, 1987: 214). That is, the higher the degree of interdependence, the more specialized assets must be devoted to coordination (Dyer, 1996). Hence, inter-organizational collaborations will become more accommodative and will improve when the focal firm creates a dependence situation by investing high asset specificity in the partnership (Aulakh et al., 1996; Joshi and Stump, 1999; Luo, 2002).

Moreover, close and intensive interactions are characterized by higher levels of information exchange and are preconditions for achieving performance benefits (Krause, 1999). When alliance partners share important information related to sourcing and logistics, they are more likely to increase quality as well as reducing material and processing costs (Carr and Pearson, 1999). Moreover, sharing information with alliance partners reduces inventory cost because suppliers can better account for demand trends and subsequent ordering changes in supply chain management (Cachon and Fisher, 2000). The firm that implements such activities will improve its cost performance. Finally, rich information exchange concerning process failures or supply chain disruptions will allow swift reactions and elimination of such issues (Paulraj et al., 2008). Some empirical studies support the positive relationship between inter-firm cooperation

and performance. For example, Luo (2002) demonstrated that cooperation positively drives international joint venture performance. As shown by Dyer and Nobeoka (2000), the knowledge and sharing routines inferred in information exchange construct result in process and product innovations. Greater asset specificity is also likely to increase the need for information sharing, because idiosyncratic exchanges tend to require greater coordination than standardized exchanges with alliance partners. Hence, this gives rise to:

*Hypothesis 11a: Asset specificity affects operational performance through knowledge sharing routines*

*Hypothesis 11b: Asset specificity affects strategic performance through knowledge sharing routines*

Complementary capability facilitates the combining ‘of tangible and intangible asset possessed by the alliance partners to create idiosyncratic resources that may be used to efficiently alliance management and affects alliance outcomes’ (Kale et al., 2000). As strategic alliances become more important as an organizational form for accessing resources, they become vital to a firm's overall performance. Owing to the perceived overlap of goals, values and beliefs and the shared language that facilitates communication, suppliers who identify with their buyers increase the exchange of information and learning beyond traditional supplier–buyer relationships. Interdependence in strategic alliances includes goal, task and reward interdependence (Sambasivan et al. 2013). This notion is akin to the idea that investments of specific assets by partner firms will enable them to focus on specific goals and tasks in the alliance (Wageman and Baker, 1997). Martin and Salomon (2003a) formalized technology transfer as a firm-specific capability. They proposed that this capability, inherent in the development and creation of technological capabilities, decreases the costs of sharing knowledge and bestows upon a firm the capability to protect proprietary assets during technology transfer better (Mayer and Salomon, 2006). Cooperation also offers a platform for inter-organizational learning (Dyer and Singh, 1998). For example, Von Hippel (1988) found that most innovations can be traced back to suppliers, which suggests that a firm's alliance partners are the most important sources of new ideas and information for innovative success. Therefore, partnering firms involved in a

collaborative relationship characterized by high levels of asset specificity are more likely to be highly interdependent in terms of task, goal and reward achievements than those that are not. Based on the above discussion, it is hypothesized that:

*Hypothesis 12a: Asset specificity affects operational performance through complementary capability*

*Hypothesis 12b: Asset specificity affects strategic performance through complementary capability*

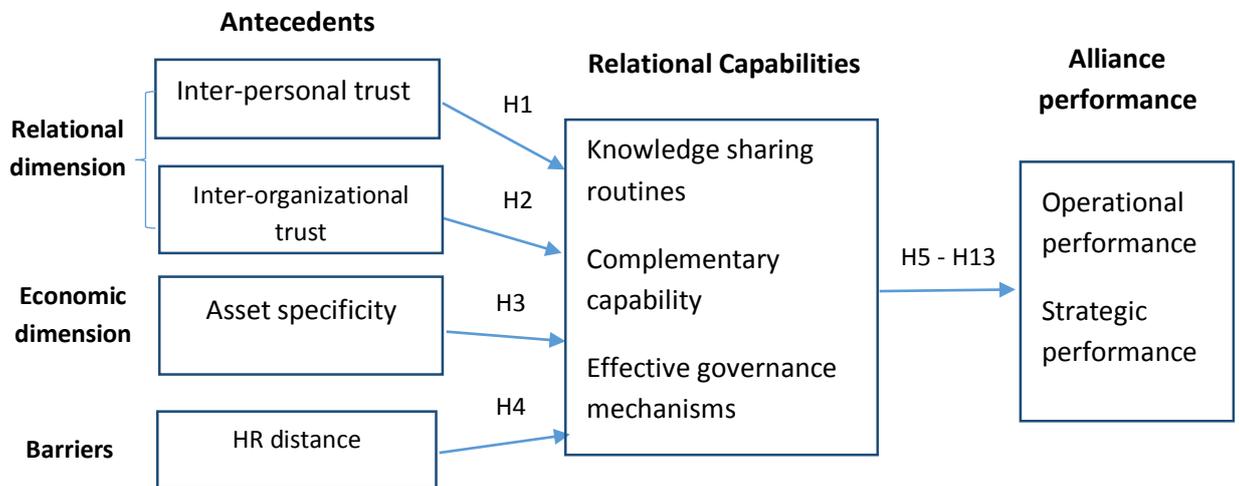
Under the condition that firms invest in greater asset specificity, effective governance mechanisms prevent opportunistic behaviours and facilitate operational management running smoothly. If effective governance is based on some resource dependence between partners, this acts as an effective means to monitor and control partner behaviour (Filatotchev, Stephan, and Jindra, 2008). Moreover, effective governance mechanisms help a firm craft better ex ante contracts to define the roles and responsibilities of each party clearly, specify the knowledge to be exchanged, identify appropriate milestones and specify the monitoring mechanisms (Dyer and Kale, 2007). Further, effective governance enhances the likelihood of alliance success by reducing cost of relationship-specific investment in several ways, such as contracting costs being minimized because firms implement routines to monitor alliance partners to behave fairly, monitoring costs are lower because external, third-party monitoring is not required and costs of complex adaptation are lowered because partners are willing to be flexible in response to unforeseen circumstances (Dyer and Singh, 1998). Therefore, this researcher proposes that:

*Hypothesis 13a: Asset specificity affects operational performance through effective governance mechanisms*

*Hypothesis 13b: Asset specificity affect strategic performance through effective governance mechanisms*

In conclusion, figure 3.1 presents the theoretical framework of this thesis which is built on hypothesis development in this chapter.

**Figure 3.1: Theoretical framework**



### 3.5 Chapter summary

The main research questions focus on the antecedents, barriers and consequents of relational capabilities in cross-cultural strategic alliance management. To address these questions, this researcher has integrated the relational and economic dimensions into a relational capabilities framework. That is, it is proposed that inter-personal trust, inter-organizational trust and asset specificity are factors facilitating relational capabilities that represent commitment to create value in the collaboration. More specifically, trust is likely to promote positive attitudes that facilitate communication and the sharing of information, while asset specificity promotes incentives to be an economic hostage in the alliance. In addition, relational capabilities play an important role as mediators in the relationship between inter-firm factors, namely trust and asset specificity, and alliance performance. The next chapter discusses the research methodology adopted for empirical investigation of the theoretical framework presented in this chapter.

## CHAPTER 4

### RESEARCH METHODOLOGY

#### 4.1 Introduction

This chapter presents the research design and data analysis approach for this study. As the research aim is to predict and generalize the conditions that are appropriate for applying trust, TCE and relational capabilities to managing strategic alliance projects between MNE subsidiaries and local suppliers in the Thai manufacturing sector a quantitative analysis method is adopted. First, the research philosophy and the research design of this study are discussed. Next the operationalization of the variables are presented and finally, the data collection, the unit of analysis and the analysis techniques are described and justified.

#### 4.2 Research philosophy

The philosophical aspects underpinning methods facilitate their categorization into paradigms. The concept of the paradigm was proposed initially by Thomas Kuhn (Kuhn, 1970). It is applied when a high level of professional consensus is recognized within particular communities of scientists, regarding aspects of philosophical beliefs, theories, standards for research and exemplary findings (Kuhn, 1970). This scholar claimed that the formation of paradigms is related to philosophical assumptions in his comment that researchers should explore certain basic questions, such as: what are the fundamental entities of which the universe is composed? How do these interact with each other and with the senses? What questions may legitimately be asked about such entities and what techniques employed in seeking solutions? (ibid). Kuhn also emphasized that philosophical positions are adopted about: the nature of matter, what can be known, and how can this knowledge be attained when conducting research. Furthermore, within a specific paradigm it is likely that a consensus exists with regards to particular research methods concerning fundamental equations, their associated theories and the basic concepts underpinning these theories (Clark, 1998).

A research paradigm comprises a basic set of beliefs that guide human action and provide a philosophical basis for the research strategy (Denzin and Lincoln, 1998). An understanding of philosophical issues is very useful because this can help researchers

clarify research designs and recognize which design may work in certain investigations, and which will not, that may be beyond his or her previous research experiences (Easterby-Smith et al., 2008). According to Burrell and Morgan (2003), a comprehensive classification of social research under four key paradigms each of which has distinct philosophical assumptions about the nature of social science and the nature of society can be drawn up. Each paradigm offers a coherent view of the social world and they are: ontology, epistemology, human nature, and methodology.

### **4.3 Classification of different research philosophy**

#### **4.3.1 Basic philosophical assumptions**

##### **1) Ontology**

Ontology is defined as the assumptions that we make about the nature of reality (Easterby-Smith et al., 2002; Creswell and Plano Clark, 2007). The key ontological question is ‘what is the form and nature of reality and, therefore, what is there that can be known about it?’ Ontological assumptions distinguish between two concepts; objectivism/realism and constructionism/nominalism. Objectivism/realism relates to an ontological assumption through which social phenomena and their meanings have an existence that is independent of social actors (Bryman and Bell, 2007). Hence, reality is external to individuals; i.e. reality is objective in nature (Burrell and Morgan, 2000). Constructionism/nominalism is concerned with an alternative ontological stance that underlines the subjective nature of social phenomena and their meanings; i.e. reality is continually accomplished by social actors (Bryman and Bell, 2007). It postulates that the social world external to an individual’s cognition is made up of only names, concepts and labels that structure reality (Burrell and Morgan, 2000). Hence, reality is the product of individual consciousness; i.e. reality has a subjective nature.

##### **2) Epistemology**

Epistemology concerns what is regarded as acceptable knowledge in a discipline i.e. what is known to be true (Bryman and Bell, 2007). The main question here is whether or not the social world can be studied through the same forms of knowledge (principles, rules, systems) as are applied in the natural sciences. Consequently, the assumptions of epistemology are related to positivism and anti-positivism. That is, epistemology refers

to the general set of assumptions regarding the best ways of enquiring into the nature of the world (Easterby-Smith et al., 2002). The key epistemological questions are: ‘What is the relationship of the researcher to that being researched and what can be known? Should the researcher remain independent of that being researched in an attempt to control for bias, or should the researcher interact with that being studied?’ Here the prime concern is with the nature of the reality of the phenomenon under investigation. Epistemological and methodological considerations are involved at each stage of the research process as the information collected by the researcher, whether qualitative and/or quantitative, is transformed through analysis into data, and then into knowledge (Briggs and Coleman, 2007).

### **3) Human nature**

This paradigm concerns the relationship between human beings and their environment. It is related to the behaviour of humans; i.e. how they respond to external forces, and the ways in which humans respond lead to the construction of different models of man. The deterministic model considers man and his activities as being completely influenced by the situation or by his environment. That is, human beings and their experiences are seen as products of the environment (Burrell and Morgan, 2000) and positivism emphasises these deterministic relationships, seeking to elicit the causes of the mechanisms that produce effects (Neuman, 2006). The main argument of the deterministic approach is that positivism is grounded in absolute determinism, i.e. people are like robots or puppets who must always respond in the same way. The causal laws derived from this stance are probabilistic, so although they may help in making accurate predictions of the expected social behaviour of a large group, they cannot be expected to be applicable to the specific behaviour of one specific person within the group.

The other model of human nature is voluntarism which implies that man is completely autonomous and free-willed (Burrell and Morgan, 2000). Here man is regarded as the creator of his environment and hence, human actions are based on the subjective choices and reasons of individuals. Since interpretivism emphasizes voluntary individual free choices, this perspective is supported by the interpretivist approach (Neuman, 2006). The main argument against voluntarism is that external forces have certain impacts on human behaviours. Thus, while social science theorists are concerned with assimilating human

activities, they should also consider the intermediate viewpoint taking into account both situational and voluntary elements when dealing with human beings' activities.

#### **4) Methodology**

Methodology addresses the combination of techniques used to enquire into a specific situation (Lincoln and Guba, 2000; Easterby-Smith et al., 2002). It focuses on the way in which knowledge is obtained or investigated and as such, refers to the approach adopted for the research. The key methodological question is 'what is the process of research?' In past literatures, the two common research methodologies that relate theory to reality are the inductive and deductive approaches (Easterby-Smith et al., 2002; Saunders et al., 2007). The inductive approach involves theory building and begins with empirical observation, which leads to identification or development of the theoretical phenomenon (Bryman and Bell, 2007). Moreover, the methodology provides a rationale for the ways in which researchers conduct their research activities (Briggs and Coleman, 2007) and indicates the best means of gathering knowledge about the world in terms of methods, techniques, or tools. Each paradigm of the three discussed above reflects a specific methodological stance through which knowledge can be investigated and obtained. The deductive approach relates to theory testing and is used to derive a set of hypothesis (or relationships among dependent and independent variables) and seeks to test these to prove or disprove hypotheses. That is, based on the data collected, a theory is accepted, rejected or modified (Easterby-Smith et al., 2002; Saunders et al., 2007; Bryman and Bell, 2007).

The inductive approach is commonly aligned to the research falling within the constructivism/phenomenology paradigm, whereas a deductive approach is often adopted when testing observed phenomenon under the positivism/post-positivism paradigm (de Vaus, 2005). Below in table 4.1 the philosophical assumptions related to positivism and interpretivisms are summarized. This research follows the deductive research methodology to develop the hypotheses related to the relationship between relational capabilities, trust, asset specificity and alliance performance.

**Table 4.1: Philosophical assumptions related to positivism and interpretivism**

<b>Factor</b>	<b>Positivism</b>	<b>Interpretivism</b>
Research purpose	Discovering natural laws to predict and control events	Understanding and describing social situations
Objective Ontological stance	Explanatory Reality is already in existence and stable, ready to be discovered. Objective to human cognition	Exploratory Relativism: no single point of view or value position is better than others; subjective to human cognition.
Epistemological stance (researcher's position)	Objectivism: the researcher is objective by viewing reality through a "one-way mirror". Dualism: the researcher and the object are independent entities	Transactional and subjectivism: the researcher is a "passionate participant" or interactively linked within the world being studied
Human nature Methodology	Deterministic Concerned with testing theory using quantitative methods: experimental design and non-experimental design e.g. survey, simulation modelling	Voluntarism Narrative, phenomenology ethnography grounded theory case studies
Research logic Nature of knowledge	Deductive Verified hypotheses established as facts or laws	Inductive Individual reconstructions coalescing around consensus
Values	Value free	Values are integral part of social life
Methods Findings	Purely quantitative Findings are true	Mainly qualitative Finding are literally created

### 4.3.2 Positivism and Social Constructionism

Easterby-Smith et al. (2002) identify two contrasting views commonly adopted in management research as positivism and social constructionism in terms of research paradigm (Bryman, 2004; Easterby-Smith, Thorpe, and Lowe, 2002; Guba, 1990; Lincoln and Guba, 2003). These are discussed below.

## **1) Positivism**

Positivism is an epistemological stance that supports the application of natural science methods to social research which is grounded in discovering causal laws, careful empirical observations, and value free research (Bryman and Bell, 2007; Neuman, 2006). The ontological assumption of positivism is that reality in positivist research is external and is objective in nature. The epistemological assumption is that the social world exists externally and its properties should be measured through objective methods rather than being inferred subjectively. Positivist interpretation is nomothetic in that it is based on a system of general laws and researchers connect causal laws and observed facts about social life with deductive logic. That is, under this nomothetic view, the researcher applies scientific methods of the natural sciences (Neuman, 2006). The positivistic researcher assumes the role of an objective analyst, making detached interpretations about the data independent of the informants. Thus, a deductive approach is emphasized to measure the concepts being studied by collecting quantitative data. To verify hypotheses, these are subjected to empirical tests, in order to prove or disprove the proposition under carefully controlled conditions (Bryman, 2004; Easterby-Smith, et al., 2002; Guba, 1990; Lincoln and Guba, 2003).

However, Gill and Johnson (2002) have drawn on the criticisms regarding positivism made by Laing (1967) as follows: 1) human action has its own logic which must be considered in order to present a comprehensive interpretation of action; 2) the logic of natural science does not capture the subjective perspective of human beings in understanding action, so that such a methodology is inappropriate and insufficient; 3) the social world cannot be understood through causal law as human action is purposive and becomes explainable only when its subjective quality is considered. Although empiricism has been recognized as a philosophy in itself (Clark, 1998), it is best understood as a quantitative paradigm that can be shaped by more than one philosophy.

## **2) Post-positivism**

Post-positivism is an alternative research philosophy that moves away from the positivist view and puts a stress on critical realism. A proponent of critical realism contends that there is a reality independent of our thinking about it. Nowadays, it is proposed that post-positivistic philosophy has replaced positivism as the philosophy which underpins most

researchers' empirical methods and its underlying tenet is that all observation is fallible and all theories are revisable (Kwan and Tsang, 2001, Outhwaite, 1987, Cook and Campbell, 1979). This research rests on the post-positivism philosophy to understand and analyse the research problems discussed here. A critical realism lens is adopted to understand the relationship between a supplier's distinct capabilities and its effects on the buyer-supplier collaboration performance. In brief, advocates of critical realism claim that 'we will only be able to understand and so change the social world if we identify the structures at work that generates those events and discourses' (Bryman and Bell, 2007).

### **3) Social Constructionism**

Contrary to social science conducted according to the positivist perspective, the interpretivist approach is ideographic and inductive. The ideographic view provides a symbolic representation or detailed description of something with very limited abstraction (Neuman, 2006). In this case, the social scientist takes a subjective stance which requires the researcher to comprehend the subjective meaning of social action. Hence, the study of the social world requires a different logic in the research procedure, one that reflects the distinctiveness of humans against the natural order (Bryman and Bell, 2007). The proponents of social constructionism view reality as socially constructed rather than as determined by objective measures and external factors (Watzlawick, 1984; Shotter 1993 as cited in Easterby-Smith et al., 2002). Moreover, the ontological assumption subsumed in social constructionism is that reality is not objective and exterior, but is socially constructed and 'given meaning by people' (Easterby-Smith et al., 2002: 29). Thus, epistemologically, social reality under this paradigm is determined by the social actors rather than by objective and external factors. In other words, exponents of the constructivist paradigm assume that there are multiple realities, which are dependent for their form and content on the persons who hold them. Thus, the inductive approach to understanding what the actors are thinking and feeling regarding the research focus is emphasized. That is, the researchers undertaking work in the social constructivist paradigm engage in different forms of participative enquiry to grasp the subjective meanings of social actions, because it is taken that the complex qualities of the human mind or the known can only be unpacked through these processes (Bryman, 2004; Easterby-Smith, et al., 2002; Guba, 1990; Lincoln and Guba, 2003). The researchers

therefore, are necessarily part of what is being studied and the interpretations of the observations emerge from the actors themselves.

#### **4.4 Research strategy**

Research strategy is defined as the systematic and orderly approach to collecting and analysing data so that information can be obtained to understand the research problem in hand (Jankowicz, 2005). Saunders et al. (2007) proposed that a research strategy refers to the general planning required to answer the research questions. Following this, the researcher's choice of philosophical optic is justified in terms of the nature of the problem and research methodology adopted. From another point of view, Bryman and Bell (2007) classify the research strategy according to the nature of the research; whether it is qualitative and quantitative. Qualitative research rests on the constructivism paradigm and focuses on the generation of hypotheses or patterns, whereas quantitative research draws on positivism or a post-positivist paradigm and focuses on the testing of theory or hypotheses. In qualitative research, the intent is to gather participants' views about a particular phenomenon whereas in quantitative research, the aim is to understand how data provided by participants fits an existing theory i.e. a model, framework or explanation. The notion of combining the qualitative and quantitative approaches to address a research problem has been well rehearsed in the literature and it is argued that an effective combination has the potential to capture the benefits offered by both qualitative and quantitative data collection and analysis techniques (Erickson and Kaplan, 2000).

In this thesis a quantitative research strategy was adopted, thus providing a way of quantitatively linking theoretical categories or concepts with the empirical research and thereby taking an objectivist standpoint for testing theory (Bryman and Bell, 2007). This researcher uses a survey-based study to investigate the research questions and examine the pertinent theoretical phenomenon. The design of this research is based on post-positivism because the researcher aims to understand reality and obtain data from the business environment with empirical evidence that sheds light on the antecedents and consequences of relational capabilities in strategic alliance projects between MNE subsidiaries and local suppliers. One of the outcomes of taking a post-positivist approach in the field of management is the possibility that researchers can identify laws which

govern the ways in which organizations operate. These causal relationships will, it is argued, enable management to become more scientific and better able to predict and control their environments (Johnson and Durberley, 2000).

The research design for this investigation is based on the post-positivist approach which has eight propositions: independence, value-freedom, causality, hypothesis and deduction, operationalization, reductionism, generalization, cross-sectional analysis (Easterby-Smith et al., 2002). Importantly, under the post-positivist lens it is accepted that theories, background knowledge and the values of the researcher can influence what is observed and that there is a possibility of biases being involved. According to Bryman (1984), the quantitative methodology is routinely presented as an approach to the conduct of social research, which applies the techniques from the natural sciences, and in particular, takes a positivist approach regarding understanding social phenomena. This study seeks to incorporate real-world data into research through empirical study, which is in keeping with the majority of empirical studies that are conducted within the managerial and behavioural science fields. Furthermore, empirical research can provide strong foundations for making realistic assumptions underpinning mathematical and simulation modelling in management (Flynn et al., 1990). That is, according to Snow and Thomas (1994), empirical studies can be used to either build theory or to verify it, with the latter referring to the documentation of relationships among variables. This approach is based on a scientific methodology whereby hypotheses are generated in advance and subsequently tested using the collected data, whereas a theory-building study is based upon assumptions or frameworks pertaining to a perceived problem. The main objective of this research investigation is to verify the relational capabilities approach in the context of Thai manufacturing sector i.e. it seeks to verify theory. In addition, the concept of trust and TCE are integrated to the relational capabilities approach in order to establish a foundation upon which to help to extend extant theory.

In view of the above, the selected research design and measurements should correspond with the phenomena under investigation. The selected data collection tool, which has frequently been deployed for acquiring information in extant empirical research, takes the form of questionnaires that can provide valuable insights regarding individual perceptions and attitudes, as well as shed light on policies and practices in firms (Baruch and Holton, 2008). Through questionnaire items, concepts can be operationalized and

objectivity is maintained by ensuring distance between the observers and the observed, along with possibility of external checks being made on the research questionnaire by a third, independent party. Moreover, it should be noted that this researcher is independent from her sample group, namely the MNE subsidiaries in the Thai manufacturing sector, and has no vested interests in them. In addition, deductions are made from the empirical observations in order to test hypotheses regarding the causal relationships between inter-organizational factors, including trust and asset specificity, relational capabilities and alliance performance. Furthermore, the concept of trust, HR distance and relational capabilities are measured quantitatively with the ordinary least square and bootstrapping techniques applied to test antecedents and consequents of relational capabilities. Finally, the researcher ensured the prerequisite of a sufficiently large sample so that valid comparisons could be made across the different firms categories.

#### **4.5 The research population**

The dataset has been generated through a questionnaire survey sent to purchasing managers of MNE subsidiaries in the manufacturing sector in Thailand. This sector is an appropriate sample for the study because of the Thai manufacturing's history of creating alliances between buyers and suppliers (Doney and Cannon, 1997; Krishnan et al., 2006). The survey instrument focused on buyers because most MNE subsidiaries in the Thai manufacturing sector have developed the role of being buyers from local suppliers. This unit of analysis is consistent with previous empirical studies (Petersen et al., 2005; Cousins et al., 2006; Paulraj et al., 2008; Li et al., 2010).

The research population of MNE subsidiaries in the Thai manufacturing sector includes firms involved in the following areas: chemical and petrochemicals, machinery and transport equipment, electronics and electrical appliances, measuring and analytical instruments, optical apparatus and watches as well as medical instruments, and comprises approximately 800 companies listed in the Federation of Thai Industry (FTI) Directory for 2010. The FTI is the national centre for Thai industries and prepares industry-related press releases for the media, distributes information to members and various interested stakeholders in order to promote and develop industrial enterprises as well as to cooperate with the Thai government in setting up industrial policies. In addition, the organization provides an annually updated reference list of manufacturers in Thailand containing basic

company information. The specific respondents targeted with the questionnaire survey were the purchasing managers and staff of MNE subsidiaries in the Thai manufacturing sector ‘identified from this reference list’. These managers are deemed to be the most knowledgeable about their firm’s relationships with their supplier and company specific information (Paulo et al., 2008). Because the actual products differed from company to company, the respondents were specifically asked questions relating to their most important supplier, and in particular, about one product with which they were familiar and that was typical of their company’s output.

#### **4.6 Unit of analysis**

A comprehensive literature review regarding the unit of analysis and research operationalization in buyer-supplier alliances was undertaken in order to identify key informants and relevant issues. Previous research has examined this from the firm and the dyadic perspectives using buyer supplier alliances as the unit of analysis. Some extant research examined only buyers or suppliers’ perspectives (Doney and Cannon, 1997; Dyer and Chu, 2003; Subramani and Venkatraman, 2003; Cousins et al., 2006; Srinivasan and Brush, 2006; Krishnan et al., 2006; Paulraj et al., 2008; Nielsen and Nielsen, 2009 and Li et al., 2010), whilst other scholarship examined buyer-supplier views (Stuart, 1997; Johnson et al., 2004; Peterson et al., 2005; Krause et al., 2007). The dyadic level is very useful since the findings were derived from the views of both buyers and suppliers and thus avoids single informant bias. However, the response rate in the surveys deployed in dyadic level studies was low compared with those carried out at the single firm level because of the difficulty in survey administration. In light of this literature review, this researcher conducts this study from the buyer perspective, because most MNE subsidiaries in Thailand play a significant role as buyers and in creating linkages with local suppliers. Specifically, the unit of analysis is alliance projects between buyers and suppliers, as discussed in detail next.

##### **Alliance projects between buyer-supplier**

Alliances are voluntary arrangements between two or more organizations involving ‘exchange, sharing, or co-development of products, technologies, or services’ (Gulati, 1998). Strategic alliances can be formed at many different organizational levels, and at many different points along an organization’s value chain. One common use of alliances,

however, is to connect the research and/or development functions of two or more organizations in an attempt to capture the benefits of combining the scientific and technological assets of the alliance partners (e.g. Powell et al., 1996; Hagedoorn, 1993). Buyer-supplier alliances have no specific form and they vary according to both parties' goals and objectives (Heide, 1994; Morgan and Hunt, 1994). Some may be moderate extensions of traditional arm's length relationships, with longer-term contracts and expanded buyer-supplier communications. Alternatively, in a few extreme cases, the buyer and supplier can develop a degree of mutual dependency, with the buyer relinquishing some control to the supplier and the supplier dedicating resources to serve the buyer exclusively, that is, these resources cannot be easily altered to serve other customers (McCutcheon and Stuart, 2000). Sako (1992) identifies three major areas where alliances differ from traditional supplier relationships.

1) Technology transfer and training, especially where the costs or value of providing this to the other party are not tracked nor pre-approved.

2) Increased communication channels i.e. an increased number of different access points across firm boundaries and increased intensity of communication.

3) Risk sharing, especially where the costs of shared risk are settled case-by-case after the fact, using fairness rather than prior negotiations as the means of deciding.

These three characteristics truly distinguish relationships that blur the traditional lines between buyer and supplier. In addition, they serve to separate a strong buyer-supplier alliance not only from arm's length contractual arrangements but also from what many managers may very broadly term supplier partnerships. While many firms may have developed somewhat closer relationships with their key suppliers, relationships with these specific characteristics are as yet relatively unusual (ibid). While the benefits of alliance relationships may be difficult to establish, most managers recognize the real risks they pose, for clearly, there are risks in giving suppliers access to information and in developing dependency on them (Kale et al., 2000). Given these risks, if a firm is to reap the benefits from this type of relationship, it must have a clear binding contract that safeguards its interests. Among the many types of strategic alliances, this researcher selected only strategic alliance projects between buyers and suppliers, such as: R&D projects, new product and process developments and other activities related to supply

chain management. These activities could offer a relatively balanced situation for both antecedents and relational capabilities variables to play a role in affecting alliance outcomes. This is compared to both the more traditional resource access or market entry joint ventures, where the initial conditions of the transaction may largely determine outcomes.

#### **4.7 Questionnaire design**

The questionnaire is primarily a tool for data collection used with the objective of collecting confidential information about the business unit and soft data from respondents. Soft data refers to the opinions and attitudes of the alliance managers that cannot be acquired from archival data. The questionnaires in this research were initially developed by identifying construct items used in previous studies. Further, the chosen format of a self-report survey used for this investigation eliminates the interviewer and can benefit the process by putting respondents at ease so that they can be honest when commenting on sensitive subjects (Brace, 2005). In addition, respondents have time to consider their answers at their leisure. According to Spector (1994), objections to self-report studies are strongly directed to those with cross sectional designs where all the data are collected at one point in time, nonetheless, self-report studies can provide a picture of how people feel about the research questions. A Likert scale, which was first published by psychologist Rensis Likert in 1932, is the most common technique used to measure questionnaire respondents' attitudes, with the question usually being in the form of a statement to which respondents are asked to state their level of agreement (Hosker, 2008). This research utilized responses coded 1 to 7 with 1 standing for 'strongly agree' and 7 for 'strongly disagree'. Each respondent's score is obtained by totalling the scores for each item, for example, the maximum score for three questions would be 21, with 3 as the minimum.

The researcher is concerned with single source data, which is subjected to the common variance method (CMV) and is especially suited to the self-report survey (Podsakoff et al., 1986; Chang et al., 2010). CMV is variance that is attributable to the measurement method rather than to the constructs that the measure represents. Further, it creates a false internal consistency, that is, an apparent correlation among variables generated by their common source. For example, this could occur if a researcher asks respondents to

evaluate an MNE's organizational capabilities and the firm performance in the same source. Krishnan et al. (2006) and Chang et al. (2010) suggested remedies to avoid this by indicating the confidential nature of the survey in the cover letter, pre-testing the survey and using separate scale items and data from different sources. To mitigate the problem of same-source bias, this research aims to use different levels of respondents for the independent variables (relational capabilities) and the dependent variables (operational and strategic performance) (Gibson and Birkinshaw, 2004). Purchasing managers were contacted initially and asked to evaluate alliance performance with their local suppliers for a period covering the previous last three years, from 2009 to 2011, to avoid biased responses occurring from abnormal one-off experiences (see Artz and Brush, (2000) for a similar treatment). They selected one important strategic alliance project with a local supplier and evaluated inter-organizational trust and alliance performance. Subsequently, they were asked to forward the questionnaire to another key informant e.g. the purchasing manager, project manager or technical manager, who, during the previous three years, had been involved in a strategic alliance project with the local supplier for the critical component in their manufacturing process. The second respondents completed another questionnaire relating to inter-personal trust and relational capabilities of the focal project.

The concept of strategic alliance and other measurements, such as inter-organizational trust, interpersonal trust, relational capabilities and performance, were explained clearly to the respondents in the questionnaires. A set of questionnaires was developed in English and Thai utilizing a broad range of questions relating to the nature of suppliers' relationships with their suppliers. In order to ensure consistency between the Thai and English versions of the questionnaire, the English questionnaire was translated into Thai by a native speaker with a sound technical knowledge of buyer-supplier relationships. A fluent Thai speaker then translated the questionnaire back into English, thereby identifying and resolving any inconsistencies. The questionnaires were piloted in thirteen companies at which time any remaining issues were resolved.

The questionnaires can be distributed to targeted respondents in a variety of ways, such as by mail survey, fax, face-to-face and by holding a telephone interview as well as by distributing a web-based survey. The selected means of distribution depends on the needs of the specific survey, time, cost and resource constraints (Forza, 2002). From previous

studies, it emerges that the mail questionnaire is one of the most frequently used but controversial data collection techniques applied in social science research. A mail survey allows respondents to complete questions with anonymity and at their convenience without time constraints, all of which can reduce respondent bias. However, they are time consuming, expensive and difficult to identify with a specific respondent, so nowadays, the web-based survey is a popular alternative. This offers several benefits to researchers in management, including; lower costs, broader distribution, a potentially higher response rate, improved accuracy of data entry, faster survey turnaround times and randomized ordering of items (Klassen and Jacobs, 2001). Moreover, an internet-based survey can use the same formats as traditional methods and hence generate equivalent findings (Vazire et al., 2004). Some empirical studies of buyer-supplier relationships and strategic alliances have used a web-based survey, such as Cousins et al. (2006) and Nielsen and Nielsen (2009) and their return rates were 14.8% and 19.5% respectively. Moreover, a combined approach using postal mails and the internet to survey managers offers significant benefits over relying on just one technique since it generates a higher response rate and improves item completion rate (Klassen and Jacobs, 2001).

In sum, this research combined web-based and postal mail surveys for data collection. Moreover, telephone contact was used for pre-notification and recruiting respondents (Duncan, 1979; Klassen and Jacobs, 2001; Dillman et al., 2009). The respondents were asked to complete the web-based survey with the option of the postal mail survey. The appearance of the survey web page was designed to match the paper and pencil survey allowing respondents to scroll through the entire instrument to see its length and the type of questions. Moreover, they could answer the questions in any order and complete the survey in several sessions. On-line definitions of the technical terms, such as alliances, trust and relational capabilities, were provided when the respondent clicked on a web-link and this mirrored the glossary sheet provided in the paper-based survey.

#### **4.8 Pilot study**

There was a possibility that the measurement in the questionnaire might not fit the specific contexts of all respondents. Hence, it was necessary to recruit a small sample of purchasing managers and technical sales representatives in order to test the questionnaire, moreover, it was advisable to have the results analyzed by an expert panel of academics

to ensure that the words and meanings were clear, reliable and valid (Flynn et al., 1990; Easterby-Smith et al., 2002). Therefore, this researcher conducted a pilot study with six academics and eighteen industry contacts to assess the scale items' face validity and to obtain feedback on the content, design and usability of the survey website. In addition, she conducted semi-structured interviews in September 2010 in order to review the concept and receive feedback from ten practitioners from MNEs subsidiaries in the Thai manufacturing sector. The interview questions were partly exploratory and mostly open-ended and each interview lasted between 30 and 45 minutes. From the interviews, it was revealed that the sample firms from high-technological industries were likely to have vertical alliances with their suppliers. This was owing to the fact that they need to acquire complementary resources and capabilities from suppliers to develop products and services correspondent with high technological specifications and rapid demand changes in the markets.

In addition, the researcher asked informants' views relating to the concept of relational capabilities, HR distance and trust to compare their information with the proposed models. Most interviewees reported that they had applied the relational capabilities approach and trust in the alliance management practices with their local suppliers because this approach had the possibility of helping them maintain good relationships and smooth cooperative activities between them and their alliance partners. However, they realized the importance of this approach operating at different levels and acknowledged that it was dependent on the companies' regulations, culture and length of relationship between organizations. Moreover, the inter-personal trust concept emerged as significant as some informants commented on the impact of salesperson relationships on alliance management. Therefore, the researcher synthesised the findings from the semi-structured interviews with the self-report survey, which were subsequently compared with the results of the statistical analysis.

A pre-survey was conducted in the period from January to March 2011 with small samples. To start, six PhD students in the School of Management and six practitioners reviewed the questionnaires and provided their feedback in January 2011. Subsequently, the researcher refined the clarity of the questions using a vocabulary familiar to managers, and with terms that had consistent meaning in English and Thai languages. Next, the second draft of questionnaires was distributed to twenty purchasing managers as a pilot

during February and March 2011. Some lessons were learned from this, including: the difficulty regarding finding the second respondent and some missing values caused by rather ambiguous questions and instruction in some parts of the survey. Some minor content and design changes were made at this stage.

#### **4.9 Data collection administration**

The researcher collected data in the field during the period from August to December 2011. In disseminating the survey, the researcher mostly followed the advice of Duncan (1979) regarding the appearance of the questionnaire and facilitating ease of use in order to boost the response rate. The survey package, both postal and web-based survey formats, included:

- 1) Cover letter: An introductory letter explaining the objectives, assuring confidentiality and access to the samples as well as the specification of the deadline. The letter clearly explained the purpose of the questionnaire so that respondents could grasp its value, and the contact details of the researcher were provided (i.e. her terrestrial address, telephone number and email address).
- 2) Two questionnaires, one each for the purchasing director (first respondent) and alliance manager (second respondent).
- 3) Pre-paid, self-addressed envelope to return the questionnaire (only for the postal format).

The survey was initiated by using telephone notification. Surveys were mailed directly to managers or owners who agreed to complete the survey during the telephone screening and whose firms fitted the screening criteria. Suitable first and second respondents were identified during the telephone notification stage, which was also when they could choose to complete the questionnaires either on-line or by post. A cover letter explaining research, received either online or by post also contained a link to the survey website. Efforts were made to enhance the response rate by sending a follow-up email to managers two weeks after the initial mailing and by offering respondents a composite summary of the study results.

#### **4.10 Operationalization of study measurements**

The researcher drew upon the literature reviewed in the Chapter 2 with regards to relational capabilities, trust and TCE and hypothesized that this approach can help the firm collaborate with the partners successfully. Therefore, the focal research interest concerns the antecedents and outcomes of relational capabilities of strategic alliance projects. The researcher narrowed the design of the research project to the consideration of vertical alliances or buyer-supplier alliances because buyers and suppliers were involved with inter-organizational transactions. The variables and measurements reviewed in the literature were used or adapted through the stages of the pilot interviews and testing. As explained above, the questionnaire items, unless stated otherwise, were measured using a seven-point Likert scale with the anchors for this being 1 = strongly agree through to 7 = strongly disagree.

##### **1) Relational capabilities**

Relational capabilities refer to firms' capacity purposefully to create, extend, or modify their resources and routines, augmented to include the resources of their alliance partners in the relationship management process (Dyer and Kale, 2007). The concept of relational capabilities is based on three foundations: complementary capability, knowledge sharing routines and effective governance capability. There was no existing scale available to measure directly the relational capabilities concept and hence, the researcher used survey-based, multi-item scales to measure each of these aspects of them. Since there was little empirical precedent in developing these measures, the researcher selected the scale items through fieldwork and through a study of the relevant academic literature. The researcher also pre-tested the survey instrument with purchasing managers of 19 MNE subsidiaries and modified the items as necessary. The researcher then used confirmatory factor analysis to estimate a second-order factor model that best represents these relationships.

##### **2) Knowledge sharing routines**

The concept of knowledge sharing routines is defined as a regular pattern of firm-level interactions that permit the transfer, recombination, or creation of knowledge (Dyer and Singh, 1998; Dyer and Kale, 2007). Knowledge sharing routines in this research were adopted from the research of Dyer (1997) and Kale and Singh (2007) to measure the

extent to which buyers and suppliers shared relevant task-related information in the alliances. The degree of information sharing between partners is operationalized by measuring the extent to which buyers shared: (1) confidential/proprietary (e.g. technical) information; (2) information on their production costs, and (3) know-how. Moreover, knowledge sharing routine scales were also adopted from Kale and Singh (2007) to measure the formal and informal sharing know-how activities between partners.

### **3) Complementary capability**

Complementary capability refers to the ability to identify and evaluate potential complementarities, and the role of organizational complementarities to access benefits of complementary strategic resources (Dyer and Kale; 2007). Complementary capability measurements were adopted from the scale of partner fit used in the research of Kale et al. (2000), which also has been applied by other researchers (Corsten and Kumar, 2005; Lavie et al., 2012). These measures involve a multi-item scale representing the different degrees to which the focal firms are able to verify similarities in complementary resources and capabilities between their company and the partners.

### **4) Effective governance mechanisms**

Effective governance mechanisms refer to the capacity of the firm to assign an appropriate mix of formal and informal safeguards to govern the partnering relationship (Dyer and Kale, 2007). The measurement of effective governance mechanisms is characterized by both formal and informal governance (Poppo, Zhou and Zenger, 2008). The researcher infers that high levels correspond to an increased commitment to use relational governance to guide behaviour in alliance partner exchanges. The researcher views effective governance mechanisms as involving collaborative problem solving and the sharing of business plans, which are critical success factors in strategic alliances. Therefore, consistent with prior work (Mesquita et al., 2008; Koetker and Mellewigt, 2009; Li, Poppo and Zhou, 2010), the researcher employed three items that assess the degree to which firms rely on formal contracts, i.e. the extent to which the subsidiary has specific, customized, and detailed contractual agreements with the supplier. In addition, the researcher measured the extent to which the firms are able to use social commitments of collaboration as gauged by their efforts to share information, assist each other and promote fair sharing of cost savings and benefits arising from the alliance.

### **5) Asset specificity**

Asset specificity refers to the assets which the buying firm dedicates specifically for the alliance project. Given that this study targeted the manufacturing sector and the primary respondents were purchasing personnel dealing with operational plant processes, an eight-item scale developed by Dyer (1997), Subramani and Venkatraman (2003), Zhou and Poppo (2010) was adopted as the construct measure. This was because this measure was considered to capture a broad range of asset specificity that could affect the operational management of the plant. These assets include: physical asset specificity (e.g. manufacturing equipment and machinery), business process specificity (software and application, administrative procedures) and human asset specificity (change in skill levels and trained staff) that are used in the alliance project with the supplier. This measure has been deployed in other research such as that of Artz and Brush (2000) and Mesquita et al. (2008).

### **6) Inter-organizational trust and inter-personal trust**

Trust in this research is defined as the willingness of the firm to take risk and the vulnerability to the alliance partners' opportunistic behaviour and other actions. This researcher adapts the definition of inter-personal trust and inter-organizational trust from Zaheer et al. (1998). The term interpersonal trust refers to the extent of a buyer's representative trust in her counterpart in the supplier organization while the term inter-organizational trust is defined as the extent of trust placed in the supplier organization by the members of a focal organization. This study followed recent studies on alliance trust (Currall and Inkpen, 2002; Zaheer et al., 1998) which measured interpersonal and inter-organizational trust in order to capture the concept of trust at the two levels. Moreover, previous empirical studies in the context of the buyer-supplier relationship have used this measurement, including those of Lui and Ngo (2004), Lui et al. (2006), Gulati and Nicholson (2008) and Li et al. (2010).

The measurement of inter-organizational trust gauged the buyer's attitude towards the supplier's behaviour at the firm level based on a five point system: two reflected the fairness component of trust, one directly assessed the possibility of opportunistic behaviours and the other two drew upon the reliability aspect of trust. The measurement of inter-personal trust focused on the relationship between the purchasing staff and the

contact person at the individual interaction. The scale of interpersonal trust consisted of one point relating to predictability, three relating to fairness, and one that directly assessed interpersonal trust.

### **7) Human resource (HR) distance**

Human resource distance at the country level refers to different aggregated skill of labour at the country level. The level of skilled labour and education differences between alliance partners who originate from different countries, can hamper establishment of common ground for communication, which is an important condition for advancing cooperation (Luo, 2001; Estrin et al., 2009). The measure used in this research was developed in an earlier study by Estrin et al. (2009) which probed the complementary roles of institutional and human resource distances on foreign investors' entry strategies. The education measures used by these scholars drew on the percentage of the economically-active population with tertiary education, and the average schooling years in the total population gathered from data contained in the ILO Yearbook of Labour statistics, OECD statistics and the statistical offices of selected countries. The state of technology was measured through data taken from the World Development indicators that showed the number of computers and internet hosts per 1,000 persons. Data for the year 2010 was employed as this was the most recent available prior to the survey data collection in 2011.

$$HRD_j = \sum \{(I_{ij} - I_{it})^2 / V_i\} / 4$$

Where  $I_{ij}$  stands for the index for the  $i$ th human resource dimension and  $j$ th country,  $V_i$  is the variance of the index of the  $i$ th dimension,  $t$  indicates Thailand, and  $HRD_j$  is human resource difference of the  $j$ th country between alliance partners.

### **8) Strategic alliance performance**

Various studies have used different measures and levels of analysis to capture strategic alliance performance. For example, alliance performance has been measured by alliance satisfaction (Lui and Ngo, 2004; Krishnan et al., 2006), alliance success rate (Zollo et al., 2002), financial performance (Simonin, 1997), organizational learning (Sinomin, 1997; Kale and Singh, 2007), operational performance, and strategic performance (Paulraj et al., 2007; Lawson et al., 2008; Villena et al., 2011). This research focuses on measuring

the alliance performance at the focal firm level in the context of the manufacturing sector. As suggested by previous studies (Cousins et al., 2006; Krause et al., 2007; Paulraj et al., 2008 and Lawson et al., 2008), collaborations between buyers and suppliers in the manufacturing sector aim to improve efficiency on a daily routine basis and for the long term benefits of the company. Therefore, there are two dependent variables of relational capabilities representing operational and strategic ones. The former highlights the achievement of operational improvements in terms of cost, quality and lead time (Paulraj et al., 2008; Lawson et al., 2008; Villena et al., 2011). The latter encourages the accomplishment of more strategic outcomes such as the development of new products and markets (Jap, 2001; Ling-Yee and Ogunmokun, 2001; Lunnan and Haugland, 2008; Lu et al., 2010; Villena et al., 2011). These sets of alliance performance were adapted from Villena et al. (2011), which capture these two variables in the research in order to ensure the consistency of the measurement. Operational performance was measured by the extent to which the buying company received manufacturing process improvement, especially in reliability, delivery and flexibility, as a result of its alliance with the supplier over the last three years. Strategic performance was measured by the extent to which the buying company received marketing and innovation benefits as a result of its alliance with the supplier in the last three years.

## **9) Control variables**

In order to verify the validity of the findings, a number of variables are controlled in the equation analysis. Some additional control variables, reported in the literature to have influential effects on the study variables, such as firm size, inter-firm legal relationships and sub-categories of industry, were included.

### **9.1) Firm size**

Larger firms have larger resource pools and, consequently, the ability to compete more effectively (Kotabe and Zhao, 2002; Mesquita et al., 2008). This measure is operationalized as to the number of employees of the affiliate (Kotabe and Zhao, 2002; Mesquita et al., 2008) and registered capital as reported by the Department of Business Development, Thailand.

### **9.2) Firm nationality**

The country of origin of MNE subsidiaries was based on the national location of its corporate headquarters (Makino and Beamish, 1998). Country of origin information was determined on the basis of the largest percentage of equity holding of the company, which is also reported by the Department of Business Development, Thailand.

### **9.3) Sub-industries in manufacturing sector**

As the scope or intensity increases, so do information-processing needs that, in turn, require greater internal capabilities (Bensaou and Venkatraman, 1995). To measure the control for industry differences, this study uses dummy variables for the major industries in the sample (Krishnan et al., 2006). Based on two-digit SIC codes from a study by Zhou and Poppo (2010), three dummy variables were used for controlling differences in the primary industry in which the firm operates: automotive, heavy (i.e., chemicals, materials, machinery, iron and steels), and electronics.

### **9.4) Previous alliance experiences**

Prior research has suggested that a firm's alliance experience has a positive relationship with its alliance performance, because there is presumably an implicit flow of feedback from prior experience that enables either an improvement in a firm's existing alliance practices or development of new ones (Anand and Khanna, 2000). For the measurement of a firm's previous alliance experience scales were adopted from Lunnan and Haugland (2008). Previous alliance experience was measured as the company's level of experience in inter-firm cooperation and learning from past alliances.

### **9.5) Alliance project duration**

Duration is an important control variable since longer projects tend to influence the quality of relationship between alliance partners as well as alliance performance. Alliance duration was measured by the year in which an alliance was formed and subsequently used to calculate its duration (Krishnan et al., 2006).

### **9.6) Inter-organizational relationship duration**

With increasing relationship duration, parties have more opportunities to learn about each other and develop better mutual understanding. Length of inter-organizational

relationship is measured by using a single item that asks how long the supplier firm has been in contact with the buying firm (Doney and Cannon, 1997; Krause et al., 2007).

### **9.7) Supplier dependence**

Supplier dependence was considered in terms of the ease with which the alliance partner could be replaced in accordance with Heide's (1994) conceptual definition. In particular, the buyer's dependence on the supplier was measured by the percentage of purchasing volume of the focal supplier compared with other suppliers during the last three year period (Carey et al., 2011).

### **9.8) Alliance project types**

Alliance project types may differ in relational capabilities and impact on alliance project performance (Reuer et al., 2002; White and Lui, 2005) since the more complex joint tasks will require managers to expend greater time and effort working with an alliance partner. This research included four dummy variables for supply chain activities, incremental change, R&D products and R&D process, with 'other' representing the fourth.

### **4.11 Sources of data**

There are two main sources of data for this research including primary and secondary data. The former was collected by a self-report survey that was distributed to the population to collect the main data for the research whereas the latter was required for gathering basic information and national distance of the companies in order to reduce the number of questions in the survey. The sources of the secondary data were The Department of Business Development (DBD), Thailand ([www.dbd.go.th](http://www.dbd.go.th)) which provided basic company information, and the Kogut and Singh (1989) composite index of Hofstede's culture dimension for cultural distant measurement, as well as the ILO Year book and World Bank which gave data regarding human resource distance (see appendix for the list of variable measurements and data classified by sources).

### **4.12 Descriptive results**

Questionnaires were distributed to all the eligible companies, rather than just a sample, because the population was small and it was believed that this was an effective way to achieve a high response rate. Further to this end, the researcher made pre-notification

contact by telephone with purchasing managers of 800 MNE subsidiaries on the aforementioned list, but unfortunately 87 companies could not be reached because of invalid telephone numbers and addresses. In line with a study by Fenton-O’Creevy (1996) regarding reasons for non-response to questionnaires, 448 firms refused to fill in the questionnaires for various reasons, i.e. potential respondents were too busy, key personnel were away during survey period, the survey was not considered relevant, and in some cases, it was company policy not to complete surveys and additional unknown reasons. Moreover, over-surveying in a growing number of areas means that employees are flooded with questionnaires (Weiner and Dalessio, 2006). The result is that a large number of target individuals or firms are fatigued and therefore refuse to respond to non-essential questionnaires. 155 companies acceded to completing the survey by post and a further 110 agreed to do so online, making a total of 265. Non respondents were sent reminders by postcards and email and were later telephoned. A total of 135 completed and returned the questionnaires by post and 96 completed questionnaires by submitting the online survey. Thirty-six firms replied that their companies had had no particular alliance with their suppliers in the last three years, and 39 firms completed only the first questionnaire. In total, paired questionnaires from 156 MNE subsidiaries, which included 106 postal and 50 online surveys, were completed. Thus, the response rate for this research is 19.5% which can be considered to be fair in comparison to most postal surveys, which obtain a rate of between 6 and 16% (Harzing, 2000). Moreover, it is equal to response rates obtained in various earlier alliance studies (see Kale et al., 2002; Reuer et al., 2002a; Zollo et al., 2002; Cousins et al., 2006; Nielsen and Nielsen, 2009).

**Table 4.2 Numbers of distributed and returned questionnaires**

<b>Data collection stage</b>	<b>Sources of data</b>	<b>Number (firms)</b>	<b>In-completed survey (firms)</b>	<b>Completed survey (firms)</b>
Pilot study	Academia	6	-	-
	Practitioners	25	-	-
Survey	Population	800	-	-
	Failed to reach	87	-	-
	Postal mails	155	49	106
	Online survey	100	50	50
Total				156

After data screening and removing outliers, the sample consisted of 156 firms from the following sub-industries: electronic and electric equipment (17%), chemicals and chemical products (23%), petrochemicals and petrochemical products (3%), automotive (29%), machinery products and metals (22%) and other manufacturing (5%). Firm size was measured in terms of both the number of employees and the firm's registered capital. With respect to registered capital, the largest amount of respondents, namely 38%, 4% and 58% are found in the category of under US\$ 1.6 million, between US\$ 1.6 million and 16 million, and over US\$ 1.6 million, respectively. Countries of origin of MNE subsidiaries in the sample are Japan (72%), US (9%), Taiwan (5%), China (3%), Germany (3%) and others (8%).

All the purchasing managers and purchasing staff who completed the questionnaires are Thai. On average, the purchasing managers and purchasing staff have a work experience average of 8 and 10 years in their current companies, respectively. These individuals had primary responsibility for managing the day-to-day relationship with the customer, and were well aware of the history of the interactions between them and their buyer's employees. On average, the inter-organizational relationship and inter-personal relationship had been established for 8 and 6 years respectively. The alliance partners of the sample can be divided into two groups; sharing the same country of origin (56%) and different countries of origin (44%). For the nationality of contact persons of the alliance projects, most respondents work with Thais (80%) while the rest work with expats (20%). The average alliance project duration is five years and 85% of these projects are still on-going. In total, 92% of firms in our dataset reported on non-equity alliances, while 8% had equity alliances with their suppliers. Three main purposes of alliance projects were reported as: new product and process development (17%), joint purchases (14%) and joint R & D projects for new process development (14%).

**Table 4.3 Sample characteristics** (N = 156 MNE subsidiaries in Thai manufacturing)

	<b>Frequency</b>	<b>%</b>
<b>Industry</b>		
Electronic and electric equipment	27	17
Chemicals and chemical products	36	23
Petrochemicals and petrochemical products	4	3
Automotive	46	29
Machinery products and metals	35	22
Others	8	5
Total	156	100
<b>Registered capital</b>		
< 1.6 Million USD	59	38
1.6 – 16 Million USD	7	4
>16 Million USD	90	58
Total	156	100
<b>MNEs' country of origins</b>		
Asia	133	85
USA	14	9
Europe	7	4
Others	2	1
Total	156	100
<b>Legal relationship between MNE subsidiaries and local suppliers</b>		
Affiliated companies	24	15
Independent suppliers	132	85
Total	156	100
<b>Alliance project types</b>		
New product and process development	31	20
Joint R&D project for new product development	28	18
Joint R&D project for new process development	26	17
Supply chain management activities	65	42
Other	6	4
Total	156	100
<b>Titles of respondents 1</b>		
Purchasing manager	66	42
Assistant manager	19	12
Engineering manager	11	7
Supervisor	32	21
Purchasing senior staff		
Total	156	100
<b>Titles of respondents 2</b>		
Purchasing senior staff	90	58
Purchasing staff	59	38
Purchasing analyst/specialist	7	4
Total	156	100

#### **4.13 Construct validity of the variable measurements**

It is important for any researcher to evaluate the ‘accuracy’ or the ‘robustness’ of the study with regard to the applied methods of data gathering and, moreover, the analysis of the collected material. In order to make sure that the quality of the research is sufficiently robust, the research design was carefully planned and this design has been followed throughout (Flynn et al., 1990). In addition, it is important for the researcher to critically evaluate the quality of the research. Means for conducting this evaluation can include a rigorous consideration of: construct validity, internal validity, external validity and statistical conclusion validity (Scandura and Williams, 2000; Easterby-Smith et al., 2008).

**Internal validity** concerns causality. A causal relationship among variables can only be asserted if there is: true co-variation between the variables under investigation, the procedures used to gather the data demonstrate that the cause precedes the effect, and, all alternative explanations have been discarded (Scandura and Williams, 2000). All of these aspects have been included in the present study. Moreover, there is a potential correlation between some pairs of variables, such as inter-organizational trust and inter-personal trust, and strategic performance and operational performance that may lead to multicollinearity problems in the statistical analysis. Therefore, we adopted the variable measuring scale from extant empirical research which clearly shows that there are no autocorrelation problems between trust and performance indicators, (for example, see Zaheer et al., 1998) and Villena et al., 2011). Also, the multicollinearity problem was examined with variance inflation factor (VIF) that shows how much the variance of the coefficient estimate is being inflated by multicollinearity in the data verification process.

**External validity** refers to generalizing across times, settings and individuals. In other words, external validity relies upon establishing a true representation of the relationship between two constructs and that the relationship is generalizable to different populations, measures and circumstances (Scandura and Williams, 2000). This research extends the relational capabilities approach, generalizes the concept and the variable measurements adopted from previous studies in various research settings, and examines their effectiveness in the context of the Thai manufacturing sector. There are three main

concerns arising with regards to research surveys in the field of international business; conceptual equivalence, measurement equivalence and translation equivalence (Rosenzweig, 1994; Meyer, 2007). To mitigate these obstacles regarding the generalizability of management research science, the researcher applied several remedies both in the pre-survey and post-survey phases.

In the variable measurement setting phase, the researcher selected scales from previous empirical research that were operationalised to study the manufacturing buyer-supplier relationships, such as Dyer and Singh (1998), Doney and Cannon (1997), Paulraj et al. (2008). Hence, the sample in this research is equivalent to the samples used in some previous studies. Furthermore, as the technical terms relied upon in the manufacturing sector provide a universally understood set among professional personnel in the industrial buying context, the researcher assumed that the technical terminology in the questionnaire would be clearly understood by the respondents. Moreover, Asian subjects, e.g. Japanese and Thai personnel, were inclined to consistently provide moderate answers that resulted in a tight variance, leading to difficulties in comparing the two populations (Rosenzweig, 1994). Therefore, the researcher overcame this problem by adding “Slightly agree” and “Slightly disagree” to the questionnaire, thereby converting it into a seven-point Likert scale. In the translation phase, the questionnaire was translated from English to Thai in order to help Thai respondents understand the terminology and complete the survey. To evaluate the interpretation equivalence, a Thai native management scholar translated the questionnaire back into English with any inconsistencies being identified and resolved (Tsui et al., 2007). In the pilot study phase, six PhD students from the School of Management, the University of Bath, and three practitioners from the purchasing department of two MNE manufacturers in Thailand reviewed and gave feedback on their comprehension of the questionnaire both in Thai and English. Finally, the questionnaire was distributed to thirteen purchasing managers of MNE manufacturing subsidiaries for a final check of the scale validity. Tests for non-response bias were conducted by comparing the postal with the web-based surveys, and early respondents (response received within the first two weeks) with later respondents (response received in the third week or later). Two-tailed t-tests were conducted on firm size (by size of registered capital), firm nationality group (Asian, American, European

firms and others) and sub-industries. No statistically significant differences between groups were identified at  $p < 0.05$ .

**Statistical conclusion validity** refers to the ability to draw conclusions on the basis of statistical evidence of covariation as well as prediction (Scandura and Williams, 2000). The application of the appropriate statistical test, namely remedies of CMV and having a significant number of samples are the conditions that help enhance statistical conclusion validity of the research. In survey-based studies, common method variance is a widespread concern. This researcher has addressed this issue firstly by collecting data from two different respondents as suggested by Krishnan et al. (2006) which is described more fully above in the questionnaire design subsection. In addition, the researcher performed a Harman's one-factor test, the most widely used technique for addressing common method variance (Podsakoff et al., 2003). All the items of the individual values and the two dependent variables were entered into a principal components factor analysis with varimax rotation. According to this technique, if a factor emerges from the factor analysis or one "general" factor accounts for most of the variance at more than 50 percent, common method variance is deemed present. However, the highest factor accounted for only 21.69 percent of the variance and hence indicated the absence of CMV.

#### **4.14 Data analysis**

The hypotheses of this research require multiple regression and mediation effects to analyse whether trust and asset specificity are antecedents of relational capabilities and this relationship is deemed to improve alliance performance. The econometric approach consists of multiple regression (Ordinary Least Square: OLS) and bootstrapping techniques. The software used for the data analysis is SPSS 20 and AMOS 18. The SPSS is one of the best known and widely employed software packages for statistical analysis of social data (Hosker, 2008) and is used to analyze descriptive statistics, linear regression and simultaneous equation model. Another software, namely AMOS, is a software that is often used for testing confirmatory factor analysis (CFA). Below, the statistical testing procedures for the multiple mediation effect of relational capabilities on the relation between economic and relational conditions and alliance performance are introduced. Linear regression is applied to test antecedents and barriers of relational capabilities. In addition, the bootstrapping technique is adopted to test the mediating effect of relational

capabilities on the relationship between inter-organizational dimensions, namely, trust and asset specificity, and the alliance performance.

#### **4.14.1 Hierarchical regression**

Hierarchical regression is a statistical technique that allows researchers to predict someone's score on one variable on the basis of their scores on several other variables. Regression techniques have long been central to the field of econometrics (Sykes, 1993) and increasingly, they have become important in the social sciences and management research (e.g. Artz and Brush, 2000; Rothaermel and Deeds, 2004; Ruer and Ariño, 2007; Carey et al., 2011). According to Dougherty (2011), hierarchical regression requires a large number of observations. Its intercept represents the constant term, with the slope in each dimension implying one of the regression coefficients in a simple path analysis. The fact that the parameter is "statistically significant" simply means that in conventional tests one can reject the hypothesis that its true value is zero. In hierarchical multiple regression analysis, the researcher determines the order that variables are entered into the regression equation as they may want to control for some variable or group of variables and a multiple regression is performed with these as the independent variables. From this first regression, the researcher has the variance accounted for this corresponding group of independent variables. Then another another multiple regression analysis is run including the original independent variables and a new set, which allows for examination of the contribution latter beyond that of the former.

$R^2$  is a measure of the correlation between the observed value and the predicted value of the criterion variable. This has a simple definition—it is equal to one minus the ratio of the sum of squared estimated errors (the deviation of the actual value of the dependent variable from the regression line) to the sum of squared deviations about the mean of the dependent variable. In essence, this is a measure of how good a prediction of the criterion variable it can make by knowing the predictor variables. The sum of the squared deviations about the regression line is a measure of the extent to which the regression fails to explain the dependent variable (a measure of the noise). Hence, the  $R^2$  statistic is a measure of the extent to which the total variation of the dependent variable *is* explained by the regression (Dougherty, 2011).

In general, hierarchical regression is a technique that allows for additional factors to be entered into the analysis separately so that the effect of each can be estimated and thus it is valuable for quantifying the impact of various simultaneous influences upon a single dependent variable. This research involves applying multiple regression to analyze data as the aim is to develop a model for predicting antecedents and barriers of relational capabilities. This is because this technique can be used to infer causal relationships between these variables as well as to determine the overall fit (variance explained) of the model and the relative power of each of these predictors to explain the total variance.

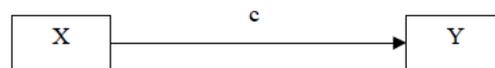
#### **4.14.2 Mediation analysis and Bootstrapping**

According to Barron and Kenny (1986), a mediator is a variable that can significantly account for the relation between the predictor and the criterion of interest. Mediation effect and indirect effect are often used interchangeably and are said to occur when the causal effect of an independent variable (X) on a dependent variable (Y) is transmitted by a mediator (M). In other words, X affects Y because X affects M, and M, in turn, affects Y (Preacher et al., 2007). However, the mediation effect suffers owing to the assumption that the ‘total effect’ from X to Y needs to be present. Nevertheless, the causal steps approach, proposed by Baron and Kenny (1986) is one of the most widely used method for testing hypotheses about intervening variables effects, despite the criticism as well as other highlighted failings (Zhao et al. 2010). For instance, in the assessment of indirect effects, it is quite possible to find that one is significant even when there is no evidence for a significant total effect (Preacher and Hayes 2004). Another criticism of the causal approach is that it is not based on the quantification of the very thing it is attempting to test, i.e. the intervening effect. Hayes (2009) argued that the inferences about the indirect effects should be based on the product of its quantified constituents parts (i.e. based on the values of *a* and *b* in the mediation model). He further contended that it makes more sense to minimize the number of tests one must conduct to support a claim and therefore, the causal steps approach is not the most appropriate approach for the intervening variables tests.

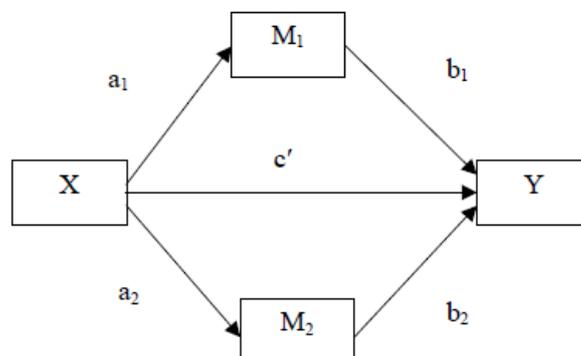
Figure 4.1 demonstrates the total effect, direct effect and indirect effects in the case of an independent variable X, dependent variable Y and two mediating variables M<sub>1</sub> and M<sub>2</sub>, where X’s total effect on Y is referred to as ‘c’. This total effect is interpreted as the

expected amount by which two cases that differ by one unit on X are expected to differ on Y and this direct effect can be a combination of the other indirect effects (Hayes 2009). In figure 4.1 (b),  $a_1$  is the coefficient for X in the model predicting M1 from X, and  $b_1$  is that predicting Y from M1. While  $a_2$  is the coefficient for X in the model predicting M2 from X, and  $b_2$  is that predicting Y from M2.  $c'$  is the coefficient in the model predicting Y from X and it quantifies the direct effect of X, whereas the product of  $a_1$  and  $b_1$  quantifies the specific indirect effect of X on through M1. The product of  $a_2$  and  $b_2$  presents the specific indirect effect of X on Y through M2. The indirect effect is interpreted as the amount by which two cases that differ by one unit on X are expected to differ on Y through X's effect on the mediator variables, which in turn affects Y. The direct effect is interpreted as the part of the total effect of X on Y that is independent of the pathway through M1 and M2. Figure 4.1 (b) presents a multiple mediation model, with the total effect being equal to the direct effect of X on Y plus the sum of the indirect effect through M1 and M2, which can be represented as  $c = c' + a_1b_1 + a_2b_2$ . Finally, the total indirect effect is the sum of the indirect effects, i.e.  $a_1b_1 + a_2b_2$  (Hayes 2009).

**Figure 4.1:** A multiple mediation model: (a) illustration of a direct effect and (b) illustration of a multiple mediation effect (adapted from Preacher and Hayes, 2008).



**(a) Direct effect**



**(b) Indirect effect**

## **Bootstrapping**

A modern approach to test intervening variable effects that are based on the product of the coefficients is bootstrapping (Lockwood and MacKinnon 1998), which is a non-parametric method based on resampling with replacement, which is undertaken many times, e.g. 5000 times. From each of these samples the indirect effect is computed and a sampling distribution can be empirically generated. With the bootstrapping technique, the standard error is not used to interpret the results and hence it avoids the controversy behind estimating the standard errors of the indirect effect. Moreover, it is acknowledged that the bootstrapping doesn't assume normality for the sampling distribution (Hayes 2009).

In this thesis bootstrapping technique is used to test the hypothesised multiple mediation/indirect effects of relational capabilities on the relationship between inter-organizational factors and alliance performance. This involves an empirical representation of the sampling distribution of the indirect effects (i.e. product of the a and b paths) by taking a new sample from the available one and estimating the indirect effects (Preacher and Hayes 2008b). Scholars, such as MacKinnon et al. (2004), Hayes (2009), and Williams and MacKinnon (2008), have concluded that bootstrapping is more robust than the Sobel test and the causal steps method for testing intervening variable effects. Previous empirical research (Fritz and MacKinnon, 2007; MacKinnon et al., 2002) has shown that tends to have greater power and is more appropriate for controlling statistical errors than other peer techniques, especially the Sobel test. It has also been argued that bootstrapping can produce more accurate results in the case of mediation analysis and that it should be used for estimating and testing hypotheses regarding the mediation effect (Efron and Tibshirani, 1998; Lunneborg 2000; Mooney and Duval 1993; Bollen and Stine 1990, Lockwood and MacKinnon 1998). The process yields a percentile-based bootstrap confidence interval, but these are more accurate derived through bias correction or bias correction and acceleration (Stine, 1989; Lunneborg 2000, Preacher and Hayes, 2008a; MacKinnon et al., 2004).

The guidelines provided by Hayes (2009) regarding bootstrapping are adopted in this study using 5,000 bootstrap samples to assess the indirect effects and the bias correction confidence interval process is used. Moreover, the null hypothesis of no indirect effects

is examined by determining whether zero is between the lower and upper bound of the confidence interval. The indirect effect exists if zero is not inside the confidence interval. In this research, the multiple mediation macros created and validated by Preacher and Hayes (2008a) for SPSS/PASW are used to test the indirect effects of governance on the relationship between capability and collaboration. These macros have been effectively used in a number of previous studies (Buffardi and Campbell, 2008; Ruva and McEvoy 2008). The control variables considered for bootstrapping are firm size, relationship duration, type of the firm and the remaining independent variables. The bias corrected 95% confidence intervals are estimated for the significant statistical indirect effects. To test the hypotheses, the point estimates of the indirect effects are only significant in the case where zero is not contained in the confidence intervals. In this study, relational capabilities, including knowledge sharing routines, complementary capability and effective governance, are hypothesised as mediating variables. It is expected that the effect of trust and asset specificity on alliance performance be transmitted via (mediated by) relational capabilities.

#### **4.15 Chapter summary**

The research methodology adopted in this study is explained and justified in this chapter. The research philosophy, strategy and design are discussed in context of the research problem with the alliance project between MNE subsidiaries and local suppliers forming the unit of analysis in this research. This study adopts a survey based research methodology to investigate the relationship between economic and relational dimensions, namely trust and asset specificity, relational capabilities and alliance performance. Thus, the survey design procedures including pilot testing, questionnaire design and data collection administration are presented and the reliability and validity of the research are discussed. Finally, the operationalisation of the variables pertaining to the theoretical model presented in the previous chapter has been explained and justified along with the chosen analysis techniques, including hierarchical regression analysis and bootstrapping.

## **CHAPTER 5**

### **EMPIRICAL ANALYSIS**

#### **5.1 Introduction**

This chapter reports the statistical analysis of the data collected in this research, which is performed with the statistical software package SPSS version 18. The hypotheses developed in Chapter 3 are tested using the data collected in relation to the respondents in the purchasing departments' perspectives on MNE subsidiaries in the Thai manufacturing sector. Section 5.2 describes the confirmatory factor analysis (CFA) technique to decide the measurement scales for the independent and dependent variables as well as examining the bivariate correlations for estimating the possible relations between the different variables employed in this study. The multiple mediation test (or, indirect effect) of relational capabilities on the relation between economic and relational dimensions and alliance performance is described in section 5.3.

#### **5.2 Validity and reliability**

Two tests were used to check the validity of the multiple measures: (1) Cronbach's alpha and (2) bivariate correlation between the scales used in the study with the main factor extracted from the multiple items. All the constructs in the framework were subjected to a systemic assessment to test the validity and reliability. That is, the terms of each factor were examined in the context of the conceptual framework to determine that those loaded onto the factor were theoretically consistent and no case of conceptual inconsistency was found. The content validity of each scale was already examined during the pilot study stage. The internal consistency of the scale is important to ensure that the items that make up the scale 'hang together' (Pallant 2007). That of the variables was examined using reliability analysis of the scale through Cronbach alpha coefficients ranging between 0 and 1. The closer the coefficient is to 1.0 the greater the internal consistency of the items on the scale (Hair et al. 2006).

Next, the internal consistency of the constructs was validated also using Cronbach's alpha as knowledge sharing routines, complementary capability, effective governance mechanisms scored 0.82, 0.83 and 0.84, respectively, thus indicating a reasonable level of reliability. The internal consistency of the relational and economic dimensions,

including inter-personal trust (0.86), inter-organizational trust (0.86), and asset specificity (0.84), confirmed a reasonable level of reliability. Also, the scores of operational performance and strategic performance are 0.84 and 0.85, respectively, thereby revealing a reasonable of reliability. These reported alphas were all bigger than the minimum required for the psychometric property (0.60) (Nunnally, 1978).

### **5.2.1 Bivariate correlation**

Bivariate correlations were used to examine the nature of the relationship between the variables in the theoretical framework. Pearson correlation ( $r$ ) is the most commonly used bivariate correlation technique, which measures the association between two quantitative variables without distinction between the independent and dependent variables and the value of coefficient ( $r$ ) exhibits between -1 and +1. Malhotra and Grover (1998) suggested that an  $r$  greater than 0.8 indicates that the variables are highly correlated and hence, there is a multicollinearity issue. Table 5.1 shows the Pearson correlation values of the bivariate correlation between the variables in this study and it can be seen that the all the coefficients are below 0.72, which is under the limit of 0.8 for there being potential multicollinearity problems.

In table 5.1, alliance experiences has a significant correlation with inter-organizational trust ( $r = 0.320$ ), asset specificity ( $r = 0.405$ ), knowledge sharing routines ( $r = 0.306$ ), complementary capabilities ( $r = 0.253$ ), effective governance mechanisms ( $r = 0.314$ ), operational performance ( $r = 0.389$ ) and strategic performance ( $r = 0.459$ ). These significant relationships are consistent with those found in some of the literature (Heimeriks et al., 2004; Krishnan et al., 2006; Dyer and Kale, 2007). Moreover, alliance project types is positively correlated with strategic performance ( $r = 0.168$ ), which indicates that the more complicated the nature of the project the better the strategic outcomes. Further, HR distance and strategic performance are significantly negatively correlated ( $r = -0.185$ ), but there is no significant relationship between the former and the other variables. In particular, no significant correlation is found between this variable and relational capabilities. The correlation between inter-organizational trust and inter-personal trust ( $r = 0.503$ ) as well as asset specificity ( $r = 0.305$ ) is positive, as is also the case between the latter two ( $r = 0.339$ ).

**Table 5.1 Means, Standard Deviations, and Correlations of variables**

	Mean	S.D.	Cronbach $\alpha$	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
(1) Interfirm_length	8.208	4.816	NA	1															
(2) Alliance_length	.601	.3532	NA	.410**	1														
(3) Alliance experience	13.192	4.548	NA	.059	.077	1													
(4) Supplier dependency	.256	.438	NA	.097	.108	-.057	1												
(5) Firm size	.836	.279	NA	.021	-.030	-.012	.153	1											
(6) Sub-industries	1.916	.709	NA	.029	-.006	-.009	-.134	-.099	1										
(7) Project Types	3.019	1.193	NA	-.080	.041	-.122	-.042	.128	-.090	1									
(8) HR distance	1.806	1.823	NA	.012	-.053	-.130	-.093	.109	.033	.007	1								
(9) Inter-organizational trust	19.692	4.134	.861	.132	.012	.320**	.151	.053	-.077	.017	-.143	1							
(10) Inter-personal trust	14.538	3.589	.860	.090	.017	.100	-.073	-.066	-.018	.088	.002	.503**	1						
(11) Asset specificity	19.346	7.319	.840	.057	.113	.405**	-.142	-.125	-.008	.124	-.122	.305**	.339**	1					
(12) Knowledge sharing	21.596	6.638	.825	.128	.036	.306**	-.023	-.082	-.035	.057	-.149	.406**	.449**	.711**	1				
(13) Complementary capability	23.634	6.156	.831	.067	-.026	.253**	-.075	-.018	.027	.059	-.083	.408**	.530**	.597**	.721**	1			
(14) Effective governance	27.044	7.911	.842	.083	-.013	.314**	.124	.001	-.097	.048	-.086	.185*	.150*	.584**	.676**	.605**	1		
(15) Operational performance	23.987	5.743	.848	.015	.002	.389**	.055	.009	-.075	.115	-.014	.450**	.348**	.420**	.446**	.426**	.111*	1	
(16) Strategic performance	21.826	6.927	.859	.060	.014	.459**	.051	.069	.001	.168*	-.185*	.267**	.226**	.433**	.342**	.410**	.105*	.700**	1

\*p < 0.05, \*\*p < 0.01 and \*\*\*p < 0.001

As expected, a significant relation is also found between trust and relational capabilities. That is, inter-personal trust is positively correlated with relational capabilities with its component parts having the following correlation coefficients: knowledge sharing routines,  $r = 0.449$ , complementary capability,  $r = 0.530$ , and effective governance capability,  $r = 0.150$ . Moreover inter-personal trust has a significantly positive association with alliance performance, as its item scores are: operational performance,  $r = 0.450$ , and strategic performance,  $r = 0.267$ . Similarly, inter-organizational trust is positively correlated with knowledge sharing routines ( $r = 0.406$ ), complementary capability ( $r = 0.408$ ), effective governance mechanisms ( $r = 0.185$ ), operational performance ( $r = 0.348$ ) and strategic performance ( $r = 0.226$ ). Furthermore, it is evident that asset specificity has a significant moderate relationship with knowledge sharing routines ( $r = 0.711$ ), complementary capability ( $r = 0.597$ ), effective governance capability ( $r = 0.584$ ), which was anticipated in the sense that alliances with greater asset specificity tend to engage more in collaborative routines and capabilities with alliance partners. Asset specificity also has positive correlation with operational performance ( $r = 0.420$ ) and strategic performance ( $r = 0.433$ ). The different types of relational capabilities, including knowledge sharing routines, complementary capability and effective governance mechanisms are moderately related to each other, which was also expected because the activities involved in different types of collaboration are not mutually exclusive and they are carried out by the same staff in the organisation.

In this study, operational performance and strategic performance were chosen as the dependent variables. A confirmatory factor analysis (CFA) was conducted using AMOS 18 to estimate the measurement properties of the multi-item constructs and the results of the second CFA test regarding these are presented in Table 5.2 and Table 5.3, respectively. Regarding operational performance, the measurement of this variable in the model shows a good fit to the data. That is, as can be seen the statistical results are  $\chi^2(503) = 885.522$ ;  $CMIN/DF = 1.760$ ; Tucker-Lewis Index (TLI) = 0.901; comparative fit index (CFI) = 0.911; and the root mean square error of approximation (RMSEA) = 0.07, all of which support a strong model fit. In relation to strategic performance, the measurement model also revealed a good fit of the model to the data, with results being:  $\chi^2(472) = 851.004$ ;  $CMIN/DF = 1.803$ ; Tucker-Lewis Index (TLI) = 0.901; comparative fit index (CFI) = 0.912; and the root mean square error of approximation (RMSEA) =

0.07. All factor loadings were in excess of the commonly accepted 0.40 standard (Anderson and Gerbing, 1988).<sup>1</sup>

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<sup>1</sup> There are twelve items of all variable measurements in the questionnaires that have factor loadings lower than 0.40. One plausible explanation is that the background of this study, namely alliance projects in Thai manufacturing sector, would make these individual items less relative and redundant to the concept of this study. As discussed in Chapter 2, alliance project levels have distinct the lower-level project organization issues since they have narrow scope and dynamic relationship between alliance partners. Consequently, the respondent population answered the questions differently than other studies due to the context of the relationship. Therefore, these items may naturally drop off if others are stronger and more fitting to the concept of this research. Those items that were removed from the analysis in order to improve model fit are as follows:

*OT5: Your company trust that confidential/proprietary information shared with the supplier will be kept strictly confidential by the supplier's sales and engineers, OT6: Your company provided recent detailed cost data to the supplier, OT7: Your company share information with the supplier on your long-term production plans, capital investments, and capacity utilization, PT4: You have faith in your contact person to look out for your interests even when it is costly to do so, PT5: You would feel a sense of betrayal if your contact person's performance was below your expectations, C1: There is high complementary between the resources/capabilities of the two partners, C2: The organizational cultures of the two partners are compatible with each other, G2: The formal documents, i.e. balance sheet, monthly report, service level agreements, are highly used in monitoring the performance of the supplier, G5: Disagreements between your company and the supplier will be only resolved with informal meeting between cooperation managers or project groups, A6: Your company has changed the extent of training needed for staff, A7: Your company has difficulty to redeploy people and facilities serving the alliance, and A8: It is important that this alliance continues, as termination will result in financial losses due to your investments.*

**Table 5.2 Confirmatory factor analysis****Dependent variable: Operational performance**

<b>Multi-construct Variables</b>	<b>Measurements</b>	<b>Loadings</b>	<b>S.E.</b>
Inter-organizational trust (Zaheer et al., 1998)	OT1: This supplier is trustworthy.	1.000	
	OT2: This supplier has always been even handed in its negotiation with us.	1.006	0.095
	OT3: This supplier never uses opportunities that arise to profit at our expense.	1.070	0.102
	OT4: Your company is not hesitant to transact with this supplier when the specifications are vague.	0.730	0.145
Inter-personal trust (Zaheer et al., 1998)	PT1: The contact person of this alliance has always been even handed in negotiations with you.	1.000	
	PT2: You know how your contact person is going to act. S/he can always be counted on to act as you expect.	0.906	0.063
	PT3: Your contact person is trustworthy.	0.853	0.064
Asset specificity (Subramani & Venkatraman, 2003; Zhou & Poppo, 2010)	A1: Your company has changed the location of the distribution facilities used in supplying products and services for this supplier	1.000	
	A2: Your company has changed your manufacturing equipment and machinery.	0.831	0.081
	A3: Your company has changed your inventory and warehouse.	0.967	0.072
	A4: Your company has changed your software and applications used (e.g., billing, inventory management, EDI etc.)	1.023	0.077
	A5: Your company has changed your administrative and operating procedures used (e.g. vendor selection, cost accounting procedures, shipping procedures etc.)	0.895	0.083
Knowledge sharing routines (Dyer, 1997)	K1: Your company and this supplier conducted a collective review to assess the progress and performance of the strategic alliances.	1.000	
	K2: Your company and this supplier participated in forums, such as committees or task forces, to take stock of their alliance management experience and practices.	1.080	0.064
	K3: Your company and this supplier participated in forums, such as meetings, seminars, or retreats, to exchange alliance-related issues (e.g. buyer and this suppliers employees jointly participated in someone else's programmes)	1.064	0.070

**Table 5.2 Confirmatory factor analysis (Continued)**

Multi-construct Variables	Measurements	Loadings	S.E.	
	K4: Your company and this supplier engaged in informal sharing and exchange of alliance-related information and know-how with peers or colleagues within the organization.	0.770	0.079	
	K5: Your company and this supplier engaged in informal sharing and exchange of alliance-related information and know-how with peers or colleagues within the organization.	0.686	0.095	
Complementary capability (Kale et al., 2000)	C3: The organizational cultures of the two partners are compatible with each other	1.000		
	C4: The management and operating styles of the partners are compatible with each other	1.067	0.065	
	C5: Your company learnt or acquired some new or important information from the partner	1.318	0.091	
	C6: Your company learnt or acquired some critical capability or skill from the partner	1.304	0.091	
	C7: This alliance has helped your company to enhance its existing capabilities/skills	1.303	0.096	
Effective governance mechanisms (Mesquita et al., 2008)	G1: The formal contract/agreement is highly customized and required considerable legal work.	1.000		
	G3: Face-to-face meetings at the top management level are highly used in monitoring the performance of the supplier	1.071	0.122	
	G4: Disagreements between your company and the supplier will be only resolved with the formal contracts or agreements	0.892	0.115	
	G6: Your company and this supplier keep each other informed in relation to production plans, schedules and demand forecasts	0.784	0.109	
	G7: Your company and this supplier extend technical support during emergencies and breakdown and/or onsite support for implementation of improvements	0.999	0.117	
	G8: Your company and this supplier promote fair sharing of cost savings and benefits arising out of joint efforts.	0.919	0.106	
	Operational performance (Villena et al, 2010)	OP1: Your company has continued to be able to improve product design performance through this alliance.	1.000	
		OP2: Your company has continued to be able to improve process design through this alliance.	0.965	0.065
OP3: Your company has continued to be able to improve product quality through this alliance.		0.756	0.090	
OP4: Your company has continued to reduce lead time after the alliance.		0.810	0.089	
OP5: Your company has continued to increase delivery time reliability through this partnership after the alliance.		0.915	0.091	
OP7: Your company has continued to be able to improve your manufacturing flexibility through this alliance.		0.970	0.093	

**Model Fit:**  $X^2$  (503) = 885.522; CMIN/DF = 1.760, TLI = 0.901, CFI = 0.911, RMSEA = 0.07.

**Table 5.3 Confirmatory factor analysis****Dependent variable: Strategic performance**

<b>Multi-construct Variables</b>	<b>Measurements</b>	<b>Loadings</b>	<b>S.E.</b>
Inter-organizational trust (Zaheer et al., 1998)	OT1: This supplier is trustworthy.	1.000	
	OT2: This supplier has always been even handed in its negotiation with us.	1.015	0.096
	OT3: This supplier never uses opportunities that arise to profit at our expense.	1.066	0.103
	OT4: Your company is not hesitant to transact with this supplier when the specifications are vague.	0.723	0.146
Inter-personal trust (Zaheer et al., 1998)	PT1: The contact person of this alliance has always been even handed in negotiations with you.	1.000	
	PT2: You know how your contact person is going to act. S/he can always be counted on to act as you expect.	0.904	0.063
	PT3: Your contact person is trustworthy.	0.853	0.064
Asset specificity (Subramani&Venkatraman, 2003; Zhou & Poppo, 2010)	A1: Your company has changed the location of the distribution facilities used in supplying your supplying products and services for this supplier	1.000	
	A2: Your company has changed your manufacturing equipment and machinery.	0.837	0.081
	A3: Your company has changed your inventory and warehouse.	0.962	0.072
	A4: Your company has changed your software and applications used (e.g. billing, inventory management, EDI etc.)	1.029	0.077
	A5: Your company has changed your administrative and operating procedures used (e.g. vendor selection, cost accounting procedures, shipping procedures etc.)	0.897	0.084
Knowledge sharing routines (Dyer, 1997)	K1: Your company and this supplier conducted a collective review to assess the progress and performance of the strategic alliances.	1.000	
	K2: Your company and this supplier participated in forums such as committees or task forces to take stock of their alliance management experience and practices.	1.080	0.064
	K3: Your company and this supplier participated in forums such as meetings, seminars, or retreats to exchange alliance-related issues (e.g. buyer and this suppliers employees jointly participated in someone else's programmes)	1.064	0.070
	K4: Your company and this supplier engaged in informal sharing and exchange of alliance-related information and know-how with peers or colleagues within the organization.	0.771	0.079
	K5: Your company and this supplier engaged in informal sharing and exchange of alliance-related information and know-how with peers or colleagues within the organization.	0.685	0.095

**Table 5.3 Confirmatory factor analysis (Continued)**

Multi-construct Variables	Measurements	Loadings	S.E.
Complementary capability (Kale et al., 2000)	C3: The organizational cultures of the two partners are compatible with each other	1.000	
	C4: The management and operating styles of the partners are compatible with each other	1.066	0.065
	C5: Your company learnt or acquired some new or important information from the partner	1.318	0.092
	C6: Your company learnt or acquired some critical capability or skill from the partner	1.305	0.091
	C7: This alliance has helped your company to enhance its existing capabilities/skills	1.304	0.096
Effective governance mechanisms (Mesquita et al., 2008)	G1: The formal contract/agreement is highly customized and required considerable legal work.	1.000	
	G3: Face-to-face meetings at the top management level are highly used in monitoring the performance of the supplier	1.073	0.122
	G4: Disagreements between your company and the supplier will be only resolved with the formal contracts or agreements	0.892	0.115
	G6: Your company and this supplier keep each other informed in relation to production plans, schedules and demand forecasts	0.786	0.109
	G7: Your company and this supplier extend technical support during emergencies and breakdown and/or onsite support for implementation of improvements	0.996	0.117
	G8: Your company and this supplier promote fair sharing of cost savings and benefits arising out of joint efforts.	0.916	0.106
	Strategic performance (Villena et al., 2010)	ST1: Your company has continued to be able to introduce a new generation of products.	1.000
ST2: Your company has continued to be able to extend product range.		0.993	0.060
ST3: Your company has continued to be able to open up new markets.		1.030	0.058
ST4: Your company has continued to be able to enter new technology fields.		0.867	0.069
ST5: Your company has continued to be able to learn about customers and markets for your products.		0.821	0.064

**Model Fit:**  $X^2(472) = 851.004$ ;  $CMIN/DF = 1.803$ ,  $TLI = 0.901$ ;  $CFI = 0.912$ ;  $RMSEA = 0.07$ .

### 5.2.3 Common method variance and multicollinearity

In survey-based studies, common method variance is a major concern. This researcher has addressed this issue, firstly, by collecting data from two different respondents at different levels in each company. For instance, the inter-personal trust variable was collected from purchasing staff, while the inter-organizational trust variable was collected from purchasing managers. The moderators were collected from various

sources, including HR distance from archival data, alliance mode, which is a dummy variable, from purchasing managers and tangible and intangible asset specificity from purchasing staff. A Harman one-factor test, the most widely used technique for addressing common method variance (Podsakoff et al., 2003), was also performed this single factor accounted for only 21.7 percent of the variance, which is well below the cut off at 50 percent and hence consistent with the absence of such variance.

Moderated hierarchical regressions were applied to test how the trust-knowledge sharing relationship is influenced by transaction cost factors and the estimation method used was ordinary least squares. In addition, all variables utilized to construct the interaction terms were standardized so as to eliminate the initial multicollinearity problem in the estimated model. With this correction, the maximum variance inflation factor (VIF) across the covariates was 3.89, which is significantly below the rule of thumb of 10 used to detect a multicollinearity problem.

### **5.3 Research findings**

#### **5.3.1 Antecedents of relational capabilities**

The results of the regression analysis of the model described earlier are reported in Table 6.3, Table 5.4 and Table 5.5. Hypotheses 1, 2 and 3 purported that the high levels of inter-personal trust, inter-firm trust and asset specificity lead to relational capabilities. On the other hand, hypothesis 4 proposed that a high level of HR distance hampers relational capabilities. These hypotheses were tested using hierarchical regression. In the first step, all of the control variables were entered into the regression equations, which tested the effects of these variables and relational factors, including: firm size, inter-organizational duration length, previous alliance experiences and sub-industries. It emerged that previous alliance experiences has a significant positive relationship with knowledge sharing routines, complementary capability and effective governance capability as suggested by the literature (Kale et al., 2000; Heimeriks, 2004). Also, supplier dependence has a significant positive effect on complementary capability. In the second step, the overall degree of inter-personal trust, inter-firm trust, asset specificity and HR distance were entered into the regression equations.

**Table 5.4 Regression results for antecedents and barriers of knowledge sharing routines**

	Step 1		Step 2	
	$\beta$	t	$\beta$	t
Intercept	17.109	5.109**	1.790	0.601
<b>Control variables</b>				
Inter-firm_length	0.156	1.243	0.125	1.344
Previous alliance experiences	0.445	3.912**	0.030	0.324
Project types	0.026	0.059	0.001	0.004
Firm size	-0.915	-1.040	-0.126	-0.190
Sub-industries	-0.450	-0.619	-0.184	-0.344
Alliance_length	-0.028	-0.223	-0.101	-1.090
Supplier dependency	1.585	1.349	0.033	0.037
<b>Main effects</b>				
Inter-personal trust			0.321	2.560*
Inter-organizational trust			0.284	2.550*
Asset specificity			0.500	8.234**
HR_Distance			-0.205	-0.966
R <sup>2</sup>		0.125		0.543
Adjusted R <sup>2</sup>		0.084		0.509
F		3.024*		15.581**

\*p < 0.05, \*\*p < 0.01

Table 5.3 shows the results of the antecedents and barriers of knowledge sharing routines. Step 1 indicates that only previous alliance experiences has a significant effect on knowledge sharing routines, whereas the results from step 2 show that inter-personal trust ( $\beta = 0.32$ ,  $p < 0.05$ ), inter-organizational trust ( $\beta = 0.28$ ,  $p < 0.05$ ) and asset specificity ( $\beta = 0.50$ ,  $p < 0.01$ ) have significant effects. The results confirm hypotheses H1a, H2a and H3a and suggest that the relational dimension, namely, inter-personal trust and inter-organizational trust, and economic dimension, namely, asset specificity, are antecedents of knowledge sharing routines. On the other hand, it appears that HR distance (H4a) does not have a significant impact on knowledge sharing routines, which leads to rejection of the hypothesis that HR distance is a barrier of knowledge sharing routines.

**Table 5.5 Antecedents and barriers of complementary capability**

	Step 1		Step 2	
	$\beta$	t	$\beta$	t
Intercept	16.138	5.151**	1.332	0.464
<b>Control variables</b>				
Inter-firm_length	0.115	0.985	0.082	0.913
Previous alliance experiences	0.377	3.542**	0.068	0.755
Project types	0.545	1.330	0.474	1.511
Firm size	0.228	0.277	0.567	0.887
Sub-industries	0.251	0.369	0.436	0.849
Alliance_length	-0.117	-0.999	-0.126	-0.981
Supplier dependency	2.262	2.058*	1.280	1.493
<b>Main effects</b>				
Inter-personal trust			0.378	4.785**
Inter-organizational trust			0.214	2.065*
Asset specificity			0.378	6.455**
HR_Distance			-0.044	-0.213
R <sup>2</sup>		0.109		0.508
Adjusted R <sup>2</sup>		0.067		0.470
F		2.597*		13.514**

\*p < 0.05, \*\*p < 0.01

Table 5.4 presents the results of the antecedents and barriers of complementary capability. In step 1, previous alliance experiences and supplier dependence have a positively significant impact this capability. The results from step 2 shows that inter-personal trust ( $\beta = 0.38$ ,  $p < 0.01$ ), inter-organizational trust ( $\beta = 0.21$ ,  $p < 0.05$ ) and asset specificity ( $\beta = 0.38$ ,  $p < 0.01$ ) have a significant impact on complementary capability, which confirms hypotheses H2a, H2b and H2c. That is, these results indicate that the relational dimension, namely, inter-personal trust and inter-organizational trust, as well as the economic dimension, namely asset specificity, are antecedents of complementary capability. However, it is apparent that HR distance (H4b) does not have a significant impact on complementary capability, which calls for the rejection of the hypothesis that HR distance is a barrier of complementary capability.

**Table 5.6 Antecedents and barriers of effective governance capability**

	Step 1		Step 2	
	$\beta$	t	$\beta$	t
Intercept	21.730	5.603**	7.769	1.958
<b>Control variables</b>				
Inter-firm_length	0.194	1.335	0.179	1.442
Previous alliance experiences	0.628**	4.761	0.258	2.073*
Project types	0.453	0.892	0.399	0.920
Firm size	0.209	0.205	0.596	0.674
Sub-industries	-1.384	-1.644	-1.175	-1.654
Alliance_length	-0.095	-0.658	-0.172	-1.404
Supplier dependency	1.701	1.249	0.366	0.309
<b>Main effects</b>				
Inter-personal trust			0.331	1.983*
Inter-organizational trust			0.162	1.091
Asset specificity			0.491	6.075**
HR_Distance			-0.045	-0.158
R <sup>2</sup>		0.173		0.430
Adjusted R <sup>2</sup>		0.134		0.387
F		4.438**		9.885**

\* $p < 0.05$ , \*\* $p < 0.01$

Table 5.5 shows the results of the antecedents and barriers of effective governance mechanisms. In step 1, previous alliance experiences has a positively significant impact on effective governance mechanisms, whilst the results from step 2 show that inter-personal trust ( $\beta = 0.33$ ,  $p < 0.05$ ) and asset specificity ( $\beta = 0.49$ ,  $p < 0.01$ ) have a significant impact on complementary capability, which confirms hypotheses H3a and H3c. Furthermore, the findings show that the relational dimension, namely, inter-personal trust and inter-organizational trust, as well as the economic dimension, namely, asset specificity, are antecedents of effective governance mechanisms. However, it emerges that HR distance (H4c) does not have a significant impact on effective governance mechanisms, thus leading to rejection of the hypothesis that HR distance is a barrier of effective governance mechanisms.

In sum, the results provide consistent support for Hypotheses 1 and 3; the degree of inter-personal trust and asset specificity are positively related to knowledge sharing routines, complementary capability and effective governance capability. However, hypothesis 2 is only partially supported as inter-firm trust has no significant impact on effective governance capability. No significant effect of HR distance has been found on relational capabilities and hence, hypothesis 4 is rejected.

### **5.3.2 Mediating variable bootstrapping results**

The mediating effects of relational capabilities on three causal relationships were analysed, these being 1) inter-personal relationship and alliance performance; 2) inter-organizational trust and alliance performance; 3) asset specificity and alliance performance. Regarding this, eight control variables were identified and examined in each model: firm size, inter-firm duration length, previous alliance experiences, alliance project types, sub-industries, supplier dependency and HR distance, with the results of bootstrapping being shown in Table 5.6. The results of the bootstrapping analysis of mediation effects are reported in Table 5.7 and Table 5.8.

Overall, only two control variables would appear to have a significant effect on alliance performance. That is, in the first model, previous alliance experiences has a significant positive impact on operational performance ( $\beta = 0.4380$ ,  $p < 0.01$ ) and strategic performance ( $\beta = 0.6130$ ,  $p < 0.01$ ), whilst alliance project type experiences does so on strategic performance ( $\beta = 1.1281$ ,  $p < 0.01$ ). In the second model, previous alliance experiences has a significant positive impact on operational performance ( $\beta = 0.3738$ ,  $p < 0.01$ ) and strategic performance ( $\beta = 0.5995$ ,  $p < 0.01$ ), whereas alliance project type experiences has this result regarding strategic performance ( $\beta = 1.1232$ ,  $p < 0.01$ ). In the third model, previous alliance experiences has a significant positive impact on operational performance ( $\beta = 0.3969$ ,  $p < 0.01$ ) and strategic performance ( $\beta = 0.5404$ ,  $p < 0.01$ ). Moreover, alliance project types experiences has a significant positive impact on strategic performance ( $\beta = 1.2730$ ,  $p < 0.01$ ). While this is not a main contribution or even an initial focus of this study, these findings highlight the notable effect that these control variables have on alliance performance, which is returned to in Chapter 6.

**Table 5.7 Control variables of inter-personal trust**

Control variables	Operational performance		Strategic performance	
	$\beta$	t	$\beta$	t
Inter-firm_length	-0.0504	-0.5327	-0.0965	-0.8444
Alliance_length	-0.0131	-0.1385	-0.0544	-0.4779
Supplier dependency	1.3125	1.4502	-0.4050	-0.3709
HR Distance	0.2686	1.2392	-0.4175	-1.5969
Firm size	0.3154	0.4710	0.0175	0.0217
Project types	0.5538	1.6433	1.1281**	2.7751
Sub-industries	-0.6366	-1.1433	0.1934	0.2880
Previous alliance experiences	0.4380**	4.7338	0.6130**	5.4918

\*p < 0.05, \*\*p < 0.01

**Table 5.8 Control variables of inter-organizational trust**

Control variables	Operational performance		Strategic performance	
	$\beta$	t	$\beta$	t
Inter-firm_length	-0.0837	-0.9003	-0.1038	-0.9023
Alliance_length	0.0022	0.0242	-0.0513	-0.4513
Supplier dependency	0.7808	0.8848	-0.5142	-0.4712
HR Distance	0.3671	1.7322	-0.3970	-1.5148
Firm size	-0.1075	-0.1634	-0.0706	-0.0868
Project types	0.5365	1.6354	1.1232**	2.7686
Sub-industries	-0.5742	-1.0573	0.2077	0.3093
Previous alliance experiences	0.3738**	4.0856	0.5995**	5.2990

\*p < 0.05, \*\*p < 0.01

**Table 5.9 Control variables of asset specificity**

Control variables	Operational performance		Strategic performance	
	$\beta$	t	$\beta$	t
Inter-firm_length	-0.0229	-0.2385	-0.0505	-0.4500
Alliance_length	-0.0302	-0.3138	-0.1080	-0.9603
Supplier dependency	1.0190	1.1232	-0.6688	-0.6310
HR Distance	0.2892	1.3293	-0.4237	-1.6671
Firm size	0.3280	0.4854	0.2539	0.3216
Project types	0.6642	1.9515	1.2730**	3.2014
Sub-industries	-0.6710	-1.1992	0.1970	0.3014
Previous alliance experiences	0.3969**	4.1611	0.5404**	4.8492

\*p < 0.05, \*\*p < 0.01

However, other control variables, including including firm size, HR distance, duration of inter-firm relationship, industries, alliance project duration and supplier dependence, have no significant impact on either operational performance or strategic performance. The significant effects of alliance project types and previous alliance experiences as well as the non-significant impact of the other control variables are discussed further in the next chapter.

**Table 5.10 Bootstrapping for mediation effects of relational capabilities on operational performance**

	<b>Independent variable</b>	<b>Mediators</b>	<b>Specific indirect effect</b>	<b>Bootstrapping (BC 95% CI)</b>	
	(IV)	(M)	(a*b)	Lower	Upper
1	Inter-personal trust	Knowledge sharing routines	0.2220*	0.0930	0.4889
		Complementary capability	0.0091	-0.0598	0.3007
		Effective governance capability	0.0031	-0.3246	0.0106
		<b>Total indirect effect</b>	0.2342*	0.0847	0.4440
2	Inter-organizational trust	Knowledge sharing routines	0.1472*	0.0465	0.3407
		Complementary capability	0.0105	-0.0034	0.2043
		Effective governance capability	0.0030	-0.2102	0.0068
		<b>Total indirect effect</b>	0.1607*	0.0670	0.2953
3	Asset specificity	Knowledge sharing routines	0.1365*	0.0642	0.3048
		Complementary capability	0.0110	-0.0189	0.1821
		Effective governance capability	0.0026	-0.2272	0.0101
		<b>Total indirect effect</b>	0.1501*	0.0410	0.2663

BC – Bias corrected, CI – confidence interval; 5,000 bootstrap samples

Table 6.7 shows that in case of inter-personal trust, the specific indirect effects through knowledge sharing routines, complementary capability and effective governance capability on operational performance are significant with point estimates (a\*b) of

0.2220, 0.0091 and 0.0031, respectively. Moreover, the total indirect effect through relational capabilities is significant with a point estimate of 0.2342 and a 95% CI of 0.0847 to 0.4440. Taking into account each mediating variable is important for understanding the significant difference between the indirect effects of the relational capabilities components, the indirect effects through complementary capability and effective governance capability are found to have zero within the results range, with BC 95% CI  $\{-0.0598, 0.3007\}$  and  $\{-0.3246, 0.0106\}$ , respectively, which leads to rejection of hypotheses 6a and 7a. In contrast, regarding the specific indirect effect through knowledge sharing routines it is found that no zero is contained in the BC 95% CI  $\{0.0930, 0.4889\}$ . Therefore, knowledge sharing routines has a mediating effect on the relationship between inter-personal trust and operational performance, which supports hypothesis 5a.

In the case of inter-organizational trust, the specific indirect effects through knowledge sharing routines, complementary capability and effective governance capability on operational performance are significant with point estimates ( $a*b$ ) of 0.1472, 0.0105 and 0.0030 respectively. Moreover, the total indirect effect through relational capabilities is significant with the point estimate of 0.1607 and the 95% CI of 0.0670 to 0.2953. In relation to the indirect effects through complementary capability and effective governance capability it emerges that zero covered for both, with BC 95% CI  $\{-0.0034, 0.2043\}$  and  $\{-0.2102, 0.0068\}$ , respectively, which results in the rejection of hypotheses 9a and 10a. Whereas for the specific indirect effect through knowledge sharing routines no zero is contained in the BC 95% CI  $\{0.0465, 0.3407\}$ , which therefore indicates that knowledge sharing routines has a mediating effect on the relationship between inter-organizational trust and operational performance, thus providing support for hypothesis 8a.

With respect to asset specificity, the specific indirect effects through knowledge sharing routines, complementary capability and effective governance capability on operational performance are significant with point estimates ( $a*b$ ) of 0.1365, 0.0110 and 0.0026, respectively. Further, the total indirect effect through relational capabilities is significant with a point estimate of 0.1501 and a 95% CI of 0.0410 to 0.2663. Regarding the indirect effects through complementary capability and effective governance capability it is found that zero is contained, with BC 95% CI  $\{-0.0189, 0.1821\}$  and  $\{-0.2272, 0.0101\}$ , respectively. Hence in this case, the bootstrap findings provide no evidence to support

hypotheses 12a and 13a. Whereas for the specific indirect effect through knowledge sharing routines no zero is contained in the BC 95% CI {0.0642, 0.3048}, which infers that knowledge sharing routines has a mediating effect on the relationship between asset specificity and operational performance, thus supporting hypothesis 11a.

According to Table 5.11, the total indirect effect of inter-personal trust through knowledge sharing routines, complementary capability and effective governance capability on strategic performance is significant with a point estimate of 0.2837 and CI of 0.1186 to 0.5199. The BC 95% CIs for the specific indirect effect through knowledge sharing routines and effective governance mechanisms are {-0.1586, 0.2666} and {-0.2148, 0.1358}, respectively. As zero is contained in this interval, the specific indirect effect through these two mediators is not significant, which thus provides no evidence to support hypothesis 5b and 7b. However, the specific indirect effect through complementary capability is significant with a point estimate of 0.2264 and a CI of 0.0715 to 0.2093. Therefore, inter-personal trust has a significant indirect effect on strategic performance through complementary capability, which provides evidence in support of hypothesis 6b.

**Table 5.11 Bootstrapping for mediation effects of relational capabilities on strategic performance**

	<b>Independent variable</b>	<b>Mediators</b>	<b>Specific indirect effect</b>	<b>Bootstrapping (BC 95% CI)</b>	
	(IV)	(M)	(a*b)	Lower	Upper
1	Inter-personal trust	Knowledge sharing routines	0.0375	-0.1586	0.2666
		Complementary capability	0.2264*	0.0715	0.5494
		Effective governance capability	0.0198	-0.2148	0.1358
		<b>Total indirect effect</b>	0.2837*	0.1186	0.5199
2	Inter-organizational trust	Knowledge sharing routines	0.0162	-0.1289	0.1880
		Complementary capability	0.1361*	0.0410	0.3456
		Effective governance capability	0.0077	-0.1396	0.0872
		<b>Total indirect effect</b>	0.1600*	0.0352	0.3247
3	Asset specificity	Knowledge sharing routines	0.0171	-0.1984	0.1294
		Complementary capability	0.1255*	0.0188	0.2462
		Effective governance capability	0.0107	-0.1643	0.0882
		<b>Total indirect effect</b>	0.1553*	-0.0475	0.1860

BC – Bias corrected, CI – confidence interval; 5,000 bootstrap samples

After testing for the indirect effects of inter-organizational trust through knowledge sharing routines and effective governance capability on strategic performance, the confidence CI values are found to be in the range of {-0.1289, 0.1880} and {-0.1396, 0.0872}, respectively. As zero is within these two confidence intervals, the specific indirect effect of knowledge sharing routines and effective governance are not found to

be significant, which means that hypotheses 8b and 10b fall. However, the specific indirect effects of inter-organizational trust through complementary capability on strategic performance is significant with a point estimate ( $a*b$ ) of 0.1361 and a CI of {0.0410, 0.3456}, which does not contain zero. This means that inter-organizational trust has a significant indirect effect on strategic performance through complementary capability and hence, hypothesis 9b is accepted.

In case of asset specificity, the specific indirect effects through knowledge sharing routines and effective governance capability on strategic performance are not significant, with point estimates ( $a*b$ ) of 0.0171 and 0.0107 and CIs of {-0.1984, 0.1294} and {-0.1643, 0.0882}, respectively, both of which contain zero. This can be interpreted as that knowledge sharing routines and effective governance capability both have no mediating effects on the relation between asset specificity and strategic performance, whereby no support has been found for hypotheses 11b and 13b. In fact, complementary capability is the only specific mediator of asset specificity and strategic performance, given it has a point estimate ( $a*b$ ) of 0.1255 and zero is not contained in the confidence interval {0.0188, 0.2462}. Hence, the bootstrap findings provide evidence to support hypothesis 12b.

#### **5.4 Chapter summary**

In this chapter the statistical analysis of the data collected for the purposes of this thesis have been presented. Initially, they were subjected to a number of preliminary analyses to examine the assumptions related to the proposed statistical testing. Regarding this, confirmatory factor analysis was conducted to remove the less important items in the constructs of the theoretical framework. Moreover, the Pearson correlation coefficient is used to find out the bivariate correlation between the different variables, with the validity and reliability of the measures are also being examined. The hypotheses put forward in chapter 3 were then thoroughly investigated. To this end, Bootstrapping based multiple mediation analysis was used to examine the multiple mediation effect of relational capabilities on the relationship between the inter-organizational factors, namely, inter-personal trust, inter-organizational trust and asset specificity, and alliance performance. The empirical findings relating to the antecedents of relational capabilities support hypotheses 1, 2, 3, but not hypotheses 2b regarding the relationship between inter-organizational trust and effective governance. Hypotheses 4, which proposed that HR

distance is a barrier of relational capabilities is also rejected. Moreover, the empirical outcomes in relation to the indirect effect of the relational and economic dimensions on alliance performance through knowledge sharing routines and complementary capability support the hypotheses 5a, 6b, 8a, 9b, 11a and 12b. However, the rest of hypotheses pertaining to the expectation that effective governance capability is a mediator on those relationships are rejected. A summary of the results of the hypotheses is presented in Table 5.12 and Table 5.13.

**Table 5.12 Antecedents and barriers of relational capabilities**

	<b>Hypotheses</b>	<b>Results</b>
H1a	The higher the level of inter-personal trust in strategic alliances, the higher the level of knowledge sharing routines.	<b>Supported</b>
H1b	The higher the level of inter-personal trust in strategic alliances, the higher the level of complementary capability	<b>Supported</b>
H1c	The higher the level of inter-personal trust in strategic alliances, the higher the level of effective governance	<b>Supported</b>
H2a	The higher the level of inter-firm trust in strategic alliances, the higher the level of knowledge sharing routines.	<b>Supported</b>
H2b	The higher the level of inter-firm trust in strategic alliances, the higher the level of complementary capability	<b>Supported</b>
H2c	The higher the level of inter-firm trust in strategic alliances, the higher the level of effective governance	<i>Not supported</i>
H3a	The higher the level of asset specificity, the higher the level of knowledge sharing routines.	<b>Supported</b>
H3b	The higher the level of asset specificity in strategic alliances, the higher the level of complementary capability	<b>Supported</b>
H3c	The higher the level of asset specificity in strategic alliances, the higher the level of effective governance	<b>Supported</b>
H4a	The higher the level of HR distance between alliance partners, the lower the level of knowledge sharing routines.	<i>Not supported</i>
H4b	The higher the level of HR distance between alliance partners, the lower the level of complementary capability	<i>Not supported</i>
H4c	The higher the level of HR distance between alliance partners, the lower the level of effective governance	<i>Not supported</i>

**Table 5.13 The mediating effects of relational capabilities on alliance performance**

<b>Hypotheses</b>		<b>Results</b>
H5a	Inter-personal trust affects operational performance through knowledge sharing routines	<b>Supported</b>
H5b	Inter-personal trust affects strategic performance through knowledge sharing routines	Not supported
H6a	Inter-personal trust affects operational performance through complementary capability	Not supported
H6b	Inter-personal trust affects strategic performance through complementary capability	<b>Supported</b>
H7a	Inter-personal trust affects operational performance through effective governance mechanisms	Not supported
H7b	Inter-personal trust affects strategic performance through effective governance mechanisms	Not supported
H8a	Inter-organizational trust affects operational performance through knowledge sharing routines	<b>Supported</b>
H8b	Inter-organizational trust affects strategic performance through knowledge sharing routines	Not supported
H9a	Inter-organizational trust affects operational performance through complementary capability	Not supported
H9b	Inter-organizational trust affects strategic performance through complementary capability	<b>Supported</b>
H10a	Inter-organizational trust affects operational performance through effective governance mechanisms	Not supported
H10b	Inter-organizational trust affects strategic performance through effective governance mechanisms	Not supported
H11a	Asset specificity affects operational performance through knowledge sharing routines	<b>Supported</b>
H11b	Asset specificity affects strategic performance through knowledge sharing routines	Not supported
H12a	Asset specificity affects operational performance through complementary capability	Not supported
H12b	Asset specificity affects strategic performance through complementary capability	<b>Supported</b>
H13a	Asset specificity affects operational performance through effective governance mechanisms	Not supported
H13b	Asset specificity affect strategic performance through effective governance mechanisms	Not supported

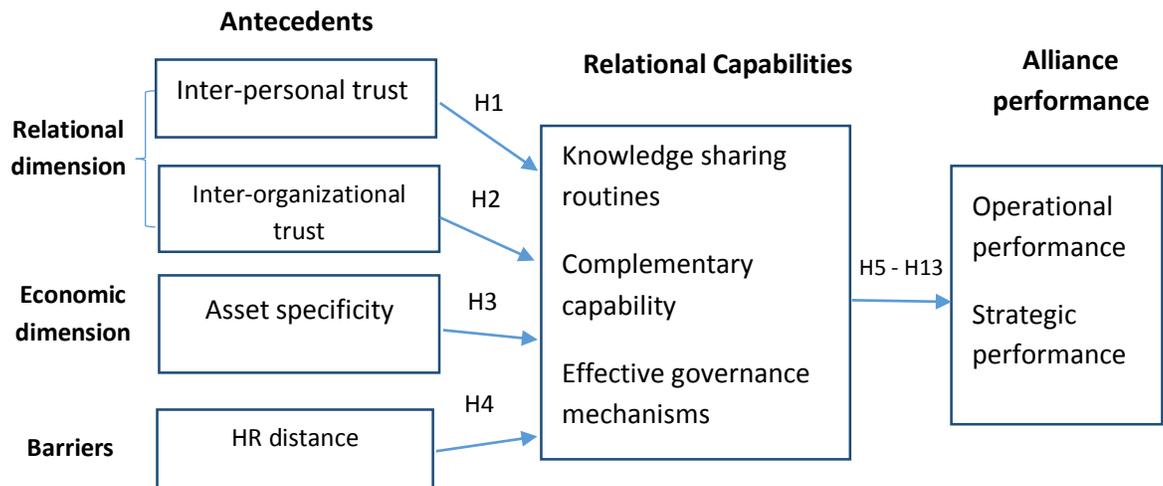
## CHAPTER 6

### DISCUSSIONS

#### 6.1 Introduction

This researcher has extended the relational capabilities approach (Dyer and Kale, 2006) by analysing three dimensions of relational capabilities, including: knowledge sharing routines, complementary capability and effective governance mechanisms. Predictions were made regarding the antecedents that facilitate or hamper relational capabilities, as well as the mediating effects of these capabilities on performance outcomes in the context of strategic alliance projects between MNE subsidiaries and local suppliers in the Thai manufacturing sector.

**Figure 6.1: Theoretical model**



Overall, the results provide strong support for the argument that trust and asset specificity facilitate relational capabilities. The findings also show that alliance performance depends on the extent to which firms use their relational capabilities to integrate inter-organizational trust, inter-personal trust and asset specificity to create value in strategic alliance projects and hence to gain superior alliance performance. Discussion on the findings of the study contained in this chapter is structured as follows: section 6.2 considers the antecedents and barriers of relational capabilities, whilst section 6.3

discusses the mediation effects of these capabilities on alliance performance. Section 6.4 presents the effect of the control variables on relational capabilities and alliance performance, whereas section 6.5 discusses the results in the context of the research settings, which cover strategic alliance projects and MNE subsidiaries in the Thai manufacturing sector. Finally, section 6.6 summarizes the chapter.

## **6.2 Antecedents and barriers of relational capabilities**

In support of the second hypothesis, a significant positive link between relational dimension, including inter-personal trust, inter-organizational trust, and relational capabilities has been found. That is, the levels-of-analysis issue continues to be an interesting topic of discussion, and more explicit extensions to group and organizational levels are warranted (Schoorman, Mayer, Davis, 2007). Past research has often treated trust as a uni-dimensional construct taking the form of a one-way relationship between trust and relational capabilities. This study extends the current knowledge on the subject by introducing the distinction of two levels of trust and analyzing their differential impact on relational capabilities. According to the strategic alliance literature, scholars have found that alliance experiences (Heimeriks and Duysters, 2007; Schilke and Goerzen, 2010) and alliance dedicated functions (Kale et al., 2002) are sources of alliance management capabilities. The outcomes of this research extend the literature by providing evidence that relational and economic conditions in strategic alliances are antecedents of relational capabilities. That is, relational capabilities emerge when alliance partners have high levels of trust and asset specificity.

### **6.2.1 Inter-personal trust and relational capabilities**

This current study makes an important contribution to the literature by producing for the first time empirical evidence of the relationship between inter-personal trust and relational capabilities. That is, it has been elicited that inter-personal trust has positive results for all three dimensions of these capabilities. This finding is in line with Felin et al. (2012) in the sense that individuals have an influence on organizational behaviours in that inter-personal trust fosters people to share knowledge and information because of the positive attitudes they hold towards each other. Through inter-personal trust project team members

develop stable expectations of each other that routinize their interactions and make them predictable and reliable. Furthermore, evidence emerged that inter-personal trust is a source of complementary capability. To be precise, in order for organizations to have the capability for real synergy among their members, leading to the development of tacit knowledge that cannot be translated into rules or routines, individuals must have inter-personal trust. This is because it promotes the kind of intense interpersonal cooperation and synergistic relationships discussed above. The tacit knowledge that results from real synergy is often taken for granted by organizational members. Hence, inter-personal trust, that is embedded in alliance project staff, plays an important role as a facilitator of complementary capability. This is in line with Janz and Prasarnphanich (2003) and Miller (1992), who found that high interpersonal trust, which is based on previous experiences with another colleague in repeated interactions, tends to result in the decision of commitment to cooperate, which will, in turn, lead to complementary resources and capabilities from the collaborations being disseminated among project staff.

The reason is that exchanges are fundamentally generated from informal negotiation between individuals in the alliance projects. Effective governance mechanisms involve personal ties in the negotiation process, i.e. informal meetings, informal information sharing and technical support during the on-going project since inter-personal trust between contact persons facilitates these collaborative routines. Furthermore, because developing trust relies heavily on human relationships, the alliance processes involved will tend to be more informal rather than structural. Informal knowledge processes allow the verification of inter-personal trust and mutual understanding. Interpersonal transitions are obviously made easier by small cooperative events early in the process, which allow trust to develop sufficiently for individual participants in the alliance to step out of preexisting roles and to redefine these. This, in turn, gives confidence on both the equity and adaptability dimensions of reassessment needed to work on the third dimension, i.e. to make the alliance design more efficient (Doz, 1996). Hence, the theoretical framework in relation to individual decisions also has implications for organizational policy and management.

### **6.2.2 Inter-organizational trust and relational capabilities**

This research has elicited that inter-organizational trust is an antecedent of knowledge sharing routines and complementary capability. This is in keeping with previous research (Griffith, Myers and Harvey, 2006; Nielsen and Nielsen, 2009) that revealed a significant relationship between inter-organizational trust and knowledge sharing routines of inter-cultural alliance partners, because trust can minimize the potential for opportunism and develop confidence in partner cooperation (Das and Teng, 1998; Dyer & Chu, 2003). Furthermore, the research findings indicate that inter-organizational trust builds complementary capability in strategic alliance projects. Moreover, scholars have consistently argued that informal relational ties between members of the same organization (Hansen and Lovas, 2004) or different organizations (Bell and Zaheer, 2007) are superior conduits for knowledge flow between cross-cultural organizations. Such relational ties help to overcome cultural differences, whether national or corporate, which may exist between organizations (Easterby-Smith et al., 2008). This finding is also consistent with work by Levin and Cross (2004), who revealed that trustworthiness is a critical mechanism underlying complementary resources and capabilities exchanges among employees in three companies in Canada, the US and the UK. It is concluded that a high level of inter-organizational trust can help firms share knowledge and acquire complement resources as well as capabilities from alliance partners.

Despite the finding that inter-personal trust is a significant facilitator of effective governance mechanisms, a positive relationship between inter-organizational trust and such mechanisms has not been found, which is contrary to the initial hypothesis. One plausible explanation for this non-significant finding is that inter-organizational trust decreases transaction cost and opportunistic behaviours (Dyer, 1996; Sako and Helper, 1998). This is consistent with Hansen et al.'s (2008) study, which showed that the opportunism minimization–gain maximization paradox may be resolved by reliance on relationship management capabilities coupled with a strong form of trustworthiness. Taking into account the context of the current research, it would appear that firms in the Thai manufacturing sector deal with opportunistic behaviours and behavioural uncertainty through inter-organizational trust rather than installing effective governance mechanisms,

which is inconsistent with the TCE perspective. Similarly, Lado et al. (2008) suggested that rather than implementing effective governance mechanisms, exchange parties in high inter-organizational trust contexts can foster value enhancing relationships to gain strategic advantage. In general, under conditions of high levels of trust the exchange parties are likely to establish self-enforcing or implicit contracts (Dyer, 1996; Mayer and Nickerson, 2005) rather than formal arrangements in order to safeguard the collaboration.

### **6.2.3 Asset specificity and relational capabilities**

The findings of this study are in line with the notion of complementarity between the relational view and TCE in that when there is a high level of asset specificity, firms tend to build cooperative behaviours (knowledge sharing routines and complementary capability) and safeguard mechanisms (effective governance mechanisms) during strategic alliance management. In support of the relational view (Dyer, 1996; Dyer and Singh, 1998), the outcomes of this research indicate that a firm's asset specificity in their strategic alliance project is highly associated with value creation capabilities. That is, asset specificity increases the degree of economic interdependence between alliance partners and hence firms are more likely to devote their routines to coordination and joint learning. This is consistent with prior research (Heide and John 1990; Zaheer and Venkatraman 1995; Joshi and Stump, 1999), which found support for a positive main effect between asset specificity and joint actions in the manufacturing sector. The results also concur with those of Lorenzoni and Lipparin (1998), who elicited that under the condition of high asset specificity investments, organizations learn how to gain access to complementary resources and capabilities across alliances, which enables them to keep pace with technological developments within the industry. Hence, an important finding is that asset specificity increases inter-dependence and commitment between alliance partners, which results in the creation of cooperative capabilities aimed at improved internal routine management to ensure better performance.

In support of TCE research (Williamson, 1991), this study has produced evidence that asset specificity requires effective governance mechanisms as the safeguard of this investment regardless of the level of trust. This is in line with Poppo and Zenger (2002) and Gulati and Nickerson's (2008) work, who found that asset specificity generates

greater levels of contractual complexity. Similarly, Santoro and McGill (2005) discovered that firms use more complex governance mechanisms to control higher levels of uncertainty about partners' opportunistic behaviours arising from relationship specific investments. This is because such investments cannot be easily redeployed, which gives rise to a safeguarding problem, resulting in potential costs (Artz, 1999; Artz and Brush, 2000) and requiring governance mechanisms (Santoro and McGill, 2005).

An important implication of these findings is that they provide support for both the relational view and TCE. As such, they are line with Zaheer and Venkatraman's (1995) argument that the economic determinants of governance do not by themselves provide a complete understanding of strategic alliances, but rather, a combination of variables both economic and relational dimensions are involved. Previous research has employed interdisciplinary theory from these two perspectives including studies by Kale et al. (2000)'s and Chen and Chen (2003). They found that asset specificity and behavioural uncertainty of alliance partners prompts firms to seek more hierarchical control in strategic alliances, whilst these firms still need to build cooperative routines and to accept a more flexible alliance arrangement in order to access to complementary resources and capabilities from their partners. The reason for this being that an integration alliance entails a high level of commitment by the partners in terms of investing in the relationship. Therefore, increased interdependence by the partners for asset specificity tilts the firms towards an integration alliance in which assets are pooled, adapted and integrated for a common purpose, whereas effective governance mechanisms are still need to protect the economic hostage from opportunistic behaviours.

Although the result shows that trust and asset specificity, which are regarded as relational and economic constraints, facilitate relational capabilities in strategic alliance projects, some of the literature contends that these two aspects interact to produce relational capabilities. For instance, it has been found that inter-organizational cooperative activities, such as knowledge sharing routines, will become more accommodative and improve as the focal firm creates a dependence situation by investing high asset specificity in a partnership (Aulakh et al., 1996; Luo, 2002). That is, the stronger the resource interdependence between alliance partners, the more opportunities and benefits that will

be created from cooperation. This argument was supported by the study of Joshi and Stump (1999), which found that interaction terms involving asset specificity and trust significantly increased joint actions in manufacturer-supplier relationships. In addition, Krishnan et al. (2006) investigated the moderating effect of transaction cost factors on the relationship between trust and international alliance performance of Indian manufacturing sector. They found that this relationship is more sensitive to alliance partners' behavioural uncertainty than environmental uncertainty.

Other research has uncovered reverse effects between trust and relational capabilities. For example, Suh and Kwon (2006) discovered that specific asset investment decreases the level of inter-organizational trust due to a safeguarding problem, which can result in potential governance costs. Sarkar et al. (2001) found that inter-organizational trust plays a mediating role in the relationship between inter-organizational complementary resources and alliance performance. They concluded that these resources can create interdependence between alliance partners, which results in motivation to undertake trustworthiness acts and higher alliance performance. Hence, trust can be both the antecedent to and the consequence of asset specificity. The current study, however, has only dealt with trust and asset as independent variables, Future research will require a model that can capture the circular relationship between these two phenomena.

#### **6.2.4 HR distance and relational capabilities**

Further, in examining the barriers of relational capabilities, this researcher expected that HR distance would be negatively related. However, in contrast to prior empirical analyses (Birkinshaw and Hood, 1998; Hitt et al., 2006; Luo, 2002; Estrin et al., 2009), no such significant relationship between HR distance and cooperation behaviours between alliance partners was found. Thus, it can be assumed that HR distance between MNE subsidiaries and local suppliers is not a barrier for the firm applying relational capabilities in alliance management in these contexts. One possible explanation is that organizational culture may provide more signals for employees' behaviour than does national culture in international strategic alliances, because it provides members with an organizational identity and facilitates collective commitment (Pothukuchi et al., 2002; Sirmon and Lane, 2004). Regarding the negative effect of the differences between alliance partners, unfortunately,

this researcher could not test the relationship between organizational cultural distance and relational capabilities with the data collected. Hence, it is recommended that there is future research to extend this finding by in-depth investigation of the micro cultural aspects towards the study of relational capabilities using a qualitative method. Furthermore, this research has only involved examining HR distance as a barrier of relational capabilities, but not the other cultural differences measurements in cross-cultural collaborations as suggested by previous studies, such as cultural distance (Kogut and Singh, 1989) and GLOBE (Global Leadership and Organizational Behavior Effectiveness research project) (House et al., 2002). However, Thailand is not one of sixty-two nations that present their cultural orientation scores in GLOBE and hence no data is available for the context of this thesis. Moreover, the focus for this research was on the skilled labour and education difference between alliance partners as introduced recently by Estrin et al. (2009) and not on norms and beliefs.

In sum, the study outcomes extend the relational capabilities literature by providing evidence that the relational and economic dimensions in strategic alliance projects are antecedents of relational capabilities. To be precise, it has been found that inter-personal trust and asset specificity enhance all three types of relational capabilities while inter-organizational trust fosters only knowledge sharing routines and complementary capabilities. HR distance between alliance partners, however, is not a barrier of relational capabilities as hypothesized. Therefore, it is concluded that inter-personal trust, inter-organizational trust and asset specificity are necessary for successfully implementing relational capabilities during alliance project management.

### **6.3 Mediation effects of relational capabilities and alliance performance**

This researcher expected that economic and relational conditions in strategic alliance projects require relational capabilities to achieve alliance performance. From this perspective, superior alliance performance is not achieved primarily through trust and asset specificity directly. To be more precise, such performance is achieved by building a carefully selected set of capabilities that collectively allow the alliance project to run smoothly. This work is in response to a research avenue suggested by Mayer and Nickerson (2005) to integrate relational ties and transaction cost factors for more micro-

analytic measures of both the nature of the inter-organizational relationships and performance. Previous empirical studies have revealed that relational capabilities contribute to both alliance satisfaction and competitive advantage (Ling-yee and Ogunmoku, 2001; Corsten and Kumar, 2005; Paulraj et al., 2007; Schreiner et al., 2009). The superior management practices embodied in these capabilities enable firms to realize the relational rents potential in strategic alliances, and thereby achieve alliance performance. This study has found that knowledge sharing routines and complementary capability are mediators of the relationships between inter-organizational factors, including, economic and relational conditions, and alliance performance. However, it has emerged that effective governance mechanisms have no significant impact on these relationships, a matter discussed in the following subsections.

### **6.3.1 Indirect effects of inter-personal trust on alliance performance**

According to the research findings, inter-personal trust increases frequent knowledge sharing routines between alliance partners directly and these routines greatly improve operational performance. This finding is important because communication is associated with the development of inter-personal trust, which in turn, is a strong predictor of relationship effectiveness. Indeed, many researchers have argued that one of the sources of a firm's competitive advantage is its organizational capabilities producing implicit knowledge embedded in the interactions among staff in teams that contribute to superior performance (Amit and Schoemaker, 1993; Prahalad and Hamel, 1990; Jones and George, 1998). In previous research, interpersonal trust has been identified as a crucial ingredient in the development of trustful organizational behaviour and collaboration in the workplace (Dirks and Ferrin, 2001; Kramer and Tyler, 1996). Interdependence at the personal level within a strategic alliance provides a solid foundation for shaping interaction processes and activities coordination, such as information sharing. It also encourages partnering firms to collaborate since the benefits of doing so would appear to be greater than working alone. In addition, the continuity of interaction that result from a high quality relationship, provides staff ongoing opportunities to identify unclear information that is hampering the alliance projects. Hence, a real source of competitive advantage deriving from

organizational capabilities is an organization's ability to create the conditions that allow its members to experience inter-personal trust.

Furthermore, it has emerged that inter-personal trust has an indirect impact on strategic performance through complementary capability. This capability requires individuals representing both organizations to engage in close interactions that allow them to observe and learn from each other. This crucial role of individuals and their interactions in enabling inter-organizational learning is emphasized by the classic literature on boundary spanners, which views them as the conduits of, or sensors for learning and knowledge (Salk and Simonin, 2003: 260; see also Aldrich and Herker, 1977; Jemison, 1984; Keller and Holland, 1975). Inter-personal trust is an essential condition of a functioning organization, because it creates the necessary commitment and confidence in the acquisition and dissemination of knowledge. In particular, it is posited that 'close and intense interaction between individual members of the concerned organizations' is an effective mechanism for identifying complementary resources and capability across organizational boundaries (Inkpen and Dinur, 1998; Kale et al., 2000). This means that the higher the level of interpersonal trust, the greater the tendency for alliance team members to acquire complementary resources and capabilities from alliance partners. In sum, the key benefits of inter-personal trust are cooperation and teamwork that promote high performance and competitive advantage.

### **6.3.2 Indirect effects of inter-organizational trust on alliance performance**

The research findings support the argument that the firm which has a high level of inter-organizational trust toward their alliance partners requires knowledge sharing routines and complementary capability in order to achieve operational and strategic performance, respectively. This result is also supported by Smith and Barclay (1997) and Yli-Renko et al.'s (2001) observations that perceived trustworthiness and alliance performance are antecedents and consequences of cooperative behaviours in the context of buyer-supplier relationships. This outcome also suggests that inter-organizational trust is not the key variable for achieved alliance performance; it is only important in the early stage of relationships in terms of presenting commitment between alliance parties and is supported by Narayandas and Rangan (2004), who found that during the maintenance stage of a

relationship trust is the only factor that drives commitment between business partners. Consequently, commitment to maintain good relationships between firms (as a result of inter-organizational trust) enhances cooperative activities, such as knowledge sharing routines and complementary capability, thereby, improving alliance performance. These mechanisms are discussed in detail next.

To begin with, this research found that inter-organizational trust impacts on operational performance through knowledge sharing routines, which is in line with Dyer and Nobeoka's (1998) finding that such routines in the collaborations have been a critical factor in explaining why Toyota has been so dynamic that it has constantly maintained productivity and quality advantages over its competitors. Moreover, the current study has elicited that a certain level of involvement and commitment resulting from a high quality of relationship between organizations is essential for knowledge to be shared effectively. Highly interdependent partnering firms have been found to be more willing to communicate, trust and commit, as pointed out by previous studies (Hansen, 1999; Das and Teng, 2003; Mohr and Spekman, 1994; Wei et al., 2012). This is because under conditions of high task, reward and goal interdependency, partnering firms tend to work collectively, because they depend on each other to conduct and manage their business activities effectively. Such inter-dependency improves the partners' willingness to communicate openly and trust each other, thereby increasing the commitment to a cooperative relationship. That is, it encourages intensive interactions and sharing of knowledge between alliance parties. In addition, alliance partners that accumulate inter-organizational trust are likely to be free from the fear of opportunistic behaviour, because the openness and transparency associated with this promotes honest knowledge exchange (Doz and Hamel, 1998). Kale et al. (2000) Kotabe et al. (2003), also found that dense ties between organizations enable the quick and accurate movement of potentially useful and important information through the collaborations and has a positive impact operational performance. Furthermore, strategic alliance projects involve ongoing mutual adjustment between the alliance partners' design and production operations, whereby knowledge continually shared in order to solve problems as well as enhance products and processes, which in turn improves joint operational performance.

Furthermore, the results of this study reveal that inter-organizational trust enhances strategic performance through complementary capability. This was not unexpected as one of main reasons why firms decide to form alliances is so that they can acquire the necessary complementary resources and capabilities from in anticipation of performance that will them competitive advantage in terms of market share and cutting edge innovation. Cullen et al. (2000) have noted that when two or more firms combine their resources for strategic reasons, such as complementary skills and economies of scale, then they are expected to control and organize their joint resources through effective management of a strategic alliance relationship. In particular, the firms then have incentives to adapt their business activities and boundaries in order to take advantage of what they have learned (Dussauge, Garrette and Mitchell, 2000).

In addition, the result regarding complementary capability is supported by Şengün's (2010) study of goodwill trust and inter-organizational learning during alliance practice. He discovered that informal commitment is strongly tied to the concept of goodwill trust, because such efforts are considered to be a sign of benevolence. That is, when confidence in a partner's good intention increases, there is more open information exchange and a deeper commitment between partners. In this respect, trusting a knowledge provider to be benevolent should increase the chance that the learner will learn effectively from the interaction (Levin and Cross, 2004). Also, when learners seek knowledge, they become dependent and vulnerable to the benevolence of the knowledge provider (Lee, 1997). Similarly, Kale et al. (2000) found that relational capital (i.e. inter-organizational trust and commitment) enables the quick and accurate movement of potentially useful and important information through the collaborations. Moreover, firms that accumulate inter-organizational trust with alliance partners are likely to be free from the fear of opportunistic behaviour. That is, if knowledge seekers believe a knowledge source may want to harm them, they will be reluctant to learn from any transferred knowledge, for fear that it might be wrong or misleading (Levin and Cross, 2004). Under dependence conditions, such as in the current research, the type of trust needed to mitigate risk of vulnerability is benevolence (Sheppard and Sherman, 1998). In general, inter-organizational trust takes precedence under such conditions due to its role in reducing the risk of exploitation by the other party and delivering the needed level of involvement and

commitment for the trustor. One of the primary benefits is the possibility for partners to acquire from each other tacit knowledge in an area where their own organizations encounter deficiencies, thereby reinforcing both firms' competitive advantage. Evidence of such trust-based performance improvement was found by comparing supplier relationships in the auto industry in Japan and in the U.S. (Barney and Hansen, 1994; Dyer, 1996). They elicited that Toyota's relationships, when compared to U.S. counterparts, are more deeply embedded in long-standing networks of relational and economic conditions that are characterized by higher levels of trust and a lower fear of opportunism. Consequently, this company and its suppliers have felt freer to engage in very specialized routines, which have boosted alliance performance more than competitors (Parkhe, 1998).

### **6.3.3 Indirect effects of asset specificity on alliance performance**

Strong support emerged for the hypothesis that asset specificity has an indirect effect on operational performance through knowledge sharing routines, which could be due to the nature of relationships in manufacturing industry, whereby buyer and supplier firms have been found to exchange information on a continual basis (Prahinski and Benton, 2004; Paulraj et al., 2008). In particular, informal interactions at multiple levels will assist in communicating data between the alliance partners and as shown by Dyer and Nobeoka (2000), such knowledge sharing routines inferred in the information exchange construct result in operational improvement. Consequently, economic hostage (i.e. asset specificity) leads to enhanced cooperative behaviour in order to maintenance performance, as supported by observations from Parkhe (1993), Molm (1997), Cravens et al. (2000) and Lui et al. (2009). That is, when both partners invest more in a specific asset, they are locked firmly into the relationship that increasingly intensifies. Hence, as there is less fear that the other can walk away from the partnership, they may engage in more reciprocal actions. In addition, asset specificity is related to partnership performance through generating cooperative behaviours rather than reducing opportunistic ones. McCarter and Northcraft (2007) demonstrated that frequent interactions strengthen the relational ties among strategic alliance partners and promote cooperation so that positive outcomes may be derived. In this situation, buyers may be willing to share information with the suppliers

if they have the confidence that the information will not be misused and exploited. The intention of the supplier to be flexible and not holding the buyer to contractual terms is important to maintain the uninterrupted flow of information for business profits. That is, communication increases the likelihood of alliance success since it offers an opportunity to elicit promises of cooperation.

The outcomes of this research also infer that asset specificity is beneficial for strategic outcomes when it is accompanied by complementary capability. This result indicates that collaborative relationships contribute to the realization of benefits by creating truly productive and profitable relationships. To be precise, high levels of economic commitment enable optimized planning for material flows and coordination of information exchange leads to a higher level of goal achievement and value creation. Some researchers argue that complementary capability is an important source of competitive advantage for strategic alliances, because this is a learning mechanism that can be used to understand and acquire complex complementary resources and capabilities from alliance partners (Dyer and Kale, 2007; Mesquita et al., 2008). Moreover, this research outcome is consistent with the finding of Zajac and Olsen (1993) and Corsten et al. (2011) that asset-specific investments provide strong incentives for firms to work with alliance partners on joint value creation initiatives. Madhok and Tallman (1998) argued that alliances where partners have the potential to create synergy by integrating complementary resources have the highest probability of producing value. This is because complementary resources and capabilities make it possible for firms to gain economies of scope, create synergies and develop new resources as well as subsequent skills (Ireland et al., 2002). In other words, there is the possible existence of a mediating role for complementary capability between asset specificity and strategic performance. In sum, such alliances create a co-operative environment that encourages learning experiences so that the transfer of complementary resources and capabilities to alliance partners can be achieved (Sambasivan et al., 2013). In other words, asset specificity investments in alliance projects are more likely to result in competitive advantage when task activities are characterized by a high degree of complementary capability.

#### **6.3.4 Effective governance mechanisms and alliance performance**

The findings have shown that inter-personal trust, inter-organizational trust and asset specificity have no indirect effect on alliance performance through effective governance mechanisms. This implies that although effective governance mechanisms are essential to safeguard asset specificity, they are not necessary to achieve alliance performance. This result was unexpected when compared with earlier studies on the outcomes of formal and informal governance functions in strategic alliances (Dyer, 1996; Poppo and Zenger, 2002; Mesquita et al., 2008; Lee and Cavusgil, 2006). According to TCE, partners that have invested more in specific assets tend to engage in a higher level of opportunistic behaviours with alliance partners, because these cannot be easily redeployed for other purposes apart from the project itself. Consequently, to protect their own investment, firms require effective governance mechanisms to monitor inter-organizational exchanges (Williamson, 1991). As discussed previously in subsection 6.3.1, inter-organizational trust does not have a significant impact on effective governance mechanisms and therefore this capability does not have a mediating affect between the former and overall alliance performance. Given the high level of trust-based relationships in Thai manufacturing sector, this can act as a substitute for governance mechanisms in this context owing to finding regarding the latter's insignificant mediating role. In such situations, where there is high inter-organizational and inter-personal trust between alliance partners, governance mechanisms may be less effective in alliance management as explained in more detail next.

Trust is the expectation of similar behaviour that recognizes and protects the interests of other people in order to increase willing cooperation and expand ultimate benefits within a joint endeavour or economic exchange (Hosmer, 1995). This is in line with Bromily and Cummings (1993), who argued that trust not only reduces the cost of monitoring performance, but also eliminated the need for installing control systems. Moreover, transactions with high potential gains, even in the face of high information asymmetry and transaction specific investment, will be pursued vigorously because of potential gains from trade. Having two strong trustworthy partners that pursue relationship management solves the opportunism minimization–gain maximization paradox as it makes way for the

greatest net value creation without needing formal governance mechanisms (Hansen et al., 2008). This effect can be found in Japan where intense horizontal and vertical alliances coexist and consequently networks play a greater role as conduits of information about partners' behaviour than in many other countries (Lazzarini et al., 2008). In addition, trust in contractual relations may reduce behavioural uncertainty and complexity, thus rendering bounded rationality less harmful and less salient (Chiles and McMackin, 1996).

It is also possible that firms with repeat alliances may avoid some contractual negotiation costs by incorporating into the contract some provisions already included in earlier mutual contracts. Regarding this, Ryall and Sampson (2003) have shown that when firms are engaged in multiple alliances with the same partner, some common terms, such as arbitration clauses, are identical across alliance contracts over time. Moreover, when high relational capabilities are expected companies may use law firms or other intermediaries in the contracting process (Ruer and Ariño (2007), thus avoiding some governance costs. In sum, the formal controls characteristic of formal contracts in certain contexts, can be supplanted by informal self-enforcing agreements, which rely on trust and reputation (Dyer and Singh, 1998). Under these circumstances, mutual trust between alliance partners decreases transaction and negotiation costs by reducing or eliminating both ex ante and ex-post opportunism (Zaheer and Venkatraman, 1995; Dyer, 1997). Thus, managers of firms that have a strong form of trustworthiness may respond to governing asset specific investment much differently, as it would appear is the case in Thailand. However, in terms of generalization these results should be treated with caution, for in other contexts the institutional environment can be very different, with being a strong expectation of formal arrangements in buyer-supplier relationships (Li et al., 2010).

### **6.3.5 Relational capabilities and alliance performance**

This research has extended the literature by testing the different consequences of relational capabilities with respect to operational and strategic performance, with the findings revealing the different dimensions of relational capabilities bring about different alliance outcomes. These outcomes are in line with Villena et al.'s (2011) work, which showed that alliance performance is a multidimensional construct in that different factors are related to operational and strategic performance. More specifically, this research has

discovered that while operational performance can to a large degree be explained by knowledge sharing routines, strategic performance depends on the ability to access complementary resources.

As suggested by Inkpen and Currall (1997), firms' operational level involves those individuals who provide the linking mechanism across organizational boundaries. In their operational role, they carry out the tasks of the collaboration and are responsible for the everyday implementation of the alliance agreement. These authors gave an example of a strategic alliance in an automotive firm where it is the partners' engineers, not senior management, who are delegated to carry out the joint task of designing a car. In contrast, a firms' strategic level is the responsibility of executive managers who have the power to influence the overall strategic direction of the corporation, including its cooperation strategy. As strategic decision-makers, executive managers play a crucial role in the formation of new strategic alliances (Gulati and Gargiulo, 1999), in particular those geared towards innovation (Tyler and Steensma, 1995). For example, it is the management teams representing the prospective partners that engage in the negotiations prior to entering a cooperative relationship (Ariño et al., 2001). They also frame their firm's strategic intentions with respect to the alliance (Salk and Simonin 2003) and play a dominant role in designing and manipulating its structural context, i.e. the border conditions and parameters of the alliances (Oxley and Sampson, 2004; Ring and Van de Ven, 1994; Janowicz-Panjaitan and Noorderhaven, 2009).

According to the findings, knowledge sharing routines have a direct impact on operational performance, probably because these activities focus on day-to-day operations, whereas complementary capability leads to strategic performance since this type of capability is aimed fulfilling the strategic purposes of the alliance (Saxon, 1997). In particular, improvement in buyer performance is as a result of collaborative relationships that may occur along the operational dimensions of product design, process design, reduced lead time and improved quality. Consequently, buyer-supplier alliances with more personal and organizational communication will be more favourable to buyer improvements in quality, delivery speed, reliability and flexibility (Krause et al., 2007; Paulraj et al., 2008). For example, knowledge sharing between alliance partners at the organizational and

personal levels increases information volume and diversity, thus allowing for better planning, goal setting, problem solving and adjustments that, in turn, improve buyer performance (Lawson et al., 2008). Moreover, Mesquita et al. (2008) found that firms' relational resources and relational capabilities develop suppliers' production efficiency in operational performance that can effectively manage conflicts and solve problems especially when unforeseeable changes arise. The current research finding implies that the quality of knowledge sharing routines between partners may not directly affect how well a product sells, but it does provide essential information for operational performance. Thus, firms that are able to foster knowledge sharing routines in partnerships are more likely to achieve operational effectiveness rather than strategic performance since these routines involve people-based activities in the exchange process, which is controlled at the operational level.

The finding that complementary capability increases strategic performance, but has no significant impact at the operational level, confirms the view that this capability influences profitability, market growth and innovation directly. In addition, it has been elicited that complementary capability allows one partner to access or replicate that of the other to generate competitive advantage which they have limited ability to do in isolation. That is, with a combination of complementary resources and capabilities, this enables a firm to realize its full competitive advantage (Barney, 1991). Moreover, consistent with previous research (e.g. Deeds and Hill, 1996; Saxton, 1997; Dyer and Singh, 1998; Rothaermel, 2001; Hansen et al., 2008; Schreiner et al., 2009), the effect of complementary capability from this empirical study, clearly demonstrates that firms aim to acquire resources and capabilities that they lack in order to fulfil strategic goals. Furthermore, complementary capability is a driver for firms to adapt their strategies in response to the ever present competitive and dynamic environment. For example, Apple has begun developing strategic alliances with several other computer firms, including IBM and Microsoft, which may the firm to develop the resources and capabilities they need to remain competitive in the personal computer industry over the next few years (Barney, 1995).

To summarize, the relational dimension (set in terms of inter-personal trust and inter-organizational trust) and economic dimension (set in term of asset specificity) play a key

role in fostering relational capabilities in alliance management amongst MNE subsidiaries in Thailand. These capabilities, in turn, allow the partners to run their partnership smoothly and achieve alliance performance both at operational and strategic levels. In particular, the outcomes of this research highlight the role of knowledge sharing routines and complementary capability in linking trust and asset specificity with alliance performance. The relational capabilities perspective, therefore, offers a theoretical explanation for how relational and economic dimensions in dyadic relationships influence strategic alliance project performance in certain settings.

#### **6.4 The effects of control variables**

This researcher is aware that other factors may influence alliance performance. Thus, several control variables were used in the analysis, including firm size, industry dummies, inter-organizational relationship duration, alliance project duration, supplier dependence, HR distance, previous alliance experiences and alliance project types. However, most of these (firm size, industry dummies, inter-organizational relationship duration, the alliance project duration and supplier dependence) were found not to be statistically significant with regards to their impact on relational capabilities and alliance performance. The insignificance of firm size and industry effects may be due to the similarities among the four industry categories from which the strategic alliance projects were drawn. That is, because the four categories all belonged to a broadly defined manufacturing sector, there was some degree of homogeneity in the products and competitive situations (Park and Ungson, 1997). Moreover, the reason may be because these factors are constructs measured at the organizational (firm size, industry dummies, inter-organizational relationship durations, supplier dependence) and national (HR distance) levels, whereas the research context was strategic alliances at the project level. Thus, this researcher concludes that the relational capabilities and alliance performance of the sample firms appear to be driven by project level factors, and not so much by the organizational and national ones.

Despite the non-significant effects of several control variables, this study has elicited two that have a positive impact on relational capabilities and alliance performance, namely, previous alliance experiences and alliance project types. Regarding the effect of previous

alliance experiences, in line with previous research, it has been found that organizations are more likely to establish dedicated alliance functions within the firms as the cumulative number becomes greater (Kale et al., 2002; Heimeriks and Duysters, 2007; Schilke and Goerzen, 2010). That is, if the firms have already tried some of the types of cooperative activities in the form of alliances, they will have learned lessons and hence, will try to transform these experiences into practice in order to achieve better alliance performance. Regarding alliance project types, this researcher expected that the more complex of the projects the likely organizations would build capabilities distinct to the project, such as alliance management capability and alliance evaluations (Dosi and Marengo, 1993). In addition, a positive significant effect of the alliance project types was only present for strategic, but not operational performance. One plausible explanation for this is that strategic performance depends on the complexity of the project (Belderbos et al., 2004) in that the greater this is, the more firm aims to compete with competitors so as to gain strategic advantage from the alliance, through increasing market share and innovation, rather than simply pursuing operational effectiveness.

## **6.5 Research settings**

### **6.5.1 Strategic alliance project management**

In the strategic alliance literature, issues related to strategic alliance management at the portfolio level of MNEs have received considerable attention in recent years (e.g. Kogut, 1988; Pisano and Teece, 1989; Pisano, 1990; Gulati and Singh, 1998). Such research, on the other hand, has had much less to say about the lower-level project organization issues of jointly conducted new product development. Exceptions to this are studies by Mayer and Argyres (2004), who examined the relation between learning and contract at the project level and Mayer and Nickerson (2005), who explored project-level determinants of governance and performance. A shift in focus from alliance portfolio to the project level allows the researcher to observe much narrower aspects of the collaboration. Regarding which, this study has examined antecedents and barriers of relational capabilities and their mediating effect in explaining alliance management at the project level, which has thus helped enrich relational capabilities approach literature. Concerning the broader literature on the economics of contracts, this research has addressed a gap

identified by Poppo and Zenger (2002) and Mayer and Teece (2008), who called for research on the specific provisions of business contracts rather than relying upon standard measures of contractual complexity. Furthermore, scholars has suggested that the antecedents and consequences of relational capabilities are best studied at the level of individual alliances (Parkhe, 1993; Ethiraj et al., 2005; Mayer and Teece, 2008), which has been the case in this work. This research has also verified the importance of the key dimensions, which were proxies for two types of commitment in strategic alliance projects, namely economic and relational dimensions which can be summarized in the following manner.

Inter-organizational constraints, such as economic and relational dimensions between alliance partners, are the key success factors of alliance project performance since these conditions represent commitment between organizations and facilitate project management. The process of bringing new projects on stream and into the market imposes demands on established organisations and necessitates different management techniques from those required to maintain day-to-day operations. This view is supported by Munns and Bjeirmi (1996) and Mayer and Teece (2008) in that alliance partner firms will be involved in the project by sharing resources and capabilities. These inter-organizational conditions, in the current work, were observed to facilitate or hamper the partners' learning about the environment of their alliance, how to work together to accomplish the alliance task, their respective skills, and each other's goals. The firm may also exercise a controlling influence over the project in determining alliance outcomes, such as profitability, market share, quality and scope of service. In addition, its towards the project is important and the commitment and support of a parent organisation is a vital requirement for project success. The project team will be responsible for the planning and control of the use of these resources, consequently the parent organisation will be interested in the success of the project management process. That is, the team will be accountable for their use of these resources, and if they fail to be effective they must expect to give an account for their actions, because firms want a return on their allocation of resources to alliance projects. Moreover, agreements in alliance projects serve many functions that go beyond the scope of traditional supplier contracts, for they include

facilitating learning between partners, knowledge sharing routines, joint decision-making, and so on.

Secondly, this research has determined that two types of relational capabilities, namely, knowledge sharing routines and complementary capability, are significant drivers of positive alliance project outcomes. That is, knowledge sharing routines increase the amount of communication required by partners for the effective coordination and control of alliance activities. This outcome is in line with Zoilo et al. (2002), who claimed that prior ties improve alliance project partners' interactions and help them coordinate their alliance by refining their understanding of each other's cultures, management systems, capabilities, weaknesses, and so forth. According to Ruer and Ariño (2007), successive collaborations can deepen inter-partner communication as well as the tacit development of troubleshooting procedures. They also noted that such routines can develop with frequent interactions, even at low levels of deliberation or intentionality. Regarding complementary capability, this has been defined in this research as a function pertaining to the identification and learning regarding complementary resources and capabilities from alliance partners in strategic alliance projects. For example, consider a firm that is developing a new product, but lacks the capability to produce a highly unique and highly valuable component or tool in-house. While the complementary capability may be easily assembled from relatively generic assets and easily obtained in the marketplace, the time to develop or acquire this capability internally may be considerable and hence complementary resources will prove invaluable. This finding is also consistent with Ethiraj et al. (2005), who discovered that complementary capability was acquired through deliberate and persistent investments in infrastructure and systems to improve a particular firm's software development project.

The research findings also reveal the importance of personnel who are involved with the alliance projects both at the top-level and operational level. In most alliance projects, generally only one key individual, often the founder or a top-level manager, manages all the firms' alliances. In order for top management to make the right decisions, first they will need to communicate with the partner to get the needed information, to clarify some issues, or simply to coordinate (Badir et al., 2012). In addition to the project's

characteristics, the industry within which the alliance's project is embedded is suggested to largely determine the required intensity of communication between project partners. For example, Oxley and Sampson (2004) tested an empirical study utilizing a sample of R&D alliance projects involving companies in the electronics and telecommunications equipment industries, where profitability depends critically on firms' abilities to create and commercialize new technologies quickly and efficiently. At the operational level Shah and Swaminathan (2008), determined that this includes the specific personnel directly associated with the alliance whose individual energy and emotional stress capture the opportunity costs of alliance personnel in terms of the time and energy that could be devoted to other organizational endeavours.

### **6.5.2 MNE subsidiaries and local suppliers in the Thai manufacturing sector**

The thesis provides the evidence that trust and asset specificity contribute to alliance performance through knowledge sharing routines and complementary capability in the context of the Thai manufacturing sector. Regarding to the effect of trust, it has been found that this at the inter-personal and inter-organizational levels plays a dominant role in this context in that they form the foundations of relational capabilities, which is consistent with previous studies in the Thai manufacturing context. For instance, Kasuga et al. (2005) discovered that the network type administered structure, in which mutual trust relations are developed from the top management to the factories through strategic alliances are effective in that country, in the sense that they are able to make best use Japanese MNE subsidiaries' human relations. Furthermore, Kohpaiboon (2010) found that inter-personal participation is required to create effective and efficient coordination in the Thai automotive industry, since the inter-personal contact facilitates inter-organizational communication in several respects, including solving problems as well as the effectiveness of trial and error experiments.

In addition, this research has elicited that HR distance between alliance partners does not hamper relational capabilities in alliance projects with regards to the focal context. This result is supported by several studies, including Reus and Lamont (2009), Xin and Pearce (1996) and Luo (2001), who argued that national distance between firms is a double-edged sword, having both costs and benefits. That is, HR distance can increase the potential for

learning between alliance partners, because strong efforts are made to ensure a high level of communication between international alliance partners, with the objective being to smooth the collaboration and hence achieve alliance performance. As such, this positive effect of HR distance may offset the negative effect on relational capabilities.

The finding is also in line with previous studies about inter-personal attachment in other research settings. For instance, Luk et al. (2008) found that informal personal relationships (Guanxi) have three benefits: enhancing organizational innovativeness; influencing the effectiveness of strategic innovativeness, and enhancing business performance, in the context of China. Furthermore, some researchers have argued that Chinese business, compared with that in the West, is characterized by high trust in family-like relationships (Chua et al., 2008) and low trust in society (Parkhe, 1998). These authors concluded that citizens of lower trust societies, such as Italy, China, and France, tend to avoid people who are not part of their immediate families, thus crippling attempts to build large, private business organizations. Whereas high trust societies, such as Japan, benefit from their lower costs in forming alliances, low trust societies confront higher costs that impede the formation of such collaborations. These differences can be crucially important for cross-cultural alliances managers, whereby persons from low- versus high-trust countries are likely to focus on subtle but important differences in the criteria focused upon whilst carrying out partnerships. Regarding this, persons from low-trust societies tend to emphasize alliances more on person-specific trust, where socio-psychological factors play a greater role (Parkhe, 1998). Since Thailand has similar cultural orientation of collectivism and low-trust society, the research findings, thereby, were affected by this country specific factor. More specifically, trust-based relationships between alliance partners in the Thai manufacturing sector dominate effective governance mechanisms for safeguarding behavioural uncertainty of alliance partners, which in turn deliver superior operational and strategic performance.

## **6.6 Chapter summary**

Chapter 6 considered the findings of the empirical study in context of the research questions and the relevant extant literature. Two dimensions of strategic alliances, relational and economic have been found to be antecedents of relational capabilities, while HR distance between alliance partners has emerged as not being a barrier to these capabilities. Since economic and relational conditions represent commitment between alliance partners to create value in the collaboration, relational capabilities, knowledge sharing routines and complementary capability, play an important role as mediators for achieve alliance performance. More specifically, with inter-personal trust, inter-organizational trust and asset specificity in strategic alliance projects, firms are likely to achieve improved operational and strategic performance through knowledge sharing routines and complementary capability, respectively. Finally, effective governance mechanisms have been found to have no significant impact on alliance performance, because such project management in the context of the Thai manufacturing sector is dominated by trust-based relationships.

## CHAPTER 7

### CONCLUSIONS, IMPLICATIONS, LIMITATIONS AND FUTURE RESEARCH

#### 7.1 Introduction

The chapter concludes the thesis by summarizing the outcomes for the key objectives of research, theoretical contributions and managerial implications in the context of strategic alliance projects between MNE subsidiaries and local suppliers in the Thai manufacturing sector. This study has explored the antecedents and consequences of relational capabilities by integrating relational and economic dimensions in the theoretical framework. The chapter is organised as follows: section 7.2 discusses the academic contribution of this study; the managerial implication of the study is presented in section 7.3; potential limitations and the future research direction of this study is discussed in section 7.4; and section 7.5 presents the concluding remarks.

#### 7.2 Academic contributions

A strategic alliance is considered to be a strategy to acquire resources and capabilities from others in order to create value and share investment risks (Dyer and Kale, 2007). Strategic management scholars have been interested in studying such alliances for two decades, because of their importance for the growth of the firm in an uncertain business environment (Inkpen, 2009) and hence their goal has been to find the ways to make them successful. To this end, different theories have been devised to explain and predict the motivations and performance of alliance, with the key influential ones being TCE (Williamson, 1975), RBV (Penrose, 1959; Barney, 2001), organizational learning (Hamel, 1991) and social exchange theory (Blau, 1964). Firms need to consider the cooperation between two parties in order to achieve strategic alliance performance, however, traditional theories focus on inward looking views (Lavie, 2006) and hence, the relational capabilities approach has been developed to address this gap.

The relational capabilities approach is derived from the relational view (Dyer and Singh, 1998), which focuses on relationship-oriented inter-organizational management, and is integrated with the dynamic capabilities perspective (Teece, 2007). This approach suggests that firms can earn relational rents by adapting their resources, such as human,

technological and financial resources, in acquiring resources and capabilities from alliance partners (Dyer & Kale, 2007). Previous studies (e.g. Kale et al., 2000; Heimeriks, 2004; Kale and Singh, 2007; Schilke and Goerzen, 2010) have suggested that the firm's resource-based factors, such as alliance experiences and functions, are sources of relational capabilities in strategic alliances at the portfolio level. Therefore, strategic scholars have called for research to consider additional conditions for relational capabilities that have as yet not been identified as well as the challenge of firms applying relational capabilities in the context of cross-cultural alliances. In addition, although the relational capabilities approach has been studied in the context of portfolio level, there is scant literature regarding this approach for strategic alliances at the project level and consequently, this research has focused on the processes underlying the development of relational capabilities at this level (Eisenhardt and Martin, 2000). That is, by accounting for heterogeneity in the form of variance in capabilities of each individual alliance project, the findings from this study help enrich the relational capabilities literature.

This thesis has involved investigating the processes which lie at the root of a firm's abilities to develop and modify capabilities through inter-organizational dimensions, namely, trust and asset specificity. More specifically, three different, yet complementary, approaches of relational capabilities, trust and TCE have been drawn upon, which the researcher has combined in an interactive manner, to explain the mechanisms that underlie inter-organizational relationship dimensions and ultimately impact on strategic alliance performance. The findings of this study reveal that trust and asset specificity have an indirect effect on alliance performance through the mediating influence of knowledge sharing routines and complementary capability. The results from investigating alliance projects between MNE subsidiaries and local suppliers in Thai manufacturing, imply that with a high level of relational and economic constraints, relational capabilities effectively manage alliances between the partners, even though they have different countries of origin.

### **7.3.1 Contributions to the relational capabilities approach**

The results of this thesis extend the work of Dyer and Singh (1998) by providing an in-depth understanding of the relational capabilities regarding trust at two levels, inter-organizational and inter-personal, as well as with respect to the TCE approach. The outcomes provide robust evidence to address two research questions: *what are the antecedents of relational capabilities in cross-cultural alliance projects?*; and *what is the role of relational capabilities in strategic alliance management to achieve alliance performance in cross-cultural alliance projects?* From a broader perspective, and referring to the main conclusions of this study, a number of contributions can be identified.

This findings support the idea that both the firm's relational and economic conditions, namely trust and asset specificity, play an important part in the formation and development of relational capabilities with alliance partners in strategic alliance projects. More specifically, this research has elicited the construct of relational and economic dimensions promotes inter-dependence and commitment to positive outcomes for such projects. Moreover, alliance conditions are impacted upon by inter-organizational relationships. That is, these are determined by the relational and economic dimensions, which comprise the characteristics of the partner firms and hence have an impact on relational capabilities. Furthermore, this study has found that the three alliance condition variables, inter-personal trust, inter-organizational trust and asset specificity, constitute the pre-conditions for relational capabilities to come into effect.

According to Gray and Wood (1991) and Combs and Ketchen (1999), neither relational nor economics-based perspectives adequately explain collaborations and hence both perspectives are needed. This integration is important as these sets of theoretical arguments together can provide complementary insights into this theoretically and empirically important phenomenon. (Combs and Ketchen, 1999). This research has been motivated by this research has been motivated by this call to integrate economic and relational perspectives, thereby identifying a hybrid form of relational capabilities. In particular, this thesis provides new knowledge regarding the antecedents and consequences of such capabilities covering both perspectives by combining the relevant aspects of three distinct literatures: relational capabilities, trust and TCE This extends the

strategic alliance literature, because although few studies have been able to explain how inter-organizational factors can be translated into alliance management capabilities (Kale et al., 2002; Simonin, 1997), none, as far as this researcher is aware, have investigated both the inter-personal and inter-firm dimensions.

### **1) Relational dimensions**

The results of this study show that inter-personal and inter-organizational trust play critical roles in the development of relational capabilities in strategic alliances. In particular, they indicate that these two levels of trust represent the relational interconnectedness across organizational boundaries. At the dyadic level, a firm and its partner can protect co-developed and shared resources from external imitation by relying on isolating mechanisms, such as high levels of trust and causal ambiguity (Dyer and Singh, 1998; Gulati et al., 2000). These findings extend current insight into why firms are willing to share resources and capabilities against the risk from opportunistic behaviours of alliance partners. In particular, they highlight the idea that strategic dyads potentially provide participating firms with access to information, resources, markets, and technologies, with advantages from learning, scale, and scope economies (Gulati, et al., 2000), which allow firms to achieve operational effectiveness and strategic objectives. Based on the research findings, a firm should develop mechanisms that ensure appropriation of relational rents when accessing the complementary resources of an alliance partner.

In line with Doney and Cannon (1997) and Zaheer et al. (1998), the research findings reveal that inter-organizational and inter-personal trust are formed in the context of strategic alliances. That is, buyer firms do not consider only organizational traits, but also personal traits to pursue the alliance projects. The alliance partner must be willing to demonstrate a long-term commitment to the partnership through a continuing provision of resources on informal terms, for a high-trust strategy requires a great deal of time and effort to nurture the relationship. In addition, the research findings indicate that inter-personal trust has a positive impact on relational capabilities, which indicates that the routines and capabilities are built upon individual emotions and cognition. Crossan, Lane and White, (1999) probed the rich interrelationship between cognition and action in

organizational learning and elicited that there is a sequence and progression to these processes through different levels, during which some spillover is possible from level to level. Regarding this, the process begins at the individual level with a buyer's representative interpreting the behaviour of the supplier and if their view is favourable then this will eventually become embedded at the firm level (Crossan et al., 1999). Consequently, a common language, which is a basic interpretive process, from an interactive conversations will have been developed. Subsequently, as the inter-organizational relationship naturally outgrows its ability to use interactions exclusively to interpret, integrate, and take concerted action, the relationships become formalized and routines develop. Furthermore, Hodgkinson and Healey (2011) provided explanation for the linkage between the inter-personal and inter-organizational levels by integrating psychological foundations with a dynamic capabilities approach. They suggested that the creation of business opportunities originated from the cognitive and emotional disposition of top management, for these factors are likely to determine, to a significant degree, how the firm responds to a dynamic environment. In order to build on this fundamental insight that relational capabilities at the organizational level are driven by individual emotions and feelings through the form of inter-personal trust, this researcher calls for qualitative research that explores the micro mechanisms and processes that link psychological foundations, such as the relationship between managers' cognition and emotions and relational capabilities.

## **2) Economic dimensions**

Combining relational capabilities and TCE perspectives to explain strategic alliance management has revealed two opposite effects of asset specificity in strategic alliance projects. According to the literature, economists tend to focus on using asset specificity to facilitate exchange by preventing opportunism (Shelanski and Klein, 1995), while under the relational view the concentration is on trust and resources as well as the capabilities to promote collaborative exchanges in dyadic relationships (Dyer and Singh, 1998). The current research outcomes have confirmed both the relational view and TCE assertions. More specifically, it has emerged that with a high level of asset specificity, firms tend to build cooperative behaviours (knowledge sharing routines and complementary capability)

and safeguarding mechanisms (effective governance mechanisms) into alliance project management. This implies that firms are aware of opportunistic behaviours from asset specificity investment, but they are committed to pursuing value creation from this asset. That is, the findings support the position of Subramani and Venkatraman (2003) that asset specificity leads to interactions between alliance partners and hence, benevolent attitudes toward the other alliance parties. This is also in line with Heid and John's (1990) work, who noted that if the alliance partners invested in specific assets, they are likely to increase the level of joint action and sustain expectations of continuity as well as put in safeguard mechanisms to protect behavioural uncertainty from alliance partners.

One assumption of TCE, namely bounded rationality, has accentuated the economic man assumption in that the focus has been on the choice of mode of economic governance that minimizes transaction costs, arising in part from an inherent tendency of exchange parties to behave opportunistically (Williamson, 1985, 1993). By contrast, the assumption of trust implies the heroic man since trust plays an important role in promoting and maintaining value-enhancing collaborations (Zaheer et al., 1998). Consequently, another contribution of this research is with regards to this dilemma regarding the TCE and trust perspectives in explaining in that both have been integrated into the same theoretical model, rather than being considered separately. That is, adopting both perspectives to explain the inter-organizational exchange phenomenon has enhanced the explanatory power of the devised model as suggested by previous research (Ghoshal and Moran, 1996; Young-Ybarra and Wiersema, 1999; Zaheer and Venkatraman, 1995; McEvily et al., 2003; Lado et al., 2008). Clearly a relationship exists between trust and bounded rationality in inter-organizational collaborations, which may lead to information exchange that is more accurate, greater receptivity to influence by others and relaxation of controls on others. As a result, this effect reduces behavioural uncertainty, which, in turn, economizes on bounded rationality.

Moreover, Verbeke and Greidanus (2009) found that the joint adoption of bounded rationality and trust as behavioural assumptions in the context of MNEs, explained why individuals have the propensity to fail on commitments. Most failures to fulfill a commitment owing to self-interest do not lead to automatic relationship termination. Rather, they lead to feedback of why they occurred, to a solution on how to improve

performance and to corrective action in order to avoid similar failures in the future. In sum, this research has illustrated the relative ease with which asset specificity and trust can be incorporated into the applicable and completed picture of strategic alliance projects.

### **3) Relational capabilities approach**

This study makes a number of contributions that are fundamental to the theory of RBV, the relational view and the relational capabilities approach. From an academic standpoint, when examining hypotheses in relation to these at the conceptual level, a fundamental assumption in strategy research, especially from the resource-based view, is firm heterogeneity (Barney, 1991). That is, under RBV it is argued that firm specific capabilities differentiate successful firms from failing ones and that those unique resources and capabilities drive performance differences (Peng, 2009). The findings of this research, which support this theory, will allow firms to identify and exploit resources and capabilities that contribute to their competitive position. More specifically, the outcomes of this research extend RBV to answer a fundamental question of strategic alliances as to why some firms are more successful with these than others. Moreover, the findings support the idea that the search for the source of resources and capabilities should extend beyond the boundaries of the firm, thereby providing RBV with a more insightful perspective. In addition, this internal organizational principle is still valid for interconnected firms, for it requires not only organization of internal activities, but also configuration of inter-organizational activities when alliances are formed. This is consistent with Lavie's (2006) contention that the value-creation effect of a strategic alliance can be attributed to the ability of the firm to leverage external resources, create synergies by combining them with internal resources, and eventually internalize them through: learning, sharing and governing.

Furthermore, this research has adopted the relational capabilities approach (Dyer and Singh, 1998) to explain how firms gain relational rents when they apply these in strategic alliances. More specifically it contributes to the relational capabilities literature by conceptualizing and validating their antecedents and consequences. That is, to gain competitive advantage from strategic alliances, it has been elicited that the firm needs to

have relationship-specific assets, knowledge-sharing routines and complementary capabilities established with the alliance partners. As such, the research findings are consistent with previous studies in that the attainment of relational capabilities in strategic alliances will enable the firm to improve its operational and strategic performance (Ariño, 2003; Kale and Singh, 2007; Schilke and Goerzen, 2010).

In addition, this research contributes to the strategic alliance literature by demonstrating the effectiveness of a multiple mediation analysis technique. Although the causal steps approach (Baron and Kenny 1986) and Sobel test are widely used methods for testing hypotheses about variable effects, they have often been criticized for detecting the intervening effects (Fritz and MacKinnon 2007, MacKinnon et al., 2002). In this study the bootstrapping technique has been used to test the hypothesized multiple mediation/indirect effects of relational capabilities on the relationship between inter-organizational dimensions, namely trust and asset specificity, and alliance performance. The multiple mediation analysis technique used in this study is more robust than the aforementioned most popular methods (Hayes 2009), and therefore, the findings of this study can be interpreted with greater confidence.

### **7.2.2 Contributions to strategic alliance management in the Thai manufacturing sector**

The thesis has revealed that inter-personal trust as part of relational capabilities contributes to alliance performance in the context of the Thai manufacturing sector. That is, this form of trust, which is a factor at the individual level, plays a dominant role as an antecedent of relational capabilities, which is consistent with previous studies in this context. For instance, Kasuga et al. (2002) found that the network type administered structure, in which mutual trust relations are developed from the top management to the factories through strategic alliances, thus making best use of the characteristics of human relations that Japanese companies resort to, would be very effective in the Thai context. Furthermore, Kohpaiboon (2010) asserted that inter-personal participation is required to create effective and efficient coordination, since the contact person facilitates inter-organizational communication in several ways, including solving problems, which can for one thing improve the effectiveness of trial and error experiments. Moreover, the research

finding regarding inter-personal trust is in line with research in other settings. For instance, Luk et al. (2008) found that informal personal relationships (or Guanxi) in China have three benefits: enhancing organizational innovativeness; influencing the effectiveness of strategic innovativeness, and enhancing business performance. Furthermore, Chua et al. (2008) contended that Chinese business, when compared with that in the West, is characterized by trust in family-like relationships. In sum, this contribution of the thesis shows that it is important for MNEs to devote greater attention to developing closer ties with local suppliers in the Thai manufacturing sector in order to strengthen their abilities to achieve superior alliance performance.

### **7.3 Managerial implications**

This thesis provides three managerial implications for management scholars and practitioners with regards to: relational capabilities and competitive advantage, alliance project management and trust-based relationships in the Thai manufacturing sector. As a result, it is hoped that the framework and findings presented here stimulate relational capabilities-based research on the determinants of alliance project management, as well as on the conditions under which their presence is likely to have a positive impact on strategic alliance performance. In particular, it is hoped that purchasing managers of MNE subsidiaries and local suppliers' representatives in the manufacturing sector will take the opportunity to learn from the evidence presented in this research.

#### **7.3.1 Strategic alliance project management**

Drawing upon the empirical findings of the relational capabilities approach in this thesis, there are several managerial implications for alliance project management. First, the outcomes emphasize the importance of these capabilities as a source of competitive advantage of the firm. That is, a relational capabilities perspective provides new insights for project managers who are proponents of the resource-based view of the firm, for a comprehensive view of a firm's relational rent-generating resources not only includes elements such as brands, technological capabilities, management talent, and so forth, but would also include these capabilities. The outcomes of this research imply that firms that seek relational capabilities in strategic alliance projects are likely enjoy superior profits,

because of access to better information and opportunities than those that are more isolated. Therefore, since the firm is an entity with a limited range of capabilities based on its available routines and intangible and tangible assets, routines and capabilities could be thought of as a unique and inimitable asset (Gulati et al., 2000). According to Leonard-Barton (1992), core capabilities refer to a set of differentiated skills, complementary assets, and routines that provide the basis for a firm's competitive capacities and sustainable advantage in a particular business. Hence, relational capabilities should also be seen as core capabilities for firms and consequently this researcher urges managers to build this set of capabilities as the basis for a firm's competitive capacities and sustainable advantage in a particular business. Furthermore, the most important action to be taken by the firm's purchasing department in order to build a successful supplier alliance is to dedicate their organizational capabilities, including complementary capability and knowledge sharing routines, to utilize trust and asset specificity. That is, building these capabilities can help managers in the Thai context determine in advance if a potential relationship is one that will result in competitive advantages that are worth the time and resources required to sustain them.

Second, this research provides evidence that economic and relational constraints are pre-conditions of relational capabilities in alliance projects, i.e. they are potential factors for building such capabilities in these projects. An organization's management may arrive at the required level of relational capabilities through deployment of those economic and relational commitments that are within its control and, in so doing effectively manipulating them in its favour during alliance projects. This researcher calls on firms to develop trust and invest in asset specificity when undertaking strategic planning for these have been found to be drivers of these capabilities. The findings also suggest the need for managers to create and shape an inter-organizational context that continually fosters cooperation activities between the exchange parties, while simultaneously guarding against the potential hazards of opportunism (through trust-based relationships).

Third, this research has identified the effective mediators, namely, knowledge sharing routines and complementary capability, between inter-organizational constraints and alliance performance. This is very important for practitioners because an understanding

of the mediating model provides important intermediate markers regarding the nature of the capabilities that enhance development (Leonard-Barton, 1992). That is, if relational capabilities mediate the effects of inter-organizational conditions of a partnership, then managers may need to audit them continuously to ensure that the effects of these features have been fully assimilated into the collaborative process in order to ensure the expected outcomes. In particular, it is the job of the alliance manager to decide what investments are to be made, what assets are to be purchased, and how complementarities are to be achieved so as to guarantee that there is sufficient organizational support for leveraging economic and relational constraints in strategic alliance projects. More specifically, alliance managers have to ensure that knowledge sharing routines and complementary capability are created inside the firm in order to maximise the potential benefits regarding trust and asset specificity.

Fourth, this study moves forward the debate on relational capabilities by showing that considering the nature of the different types of alliance performance, allows for more precise predictions about the appropriate choice of such capabilities to adopt for a collaboration. That is, understanding the impact of both direct and indirect factors as provided in the model will help firms to improve their alliance project performance. More specifically, the key direct factor is relational capabilities, which mediate the inter-organizational dimensions of asset specificity and trust and hence the latter two are positively indirectly related to a firm's alliance performance. Moreover, firms can improve strategic performance by focusing on complementary capabilities with alliance partners as well as enhancing operational performance by focusing on knowledge sharing routines. However, having decided on their strategic goals, managers need to be aware of these causal links to ensure that they follow the correct path so as to achieve them.

Furthermore, the study outcomes show that taking a relational capabilities approach when considering appropriate alliance partners can enhance the likelihood of effective collaboration and hence, lead to fulfilment of desired operational and strategic performance. At the individual level, this researcher suggests that firms that select alliance partners with reliable contact persons are more likely to be successful. At the organizational level, the outcomes infer that firms should not only consider the partner

firms' reputation regarding reliability, but also their attitude towards maintaining a good relationship with their business partners. That is, firms that put high store in buyer-supplier relationships are likely to be good alliance partners since they are more willing to dedicate their resources and capabilities to making the best from collaborations.

Last but not least, since strategic alliance projects actually are a conduit for learning to improve the firm in the future (Mayer and Argyres, 2004), this researcher encourages alliance project managers to redeploy relational capabilities and alliance experiences from completed projects. This learning can help to improve subsequent strategic alliance management at the portfolio level and this particular finding of the link between project and portfolio levels provides support for Ethiraj et al. (2005) and Pisano's (1994) work that also discovered this to be the case. Moreover, as relational capabilities have been shown to require relational and economic commitment in order to develop, the use of these capabilities between alliance partners can be expected to evolve across subsequent projects. Increasing efforts to codify knowledge and creating systems to disseminate information between alliance managers across projects and time are possible mechanisms for the development of an organizational memory that can be leveraged in subsequent alliances. For example, Child (2001) noted that one kind of learning in a strategic alliance involves the accumulation of mutual experience with and knowledge about how to manage inter-organizational cooperation. Regarding this, the findings of this study showed how the firms were learning how to work together in terms of how to implement knowledge sharing routines and identify complementarities that exist with assets currently not owned by the firm. By so doing, this was helping the firms to achieve strategic fit (Porter, 1996), not just with internally controlled assets, but also by taking advantage of the capabilities of alliance partners.

Finally, the research outcomes indicate the important role of alliance managers and project staff in the sense that they are key players in the success of alliance projects. Consequently, it is recommended that alliance project managers should take care to appoint suitably qualified staff, be capable of correctly planning the activities for the project, know how to ensure the appropriate levels of information flows and be motivated to align firm and personal goals pertaining to performance and rewards, respectively.

Moreover, according to Augier and Teece (2009), firms engaging in strategic alliances require a different breed of manager, who should be highly skilled employees with the capacities to combine and integrate resources. In particular, they must act entrepreneurially, think strategically, and execute flawlessly if they are to lead their organizations successfully. Finally, the alliance manager must articulate goals, help evaluate opportunities and mitigate barriers during the on-going projects.

### **7.3.2 Trust-based relationships**

Many of the relational capability practices established in Asian business environments are being adopted by MNE subsidiaries seeking to benefit from a “relationship-oriented strategy”; a new term which many executives are discussing (Cousins et al., 2006). The results of this research, which were derived from MNEs, have provided evidence that most of these purchasing managers have applied the trust-based relationship and relational capabilities approach to manage their alliance projects and gain competitive advantage in the context of the Thai manufacturing sector. Based on these findings, the overriding recommendation for MNE managers of any country of origin is to take into account the context of alliance projects in that trust and relational capabilities play a greater part in some than in others. In particular regarding the context of this research, despite the notion of globalization suggesting a convergence of impersonalized business practices, inter-organizational and inter-personal trust still matter very much in the Thai manufacturing sector because trust facilitates relational capabilities in strategic alliances, as would appear to be the case in other East Asian countries, but not so much in the West. Therefore, when alliance managers spending time-consuming efforts drafting contracts in such Asian contexts, regardless of their home country should not ignore these informal relational capabilities aspects as these when nurtured well can have a positive impact on performance.

Finally, sales managers representing supplier firms need to recognize their additional role as relationship managers. Regarding which, this study has identified the importance of their understanding the behaviours and expectations of purchasing managers, whether spoken or unspoken, during alliance projects. In particular, by understanding expectations from the beginning of the engagement, the buyer and the supplier will be likely to achieve

a long term relationship built on collaborative effort. Also, the supplier's reputation regarding trustworthiness and reliability is an important aspect of building a relationship with their customers. Likewise, high levels of inter-organizational and inter-personal trust will result in reliable information exchange between buyers and suppliers which creates positive relations experiences and positive expectations for future engagement. In particular, such personal interaction helps develop common values and norms for the alliances (Das and Teng, 1998; Michailova and Hutchings, 2006). In sum, contact people should be sensitized to the nature of the social process underlying interpersonal relationship development.

#### **7.4 Limitations and Future research**

Although this study has provided considerable insights that contribute to the strategic alliance management literature, it has theoretical and managerial limitations that prompt the need for future research.

##### **7.4.1 Theoretical limitations**

There are three theoretical limitations in this research regarding relational capabilities and relational rents, different characteristics of trust and different characteristics of transaction cost factors.

##### **1) Relational capabilities approach**

Even though in this thesis it has been contended that relational capabilities facilitate inter-organizational development, in some situations they can be a hindrance for those developed for specific purposes have rigidities characteristics (Leonard-Barton, 1992). That is, previous research has raised the concern that relational capabilities can play a negative role in alliance performance (Li et al., 2008; Villena et al., 2011) because those developed capabilities sometimes cannot respond to the rapid changing environment. Given this perspective, it could be the case that the current research is restricted by having focused on relational capabilities to the detriment of other factors that can enhance or hinder alliance performance. Taking this into account, it is recognised that it is important for managers to be aware of the need to cultivate an optimal mix of trust and contractual

safeguards, because these control devices interact with each other, whereby MNE subsidiary managers must make decisions based on a simultaneous consideration of these interdependent exchange elements. They should weigh costs and benefits of relationship-oriented management with their local suppliers and carefully apply appropriate strategies to achieve effective knowledge sharing between parties. Similarly, Argyres and Zenger (2007) argued that a desire to generate unique capabilities may influence the canonical make-or-buy decision as well as the governance choices that impact on the efficiency of capability formation. Therefore, future research should treat relational capabilities considerations as inextricably intertwined with transaction cost logic, and should seek to analyse this complex interaction. Furthermore, relational rents are jointly generated from specific assets firms dedicate to alliance relationships and from complementarities between their resources and those of their partners (Dyer and Singh, 1998; Lavie, 2006; Mesquita et al., 2008). However, this researcher has only investigated the role of private benefits in strategic alliance projects, namely operational performance and the strategic performance of the firms. Therefore future research should distinguish between private and common benefits to determine the contributions of relational rents among alliance partners.

## **2) Different characteristics of trust**

This study extends relational capabilities literature by having identified the antecedents and outcomes of relational capabilities in the context of MNE subsidiaries and local suppliers in the Thai manufacturing sector. That is, the outcomes have provided evidence that a firm can benefit from developing long-term relationships and close ties with specific suppliers and these relationships are likely to ensure that key resources will still flow in at a moderate cost. However, inter-organizational relationships have a potential dark side and may lock firms into unproductive ties or prevent partnering with other capable firms (Gulati et al., 2000; Villena et al., 2011). Consequently this researcher notes that future study should investigate alternative relationships in conjunction with the potential negative impacts of trust on relational capabilities and alliance performance. Also, it is suggested that firms seeking to optimize alliance performance should carefully assess alternative partners rather than merely turning to those with whom they have had prior

alliance experiences. That is, it may be advisable to sample from a broad set of experiences with diverse partners, while taking alliance-based competitive dynamics into account (e.g. Anand and Khanna, 2000; Silverman and Baum, 2002).

Furthermore, for this study only two levels of trust, namely inter-personal and inter-organizational trust, have been focused upon. However, according to Rousseu et al. (1998), there are multiple dimensions (e.g. individuals, dyads, groups, networks, firms, and inter-firm alliances) that are related in strategic alliance management, which may play different roles in the interaction. This researcher, therefore, calls for studies that take into account multilevel perspectives on trust in and between organizations in order to advance theory. Furthermore, this research has only considered goodwill trust between alliance partners. There are other types of trust in the literature, such as calculative, cognitive, competence and institutionalized based trust (Doney and Cannon, 1997; Sako and Helpers, 1998; Chua et al., 2008; Parkhe, 1998). Further research should probe these various types of trust since they may have different antecedents and outcomes.

### **3) Different characteristics of transaction cost factors**

This researcher has investigated only the effect of two specific transaction cost factors that influence relational capabilities: asset specificity and HR distance. Hence, it would be beneficial to assess the influence of additional transaction cost variables on relational capabilities, e.g. different types of asset specificity, institutional voids and alternative firm specific factors. To begin with, the nature of asset specificity can be distinguished into two categories: tangible and intangible asset (Joshi and Stump, 1999). Likewise, Subramani and Venkataman (1995) defined the different characteristics between tangible asset specificity (e.g. plant and machinery) and intangible asset specificity (e.g. know-how and business process) in relation to vertical relationships between buyers and suppliers in the Canadian manufacturing sector. Hence, future research should consider examining the impact of different types of asset specificity on the relational capabilities approach. In addition, some of this variation in transaction cost factors certainly arises from contextual factors that were not modelled for the current study, such as country of origin, technological uncertainty, and plant size. Regarding which, the level of inter-organizational collaborations has been to be affected by such factors (Child and Möllering,

2003), i.e. legal system effectiveness, the availability of competent human resources and cultural sensitivity (Skarmeas et al., 2002) as well as institutional variance in the host country (Peng et al., 2009) and different alliance management practices among Asian and Western MNEs (Dyer and Chu, 2000). Clearly, substantial further research is required to unpack the idiosyncratic role of contextual factors in relation to their varying impacts on alliance performance.

#### **7.4.2 Methodological limitations**

Although the findings of this thesis advance the relational capabilities approach, this research also has methodological limitations, in terms of measurement, sample size, generalization and the fact that it was not longitudinal study. To begin with, this research involved adopting subjective constructs of relational capabilities (Kale et al., 2000; Dyer, 1997; Mesquita et al., 2008) and asset specificity from previous studies (Subramani and Venkatraman, 2003; Zhou and Poppo, 2010). Therefore, this researcher calls for future research to collect these data using objective measurements, such as number and length of contacts between buyers and suppliers or the monetary value of asset specific resources (e.g. Corsten and Kumar, 2005). Moreover, although this research has involved using multi-level variables, at the individual, organizational and country levels, HR distance which was that chosen for the lattermost was found to have no impact on relational capabilities. Therefore, it is proposed that future study should consider HR distance by using Likert scales to assess attitudes towards this factor by respondents in different organisations directly. Further, although the relational capabilities approach at the alliance project level has been investigated, it is acknowledged that some important project-based control variables that may impact on these capabilities as well as performance, such as perceived project novelty, team size (Regans et al., 2004), project size and complexity and staff team size (Ethiraj et al., 2005), have been omitted. Therefore, it is recommended that future research relating to alliance management at the project level should include these control variables.

For this research primary data were collected to test the theoretical framework, although usually secondary data is considered most reliable. However, given the researchers' intention was to investigate her native country of Thailand this was not feasible because

no robust secondary data on the focal issues has been published. Unfortunately, the primary data collected could not be controlled in terms of the timing of the reporting regarding the chosen variables. That is, the respondents may well have been providing information that pertained to different time periods and consequently this may have affected the outcomes regarding the antecedents and hence the relational capabilities findings, which there was not easy way to avoid. In addition, Shaver (1998) noted that firms choose strategies based on their attributes and industry conditions and therefore strategy choice is endogenous and self-selected. In the current research, many managers reported that they put great store in relational capabilities, because they believed that these enhance performance and eschew alternative strategies which may be equally effective or even better. These potential biases were not catered for in this investigation and hence it is recommended that future work takes these into account when testing relational capabilities so as to avoid the endogeneity problem (ibid). In addition, Harman's one-factor test, which was used in this research, has limitations, especially, its well-known insufficient sensitivity to detect moderate or small levels of common method variance (CMV) effects (Kemery and Dunlap, 1986; Podsakoff et al., 2003; Maholtra et al. 2006). That is, as the number of latent factors increases, one factor is less likely to account for the majority of the variance in the manifested variables. Consequently, these authors have recommended another peer technique to detect the CMV problem, the marker-variable technique and this researcher concurs with this view that an alternative to Harman's one-factor test is preferable.

Regarding to the context of the research, this study employed the perspective of a single firm and not the dyad or network, and as a result of the analysis, which was one-sided, may not have accounted for the overall impact of the relationship on the partner firms. Moreover, even though country-specific studies have added valuable and novel insights into the stock of global management knowledge, they on the whole unable to provide generalizability regarding the findings. Hence, future research needs to extend such investigations to the suppliers' perspective on relational capabilities as well as using larger samples and different business/country contexts to increase the possibility of generalizability of the outcomes (e.g. Asian and non-Asian MNEs). Finally, in this study trust and transaction cost factors have been treated as static concepts that have a constant

value, rather than dynamic ones that evolve over the duration of strategic alliances (Reuer and Ariño, 2002). Therefore, analysis of how these factors impact on relational capabilities would prove a beneficial extension of this research.

### **7.5 Final remarks**

This research extends alliance management literature by integrating three complementary theories: relational capabilities approach, the concept of trust and TCE. Employing a sample of 156 alliance projects between MNE subsidiaries and local suppliers in the Thai manufacturing sector, several hypotheses have tested in order to address the two main research questions and subsequently several theoretical contributions have been identified. First, this work advances the relational capabilities approach by confirming its antecedents and consequences. That is, the importance of the relational and economic dimensions between organizations as they seek to enhance their relational capabilities and relational rents of strategic alliance at the project level has been confirmed. Second, it has been elicited that different types of relational capabilities provide different alliance outcomes. More specifically, knowledge sharing routines and complementary capability enhance operational performance and strategic performance, respectively. Finally, the thesis has provided empirical evidence that aligns with the relational capabilities literature that knowledge sharing routines and complementary capability, are idiosyncratic and difficult for competitors to imitate. As a result, firms that dedicate time and effort to developing these capabilities are likely to achieve competitive advantage in the context of cross-cultural alliance projects. Bearing in mind the limited empirical research available in combining the relational capabilities approach and research methods, this study is important in paving the way for further comprehensive research on strategic alliance projects. The researcher encourages firms to apply the research results to their alliance project management in order to achieve superior alliance performance.

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## APPENDIX A: Cover letter

### **Buyer-Supplier Alliance of Multinational Enterprise Subsidiaries in Thai Manufacturing Sector**

I am conducting a survey of “Buyer-Supplier Alliance of Multinational Enterprise Subsidiaries in Thai Manufacturing Sector” as part of doctoral research within the School of Management, University of Bath, UK. All responses to the survey will be treated as confidential.

#### **Instruction**

1. This survey has two set of questionnaires. The questionnaire No. 1 has 2 pages for purchasing director and the questionnaire No. 2 has 4 pages for another key informant.
2. Please select **one important strategic alliance project with one Thai supplier in the last 3 years (2008 – 2010)**.
3. The example of the alliance project includes joint ventures, R&D partnerships, affiliation in research consortia, franchising, contractual agreements, management/marketing service agreements, know-how licensing contracts and technical training.
4. The focal alliance will be used as the focal basis of the information. Please complete all sections of the survey by ticking the relevant box for each question.
5. After you have completed the questionnaire No.1, please forward the questionnaire No. 2 to a key person who has been involved with the project (i.e. project manager, alliance manager, engineer) to complete it.
6. Kindly return the two completed questionnaires by November 2011. Please attach your business card, if you would like to have the summary of findings of this research.

#### **Definition**

**The strategic alliance project** means an agreement between your company and a local supplier to share resources in specific project related to the critical products and process in your manufacture in order to gain mutual benefits.

**A Thai supplier** means a **Thai company** which has supplied critical component products in the manufacturing process of your company for more than 3 years.

**Thank you for your kind cooperation.**

Rapeeporn Rungsithong

PhD Student, School of Management, University of Bath

## APPENDIX B: Questionnaire for purchasing managers

### Questionnaire No.1

#### **Part 1: Sourcing practice and alliance experiences of your company (in the division under your responsibility)**

1. What percentage of the sales of your company are exported from Thailand?  
 0%       < 25%       25% - 50%       50% - 75%       75% - 100%

	<b>Person(s)</b>
2. Approximately, how many persons are working on purchasing in your company?	
3. Approximately, how many expatriates from the parent company are working on purchasing in your company?	
4. Approximately, how many expatriates from the parent company are working in your company?	

5. Please, indicate the approximate percentage of sourcing of materials/components the following supplies?

	%
Sourcing from affiliated companies in Thailand	
Sourcing from affiliated companies overseas	
Sourcing from independent suppliers in Thailand	
Sourcing from independent suppliers overseas	
Total	100

6. To what extent do you disagree or agree with following statements on sourcing?

	<i>Strongly Disagree</i>						<i>Strongly Agree</i>
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Your company is experienced in inter-organizational collaboration							
Your company has learned how to handle inter-organizational relations through previous alliances							
Your company previous experiences have guided you in structuring and governing this alliance							
You think it is troublesome to cooperate since you have limited previous experience.							

#### **Part 2: Information about company and the focal alliance with Thai supplier**

Instruction: Please select one important strategic alliance with one Thai supplier in the last 3 years (2008 – 2010). This important alliance project refers to an agreement between your company and a Thai supplier to share resources in a project related to critical products and process in your manufacturing. Please refer to this selected alliance project for all the following questions.

7. What is the form of this alliance?

- Equity ownership       Non-equity ownership

7.1) If the form of the alliance project is equity ownership, please specify the percentage of the capital of your company and the Thai supplier. Your company..... % The supplier ..... %

7.2) If the form of the alliance project is non-equity ownership, please specify the form of the project. *(Please select only one answer)*

- Cooperation agreement  Licensing agreement  Buyer-seller contract  Other.....

8. What is your company's main motive for the alliance with this supplier? *(Please select only one answer)*

- New product and process development       Joint purchases  
 Total quality management       Lot size optimization techniques program  
 New machine set up techniques programs       Supply chain management and logistics  
 Joint R&D project for new product development  
 Joint R&D project for new process development  Others (Please specify .....)

9. In what year was the alliance was formed? .....

10. Has the alliance project be terminated/ended?

- No, it is still operating       No, it is expected to end in the year.....

- Yes, it was ended in the year.....

11. To what extend do you disagree or agree with following statements on the characteristics of this supplier?

	<i>Strongly Disagree</i>						<i>Strongly Agree</i>
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
This supplier is trustworthy.	(1)	(2)	(3)	(4)	(5)	(6)	(7)
This supplier has always been even handed in its negotiation with your company.	(1)	(2)	(3)	(4)	(5)	(6)	(7)
This supplier never uses opportunities that arise to profit at your expense.	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Your company is not hesitant to transact with this supplier when the specifications are vague.	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Your company trust that confidential/proprietary information shared with the supplier will be kept strictly confidential by the supplier's sales and engineers	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Your company provided recent detailed cost data to the supplier (e.g., a break- down of your cost structure which estimates exactly what it will cost you to manufacture a specific component)	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Your company share information with the supplier on your long-term production plans, capital investments, and capacity utilization	(1)	(2)	(3)	(4)	(5)	(6)	(7)
A comprehensive set of norms of action has been well developed whilst cooperating	(1)	(2)	(3)	(4)	(5)	(6)	(7)
A binding set of rules for both firms has been created	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Both firms have a mutual understanding of each other's organizational culture, values and operations	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Both firms share a common vision and ambition for the cooperative venture	(1)	(2)	(3)	(4)	(5)	(6)	(7)

**Part 3: Information about the alliance performance**

12. What percentage of the alliance project in which the original goals were realized?

0%  < 25%  25% - 50%  50% - 75%  75% - 100%

13. To what extent do you disagree or agree with following statements on the alliance project performance with this suppliers in the last three years?

	<i>Strongly Disagree</i>					<i>Strongly Agree</i>	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Your company has continued to improve product design performance through this partnership	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Your company has continued to improve process design through this partnership	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Your company has continued to improve product quality through this partnership	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Your company has continued to reduce lead time through this partnership inquiries after the alliance.	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Your company has continued to increase the reliability of our products delivery times	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Your company has continued to lower the total cost of our products	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Your company has continued to reduce our product cost							
Your company has continued to improve our manufacturing flexibility	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Your company has continued to introduce new generation of products	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Your company has continued to extend product range	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Your company has continued to open up new markets	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Your company has continued to enter new technology fields	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Your company has continued to learn about customers and markets for your products	(1)	(2)	(3)	(4)	(5)	(6)	(7)

**Part 4: Please complete the following that describe your characteristics.**

14. Your position in the company.....

How many years have you worked for the company? ..... years

15. Gender  Male  Female

16. Age  between 21 – 30  between 31 - 40  between 41 –50  more than 50

17. Education

Vocational school  Undergraduate  Postgraduate  Other (Please specify....)

Comment and suggestion.....

## APPENDIX C: Questionnaire for purchasing staff

### Questionnaire No.2

#### Part 1: Information about the supplier in the alliance project

1. What is the nationality of this supplier?

( ) Thai independent supplier      ( ) Joint venture independent supplier

(Please specify the nationality.....)

2. Is this supplier your affiliated company?      ( ) Yes      ( ) No

3. How many years has your company been sourcing from this supplier?      ..... years

4. To what extend do you disagree or agree with following statements on the importance of the supplier based on the last three years?

	<i>Strongly Disagree</i>						<i>Strongly Agree</i>
This supplier is a very large company	(1)	(2)	(3)	(4)	(5)	(6)	(7)
This supplier is the industry's biggest supplier of this product	(1)	(2)	(3)	(4)	(5)	(6)	(7)
This supplier is a small player in the market	(1)	(2)	(3)	(4)	(5)	(6)	(7)
If your company decided to stop purchasing from this supplier, your company could easily replace the volume with purchases from other suppliers	(1)	(2)	(3)	(4)	(5)	(6)	(7)
There are many competitive suppliers for these components	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Your production system can be easily adapted to using components from a new supplier	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Dealing with a new supplier would only require a limited redesign and development effort on your part	(1)	(2)	(3)	(4)	(5)	(6)	(7)

5. To what extend do you disagree or agree with following statements on the relationship between your company and the supplier based on the last three years?

	<i>Strongly Disagree</i>						<i>Strongly Agree</i>
The business practices and operational mechanisms of the supplier are very similar to yours.	(1)	(2)	(3)	(4)	(5)	(6)	(7)
The corporate culture and management style of the supplier is very similar to yours.	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Just for your company this supplier is willing to customize its products.	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Just for your company this supplier is willing to change its production process.	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Just for your company this supplier is willing to change its inventory procedures.	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Just for your company this supplier is willing to change its delivery procedures.	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Just for your company this supplier is willing to invest in tools and equipment.	(1)	(2)	(3)	(4)	(5)	(6)	(7)
This supplier shares proprietary information with your company.	(1)	(2)	(3)	(4)	(5)	(6)	(7)
This supplier will share confidential information to help your company.	(1)	(2)	(3)	(4)	(5)	(6)	(7)

**Part 2: Information about the routines in the alliance project between your company and the supplier**

6. To what extent do you disagree or agree with following statements on the differences between your company and the supplier within the alliance in this alliance project?

	<i>Strongly Disagree</i>						<i>Strongly Agree</i>
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
There is high complementary between the resources/capabilities of the two partners	(1)	(2)	(3)	(4)	(5)	(6)	(7)
There is high similarity/overlap between the core capabilities of each partner	(1)	(2)	(3)	(4)	(5)	(6)	(7)
The organizational cultures of the two partners are compatible with each other	(1)	(2)	(3)	(4)	(5)	(6)	(7)
The management and operating styles of the partners are compatible with each other	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Your company learnt or acquired some new or important information from the partner	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Your company learnt or acquired some critical capability or skill from the partner	(1)	(2)	(3)	(4)	(5)	(6)	(7)
This alliance has helped your company to enhance its existing capabilities/skills	(1)	(2)	(3)	(4)	(5)	(6)	(7)

7. To what extent do you disagree or agree with following statements on specific assets which have invested between your company and the supplier in this alliance project only?

	<i>Strongly Disagree</i>						<i>Strongly Agree</i>
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Your company has changed the location of the distribution facilities used in supplying your company receiving points	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Your company has changed your manufacturing equipment and machinery.	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Your company has changed your inventory and warehouse.	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Your company has changed your software and applications used (e.g., billing, inventory management, EDI etc.)	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Your company has changed your administrative and operating procedures used (e.g., vendor selection, cost accounting procedures, shipping procedures etc.)	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Your company has changed the skill levels of your employees working on the focal carrier's business	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Your company has changed the extent of training needed for staff	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Your company has difficulty to redeploy people and facilities serving the alliance	(1)	(2)	(3)	(4)	(5)	(6)	(7)
It is important that this alliance continues, as termination will result in financial losses due to your investments	(1)	(2)	(3)	(4)	(5)	(6)	(7)

8. To what extent do you disagree or agree with following statements on information and knowledge sharing with this supplier in this alliance project?

	<i>Strongly Disagree</i>						<i>Strongly Agree</i>
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Your company and this supplier conducted a 'collective review' to assess the progress and performance of their strategic alliances.	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Your company and this supplier participated in forums such as committees or task forces to take stock of their alliance management experience and practices.	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Your company and this supplier participated in forums such as meetings, seminars, or retreats to exchange alliance-related issues (e.g. buyer and this supplier's employees jointly participated in someone else's programs)	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Your company and this supplier engaged in informal sharing and exchange of alliance-related information and know-how with peers or colleagues within the organization.	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Your company shared confidential/proprietary information related to this project (such as cost and proprietary technology) with the supplier	(1)	(2)	(3)	(4)	(5)	(6)	(7)

9. To what extent do you disagree or agree with following statements on the governance which has been conducted in the alliance with this supplier in this alliance project?

	<i>Strongly Disagree</i>						<i>Strongly Agree</i>
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
The formal contract/agreement is highly customized and required considerable legal work	(1)	(2)	(3)	(4)	(5)	(6)	(7)
The formal documents (i.e. balance sheet, monthly report, service level agreements) are highly used in monitoring the performance of the supplier	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Face-to-face meetings at the top management level are highly used in monitoring the performance of the supplier	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Disagreements between your company and the supplier will be only resolved with the formal contracts or agreements	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Disagreements between your company and the supplier will be only resolved with informal meeting between cooperation managers or project groups	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Your company and this supplier keep each other informed relative to production plans, schedules and demand forecasts	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Your company and this supplier extend technical support during emergencies and breakdown and/or onsite support for implementation of improvements	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Your company and this supplier promote 'fair sharing' of cost savings and benefits arising out of joint efforts.	(1)	(2)	(3)	(4)	(5)	(6)	(7)

**Part 3: Information about the contact person of the supplier in this alliance project**

Instruction: Please select one contact person (i.e. sales representative, engineer, technician, etc.) whom you have worked most closely in this alliance project from the supplier side. This person will be used as the focal basis of the information in this part.

10. How long has this contact person been in contact with your company? ..... years  
 What is nationality of this contact person? ( ) Thai ( ) Other (Please specify .....)

11. To what extend do you disagree or agree with following statements on the characteristics of the contact person of this supplier in the alliance project?

	<i>Strongly Disagree</i>					<i>Strongly Agree</i>	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
The contact person of this alliance has always been even handed in negotiations with you	(1)	(2)	(3)	(4)	(5)	(6)	(7)
You know how your contact person is going to act. S/he can always be counted on to act as you expect.	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Your contact person is trustworthy.	(1)	(2)	(3)	(4)	(5)	(6)	(7)
You have faith in your contact person to look out for your interests even when it is costly to do so.	(1)	(2)	(3)	(4)	(5)	(6)	(7)
You would feel a sense of betrayal if your contact person's performance was below your expectations.	(1)	(2)	(3)	(4)	(5)	(6)	(7)

12. To what extend do you disagree or agree with following statements on the relationship between you and the contact person of this supplier in the alliance project?

	<i>Strongly Disagree</i>					<i>Strongly Agree</i>	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
This person is friendly.	(1)	(2)	(3)	(4)	(5)	(6)	(7)
This person is always nice to us.	(1)	(2)	(3)	(4)	(5)	(6)	(7)
This person is someone we like to have around.	(1)	(2)	(3)	(4)	(5)	(6)	(7)
This person shares similar interests with people in our firm.	(1)	(2)	(3)	(4)	(5)	(6)	(7)
This person has values similar to people in our firm.	(1)	(2)	(3)	(4)	(5)	(6)	(7)
This person is very similar to people in our firm.	(1)	(2)	(3)	(4)	(5)	(6)	(7)
This person frequently visits our place of business.	(1)	(2)	(3)	(4)	(5)	(6)	(7)
This person takes a lot of time learning our needs.	(1)	(2)	(3)	(4)	(5)	(6)	(7)
This person spends considerable time getting to know our people.	(1)	(2)	(3)	(4)	(5)	(6)	(7)

**Part 4: Please complete the following that describe your characteristics.**

14. Your position in the company .....  
 How many years have you worked for the company? ..... years  
 15. Gender ( ) Male ( ) Female  
 16. Age ( ) between 21 – 30 ( ) between 31 - 40 ( ) between 41 –50 ( ) more than 50  
 17. Education  
 ( ) Vocational school ( ) Undergraduate ( ) Postgraduate ( ) Other (Please specify....)  
 Comment and suggestion.....

## APPENDIX D: Research publications

1. Rungsithong R., Trust and Relational Capabilities in Vertical Alliances: An Empirical Study of MNE Subsidiaries in Thai Manufacturing Sector, *Proceeding of AIB/Sheth Foundation Doctoral Student Consortium, Washington DC, USA, June 30th, 2012.*
2. Rungsithong R., Meyer K.E., Roath A.S. Antecedents and performance outcomes of Relational capabilities in Strategic Alliances between MNE subsidiaries and local suppliers, *Proceeding of European International Business Academy (EIBA), Brighton, UK, December 6-9, 2012.*