The Antecedents and Outcomes of Learning Strategies in International Strategic Alliances. A Coopetitive Learning Perspective

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Abstract

The present study seeks to extend the understanding of coopetition strategy by contributing in International Strategic Alliances (ISA) literature and utilising loose coupling theory in developing the conceptual model. In particular, the study investigates the inter-partner firms learning strategies in which partners' resources and goals similarity/dissimilarity determine whether partners employ cooperative or competitive learning strategy, which in turn, affects the effectiveness of the alliance. Particular attention was given to the learning strategies deployed by alliance firms. As such, the study conceptualises the coopetitive learning strategy (i.e. cooperative and competitive learning strategies) as the simultaneous cooperation and competition between inter-partner firms with the aim to create value, which is affected by partners' differences in strategic goals and resources contributed in the alliance. In turn, coopetitive learning strategy is hypothesised to directly influence alliance outcomes that is the effective performance of the alliance. Further, the study discusses the importance of coopetition on performance and highlights the contribution of such research both to the theory and managerial practices. Using a sample of 218 responses collected from top management team (TMT) of ISA operating in knowledge intensive industries operating in Greece, the study tested four direct relationship hypotheses where partners' goals and resource differences influence cooperative and competitive learning strategies and one interaction hypothesis where the interaction between cooperative and competitive learning strategies influences the effectiveness of the alliance. The results suggest that partners' goals and resource differences are important constructs that predict learning strategies within an alliance. Particularly, this study provides empirical evidence that: (1) goal differences directly and negatively affect cooperative learning strategy and positively affect competitive learning strategy (2) resource differences has no impact on cooperative learning strategy while it does affect negatively competitive learning strategy, (3) cooperative learning strategy directly and positively affect the performance of the alliance (4) competitive learning strategy directly and negatively affect the performance of the alliance, and (5) coopetitive learning strategy, that is the interaction between cooperative and competitive learn ng strategies, influence positively the performance of the alliance. These findings are discussed with relevance to the prevalent extant literature. In addition, the study highlights the theoretical and managerial implications, followed by the limitations of the study and future research considerations.

Keywords: International Strategic Alliances, Cooperation, Competition, Coopetition, Performance, Learning Strategies

Contents

Chapter 1

Introduction

1.1 Research Background

International Strategic Alliances (ISA) has become an essential strategic tool for firms to achieve sustainable competitive advantage and growth (Liu et al., 2010). Facts reveal that strategic collaborations with international firms are means for firms to combine complementary resources and capabilities that assist in value co-creation as well as for accessing, acquiring and internalising the core knowledge needed to achieve superior outcomes for the alliance and the focal firms (Han et al., 2012). ISA supports a purposive partnership between two or more independent firms working together and trying to achieve strategic objectives for mutual and private benefit, through sharing, co-development, exchange of resources and capabilities (Lopez-Duarte et al., 2016).

In the past decade, there has been an extraordinary increase in ISA formation. Currently, the top 500 global businesses have an average of 60 major strategic alliances each (Li et al., 2017), which indicates that approximately 26 per cent of these firms' revenues come from such strategic collaborations (Das and Teng, 2000). However, despite associated benefits, ISA is fraught with risks, with almost 50% of cases of failure to meet goals (Kale and Singh, 2009). The results are alliance resolution, underperformance and instabilities (Lunnan and Haugland, 2008). In other cases, the alliance partners are faced with harmful consequences that include losing of proprietary information, status, revenue and competitive position. As a result, modern scholars have focused on identifying factors that account for alliance success and failure, by investigating issues related to partners' selection, governance and evaluation of ISA performance outcomes (Christoffersen et al., 2014; Shah and Swaminathan, 2008; Heide et al., 2007; Hitt et al., 2004).

Interestingly, strategic collaborations between firms involve business competitors (Harbison et al. 1998), thus implying that in the world of commerce, competition and cooperation are not mutually exclusive (Bengtsson and Kock 2000; Tsai 2002; Luo 2004, 2005). In combining the two activities, competition and cooperation, a "hybrid activity" (Walley 2007, p. 12) dubbed "coopetition" is formed (Bengtsson and Kock 2000). While coopetition combines the strengths of cooperation and competition, it fails to address the inherent paradox associated with rising tension between value creation and capture, a situation that explains the underperformance and instabilities of ISA.

As firms increasingly engaged in coopetition (Bengtsson and Kock, 2000; Brandenburger and Nalebuff, 1996b; Gnyawali, He, and Madhavan, 2008; Luo, 2007), as a means of enhancing competitive advantage, scholars have argued that this new phenomenon is a new lens that could reveal hidden benefits that could stem from both cooperation and competition (Bengtsson, et al., 2010). Case in point, competing firms possess relevant resources and face similar pressures. Hence, the collaboration between them would denote acquisition and creation of new technological knowledge as well as the use of knowledge in pursuit of alliance effectiveness (Quintana-García and Benavides-Velasco, 2004; Ritala, et al, 2009).

Despite the popularity of coopetition from both the academic and business arenas, empirical studies on its effects on firms' performance are rare (Walley, 2007; Yami, et al., 2010). Majority of relevant studies are focused on conceptual developments or based on case studies. Further, limited empirical studies that examined the effects of coopetition on firm innovation performance provide inconsistent findings. While Quintana-García and Benavides-Velasco (2004) report positive effects of coopetition on innovation, Nieto and Santamaria (2007) report a negative relationship between alliances with competitors (i.e., coopetition) and performance, and Knudsen (2007) finds no evidence that coopetition leads to an increase in firm

performance. In consideration of the significance of coopetition and performance, the inconsistent results of empirical research on the effects of coopetition on performance outcomes should be addressed systematically. Also, although it is considered a win-win strategy, coopetition is a dynamic and paradoxical phenomenon. Firms struggle with a dilemma between the need to work together to create value and the temptation to be opportunistic to appropriate a more significant share of the created value (Lavie, 2007; Gnyawali and Park, 2009; Ritala and Hurmelinna-Laukkanen, 2009). The case of coopetition between Samsung and Sony in the TV industry shows that the firms' capabilities (e.g., coopetition mind-set) might play a critical role in the successful coopetitive relationship (Chang, 2008; Dvorak and Ramstad, 2006; Gnyawali and Park, 2011). However, the role of a firm's capability in managing coopetitive relationships is rarely discussed in the coopetition literature.

By drawing in inter-organisational learning literature, this thesis tries to understand how firms decide to engage in cooperative and competitive strategies as well as clarify the dilemma between the two opposing activities. Learning in this thesis is the critical mechanism for coopetition to occur within inter-organisational relationships. Undoubtedly, in an international context, learning is a crucial factor determining not only the formation of alliances but also their development, management, and outcomes. It is also one of the main concepts of alliance and organisational learning literature (Inkpen and Currall, 2004). It is no wonder why the concept of learning has been at the centre of many debates amongst scholars, most of whom suggest that learning drives the development and growth of business alliances. This argument is driven by the fact that learning creates new opportunities for enhancing alliance outcomes (Dong and Glaister, 2006; Grant, 1996; Hamel, 1991; Inkpen and Beamish, 1997; Inkpen and Pien, 2006) and relationship satisfaction (Liu et al., 2010).

ISA literature suggests two key learning strategies: cooperative learning, which refers to firms' joint activities aiming to co-create value in the alliance; and competitive learning, defined as firms' activities aiming to outlearn alliance partner (Larsson et al., 1998; Tsang, 1999; Wong et al., 2005). These two learning strategies signify a strategic dilemma for alliance firms, such that, while cooperative learning strategy enables the development of new resources and capabilities, essential for the success of the alliance, it also allows for exploitation by opportunistic partners, which may damage the individual firms or/and the alliance (Lei et al., 1997; Ireland et al., 2002). Because cooperative learning underlies interaction, communication, and knowledge and capabilities sharing, there is the risk of valuable information spill-over, which may be exploited by either partner firm for personal benefits at the expense of the alliance. On the other hand, while competitive learning accounts for such spill-overs (because firms work individually and do not share valuable information), it is also regarded as the primary source of conflict between partners that diminish superior value creation through joint activities (Kale et al., 2000). Therefore, such cooperative learning accounts for the effectiveness of the alliance, while conflicts and opportunistic behaviours are considered critical drivers of adverse performance outcomes (Christoffersen et al., 2014). Firms are not only required to choose between mutual and private benefits, but they are also confined to two strategic options that are not risk-free. Hence, the following question arises: Is it possible to deploy both strategies simultaneously to complement or prevent potential losses deriving from one solely strategic approach?

Das and Teng (2000) adapt a contradiction-based paradigm which views alliances as a unity of opposite forces that compete with each other. These scholars argue that the two strategies are contradictory, and this contradiction causes internal tensions when trying to resolve, which in turn drive adverse alliance outcomes. Their view suggests that the two concepts coexist as opposite forces and accepts the paradox with its oppositions and contradictions. Adopting a

balancing approach, Rond and Bouchikhi (2004), proposed that since opposite forces exist within alliances autonomously, maintaining a balance of them is critical for the practical function of the alliance. They argue, the simultaneous use of cooperative and competitive strategies and the balance between the two strategies not only diminish internal tensions but may also generate superior performance outcomes. Their view is supported by many management and strategy scholars, who refer to the phenomenon as competition (Ritala, 2012).

Various scholars highly observe the concept of competition within an alliance context, and they contribute their theoretical as well as practical understanding of the concept with regards to firms' collaboration with competitors to achieve mutual goals (Rusko, 2011; Bengtsson and Kock, 2000). Consequently, they agree that competition describes the strategic and dynamic process in which actors jointly create value through cooperative interaction, while they simultaneously compete to capture part of that value (Ritala, 2012). By drawing from coopetition literature, this study conceptualises and introduces a coopetitive learning strategy construct, defined as the strategic and dynamic process in which actors jointly create value, while simultaneously competing to outlearn partners. The purpose of the construct is to establish coopetition as an alternative learning strategy that resolves the dilemma and offers better performance outcomes.

However, the alliance and organisational literature lack sufficient understanding concerning what drives firms' decisions to engage in cooperative or competitive learning (Lavie and Rosenkopf, 2006). Moreover, it appears that in the context of strategic alliances, "the role of learning has received little attention" (Inkpen and Currall, 2004, p. 586). For instance, it remains unclear how firms make decisions about the learning strategy to deploy (Friesl, 2012; Lavie and Rosenkopf, 2006; Volberda et al., 2010). To the author's knowledge, what drives learning decisions in strategic alliances, and how the learning strategies deployed by alliance

partners may preclude the development of embedded ties is mainly unknown. In response, this study intends to empirically demonstrate that partners' characteristics, such as goals and resources, drive strategic decisions.

Adopting organisational learning, and a loose coupling view of alliances, this study argues that firms are characterised by mutual (goal similarity) and personal goals (goal differences) that aim to achieve by establishing strategic collaborations with firms that exchange complementary resources and capabilities. Such differences/similarities determine the strategic decisions deployed by alliance firms. Specifically, goal differences imply that each firm aims to achieve personal benefits, which may cause tension and opportunism in the relationship (Luo, 2007). Thus, such differences drive competitive learning, where firms work individually to outlearn partner, intending to safeguard personal benefits. On the other hand, resource differences imply that each firm brings unique resources and capabilities in the alliance, that complement the others as well as combine, hence work jointly, to co-create value (Robson et al., 2019). Therefore, different resources between partners drive cooperative learning strategy.

In recent systematic reviews of coopetition, various theorists have attempted to assess its current state and suggest avenues for further research to advance this field (Chiambaretto and Dumez, 2016; Fernandez, Le Roy, and Gnyawali, 2014; Tidström, 2014, Fernandez and Chiambaretto, 2016). Their argument is skewed towards the presence of limitations with the theoretical rationales used by scholars to guide their investigations, thus leading to a lack of clear conceptualisation and operationalisation. Such unresolved issues in coopetition literature result in inconclusive findings regarding the effects of the coopetitive strategy on performance outcomes as well as lack of understanding of the drivers of coopetition. Using loose coupling theory to guide our theorisation of the conceptual model which consists of drivers of

coopetition and outcomes of coopetition, this thesis aims to advance the body of knowledge concerning the factors related to coopetitive strategy within the ISA context.

1.2 Gaps in the literature

As aforementioned in the previous section, learning in strategic alliances has received enduring attention, and many scholars have contributed on different conceptualisations, theoretical perspectives, drivers or outcomes, and boundary conditions related to the concept (Hamel, 1991; Doz, 1996; Larsson et al., 1998; Kale et al., 2000; Muthusamy and White, 2005). A review in the literature revealed several conceptualisations and definitions for learning. For instance, learning has been defined as an outcome factor deriving from a range of factors such as relational factors, knowledge type, and information sharing. The outcome conceptualisations refer to relationship learning, inter-partner learning, and alliance learning. Learning has also been considered an antecedent or attitudinal factor. It has been conceptualised as learning intent and learning orientation. Further, it has been conceptualised as a behavioural factor that is, cooperative, collaborative, competitive, exploitative, and explorative. However, both cooperative and competitive learning has only appeared in theoretical studies, lacking operationalisations and empirical testing.

Many studies in learning strategies conceptualise competitive and cooperative learning strategies in their conceptual work, but the concepts were never tested empirically (Larson et a;., 1998; Kale et al., 2000; Tsang, 2002). Moreover, studies have investigated cooperative or competitive learning but did not test them together to see the interplay and their effects simultaneously (Muthusamy and White, 2005). Therefore, despite the excessive attention received with their case study on the dilemma of learning strategies in alliances (Larsson et ., 1998), the impasse remains unsolved. The study by Larsson et al. (1998) argues that alliance firms face a dilemma to choose between cooperative learning, which invites for exploitation

from partner firm and competitive learning. The situation undercuts collaborative knowledge development. Later studies did not focus on further investigations to this aspect or on offering a solution to this managerial problem. In offering an answer to this issue, this study examines the effects of learning strategy on performance of alliance and individual firms aiming to identify the best strategy which benefits both the alliance and the individual firms.

Consequently, while studies have shown the co-existence of both cooperation and competition strategies, via coopetition (Ritala, 2012), most studies conceptualise coopetition as the cooperation between competing partners that operate in the same industry/market. The contextual approach to coopetition (Rusko, 2011). Also, it is approached as a process referring to both strategies simultaneous deployment, thus characterised as a paradox viewable from a tensions perspective. Despite the efforts, the phenomenon of coopetition remains unexplored and lacks a clear conceptualisation and operationalisation. Literature in the coopetition also lacks a theoretical view that explains the coexistent of those conflicting strategies.

Limited research has utilised loose coupling theory in strategic alliances, though they are a perfect example of a loosely coupled system (Luo et al., 2008). This study, in line with the loose coupling theory, views alliances as systems that are loosely coupled in some respects and tightly coupled in others. With few exceptions (e.g. Luo, 2008; Luo et al., 2008; Bahemia et al., 2018), whose studies have significantly enhanced our understanding of the application of the theory on the context of alliances, the literature lacks such knowledge. Loose coupling theory offers a fresh perspective of strategic alliances and may explain the cooperative and competitive paradox, expand our knowledge and shed light on the question of how such conflicting strategies coexist and their simultaneous deployment drive positive outcomes. Loose coupling theory may also be the missing piece to the puzzles of alliance management.

Research on cooperative and competitive behaviours separately is inconclusive, as there is evidence of positive and negative effects of both behaviours.

Additionally, some scholarly results show that the impact of cooperation on performance outcomes is complimentary up to a certain level and past that level the positive effect decreases. In addressing those gaps, this study uses cooperative and competitive learning strategies as mechanisms of loosely coupled systems, with competitive learning representing a loosely coupled alliance and cooperative learning tightly coupled alliances. Loose coupling theory may also be the first theoretical foundation of coopetition to build upon conceptual frameworks that enhance our understanding of the concept at a strategic level and offer a managerial contribution.

A review in the literature of coopetitive strategy shows that not many studies have focused on the antecedences of coopetitive strategy. With few exceptions (e.g. Le Roy and Czakon, 2016; Bouncken et al., 2016; Bengtsson et al., 2016), most studies focus on the outcomes of coopetition rather than the antecedences. Such lack of knowledge limits general concept understanding and the drivers of competitive behaviour, which is part of the focus in this study.

1.3 Contributions

In filling the identified literal gaps, this study also aims to make several contributions to the alliance literature. First, the study will extend knowledge on loose coupling and organisational learning theory by proposing the notion of competitive learning strategy and conceptualising it as a strategic decision of alliance firms that drive performance outcomes for the alliance and the focal firm. In consideration of various discourses on coopetition, this study adds to the debate and the current literature through an empirical analysis of both cooperative and competitive learning strategies. Such analysis brings clarity to the theories and the concept of

coopetition by utilising theories (i.e. loose coupling theory) that facilitate in the explanation of learning strategies and the paradox of coopetition.

Second, the study develops a theoretical and conceptual model of the antecedents and outcomes of learning strategies. The reason is that the study draws insights from organisational behaviour, resource-based view, and loose coupling theory to theorise how alliance partners' goals and resources drive competitive and cooperative learning strategies. Therefore, as the first of its kind (to the best of the author's knowledge), the study aims to develop and test a model that focuses specifically on both factors that account for alliance underperformance (competitive learning) and those for alliance effectiveness (cooperative learning). In effect, the author extends the literature on organisational learning in strategic alliances and coopetition by introducing the concept of coopetitive learning strategy and examining their outcomes and antecedences.

Third, this dissertation makes three significant contributions to competition and ISA literature. Case in point, it extends general understanding of coopetition through conceptualisation and operationalisation of coopetition. Building on previous works (Bengtsson et al., 2010; Chen, 2008; Das and Teng, 2000; Luo, 2007a), the study conceptualises coopetition as being composed of competition between partners, cooperation between partners, and the interplay between competition and cooperation. Such conceptualisation is essential for exploring the role of tension in coopetition. The tension in coopetition stems from the paradoxical factors, such as value creation versus value appropriation, and knowledge sharing versus knowledge protection. The role of tension is critical for understanding the relationship between coopetition and performance outcomes (Gnyawali, 2010), but the tension is an unresolved issue in the coopetition literature. By adopting the loose coupling approach, this study extends the notion of the balance of opposites (Das and Teng, 2000).

Fourth, this study advances our understanding of the role of coopetition on alliance performance by shifting the focus of the discussion from whether coopetition is beneficial for superior outcomes to how, when, and the extent firms can reap the benefits of coopetition. Based on the above conceptualisations of coopetition, this study examines the relationship between coopetition and alliance performance through methodological advancement. The lack of appropriate measures for the coopetition is one of the most critical obstacles to large scale empirical studies (Yami et al., 2010). Previous studies have measured coopetition by establishing categorical variables, based on partners' industries, which limits researchers' ability to capture varying degrees of competition and cooperation. By capturing coopetition based both on the intensity of competition and the intensity of cooperation between partners, this study shows that the balance between competition and cooperation generates superior performance outcomes.

Fifth, this study contributes to the coopetition literature by examining the drivers of coopetition from both cooperative and competitive views. That is, this study examines two drivers of the opposing strategies, i.e. goal and resource differences between partner firms. Such differences are critical determinants for cooperation and competition strategies to occur. Coopetition is considered as a paradoxical (Chen, 2008), dynamic (Luo, 2007b), and unstable (Das and Teng, 2000) relationship, which manifests through the imbalance of the two opposing strategies. Thus, understanding how this imbalance occurs is a critical issue that remains unresolved in the literature. This study expects that the differences between partners' resources contributed in the alliance and the goals for establishing the collaboration explain the managerial decisions regarding what strategy to deploy (i.e. cooperative and competitive). From a managerial standpoint, how to understand and manage the tension from paradoxical factors is critical for selecting partners and managing (or coordinating) the paradoxical factors and conflicts within and between firms.

1.4 Aim, Questions and Objectives

The aim of the research is mainly to contribute to the literature of coopetition, to our understanding of the concept theoretically, conceptually, and operationally and develop and test a theoretical framework of antecedents and outcomes. To propose the notion of coopetition, comprising cooperative and competitive learning, and develop and test a theoretical and conceptual framework of antecedents and outcomes.

- What is the theoretical and conceptual domain of coopetitive learning strategy?
- How do cooperative and competitive learning strategies impact alliance performance?
- How do partners' differences drive learning strategic behaviour?

In response to the abovementioned research questions, the study intends to achieve the following objectives:

- To develop and test a conceptual framework that explains the relationships between the constructs under investigation
- To examine how partners' differences in resources and goals drive cooperative and competitive learning strategies
- To investigate the interplay between cooperative and competitive learning and establish a coopetitive learning construct
- To understand how learning strategies influence alliance effectiveness
- To provide scholars and practitioners with a novel understanding of the drivers and consequences of the learning strategies

In summary, the investigator intends to address the abovementioned research questions by developing and empirically testing a theoretically grounded conceptual framework. The

framework incorporates not only antecedent factors such as the driving forces that condition the focal firm's decision on the learning strategies to deploy, but also, intermediate factors such as cooperative and competitive learning strategies that deter or augment the alliance effectiveness. To accomplish these objectives and fill the gaps identified in the literature, the investigator will undertake an exhaustive review of the pertinent literature related to business relationships, strategic marketing management, organisational learning, loose coupling and strategic alliance performance.

1.5 Structure of the Thesis

The following table summarises the content of each chapter of this research study. The table shows the structure of the thesis and summarises the key points of each chapter. The thesis is divided into six chapters, and those are the introduction of the research, literature review of the key concepts, such as learning strategies in alliances, their drivers and their performance outcomes in the alliance and the individual focal firm.

Table 1: Structure of the thesis

CHAPTERS	THEMES OF CHAPTERS
Chapter 1	Introduction to the background of the research, research gaps, research questions and objectives, and contribution of the study
Chapter 2	Review of the ISA literature and the theoretical perspectives
	Review of literature on learning in ISA
	Review of coopetition literature
	Loose coupling theory
Chapter 3	A loose coupling approach to coopetition, conceptual model and hypotheses development
Chapter 4	Philosophical foundations and methodological processes followed
Chapter 5	Data analysis and results
Chapter 6	Discussion of results, theoretical and managerial implications, research limitations and conclusions

1.6 Summary

The introductory chapter offered an overview of the study. The chapter not only introduced the phenomenon under investigation, the gaps identified in the literature, the objectives, purpose and expected contributions of the present research but also expanded on how the investigator intends to conduct the study. This chapter has presented a general overview of the study including background, research gaps in the literature, research questions, and the study's contribution to the current knowledge on the entrepreneurial opportunity and strategic management research. In brief, the chapter has demonstrated the urgent need for current studies to begin a discussion on the antecedents and performance implications of ISA learning strategies. The rest of the study is organised as follows. Chapter two reviews all relevant literature on an entrepreneurial opportunity, chapter three presents the theoretical framework, conceptual model, and development of hypotheses, chapter four discusses the study's methodology, chapter five presents data analysis and results and, finally, chapter six discusses the study's results and implications for theory and practice.

Chapter 2

Literature Review

2.1 Introduction

This chapter reflects on the quest for the key themes of the thesis and the outcomes thus far. It aims at improving the theoretical understanding of the idea of co-opetition within the context of the strategic partnership, defining the key conceptualisations of the definition, and objectively assessing their accuracy and precision. Besides, this chapter aims at demonstrating the philosophy of collaboration and the key factors and findings of earlier scholars.

2.2 Coopetition in inter-firm relationships

Some scholars claimed that the roots of the coopetition date from the game-theoretical approach to mixed-motif games in the real world (Mariani 2007). Nevertheless, most researchers believe, in the 1980s/1990s (Luo et al . 2006) when he called for simultaneous collaboration and competition between corporations (Zhang and Frazier, 2011), that Mr. Noorda, CEO of the U.S. global information and services group Novell, is who invented and presented the word "cooperative strategy" in the market setting. While it was already introduced, the term co-operation remained completely under the radar until 1996 when Brandenburger and Nalebuff explained the modern idea of competitor alliances. Following their book Co-opetition, scholars and managers became acquainted with this modern form of inter-built partnership.

Previous to co-operation as an effective market practice, strategic and collaboration ties between companies were historically handled separately (M' Chirgui, 2005). Differentiated priorities form the foundation of the business outlook since the goal of each organization is to produce supernormal income at the detriment of its rivals (Padula and Dagnino, 2007). The cooperative viewpoint depends on a "diameter wise-thru" premise (Padula and Dagnino, 2007)

(Bengtsson and Kock 2000, p. 416). The key interest here is that the collective instead of particular acts would accomplish shared and not individual goals. The goal is for businesses to improve efficiency through strategic alliances, networks, and other collaborations because they share capital and risks (Gnyawali and Park, 2009; 2011; Bouncken et al. 2014; 2015). Both viewpoints are narrow, and the overview of the current interdependencies among companies cannot be grasped (Padula and Dagnino, 2007). The competition stream makes it difficult to have a positive impact on results through interdependencies, and wherever possible, collaboration is only classified as a market imperfection that prevents rivalry among firms. The cooperative analysis strongly underestimates competitive interactions and views them as detrimental factors resulting from the resulting risks of, for example, information spill-outs or learning courses (see, for example, Kale et al . 2000).

In reality, cooping is not always effective (Walley, 2007), and researchers have sought to figure out success factors for maintaining this form of inter-company partnership to maximize the beneficial benefits. As co-operative and competitive components are necessary, two separate relationship logics are introduced (Bengtsson and Kock, 2000). A friendly atmosphere is required to reach the cooperation process, while conflict arises when businesses are hostile to each other and seek to optimize their profit (Bengtsson and Kock, 2000). Tensions may also arise at the inter-organizational level. Highly controlled organisations are also expected to determine what they can communicate with whom, where, and under what circumstances (Levy et al., 2003, p. 642). Companies must divide the innovation process into pre-competitive and competitive phases, for example, the flow of knowledge and expertise.

Moreover, to avoid unintentional technology transfer and the rival's replication (Bengtsson and Kock, 2000). Bengtsson and Kock (2000) have shown by a case study that the logic of contact can be divided between different units in businesses since individual workers have problems in teamwork and compete concurrently. Besides, they showed the degree of customer

proximity to assess the division between cooperation and competition: businesses prefer to cooperate with customer-facing activities and clash for customer-friendly activities (Bengtsson and Kock, 2000).

In this sense, systematic security structures should be incorporated in co-operative management to promote the collaboration and incorporation needed while avoiding negative leakage of information, technology, or core competencies. In the sense of (1) leadership in management; Lin et al. established (2) long-term engagement; (3) organizational learning; (4) reliance; expertise and risk sharing; (5) information technology assistance, as well as (6) crisis management structures, the effectiveness of co-operative planning strategies. (2008), for example, Lin et al. (2008). Three key factors have led global companies, Sony and Samsung, to produce coopetition advantages, as identified by Gnyawali and Park (2011): (1) coopetitive management approach, (2) cooperation in the businesses, and (3) supplementary capability and capital. Those factors were decisive for the success of the co-operative partnership, as it gave both participants a win-win scenario. Enberg (2012) has demonstrated that it is possible to establish mechanisms that allow for exchanging information while not restricting information. The companies concerned had written a concise declaration of work to incorporate information and a shared interpretation of the project (to a pre-determined degree). For the above reason, standardized types have been adopted, such as reporting systems. The top management could monitor both the transition process and the transferred material using these frameworks. Gnyawali and Park (2011) offered conflicting proof that the compromise between shared information and protection of individuality was reached by structured cross-licensing, which expressly omitted distinct technological patents from the arrangement.

If the associate is a direct rival or has a high technical degree, the convergence and differentiation of information are essential problems. In this instance, Hung and Chang (2012) find that companies do not use complete consolidated joint undertakings to secure their core

businesses and competences by contractual agreements. Similarly, Ritala and Hurmelinna-Laukkanen (2009) suggested that a business should distinguish and defend its invention from replication, positively impact the potential of the business to profit from co-operation, and to improve its relationship with the invention. Creative technologies are often described in the following words.

Similar research by Ritala and Hurmelinna-Laukkanen (2013) investigated the impact on increments of radical developments on a co-operating competitor's growth by "acquire information from external sources" (absorbing capacity) and "protecting its inventions and main information of imitation' (appropriability system) (p. 166). Although all company-related influences influence the emergence of gradual innovations, only radical innovations depend on the required regime.

2.3 Review on coopetition research

2.3.1 Coopetition as a strategy

Brandenburger and Nalebuff (1996) clarified in their seminal book the complexities of partnership using a pie as a symbol for establishing a market and the resulting distribution of market shares. At first, businesses collaborated collaboratively to balk the biggest pie possible as their key shared target. If the pie is finished together, the companies' approach shifts from cooperating to battling, as any company needs to take the cake for themselves in the greatest possible portion. In other words, at the cost of other industry competitors, any business aims at acquiring the biggest market force. The dynamic of many manufacturing firms such as Sony and Samsung (Gnyawali and Park, 2011) and service companies (e.g., Ritala et al. 2009) has shown empirical evidence of these dynamics. In regards to value formation and value appropriation, Bengtsson and Kock (2000) have distinguished motivations. If businesses strive to maximize industrial profits collectively and establish a greater demand for their goods, they choose the cooperative value-creating feature. The same corporations are shifting against each

other to seize as much value as possible using their combined armies. The improvement in this valuation (e.g., Rusko, 2011) is a significant incentive for pushing rival businesses into coopetite partnerships and obtaining a win-win situation via a wider market, such as Liu, 2013. This hypothesis is based on the proof for the intelligent card industrials that companies collaborate primarily with and participate in inputs (e.g., RandD activities, standard support, design, and development) in the securities, cost-reduction, and consumption characteristics (output activities) of the majority share of the jointly generated value (M'Chirgui, 2005). The tourism industry is equally concerned with cooperation to encourage a tourist destination and competitive development (Friedrichs Grangsjo, 2003). The tourism industry has a deep interest in this field. Although cooperative activity is seen far from the consumer, customer-oriented behaviours are more aggressive. Some reports have stated that cooperation may be an important response to challenges and opportunities from the environment. Padula and Dagnino (2007) indicated an effect on the coopetitive competitive actions of corporations due to increasing and unpredictable environmental conditions. The positive relationship between coopetition and business innovation and market success in general and the circumstances of high volatility, optimistic network externalities, and low competitiveness on the respective markets has been demonstrated in Ritala (2012).

Mariani (2007) looked at the role of the structural climate in designing co-operative strategies from a very different viewpoint by forcing regional politicians' cooperation. Therefore, the external climate of businesses may drive rivalry into co-operative ties, as business dynamics or their internal setting. Padula and Dagnino (2007) have postulated that the relative information structure of organizations will affect whether to collaborate, collaborate, or participate in the two. It can be explained by the increasing need of the companies for global knowledge and services, as they are neither homogenously dispersed nor respected in terms of their quality and creativity in the market with competing companies (Bengtsson and Kock, 2000; Enberg 2012).

Since new market conditions are shifting rapidly and unclear (Ritala and Hurmelinna-Laukkanen, 2013), businesses are continually under pressure to stay competitive with these changes. Partnerships with foreign stakeholders are becoming important here, for example, rivals (Roy and Yami, 2009).

A significant benefit of coopetition is that the benefit of partnerships is close to that of information asymmetries around competition (Brolos, 2009). Competent businesses will have an information base more generally or comparable to non-competitors that can make it easier to transfer expertise and incorporate knowledge effectively to help new product and technology creation (e.g., Ritala and Hurmelinna-Laukkanen, 2009; Enberg, 2012). They are also typically faced with the same market conditions, client needs, and uncertainty concerns that promote a mutual vision of future trends and lead to the creation of technologies that benefit all stakeholders (Baumard, 2009). Therefore, collaboration within competition involves the main advantages of innovation practices relative to mere partnerships within market participants.

Longitudinal studies demonstrate the positive correlation between collaboration and innovativeness (Gast et al. 2015). Rodrigues et al. (2009), based on game-theoretical considerations, indicate that co-operation could lead to an improvement in revenue, market shares, foreign brand awareness, and market penetration for all parties concerned (Apple and Nike in this instance). Bouncken and Fredrich (2012) have acknowledged strong linkages between co-operation and the overall successful efficiency of the businesses and their progress in creating ground-breaking technologies. Following these suggestions, Quintana-Garcia and Benavides-Velasco (2004) have suggested that collaboration with competing industries leads to a more progressive production of goods than non-competition collaboration.

Notwithstanding the enticing rewards, co-operation has unique risks and obstacles which must be borne in mind, especially concerning co-operation in innovation. The possibility of

opportunism and information leakage is fraught with coopetition. In dealing with cooperative creativity, all problems are especially relevant as they can obstruct disruptive progress (Cassiman et al. 2009). The complexities of co-operatives are a certain weakness for companies and therefore need to carefully balance the exchange of information and convergence against the preservation and security of information (Baumard, 2009). Companies are respectively partners and competitors: partners who exchange and enemies who maintain information and experience.

In the sense of buyer-operator and supplier-supplier relationships, cooperation and rivalry can co-exist (e.g., Gurnani et al. 2007; Lacoste, 2012; Eriksson, 2008), and like co-operation among firms not related by supply chains, the businesses involved are working together to maximize potential benefit while competing to acquire the greatest profits at the same time (Wilhelm, 2011). This relation in the sample was studied in particular in 13 studies. The sub-samples' closer analysis has shown that all but one (Kotzab and Teller, 2003) studies have been conducted since 2007. These studies are content-sensitive and address topics like the role of collaboration for protection in supply chains (Bakshi and Kleindorfer, 2009), co-optioning and the development of information in the supply chain (Wilhelm and Kohlbacher, 2011) and management (Li et al. 2011; Ho and Ganesan, 2013). Some of them focused specifically on vertical supply chain partnerships (Kim et al., 2013), while others discussed the relations between suppliers and horizontal suppliers (Wilhelm, 2011; Zhang and Frazier, 2011).

As regards cross-border coopetition, numerous types of co-opetition have, until now, been studied: global co-opetition (Luo, 2007; Gnyawali and Park, 2011), co-opetition in international countries (Luo, 2004), and MNE co-opetition. Luo (2007) acknowledged an increased competitive intensity and parallel increased willingness for cooperation, referring to cooperation between world competitors. Cooperation is desirable based on their general advantages, while competition is required to overcome anti-trust or anti-trust criteria. MNEs

and international governments remain inconsistent about their co-operatives (Luo, 2004). Governments are required to monitor and manage economies, on the one hand, and to optimize social security, on the other. Cooperation is important when exchanging or exchanging the resources and information between subunits and through supply chain processes for internal coopetition among MNEs. However, it needs competition to gain funding and money for the business (Luo, 2005). The impact of cultural determinants on the coopettition of firms of diverse cultural contexts (Rijamampianina and Carmichael, 2005) has been pursued by others to investigate cross-cultural coopetition. It is especially important as cultural variations will obstruct coopetitive agreements as the co-opetition mechanism increases (Yu, 2008).

2.3.2 Management of coopetition

In reality, teamwork does not always work (Walley, 2007), and researchers have sought to define effective indicators in handling this form of inter-company partnership to achieve beneficial benefits. As co-operative and competitive components are necessary, two separate relationship logics are introduced (Bengtsson and Kock, 2000). A friendly attitude is required to succeed in the cooperation process,, while animosity is created when companies turn toward each other to maximize their profit (Bengtsson and Kock, 2000). It can trigger inter- and intra-organizational conflicts. Highly controlled organisations are also expected to determine what they can communicate with whom, where, and under what circumstances (Levy et al . 2003, p. 642). Companies must divide the innovation process into pre-competitive and competitive phases, for example, the flow of knowledge and expertise. Furthermore, to avoid unintentional technology transfer and the rival's replication (Bengtsson and Kock, 2000). Bengtsson and Kock (2000) have shown, through a case study that the theory of relationships between different groups within organizations is to be fragmented because each employee is having trouble cooperating and competing with another. They found that the degree of customer proximity influences the divide between cooperation and competition: businesses prefer to

cooperate with far-away operations and engage in closer customer practices (Bengtsson and Kock, 2000).

In this sense, systematic security structures should be incorporated in co-operative management to promote the collaboration and incorporation needed while avoiding negative leakage of information, technology, or core competencies. For example, Chin et al. (2008) have established the organizational paradigm under which management of co-operation strategies is driven by (1) management leadership; (2) long-term engagement; (3) organisation learning; (4) faith, expertise, and risk-sharing; (5) the help of information systems; and (6) the effectiveness of co-operative strategies by conflict management structures. As Gnyawali and Park (2011) find, there have been three main reasons for the world companies of Sony and Samsung, which have created co-operation advantages, (1) cooperative management thinking; (2) co-operative business experience; and (3) supporting capital and ability. Those factors were decisive for the success of the co-operative partnership, as it gave both participants a win-win scenario. Enberg (2012) has demonstrated that it is possible to establish mechanisms that allow for exchanging information while not restricting information. The companies concerned had written a concise declaration of work to incorporate information and a shared interpretation of the project (to a pre-determined degree). For the above reason, standardized types have been adopted, such as reporting systems. The top management might use these tools to track both the method of incorporating information and the content transmitted. Gnyawali and Park (2011) presented clear proof that a compromise was formed informal cross-licensing between exchanging information and protecting individuality, which removed discrete technology patents expressly from the agreement.

If the associate is a direct rival or has a high technical degree, the convergence and differentiation of information are essential problems. In this instance, Hung and Chang (2012) find that companies do not use complete consolidated joint undertakings to secure their core

businesses and competences by contractual agreements. Similarly, Ritala and Hurmelinna-Laukkanen (2009) suggested that a business should distinguish and defend its invention from replication, positively impact the potential of the business to profit from co-operation, and to improve its relationship with the invention. Creative technologies are often described in the following words. Similar research by Ritala and Hurmelinna-Laukkanen (2013) investigated the impact on increments of radical developments on a co-operating competitor's growth by "acquire information from external sources" (absorbing capacity) and "protecting its inventions and main information of imitation' (appropriability system) (p. 166). Although all company-related influences influence the emergence of gradual innovations, only radical innovations depend on the required regime.

2.3.3 The benefits of coopetition

Coopetition encourages businesses to benefit from synergies. It is difficult not only to divide expenses but also to reduce losses and reach economies of scale utilizing shared practices (Luo, 2007; Gnyawali and Park, 2009, 2011). It is also feasible for involving organizations to proactively pool their RandD operation (Walley, 2007) and leverage external expertise and capital, which they can use in their business (Bengtsson and Kock, 2000). It could improve the productivity and productivity of the businesses involved and contribute to a win-win scenario that decreases operating costs (Chin et al. 2008). Even if this could entail lower competitors ' prices too, Soubeyran and Weber (2002) mathematically proved that the benefits of decreasing costs outweigh this negative side effect. The partners will build a shared information base leveraging both the skills and resources of businesses (Ritala and Hurmelinna-Laukkanen, 2009), as is obvious from various studies (Quintana-Garcia and Benavides – Velasco 2004, Bonel and Rocco, 2007; Ritala 2012). These benefits of coopetition can boost the competitive edge for businesses (Afruah, 2000; Levy et al . 2003; Ritala and Hurmelinna-Laukkanen, 2009) as goods or services can not be produced without or after a co-op relationship (Walley, 2007).

It can be the consequence of the co-operative edge. It also brings benefits to firms and consumers, as it "is ideally achieved by a coopetitive equilibrium between rivalry and cooperation" (Walley, 2007, p. 16) and a minimum chance of conflict (Mariani, 2007; Walley, 2007) for enterprises and consumers. It is also possible to accomplish this. Three positive co-operation results were reported by Gnyawali and Park (2011). In addition to the effects of co-operation on value-generation (1) and value appropriation (2), the whole industry benefited from the growth of technology among companies, which led to strong responses from other competitive companies and a dramatic drop in prices (3).

2.3.4 The risks of coopetition

It is a daunting job to implement co-operative techniques (Gnyawali and Park, 2009), and it is often characterized as a "dangerous situation" (Pellegrin- Boucher et al . 2013, page 74) since they have multiple causes of disagreement because the relationship is complicated and interdependent. For one thing, internal friction can be encountered by participating companies because management has to cope with position conflicts due to the clash between the two interactive logics, that require particular attention and can generate real costs for the co-operative partners. The businesses concerned will adversely impact a lack of independence and independence (Baumard, 2009) based on relationships with external stakeholders. Afuah (2000) examined the possibility of interdependence between co-operative companies. Based on the analytical analysis, the co-operative network and a shift in technology will adversely affect the strategic edge and, ultimately, the results of the target business.

Similarly, both Bengtsson and Kock (2000) indicated that interconnections between co-operators were significant, as shifts may have a positive and negative effect on the whole network. Opportunism may also be a critical concern (Levy et al. 2003; Baumard, 2009). Competitive partners can profit from the exchange of wealth and information: they can use their leverage to compel the other party to behave in ways which are actually in the best interest

of the stronger business, to mutually advance their expertise at the expense of the other (Bouncken and Kraus, 2013; Pellegrin-Boucher et al. 2013); or they can become less committed. The case study conducted in San Benedetto SpA (Bonel and Rocco, 2007) showed that collaboration in development could, in particular, cause severe teamwork and prioritisation problems. In brief, the definition of coopetition as a "dual-edge blade" is credible in studies to date (Bouncken and Fredrich, 2012, p. 2060). Their ability to navigate the volatile market climate, on the one hand, is well-connected in terms of company development, innovation, and innovativeness. On the other hand, there are also issues such that the beneficial influence of co-operative initiatives in success and creativity can be hampered by opportunism, confusion, and disturbances.

2.3.5 *Different views of coopetition*

Although competitiveness and cooperation elements are important for co-designation, researchers use a broad range of meanings and viewpoints to research co-opetition (Yami et al, 2010). While some meanings are condensed, others are very broad. The three most quoted works by scholars are Brandenburg and Nalebuff (1996), Lado et al. (1997), and Bengtsson and Kock (2000), which are based on the notion of coopetite. A theoretical history to cooperation based on a value-net model that relies on the existence of a ‚complementary' is provided in the book Co-Opetition, Brandenburg, and Nalebuff (1996). Cooperative practices include indirect cooperation between rivals from this point of view. For instance, partnering with a third organization (e.g., software producers), two companies (e.g., device producers) would be complementary. While they did not use the term, Lado et al. (1997) allow another reference to the idea of co-operation. They claim that a mixture of competitive and cooperative tactics produces a higher total rent for an organization (such as syncretic rent) using game theory, the RBV, or social networking theory). The cooperation is then regarded as the sum of several different ties and as a cooperation and competition aspect separated between different

parties (Bengtsson et al. 2010), which leads to a very broad concept of cooperation. It is why we see the cooperation between Brandenburger and Nalebuff (1996) and their supporters.

In comparison to a broad approach, Bengtsson and Kock (1999, 2000) focus more on describing co-opetition as a dyadic and paradoxical relationship that results from the fact that two firms collaborate in certain being able to compete with each other in other in the remaining activities. In that respect, the two separate patterns of separation between two parts of the coopetious relationship, the VAT chain and the consumer (business units or product area), were defined by Bengtsson and Koch (2000).

The meanings also involve theoretical standards (Bentsson et al., 2010). Although large network or portfolio approaches are related, oriented approaches apply to analysis at the data stage. To date, scientists have taken a broad approach to quantitative science. However, several scientists (e.g., Bentsson et al., 2010; Bengtsson and Kock, 2000; Gnyawali et al., 2008) have found out that co-operation needs to be more precisely described to understand better the burden and challenge that comes with the collaboration and rivalry between two businesses at the same time. As this research focuses on coopetition stress, this study tends to be acceptable in its oriented coopetition and a dyadic approach.

2.3.6 Trends in the coopetition literature

The definition of collaboration has been embraced by scholars in different regions, based on the foundation works (Brandenburg and Nalebuff, 1996; Bengtsson and Kock, 2000). The literature on coopetition provides many features. In the first instance, since co-opetition is a multi-stage phenomenon, the co-opetition study involves three stages of review at a minimum: 1) intra-company, 2) inter-company (or dyad), and 3) portfolio level. The study has been more effective at the cross-company level as presented in Table 2.1 and Table 2.2; analysis at the network level (e.g., Gnyawali, He and Madhavan, 2006; Peng and Bourne, 2009) and intra-

company level studies (e.g., Tsai, 2002; Luo, 2005) has re-creationalised science. Secondly, co-operative research has grown concerning methodological development. Some researchers have suggested theoretical extensions on the character or form of co-opetition that make the phenomena more understandable. The four types of cooperation focused on the number of competitive companies, and the number of value-added operations in cooperation relationships is distinguished from those of Dagnino and Padula (2002). Luo (2007) provides the typology of co-operative severity and describes four situations: contending (high rivalry, low cooperation), isolating (medium-low), collaborating, and adjusting (high cooperation, low competition). Gnyawali et al. (2008), which includes a structure to describe how teamwork takes place in great depth (when a dyad works together and competes) and in much less intensive terms (when a variety of businesses work together and compete at various times). In conclusion, with several exceptions, co-opetition observational study concentrated on case studies in the single sectors (Yami et al., 2010).

Themes discussed in the literature can be differentiated into 1) drivers, 2) processes/contexts, and 3) co-opetition results (Gnyawali et al., 2008). In the first instance, researchers established different co-operative factors (or motivations) such as improvements in business dynamics, structural and regulatory shifts, complementary tools, and profiles of expertise (Padula and Dagnino, 2007), or the need for advantages of scale (Walley, 2007). There are, however, limited studies that analyze the drivers of cooperation extensively, except for the multi-level model of the drivers and results of cooperation from Gnyawali and Park (2009). They also identified three engines (short product life cycles, technical convergence, and large RandD) that improve the probability that high-tech companies can co-operate. They also contend that the company level (the technique of company prospecting and venerability) and the factors dyadic (technological skill, resource complementarity, and sector similarity) intersect with factors at the industry level that decide real cooperation. Secondly, recent developments in

coopetition analysis indicate a prevalence of the phrase "coopetition in diverse contexts, and several studies suggest narrowly defined coopetitious relationships as regards the coopetition process. With Brandenburg and Nalebuff (1996), coopetition has been regarded as a general ideology, as a progressive approach. Co-operatives have also been used to describe diverse partnerships and patterns, including supply chain ties, firm-government (or large stakeholders), and direct/indirect strategic cooperation. For instance, Eriksson (2008) studied co-operative relations between the buyer and supplier. Luo (2007) says co-operation can be seen in multiple ways, such as government ties with MNC-host organizations. Walley (2007) also proposed to discuss wide subjects, including customer co-operation.

Finally, although some studies (e.g., Lado et al., 1997) conceptually discuss the effect of co-opetition in results, analytical research based on the interaction remains uncommon (Walley, 2007). The financial success was addressed in just a few studies (Luo et al., 2007; Ritala et al., 2008), progress (Quintana-García and Benavides-Velasco, 2004) and JV stability (Park and Russo, 1996), and competitive conduct (Gnyawali et al., 2006). There is much uncertainty about the impact of collaboration on organizational efficiency, however, with the few observational research and some contradictory findings. Luo et al. (2007) claim that the strength of mutual partnerships has an inverted U-shaped association with business profitability in terms of corporate financial efficiency. Ritala et al. (2008) have, however, been unable to develop a meaningful relationship between collaboration (for the relative number of main players within the strategic partnership group) and firm financial results. Park and Russo (1996) announced that a joint venture between the competitors was s, taking into account the viewpoints of TCE.

2.3.7 Research gaps in the coopetition literature

Collaborative research has always been in an early, very preliminary period, with very limited, scattered, and incomplete research (Yami et al., 2010). Their research is relatively small. The

bulk of observational findings are case studies in innovation in the single field. The first literature discrepancy discussed in this review was that studies were incomplete, and the association between collaboration and organizational success was not clear. The results of collaboration on business output (Ritala, et al., 2012) are rather unclear. As a key aim of the strategic agenda, the role of collaboration in the success of companies, including creativity, is to produce a competitive advantage.

Co-opetition is inherent due to paradoxical rivalry and cooperative partnerships. However, the coopetition literature did not extensively explore the competitive competition and its consequences for organizational results. Thirdly, the collaboration mechanisms have been less acquainted with by study. If co-operation has major impacts on firm efficiency, how do unique co-operative skills affect the success of a company? Since cooperation is a complex, paradoxical partnership, the considerations required to handle cooperation to avoid the risks and optimize their benefits should be considered. Case studies are particularly important for e. With several variations, most case studies identify the concept of co-opetition in different contexts. We know, however, nothing how businesses can work together and compete together, how the relationship progresses, and how corporations can address conflicts from paradoxical co-operative causes at the same time.

2.4. Conceptualising coopetition

The idea of co-opening was widely involved in the business, management, and organizational studies by academics. While this concept is not recent in literature, a study of the literature reveals no agreed-upon definition of cooperation that is widely in use. It is because co-opetition was used, according to Buncken and others (2014) at various stages, i.e., network, triadic, dyadic, intra-organization stages, and because co-opetition is interpreted differently on these levels. It means that co-opetition is planned and applied separately and respective at the methodological level. It suggests that this dilemma of the definition could theoretically be

readily solved if this dilemma is unclear due to the degree of analysis. However, a careful review of the literature shows that inconsistent definitions remain even on the same level, and some do not match analytical standards. Teng and Daz (2000), for example, describe co-operation as the combined use of co-operation and competition policy. Academics well know this description, and primarily deals with the idea of uniform or dyadic analysis. However, Roy and Czakon, who look at the effects of a coopetition approach on a network basis, also extend the same conceptualization. Some scientists regard co-operation as a corporate business relationship with a rival organization (Gast et al., 2015). Co-opetition is a strategic effort to partner for a corporation that would obtain advantages and would otherwise be impossible to achieve.

This term is discussed in a more in-depth manner, and we can appreciate its importance. In other words, co-operation is not isolated from or operationalized by co-operation. Strategically speaking, the partnership approach in the form of actions and behaviour, whether with a rival or non-competitor business, remains the same. This conception does not take note of the competitive and behavioural side of the market, which means the rivalry is defined simply by assuming that the businesses work either in the same industry and compete for identical consumers. (e.g., collaborate only through expertise and information exchange at the RandD level). It would not mean that one will, in turn, follow a strategic approach being in the same sector or vying for the same expertise.

It leads us to the belief that the multiple analytical levels are not the only concern. For context, both a business and a dyadic level have used the two distinct meanings above. Moreover, what is the uncertainty causing? In explaining this topic, this analysis analyses the theoretical viewpoints used in alliances to explore co-opetition. Results suggest that the multiple concepts and conceptualizations implemented in the literature vary with each analysis based on the theoretical context. The idea of co-opetition has been interested in the literature of

management, organization, and marketing research and has strengthened our intellectual comprehension through diverse viewpoints and approaches.

The principle of simultaneity remains stable and coherent in the various concepts of continuity. At the same time, collaboration and rivalry are present in one unit. In other words, collaboration is present only where a business implements one tactic or another, i.e., co-operation, in a strategic interaction with another organization (e.g., operating in the same industry) or if a corporation uses cooperative and competitive tactics concurrently.

We describe co-operation as a strategic and competitive mechanism in which actors generate value by co-operating activities together, while simultaneously attempting to gain part of the value (Ritala, 2012) based on these arguments and conceptualizations. This research conceptualizes and presents a coopettive strategy framework based on the literature on cooperation, which is characterized as a strategic and a competitive mechanism in which actors generate value collectively while at the same time competing with partners outlearned.

In this section, we define numerous main themes and sub-themes in the literature and incorporate them consistently into the structure of cooperation between drivers, processes, and outcomes (DPO). It will act as a building stone for the awareness of the co-operative system as it answers the very fundamental but very critical issues. Why do current partners, i.e., what generators of partnership, start to clash with one another? What is the coopetition mechanism, that is to say? How do those partnerships have good or negative effects, i.e., co-operative results? We also recognize essential ties between the DPO and the two think tanks. The reviewed papers demonstrate that the Cooperative Method in each Classroom, as both the Actor Classroom and the Activity School address the same forms of drivers and results.

2.4.1. Drivers of coopetition

There are many drivers in the literature that either push or pull companies into cooperation and competition. In three wide, overlapping groups, we define all drivers: external, relationship-specific, and internal drivers. Environmental factors such as industrial features, technical necessity, and pressures of external stakeholders, which compel companies or push them to cooperate, are external drivers. Literature indicates that centralized, regulated, and fewer municipal sectors force companies to collaborate (Dowling et al . , 1996). Further, the business and growth levels (Padula and Dagnino, 2007; Ritala, 2012) often allow companies to follow harmony (Padula and Dagnino, 2007*)*. Dai (2008) claims that the gradual loss of competitive advantages and the elimination of barriers to entry limit the leverage of businesses over their destinies and push them to engage competing firms in providing more stability. In addition to the complexities of industries marked by fuzzy systems, co-operative partnerships are established (Daidj and Jung, 2011; Parzy and Boguckas, 2014).

Many industrial features depend on technology specifications, which often lead to co-operation. Technological convergence is, for instance, where businesses from diverse sectors merge their technology expertise and experience to build technological channels such as mobile money (e.g., Sahaym, et al., 2007). Besides, coopetitive partnerships are formed that face the challenges of short product life cycles (Quintana-Garcia and Benavides-Velasco 2004), increased investment and risk for RandD (Gnyawali and Park, 2009, Lei, 2002), technical insecurity (Bouncken and Kraus, 2013, Dai, 2008), technical difficulty and strength of technological transitions (Dai, 2008, Lin and Zhang, 2005, Oshri and Weeber, 2006). Such demands of technology are so complex that a company cannot meet the associated challenges and therefore seeks a coopetition company.

Studies also show that the relationship between a company and external stakeholders like government and influential clients instigates co-operation. Mariani (2007), for instance, found

that regional policymakers induced cooperation in Italy between three competing opera houses. In the context of several incentives and policies, regulatory bodies imposed cooperation and implementing certain models (Barretta, 2008, Mascia et al., 2012). Additional co-operation drivers are the State subsidy policies (Wang, et al., 2010) and regulatory dissuasion (Luo, 2004). Studies also show that the influential buyer often creates inter-expenditure between the competing businesses (Salvetat and Geraudel, 2012, Wu et al., 2010) and sometimes forces them to work together for the buyer's interests. Furthermore, interlocking boards serving multiple boards of companies in the same industry (Simoni and Caiazza, 2012) promote cooperation between companies.

Relational drivers refer to collaboration features and partnerships that promote cooperative work. Businesses choose a competing partner with relevant and superior co-opetition tools and skills, as it can help assist companies in achieving their targets (Gnyawali and Park, 2011). Corporations are likely to establish collaboration partnerships if they have distinct and compatible talent profiles for their collaborators (Luo, 2007, Luo et al., 2008, Mascia et al., 2012; Peng and Bourne, 2009). There is also solidarity between partners in the congruity of goals, asymmetry, infrastructure, and negotiation capacity (Khanna et al.. 1998, Luo et al., 2008, Mantena and Saha, 2012). Moreover, a broad gap between the information profiles of participants-research and technology information, operational structures, and corporate dominant reasoning-implies the integration into a mutual arrangement with strategic obstacles (Padula and Dagnino, 2007).

Companies are part of networks of connections between themselves and between partners (Peng and Bourne, 2009). There are institutional interdependencies. These interdependencies illustrate why businesses are operating together and struggling (Bengtsson and Kock, 2000). It centered on the network structure, with density, loose connectivity, stability, or clustering, and the company's relative role in the network (see Ritala and Huizingh, 2014). Gnyawali and

Madhavan (2001) propose that core network, systemic self-sufficiency, systemic equivalence, and density affect the dynamics of competition in a co-operative network.

Furthermore, the central role and institutional freedom of Gnjawali et al. (2006) is positively connected to the number of competitive activities of an organization. Structural stability and network structural rigidity coordination are likely to contribute to competitiveness (Das and Teng, 2000). Research suggests that the social side of the network is critical for competitors' readiness to collaborate, for example, the reciprocal exchange of information and interpersonal trust (Tortoriello et al., 2011). Moreover, research shows that while social networks are more important for resource acquisition for domestic companies, horizontal networks are more suited for companies wishing to gain reputational, organizational, and technical resources (Chetty and Wilson, 2003).

Internal drivers refer to the internal atmosphere of an organization, including its motivations, capabilities, and skills. Gnyawali and Park (2009) maintain that businesses are pragmatic in implementing forward-looking plans and sensitive in solving potential vulnerabilities. The firms are constructive, and they search the world continually for talented partners to enter new markets, for example (Luo, 2007), expand the supply chain (Daidj and Jung, 2011), and boost efficiency (e.g., Chin et al., 2008, Ritala et al., 2014, Osarenkhoe, 2010). Enterprises cooperate to increase their negotiating power and competitiveness by combining knowledge and resources with others (Gnyawali and Park, 2009). The vulnerability also perceived, for example, can lead companies to cooperate with competitors in order to create more value through the partnership due to reduced competitive advantages or a lack of resources. The prestige and appeal of a business depend on their importance for the new partners (Ahuja, 2000). The past presence or co-operation experience is often seen as one of the main factors for establishing coopetitious ties (Gnyawali and Park, 2011).

2.4.2. The coopetitive process

Since the phenomenon of co-opetition at different levels is different, the respective processes generated seem to lack the necessary understanding of what constitutes a coopetitive process and how the value-net process is distinguished from the process of direct coopetitive relations. We deal with these gaps by synthesizing fragmented literature and suggest that the cooperative process in both schools of thought is dynamic, complex, and managerial.

The complex essence of the mechanism is linked to the multiple interdependencies and relationships in networks within the Actor School of Thinking. The mechanism is very complex, with companies continually configuring and re-configuring these relationships while improving the network so that new players can participate, some will depart, and some will spend, some will minimize their participation, and some will refocus on their work (Pathak et al., 2014, Williamson and De Meyer, 2012). The method is like dancing with multiple partners or changing partners constantly rather than getting married for good. This complex nature of the coopetitive method, the Head of Operations at Ericsson explains, "there are promiscuous and loose ties. You are not as normal in developing relationships. You danced together in a single deal, and it was enough when the deal was over "(Johansson, 2012: 26). It will seem that businesses could deal with their relationships with other organizations by configuring themselves and reconfiguring them due to their growing integration of markets and significant developments and growing consumer preferences for diverse, interconnected, and unstandardized goods and services. Pathak et al. (2014) address configuration and reconfiguration in coopetition networks and argue that the interactions between businesses, organizational activities, networks, and governance may clarify their complex existence. Williamson and De Meyer (2012) suggest that leading businesses like Apple and Google are loosely related networks or dynamic communities to support their market, capital, and skills flexibly refocus on the unpredictable, unknown obstacles they face. In addition to their current

competencies, businesses are shifting partners and searching for new partners to grow, shape, and create networks for their strategic choices (Dittrich, et al., 2007). Besides, businesses are actively modifying network architectures to reposition themselves strategically inside them (Pellegrin-Boucher et al., 2013). For example, IBM has reconfigured its network to become a service and software provider (Dittrich et al., 2007). Their portfolio of partnerships and the balance of their partnership and strategic contacts with other companies in a network will help and improve their productivity (Bengtsson and Johansson 2014).

The Behaviour Scholar also explains the complex essence of the mechanism as an exchange of cooperative and competitive activities between firms, since it is based on direct one-to-one coopetitious relationships. Concurrence is generally noticed in customer-oriented operations, whereas collective practices are carried out far from the consumers (Bengtsson and Kock, 2000). Their research illustrates how partnership and rivalry between the two businesses evolve and are complex over time. Sometimes these contact occurrences are described as oscillations in one continuous cycle, that is, a phenomenon that promotes rivalry through cooperation, through rivalry, and by the middle portion of cooperation (Eriksson, 2008, Ingram and Yue, 2008, Lacoste, 2012).

One drawback of the dilemma strategy is that collaboration is not permitted to minimize or improve concurrently to the detriment of rivalry and vice versa. Studies need to stress co-operative and competitive interaction on two continuous matrices, respectively, the paradox method, to achieve a holistic understanding of coopetite interactions, in order to consider all possible co-opetition combinations (Raza-Ullah et al., 2014). Cooperation, rivalry, equilibrium, and balanced-weak cooperation and competition are the strongest combinations studied (Bengtsson and Kock, 2000; Lado et al., 1997). Studies have taken a paradoxical viewpoint increasingly on coopetition. The inter-cooperative and competitive relationship is

one of the most complex fields of the coopetitious method, (e.g., Chen, 2008; Fernandez et al. 2014, Zerbini, and Castaldo, 2007; Bengtsson et al., 2010).

The dynamic nature of the practice at the Actor School is represented in several facets, as sometimes a single actor performs numerous contradictory roles with other companies in the network simultaneously. The Head of Operations at Ericsson underlines the uncertainty by saying, "When the company continuously shifts, shifts and expands, it takes much time. In such ties, where the same person will simultaneously be a vendor, client, supplier, and partner (Dowling et al., 1996), the managers might question Ericsson's Sourcing Director again and quote, "We competitors or partners? We are not one thing, we are both "(Johansson, 2012:27). Ambiguities and position disputes emerge from the fact that there is more than one position and sometimes inconsistencies (Tidstrom, 2014), making cooperative mechanisms in the network more complex. This uncertainty also influences the direction of information exchange and acquisition practices. Companies may hesitate to exchange information with a partner, as the rivalry is also in the network sense. There is also the possibility that the partners will share with their rivals the expertise learned by the focal business. These threats make it harder to gain information. The results are thus under-optimized. For instance, Johansson (2012) reveals that businesses fail to share enough details with a partner because of the risks involved, which makes it hard for a companion to refine a technological solution and to negotiate reasonable deals for bigger systems integration contracts.

Studies indicate that companies prefer to increase the number and the intensity of collaboration links in a network and to promote cross-company rivalry in a network for communication, exchange, and information acquisition (Song and Lee, 2012). Besides, businesses are trying to attain the core function in a network to prevent hindering the in-learning flows across multifaceted connections (e.g., Bouncken and Kraus, 2013). Large corporations use negotiation leverage and the centrality of the network to connect and to structure a network. In particular,

as new prospects emerge, they create networks made up of small businesses (Vapola et al., 2008). The integrated networks and processes, and the involvement of several big organizations in an evolving and overlapping network environment, are nevertheless very difficult. Studies have shown that egocentric networks of highly growing companies use external and coopetitious partnerships to obtain expertise and become successful (Lechner and Dowling, 2003). However, it is very uncommon for small businesses to achieve a central role in a network.

The dynamic design of the operation at the Activity Level deals with simultaneous overlapping expectations and consequent conflicts. However, in one of the other interactions between direct rivals, some inconsistencies and conflicts are often present in the network of values. In the Activity Classroom, these are explored because it helps co-operation be investigated in the easiest theoretical manner (Padula and Dagnino, 2007), and offers a closer look at the paradoxical and contrasting essence of coopetition. Studies show that coopetition-based contradictions cause multi-level conflicts (Fernandez et al., 2014; Raza-Ullah et al., 2014). These pressures will then collapse over thresholds leading to external conflicts in the focal cooperative organization through top management.

Tension is an elastic term found in co-opetition literature in numerous ways. Tension is most generally described as a dispute (Tidstrom, 2014) or as an 'economic' tension, not as 'coopetious' tension (Pathak et al. 2014, Pellegrin-Boucher et al. 2013). It is primarily since a substantial portion of the field of co-operatives is focused on competitive literature that highlights competitive attacks and exchanges of responses (e.g., Chen, 1996), and not cooperative and competitive ties. Therefore, conflict is mainly viewed as a coopetitive conflict, a threat, or a discord (e.g., Fernandez et al., 2014). Such tensions increase between strong, presumably awake, driven, and able-bodied rivals (Chen, et al., 2007). It contributes to growing uncertainty, which can affect the achievement of traditional targets. In Ford, for example, co-

op managers in VWA refused, because of economic stress and the possibility of opportunism, to trade information about marketing and design skills, which in turn jeopardized the achievement of a shared goal of outcompeting General Motors (Park and Ungson, 2001). With scholars gradually realizing the paradoxical existence of coopetition, the conflict has become a core concern within the Activity School (Chen, 2008; Le Roy and Fernandez, 2015; Zerbini and Castaldo, 2007). During the cooperative process, managers also exchange information and secure the knowledge leak (Ho and Ganesan, 2013) while often trying to attain their own private and shared gains (Kale, et al., 2000). It is how the managers learn from each other and obtain the academic race. Around the same time, this contrasting reasoning adds to stress for administrators, which emphasizes the difficulty of the cooperative enterprise. Tension is felt by an individual participant on the micro-level of study, becoming a collective, departmental, or organizational level. In this context, Raza-Ulah et al. (2014) indicate that co-operation, as relational ambivalence, is expressed on the micro-level as managers appraise the inconsistent logic of interaction cognitively, in which managers feel torn between concurrent, contending emotions.

The diverse and competitive mechanisms that interlink and consolidate each other result in management difficulties for companies are the demanding nature of the process. Studies have found that more than 50% of co-operative ties do not yield the outcomes expected (Park and Ungson, 2001; Lunnan and Haugland, 2008). Given that the mechanism is the method and medium by which outcomes are obtained, such high failure rates indicate that it is exceedingly difficult to cope with the demands inherent in the mechanism. In both schools, information acquisition is a big problem for coopetitive businesses because the possibility of co-opetition is high.

The Actor School of Thought suggests that knowledge transfers between rivals can be avoided by developing governance mechanisms, including regulatory policy, work-sharing, and

information flow management (e.g., Andersen and Drejer, 2009). The study of the inter-company knowledge practices in the aeronautical and space industry, by Salvetat, Geraudel, and d'Armagnac (2013), proposes the juridical management of knowledge through equities, contracts, clauses, management negotiations, and patents. Additionally, profit-sharing agreements (Stamboulis, 2007), structural and relationship arrangements (Song and Lee, 2012), and the mechanisms governing knowledge and resource obligations among actors should be in place (Amaldoss, et al., 2000). All this is easier to claim than to do. Capability and skills which are not open to another organization are required to write and maintain an arrangement with the organization where 'everything' is about the concentrating company (Johansson, 2012), create trust and a social atmosphere with bitter competitors (Herksson, 2008a), and gain the core function of the network (Gnyawali and Madhavan, 2001). Furthermore, the literature shows that businesses need to achieve a strategic advantage in intercorporate networks, including partnerships, mutual capacity, and absorption (Lechner and Dowling, 2003). For co-operative businesses, the creation of such skills is an essential task.

A battleship policy can be drawn up with only a few multinational businesses, allowing them to partner and bid with competition benefits in the vast portfolio of born global companies. However, juggling becomes a major challenge for small businesses, mostly coordinated and operated by large and influential entities on the grid and therefore pressured by these players to contend against traditional partners (e.g., Raza-Ullah et al., 2014). It is largely due to their lack of capital and their willingness to stock huge corporations. Research recently found that SMEs need to improve their connections and thus produce and maintain opportunities in today's fast-growing markets to have portfolio management capacity consisting of authority, versatility, or roles of versatility (Bengtsson and Johansson 2014). First of all, credibility applies to reputation formation and eliminating risk and instability experienced in new markets. The second is the capacity to adapt rapidly to adjustments, establish relationships, and modify

them. It is very necessary and very difficult to acquire partnership portfolio management skills, particularly for small firms.

At the Operation School of Thought, many of the problems explored apply to the handling of paradoxical relationships, inconsistencies, and ensuing conflicts as coopetition are examined more and more as a paradoxical phenomenon. The paradox of cooperation, consisting of conflicting and yet interrelated components of cooperation and competitiveness, appears, like other organizational paradoxes (cf. Smith and Lewis, 2011), to be illogical, incoherent, and often ridiculous (Raza-Ullah et al., 2014). It causes stresses and ambivalent feelings, which can adversely impact performance. Scholars say that the key component of management capacity to tackle the phenomenon of co-opetition is coopetitious mentalities, morphological mentalities that enable heterogeneity, and previous co-operative experience (Gnyawali and Park, 2011, Lado et al., 1997, Li et al., 2011). Besides, Ingram and Yue (2008) suggest that decisions, expectations, and personality of managers are central to the equilibrium of competitiveness and partnership (Tortoriello et al. 2011). Managers with these skills are more susceptible to coopetitive partnerships, balance opposing forces appropriately, and produce positive results.

Also, three main strategies are discussed in the literature for dealing with co-operative tension, although studies often classify co-operation and tension equally (e.g., Wilhelm, 2011) and coopetitive tension as being primarily competitive rather than co-operative as discussed above. The first strategy is to separate, in time and space, the inconsistencies of cooperation and competition (Bengtsson and Kock, 2000; Oliver, 2004). In order to delegate rivalry tasks to the units, which are partially autonomous of the operating units which perform cooperative tasks, a part-time and partial space separation, is proposed in the buyer-supplier triad, for instance (Dubois and Fredriksson 2008). The structural approach only tends to operate at a lower level of the company as top leaders combine, and thus continue to encounter conflict, the conflicting objectives of different groups (Das and Kumar, 2010). Secondly, the intervention approach

with neutral parties is advocated for the handling with paradoxical disputes. For example, the ordering party can coordinate and co-ordinate collaboration between producers (Fernandez et al., 2014), or a joint organization can resolve disputes between coopetitive businesses and decide how to collaborate and compete (Bengtsson and Kock, 2000). However, a remedy by a third party is alleged to be a cause of conflict in itself and could thus not be so successful (Fernandez et al., 2014). Managers are also faced with obstacles. Thirdly, Fernandez et al. (2014) propose an integrated approach based on coopetitive reasoning and equilibrium. However, the alignment and management between organizations remained a subject which is not yet studied, and further studies are required to investigate the integration strategy.

2.4.3 Outcomes of Coopetition

Similar kinds of findings have been addressed in both schools of thought. Firstly, creativity is one of the most highly studied co-opetition dependent variables (e.g., Huang and Yu, 2011). Companies improve their success in innovation by collective structures in which competition drives for progress and teamwork promotes the information exchange for progress that is required (Park et al. 2014a). Although some findings indicated that mixing mild competition and strong cooperation among competitiveness firms improves the success of innovation (Park et al., 2014b), others indicated that cooperation with direct competitors and large enterprises could adversely influence innovation (Quintana-Garcia and Benavides-Velasco, 2004). The study also highlights inconsistent results relating to the relationship between collaboration and mainstream and conservative creativity. It suggests that while the information gathered by a rival is deemed less productive to push innovation coverage, this knowledge might prove to be a strong source of gradual strategy. Instead, the partnership has been shown to improve rather than incremental innovation, the disruptive progress of organizations (Bouncken and Fredrich, 2012). The claim is that teamwork between rivals might theoretically crack lock-in circumstances and that collective thought encourages innovation within an organisation.

Second, many studies have examined the effects of knowledge, including knowledge sharing/creation/acquisition, which are also the main invention prerequisites. The exchange of information was often claimed by the cooperative portion of the partnership (Bouncken and Hurmelinna-Laukkanen, 2013; Ho and Ganesan, 2009). Cooperation contributes to the development of information that helps produce a competitive advantage (Song and Lee, 2012). In comparison, several studies have shown that wisdom exchange is the strongest in collaborative and cooperative partnerships (Liu et al. 2014). Li et al. (2011) also distinguish the competitive aspect of the relationship between constructive and negative conflict and demonstrate that the beneficial relationship of collaboration and constructional conflict with information sharing. Intra-organizational information exchange was often widely observed. For example, studies explored how and when the competitive side encouraged or impeded the exchange of information by collaboration (Ghobadi and D'Ambra, 2012b, Ghobadi and D'Ambra, 2013). Scholars also contend that market-controlled units have more simple knowledge-sharing than internal capital competitive units (Tsai, 2002). They also address how cooperation for the sharing of knowledge among units and between cross-functional teams is critical and how, for instance, various rivalry affects the sharing of knowledge (Tsai and Hsu, 2014).

Thirdly, several studies investigated typical firms' success outcomes such as economic performance, sustainability (Mantena and Saha, 2012), financial and consumer performance (Luo et al. 2006), reliability and amount of revenue, market place and service quality (Fredriksson, et al., 2014, Peng et al. 2012, Sepehri and Fayazbakhsh, 2008). Competitive actions and responses by a corporation, i.e., the number and variety of its practices and competitive advantages, have also been clarified as co-operative effects (Chi et al., 2007, Gnyawali and Madhran, 2001, Gnyawali et al ., 2006; Lei, 2003; Luo and Rui, 2009).

Fourthly, and contradictory to these quantitative metrics, researchers have examined partnerships, such as confidence and effective management. Scientists say that these findings are much stronger for co-operative ties because they need to be maintained in order to be able to produce the other promising effects listed above (Ketchen et al . 2004). The analysis aimed to value a partner's dedication to the alliance, the continuity and the breakdown of the alliance as clarified by the learning of partners, loss, and recovery of confidence (Zhang and Frazier 2011), as well as achievement of targets and satisfaction with the outcome of the Alliance (Kimi and Costaldo 2007). In this regard, coopetitious partnerships and mutual undertakings have been analyzed. Finally, the re-configuration and the growth of conflict and stress control capability (Fernandez et al., 2014, Hong and Snell, 2013, Lado et al., 1997, Pellegrin-Boucher et al., 2013) as a result of cooperation were also studied.

2.5 International Strategic Alliances (ISA)

The International Strategic Alliances (ISA), which enable participating companies to attain strategic goals over and beyond their current ability by sharing complementary expertise and services, are trade arrangements and new business types between international partners. ISA includes two or three member companies: (1) legally separate since the establishment of an alliance; (2) shared advantages, strategic power, and (3) ongoing capital commitment to the agreement (Yoshino and Rangan, 1995), (2) relationship management and performance monitoring.

The development of ISA is motivated by the ability of member companies to meet milestones that may otherwise not be accomplished by themselves. Consequently, there is an annual increase of 25% in the number of strategic alliances (Hughes and Weiss, 2007). However, several scientists have cautioned since the 1970s of a high risk of under-performance and loss in the strategic alliance. Researchers propose that businesses should develop strategic relationships with chosen partners that will allow them (a) to enforce a core business strategy

and (b) to achieve a strategic mechanism for sustainable competitive advantage and development (Dyer et al., 2001; Kale and Singh, 2009). (a) to enforce the main business strategy.

Researchers claim that strategic partnership targets can be accomplished by adopting two strategies: (a) co-creating value, and (b) economic value (Bello et al., 2010; Hamel, 1991). Co-creation of information could be accomplished by alliance members, collaborating to integrate complementarily or establish new expertise. The internalization of the expertise exchanged or co-created within the alliance to the out-learned alliance partner could achieve value transfer (Hamel, 1991; Wagner, 2010).

The students then diverted their attention to their administration, management, and appraisal, from the creation of strategic alliances. Specifically, the high rates of low-level partnerships have warned researchers to concentrate on issues relating to partner selection, monitoring, and assessment (Ariño, 2003; Christoffersen et al., 2014; Heide et al., 2007; Hitt et al., 2004; Shah and Swaminathan, 2008).

Although the causal essence of any stage between alliance forming and ending is interrelated, alliance formation is the first step to be accompanied by the production of policies and mechanisms that allow for efficient activity and eventually serve as a framework for effective alliance management. The various phases consist of collecting distinct, important, and meaningful factors only at the relevant stage, at which the following factors are determined at the following stage. Like a strategic strategy, each phase should consist of coherent and synchronized natural flow variables and a compatible sequence of actions to achieve specified goals until completion. Despite the active literature of this sort, the various practical recommendations and useful scientific data on the underperformance of a partnership, unexplored problems, or unclear and contradictory outcomes remain throughout each step. The number of Strategic Partnerships that struggle and collapse (Hughes and Weiss, 2007; Kang et

al., 2014) remain above 50 percent, which indicates that more measures should be made to minimize the risks resulting from this sharing policy.

Why fail and underperform such military alliances? Some researchers claim that (a) there is little attention paid to concerns related to strategic relationship management, (b) there is little awareness of how the partnerships are evolving (Ariño and De La Torre 1998; Christoffersen, 2012; Doz 1996), particularly in the post-training phase (Bello et al., 2010; Ring and Van de Ven, 1994). This thesis aims at advancing strategic partnership management literature in these understudied fields of science. The ISA sense is selected because the irony regarding this strategic change is especially fascinating. Although allying, in principle, acts as the strategic weapon to produce positive results; otherwise, the approach tends to be harder, fraught with failure threats. It is loosely associated with internal conflicts and instabilities that hinder smooth working and operating, resulting in results, which differentiates alliance from other modes of organization. However, our literature reviews indicate that these hypotheses struggle to encompass all elements of the problem, with several reasons employed to excuse the underperformance of alliances. Thus, the problem of elevated failure rates and underperformance is better taken into consideration in a detailed and integrative system.

2.5.1 Learning in ISA

An increasing amount of research has started focusing on the phenomenon of learning within an ISA context. Learning refers to partner firms accessing and acquiring critical knowledge, information, capabilities, skills, resources, and know-how, and is regarded as a key motivation for firms in establishing ISA (Hamel, 1991; Khanna et al., 1998). ISA provides access to partner firms' resources and capabilities and is considered a key mechanism for firms to acquire and internalise partner skills. Scholars (Kale et al., 2000, Muthusamy and White, 2005) assert that such learning is an implicit strategic objective for firms that form ISA (Yoshino and Rangan, 1995).

Increased attention has been given by researchers to the factors that influence the learning process (Khanna et al., 1998) and learning success (Hamel, 1991). According to the literature, equity-based governance structures are more suitable for learning capabilities from the partner (Mowery, et al., 1996). Alliances like that are more effective vehicles for learning tacit know-how and capabilities comparing to non-equity-based contractual arrangements because the know-how being transferred or learnt is more organizationally embedded (Kogut, 1988). According to Hamel (1991), "firms that possess a strong learning intent and create an appropriate learning environment win the so-called Learning Race." Similarly, Khanna et al., (1998) indicate that companies' motivations for learning have complicated, interdependent, and dynamic structures. Learning success is, therefore, significantly influenced by the time, resources, and effort firms put in the process. The resource allocation is itself will be determined by the expected pay-off.

The pertinent literature has tried to tackle, but haven't succeeded, an important dilemma that often exists in learning alliances. Companies participating in learning alliances want to not only access some useful information and know-how from their partners but at the same time to internalise capabilities and skills possessed by the partner. The issue comes from the fact that many times they don't want to share their know-how, information, and knowledge. In such cases, it is reasonable to assume that there will be a tension between 'trying to learn and trying to protect.' This is mostly because the factors that might facilitate the learning process are likely to expose firms to the danger of losing their capabilities.

So far, the existing literature lacks concrete conclusions on how firms can balance the tension between learning and protecting. On this basis, we seek to address the following question: *What factors enable a firm to not only learn critical skills or capabilities from its alliance partner(s) and co-create value but also protect itself from losing its core proprietary assets or capabilities to the partner?* Learning in alliance situations can be of several kinds and the current study

focuses only on one conceptualisation of learning in ISA. First, Learning has been conceptualised as an outcome construct, this refers to the knowledge, skills, and capabilities partner firms have obtained through the alliance or the partnership. Such learning is associated with factors such as knowledge type, partners' capabilities, and inter-partner characteristics as well as relationship characteristics whereas at the same time others have conceptualised learning as an antecedent (Khanna et al., 1998; Emden et al., 2005).

Those studies focus mainly on the ability of firms to learn and exchange knowledge, or their intention to learn from the strategic collaboration (Lyles and Salk, 1996). Finally, learning has been viewed as a behavioural construct (Azadegan and Dooley, 2010; Nielsen and Gudergan, 2012). The behavioural perspective of learning highlights that learning is a dynamic process that occurs within strategic alliances. Such learning behaviours are associated with the strategic goals set by individual firms in the alliance. This is the kind of learning that has been mostly referred to in the alliance literature and the current study examines the tension associated with balancing some of the dynamics involved in such learning. Such learning is often a private benefit that potentially accrues to firms that participate in alliances (Khanna et al., 1998).

This study focuses only on the latter type of learning. Since the main focus of the author is to resolve the dilemma between cooperative and competitive learning and the outcomes and antecedences of such learning behaviours, we conceptualise learning as the strategic behaviour of partner firms to develop new knowledge and value for the alliance and their firm. Table 2.2 illustrates the key studies concerning learning within an ISA context.

Table 2.2: Key studies in learning in Strategic Alliances

Authors	Concept/Definition	Antecedences	Outcomes	Methodological Approach
Emden et al., (2005) Journal of Business Research	Learning from alliance experience (The extent to which an organisation acquires, analyses, appropriates experiential alliance learning throughout the organisation)	Learning orientation Organisational commitment	Partnership performance (achievement of alliance goals) Marketing performance Financial performance (focal firm's perspective)	Empirical – 184 alliances
Tsang, (2002) Strategic Management Journal	Learning from partner learning to manage alliance Learning the partner's skills	Overseeing effort (time and energy spent by parent managers) Management involvement (actual involvement in the daily operation of the IJV) Learning intent Strategic importance	-	178 IJVs
Kale et al., (2000) Strategic management journal	Learning skills and capabilities from the alliance partner vs protecting core proprietary assets and capabilities from partner (they refer to learning that involves accessing and/or internalizing critical information, capability or skill from the partner)	Relational capital (trust-based) – learning Relational capital – protect assets Conflict management (communication, joint problem solving) – learning Interactive conflict	-	Empirical 212 alliances

		management – protect assets		
Hamel, (1991) Strategic management journal	Inter-partner learning Trading access to each other's skills (value creation) vs (competitive collaboration) acquiring partner's skills (value appropriation)	Intent (propensity to view collaboration as an opportunity to learn) Transparency (to the openness of each partner) Receptivity (a partner's capacity for learning)	Bargaining power (+) Termination, longevity/stability are not evidence of success when it comes to learning	Grounded theory development 74 interviews
Khanna et al. (1998) Strategic Management Journal	Competitive Learning Cooperative Learning (A conceptual paper highlighting the dynamic tension that exists between cooperation and competition in an alliance)	Common benefits in the alliance Private benefits		Conceptual
Panjaitan and Noorderhaven, (2008) Research Policy	Inter-organisational Learning (knowledge acquired from alliance partner)	Informal learning behaviour (informal interactions between alliance boundary spanners) (U relationship) Formal Learning behaviours (U relationship)		Empirical – 149 joint ventures
Lane and Lubatkin (1998) Strategic Management Journal	Inter-organisational learning (learning new skills from alliance) Knowledge spill-overs	The ability of one partner to learn from another depends on: (a) the similarity of firms' knowledge bases; (b) organization structure and		Empirical - 31 alliance dyads

		compensation policies; and (c) dominant logics		
Hardy et al., (2003) Journal of management studies	Learning from a partner (knowledge, resources, skills transfer) (strategic effect) Knowledge creation (learning effect)	Collaboration		Qualitative – case study
Arino and de la Torre, (1998) Organization Science	Learning from partner Learning about partner	Relational capital Interaction Perception of equity/inequity		Longitudinal case study
Inkpen and Currall, (2004) Organisation Science	Learning from partner learning about partner		Learning from leads to a shift in bargaining power and formal controls Learning about harms formal JV controls JV instability or dissolution	Theoretical
Liu, (2012) International Business Review	Relationship learning (joint activities between supply chain partners in which the two parties strive to create more value together)	Learning intent Absorptive capacity Technology uncertainty Cross-cultural differences	Capability enhancement Relationship performance	160 international alliances
Muthusamy and White, (2005) Organization Science	Interfirm learning is both process and outcome construct: joint efforts to co-create and learn new knowledge (process) and skills and knowledge absorbed	Reciprocal commitment Ability-based trust Benevolence-based trust		144 alliances

		Integrity-based trust Mutual power or influence		
Larsson et al., (1998) Organisation Science	Inter-organisational Learning conceptualised as the collective, joint acquisition of knowledge among a set of organisations Learning strategies: collaboration (high receptivity, high transparency) Competition (high receptivity, low transparency) Compromise (medium, medium) Accommodation (low receptivity, high transparency) Avoidance (low receptivity, low transparency)	Learning strategies Collaboration – high transfer of knowledge from and to both parties + creation of new knowledge Competition – high knowledge transfer from one to another + creation of new knowledge Accommodation - high knowledge transfer from one to another + creation of new knowledge	Inter-organisational learning (through a transfer of existing knowledge)	Conceptual
Liu et al., (2010) Journal of World Business	Knowledge acquisition: the extent to which the firm has learned from the alliance partner	Relational capital (trust, transparency, interaction)	Knowledge dissemination Relationship satisfaction	Empirical - 609 international alliances
Nielsen and Nielsen, (2009) Journal of Management Studies	Alliance learning (acquisition or transfer and development of external knowledge that creates the capacity of further action)	Collaborative know-how (ability to transfer knowledge) Knowledge protectiveness (willingness to transfer knowledge)	Innovation	Empirical - 119 ISA dyadic
Inkpen, (1998) European Management Journal	Learning refers to acquiring new knowledge from the alliance partner	*Alliance Knowledge Accessibility* Partner protectiveness		Conceptual

		Trust between partners Knowledge tackiness Partner history *Knowledge Acquisition Effectiveness* Flexible learning objectives Leadership commitment No performance myopia Cultural alignment Learning Connections (formal and informal interactions)		
Lyles and Salk, (1996) Journal of International Business Studies	Knowledge (tacit and explicit) acquisition from the foreign partner The extent of knowledge acquired	IJV characteristics: Capacity to learn Articulated goals Active involvement of the foreign parent Conflict (moderator) Ownership type (dominant partner vs 50/50 shared equity) (moderator)	IJV performance (general, business and competency-based, human resource management)	Empirical - 201 IJVs
Simonin, (2004) Journal of International Business studies	Knowledge transfer	Learning intent Learning capacity (mediate intent and knowledge transfer)		Empirical – 147 international alliances

		Partner protectiveness Knowledge ambiguity		
Nielsen, (2005) Journal of Business Research	Knowledge embeddedness (a process of effectively linking one's organisation productive knowledge with another's through qualitative coordination) (dyadic)	Complementarity Compatibility Tackiness Trust Protectiveness Coordination	Synergies of knowledge	Theoretical
Nielsen and Nielsen, (2009) Journal of Management Studies)	Alliance learning (acquisition or transfer and development of external knowledge that creates the capacity of further action)	Collaborative know-how (ability to transfer knowledge) Knowledge protectiveness (willingness to transfer knowledge)	Innovation	119 ISA dyadic
Hau and Evangelista, (2007) Journal of Business Research	*Partner assistance:* refers to the extent to which a foreign parent assists in the IJV management for marketing knowledge. *Knowledge protectiveness* refers to the extent of hurdles caused intentionally or unintentionally by foreign members that disrupt the communications between foreign and local members in an IJV.	-	Acquired explicit know-how Acquired tacit know-how	219 IJVs
Ho and Wang, (2015) International Business Review	Knowledge protection		Absorptive capacity Alliance performance	281 International alliances

Inkpen and Tsang, (2005) Academy of Management Review	Knowledge transfer is the process through which one network member is affected by the experience of another	Social capital dimensions: Structural (network ties, configuration, and stability) Cognitive (shared goals and culture) Relational (trust)		Theoretical
Jiang, et al., (2013) Industrial Marketing Management	Knowledge leakage: the extent to which the focal firm's private knowledge is intentionally appropriated by or unintentionally transferred to partners beyond the scope of the alliance agreement (multidimensional construct – risk, intentional, unintentional)	Goodwill trust (U shaped) Competence trust Formal contacts		205 partnering firms
Azadegan and Dooley, (2010) Journal of Operations Management	Explorative learning: learning with an emphasis on improving the existing and established knowledge Exploitative learning: learning with an emphasis on generating new knowledge		Suppliers' Innovativeness Manufacturers' Performance	148 manufacturer-supplier dyad 592 buyer-supplier
Nielsen and Gudergan, (2012) International Business Review	Exploitative vs explorative fit in strategic alliances (partner selection criteria)	Cultural distance Trust Competence similarity Prior partner experience	Downstream Upstream performance	120 ISA
Kale and Singh, (2007) Strategic Management Journal	Alliance learning as a process that is directed toward helping a firm (and its managers) learn, accumulate, and		Overall alliance success (the relationship between partners,	175 alliances

	leverage alliance management know-how and best practices. Such a process involves deliberate efforts to articulate, codify, share, and internalize alliance management know-how in firms		achieved goals, competitive position, learn skills)	

2.6 Partners' Resources

Barney (1991: 101) defines firm resources as "*all assets, capabilities, firm attributes, information, and knowledge controlled by a firm that enables it to conceive of and implement strategies that improve its efficiency and effectiveness*". There are two main perspectives on resource differences within an alliance context. First, scholars assert that resource complementarity encourages cooperative behaviours because alliance firms aim to combine and exchange capabilities that lack, while the other stream of research argues that different resources may drive opportunistic behaviour which in turn diminishes the joint activities (Lin et al., 2009).

According to the literature, resource complementarity has many benefits (e.g. Gulati, 1995; Inkpen and Beamish, 1997; Chung et al., 2000; Beamish, 2008). These benefits have been the subject of academic research for more than two decades. Findings in the literature suggest that such resource differences enhance ISA performance (Cui and Kumar, 2012; Wu and Cavusgil, 2006) Nevertheless, the beneficial influence of resource complementarity can only occur when such resources are incompatible and non-overlapping (Luo et al., 2002).

These inconclusive results show that resource differences may not have a direct impact on alliance outcomes, rather behavioural mechanisms (i.e. learning strategies), may predict better their influence on the alliance. Therefore, this study considers partners' resources as antecedents that drive learning behaviours, which in turn they drive alliance performance.

2.7 Partners' Goals

ISA is characterised by private goals set by each party before entering the alliance. Such goals are the key motivations of firms in establishing strategic collaborations, which facilitate their achievement (Hill, 1991; Luo et al., 2008). Goal differences mitigate cooperation and evoke competition because each party aims to pursue their self-interests. On the other hand, mutual goals encourage joint efforts and facilitate value co-creation (Luo, 2002).

Lyles (2001) studied the joint venture activity of four firms, each of which was involved in at least twenty ongoing ventures. She found that in successful ventures, firms had to have compatible goals because goal similarity indicates a strategic fit between partners, which has been identified as a key factor for alliance effective cooperation. Successful alliances were marked by the close 'fit' between partners--there must be an equality of partners. Thus, the lack of goal compatibility created a climate in which the alliance could not succeed. Lorange and Roos (1998; 65), state that "*the goals of the firms involved must be compatible with the alliance to be successful"*. Firms involved in alliances must have goals that support each other, not compete with each other. Competitive goals, such as 'get all you can', are counterproductive and result in alliance failure. Goals that are complementary help the firms involved achieve success.

2.8 Alliance Performance

Although many ISAs have been proven to fail or not meet their objectives, the number of new ones formed every year grows (Dyer et al., 2004; Gomes et. al., 2011; Gomes et al., 2014). The past decade the focus of academic research related to ISAs has shifted from identifying companies' motives for establishing one to developing tools to measure their success (Christoffersen, 2012). This is because according to the pertinent literature lacks reliable and valid measures of performance outcomes, as well as a solid conceptualisation of what success means in a strategic alliance (Robson et al., 2002).

Strategic alliance performance has been conceptualised and defined in many ways in the previous study, but in the present study we follow Ariño's approach (2003) who defines *strategic alliance performance* as "*the degree of accomplishment of desired goals, be these common or private"* (Ariño, 2003, p. 68). In doing so, we link performance to the companies' goals which according to Ariño (2003) can be grouped in the following categories: a) common goals, meaning goals that are shared between the partners, and b) private goals, meaning goals that one partner sets but they are not shared with the other partner. The existence of the two types of goals implies that sometimes in a strategic alliance the two partners may have different or even conflicting interests (Robson et al., 2002). This analyzes their goals complicated and therefore the assessment of an alliance's performance very difficult. As Christoffersen et al. (2014) note the choice of the measurement of an alliance's performance is very crucial since different measurements can lead to different results and hence different business decisions. That in effect may have a significant effect on the development of the partners' relationship, the plans the two parts have for the future, and ultimately to the alliance's success itself (Christoffersen et al, 2014).

The correct conceptualisation and measurement of performance are of equal importance for researchers too. That is because studies that use different measurements may end up reporting different or even contradictory findings. To add complexity to this issue, to our knowledge, most existing measures used to capture performance outcomes in strategic alliances have been criticised (Ren et al., 2009). In general, three major types of performance measures exist in the relevant literature (Robson et al., 2002): a) objective financial measures (e.g. profit, market share), b) objective stability measures (e.g. dissolution rate), and c) multidimensional assessment based on a combination of subjective measures (e.g. managers' satisfaction) and objective measures (e.g. profitability). Strategic alliances' performance measures can be also categorised based on the level within the organisation they assess Ariño (2003), i.e. a) financial

performance, (2) operational stability performance, and (3) organisational effectiveness. The latter refers to the degree to which the companies' goals have been achieved (Ariño, 2003) and it's the most relevant to the approach we follow in conceptualising performance in the present study. Specifically, according to the literature effectiveness can be measured by combining the companies' satisfaction for the alliance with the degree to which strategic goals have been achieved and any potential net spill-over effects (Ariño, 2003). Finally, following a slightly different approach, Christoffersen (2012) came to similar conclusions and divided performance measures into 5 main categories: a) subjective measures, b) stability measure, c) accounting measure, d) cumulative abnormal return and e) external evaluation (Christoffersen, 2012).

Although there is no definite answer in the literature on whether it's preferable to use objective or subjective measurements for strategic alliances' performance, there has been an extensive discussion on the issue. For instance, the credibility of financial and operational measurements has been many times questioned (Ariño, 2003). Moreover, measures such as the longevity of an alliance have also been considered unreliable. For example, Ren et al. (2009) have posted the view that longevity should not be used as a performance measurement because an alliance may be successful even if the two parties decided to terminate it. Similarly, many alliances carry on for a long time without the partners' goals being achieved. For that reason, Makino et al. (2007) distinguished between unintended termination of strategic alliances (which should be considered a negative outcome) and intended termination (which may be the outcome of the two partners achieving their goals). At the same time, there have been calls in the literature for using organisational effectiveness as an indicator of alliances' performance, as this is the most credible and reliable measurement of performance outcomes (Ariño, 2003).

From all these arguments it becomes clear that although previous researchers have used several ways for measuring strategic alliances performance (objective, subjective, multidimensional) they have reached a consensus on which way is the most credible (Lunnan and Haugland,

2008). For example, according to Christoffersen et al. (2014), strategic alliance performance is most commonly captured by subjective performance measures whereas at the same time stability and accounting measures are not used so often (Christoffersen et al., 2014). The two main reasons behind the popularity of subjective measures are according to Kauser and Shaw, 2004 that: 1) objective and subjective measures have been proven to be highly correlated and therefore subjective measures constitute an accurate reflection of objective measures and 2) subjective data are easier to be obtained (Kauser and Shaw, 2004).

Based on the above discussion and in line with our framework, in this study, strategic alliance performance will be conceptualised as alliance effectiveness and will be defined as "*the degree of accomplishment of the focal firm's desired goals"* (Ariño, 2003; Robson et al, 2008). Alliance effectiveness refers to the extent to which strategic goals are achieved and it measures the degree of fulfillment of strategic goals from the perspective of the focal firm. Building upon the achievement goals perspective (Child and Yan, 2003), in this study strategic alliance underperformance, refers to the extent to which the desired goals that alliance partners have set in allying are not being realised in practice.

2.9 Loose coupling theory

For this study, we borrow loose coupling theory from organizational research (Beekun and Glick, 2001; Orton and Weick, 1990; Weick, 1976) as the theoretical lens for explaining how goal and resource differences matter in ISA relationships. The key focus of the loose coupling theory is that the organization is a loosely coupled system with various relationships among its elements. According to Weick (1976), loose coupling is a situation in which elements are separate but also coupled because elements are somehow connected and responsive to one another. In other words, elements preserve a degree of determinacy, but they are also subject to spontaneous changes because they are influenced by other elements in the environment (Beekun and Glick, 2001). The resulting systems are indeterminate and rational, yet

spontaneous and deliberate (Luke et al., 1989; Orton and Weick, 1990). Thus, loose coupling theory encourages researchers to simultaneously consider elements that encourage the cooperation (tightly coupled) and competition (loosely coupled) of alliance partners. Continuing with the explicit focus on a relationship, Beekun, and Glick (2001) further develop loose coupling theory by proposing the coupling mechanisms that enable elements to function together.

Generally, there are two schools of thought. The first supports that coopetition is two separate variables, while the second school views them as integrated. Each principle comes with some advantages and disadvantages, which has shed light on a new principle to occur. That is, an integrated view that consists of both perspectives may facilitate the disadvantages of choosing one of the other views. In other words, this view supports the simultaneous adaptation of both principles where coopetition is both coupled and loose. That brings us to loose-coupling theory, which has established that strategic alliances are the most representative example of loosely coupled systems. Similarly, loose coupling theory that alliances simultaneously should be able to be both coupled and independent from each other for achieving better outcomes. On this logic, it is apparent that competitive strategy represents loose interactions and cooperative refers to coupling behaviours. Therefore coopetition represents a loose coupling strategy, which is generally suggested to be positively related to performance outcomes.

2.10 Degree - Symmetry Approach

Due to the nature of the current study, the researcher examines dyadic relationships to determine partners' differences in resources and goals. Such an approach has been established to be appropriate when analysing dyads (Straub et al., 2004) because it enables the author to examine both the degree and the symmetry of resources and goals. The degree refers to the extent to which partner firms contribute resources in the alliance while the symmetry describes the differences of those resources contributed. Similarly, goals degree refers to the magnitude

of the partners' objectives regarding the establishment of the alliance, while symmetry refers to the differences in those goals between partner firms.

We follow Straub et al. (2004) and Klein et al. (2007) to operationalize the measures of dyads. Since the unit of analysis of this study is a dyad, all of the constructs in the dyad data – goal differences, resource differences – are operationalized using the degree-symmetry approach. The degree-symmetry approach is a technique introduced by Straub et al. (2004) on operating alliance performance of dyad from the paired data. The advantage of this approach lies in the simultaneous estimation of both magnitude and symmetry within the dyad (Klein et al., 2007). Since this study concerns the inter-partner differences, such an approach enables the researcher to capture both dimensions of the dyad (degree, symmetry). Straub et al. (2004) and Klein et al. (2007) provide a detailed description of the degree symmetry approach. Following the procedures, we implement the following step to operationalize the degree-symmetric variables for this study: (1) the scores for each item are summed and then standardized to obtain a value between 0 and 1 for international partner data (C1) and the focal firm data (C2), which represents the magnitude for each alliance partner firms; (2) average the international and focal firm to get the degree (magnitude) of the dyad, CD = (C1 + C2)/2; (3) between C1 and C2, divide the smaller one by the bigger one to get another standardized value between 0 and 1, CS, which represents the symmetric value of the construct; (4) average CD and CS to yield the degree-symmetric value for the construct across the dyad, CDS.

2.11 Conclusions

The literature shows that cooperative and competitive learning hasn't been given much of empirical attention. After reviewing the literature of organisational learning theory in alliances it was apparent the need for a complementary theory. The literature follows with the loose coupling theory which views alliances as systems that are both loose and coupled at the same time. This theory complements the organisational learning theory view of organisations as

learning systems. Extending this view that alliances are not only learning systems but also loose coupled systems the study incorporates the loose coupling theory in explaining cooperative and competitive learning strategies. The study further investigates the cooperation competition link and leads to the concept of coopetition. Integrating all theories the study incorporates a dyadic approach as all theories suggest that learning is an interaction between systems. A review in dyadic alliance literature revealed the concepts of resource and goal differences. Finally, it concludes with a review of performance in alliance literature and concludes to conceptualizing as effective based on the theories all support this link.

CHAPTER 3:

Theoretical Background and Hypotheses Development

3.1. Introduction

The following chapter concerns the research hypotheses and the theoretical background guiding the development of the research hypotheses. First, we start with the theoretical rationale outlining the conceptual framework and continue with the development of the hypothesized relationships based on complementary theoretical perspectives. Specifically, the theoretical perspectives utilized assist the researcher in developing the theoretical arguments that lead to the hypotheses of the current study.

3.2. Theoretical Background and Conceptual Framework

In coopetition relationships, firms fight against the dilemma of working together and creating value and the temptation to be opportunist and appropriate a bigger part of this common value create (Oliver, 2004; Gnyawali and Park, 2011 Gnyawali, Madhavan, He, and Bengtsson, 2012). Each firm collaborates but, in fact, their position encourages each firm to win more than its partner (Fernandez el al., 2014). Strictly speaking, tension would appear when each partner will try to capture the value previously created.

Other type of coopetitive tension is due to the risks of transfer of confidential and the risks of technological imitation (Fernandez et al., 2014). Partner pool strategic resources to achieve their goals (Gnyawali and Park, 2011), but at the same time they need to protect their core competences because they remain strong competitors. Thus, knowledge represents a tension in coopetitive business relationship as it constitutes a source of competitive advantage. The cooperative aspect of knowledge sharing is related to the collective use of shared knowledge to pursue common interests (Tsai, 2002). The competitive aspect, in turn, is related to the use of shared knowledge in order to obtain private gains in an attempt to outperform partners

(Khanna, Gulati, and Nohria, 1998). One of the main objectives is absorbing as much knowledge as possible (Gnyawali, He, and Madhavan, 2006); but for achieving common objectives, it is need sharing knowledge (Chin et al., 2008), as well as establishing proper protective mechanisms (Baumard, 2010). The dilemma between what to share and what to protect impact on learning dynamics and it is a main source of tension between partners (Walley, 2007). They have continually to decide what information should be shared to assure the success of relationship, and what information should be protected, since assimilated knowledge by partners can be used in future competitive scenarios and increasing opportunism risk (Fernandez and Chambaretto, 2013).

Tensions could also arise due to differences in the goals of each partner of the relationship (Fernandez et al., 2014; Gnyawali et al., 2016). Partners could have different strategic priorities for the partnership and such differences could lead to disagreements on resource allocations. Further, partners could have different strategic intends and hidden priorities, such as imitating the partner's knowhow (Hamel, 1991).

In coopetition, the sharing or resources and activities can create an opportunistic situation for self-interest to exploit a weaker party's interest (Osarenkhoe, 2010). Any opportunistic behaviour by the competitor partner can involve of knowledge, market, causing tension, confrontation and a dramatic loss of confidence (Sherer, 2003). Coopetition does not mean that firms' private interests become irrelevant and organizations change from a "self-interest" to a "collective interest" oriented behaviour (Fernandez et al., 2014).

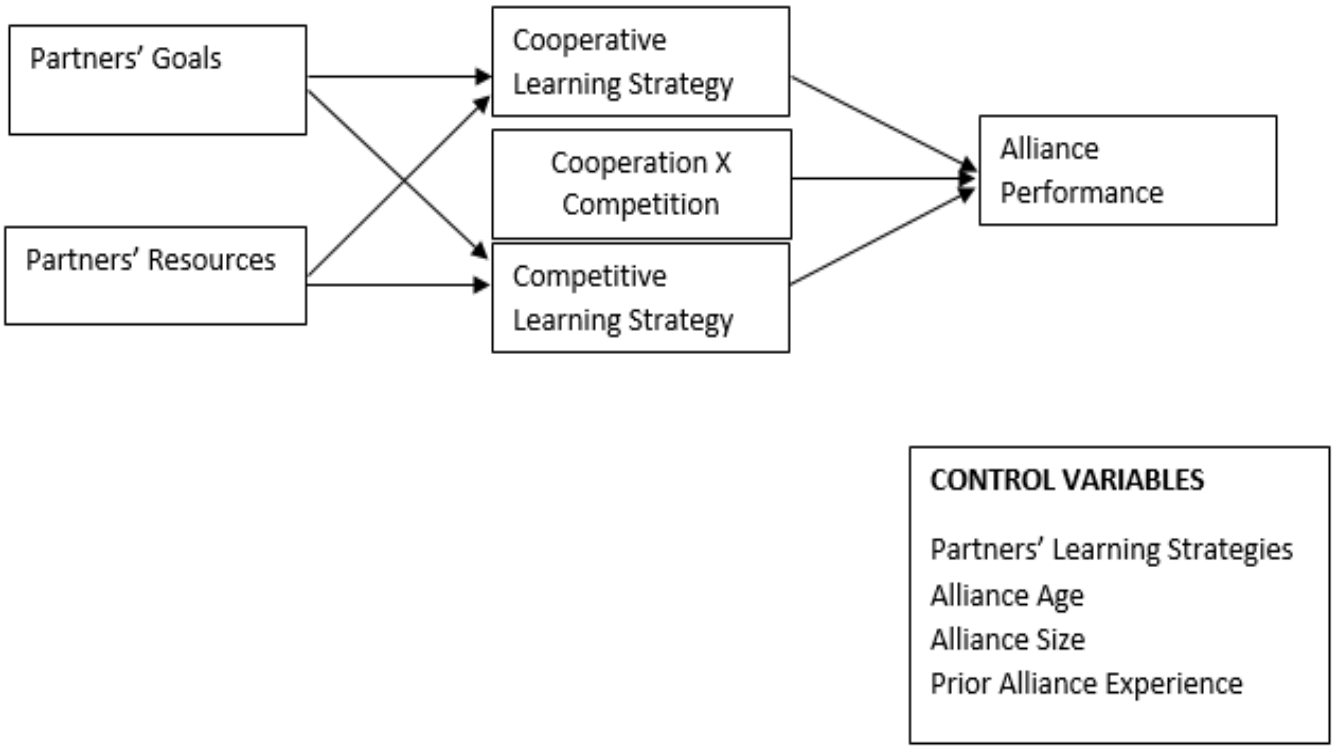
Such tensions therefore, result from the presence of contradictions and the attempts to resolve such contradictions. For example, private vs mutual goals. In the attempt to resolve such dilemma whether to compete in order to safeguard their self-interests or cooperate in order jointly combine resources that enable the success of the alliance, conflicts and tensions emerge

within the relationship that may be fatal for the success of the alliance. This leads to the paradox of coopetition where two opposing forces (i.e. cooperation and competition) coexist simultaneously.

Extracting insights from loose coupling theory, we offer a solution to simultaneously competing and cooperating in ISA. For example, the notion of loose coupling can be viewed as a resolution of non-coupling vs tight coupling. Indeed, there is an inherent paradox in the very notion of loose coupling theory because it juxtaposes two opposing concepts-the concept of looseness and that of coupling. Such theoretical rationale, we believe, is promising in enabling the consolidation of two separate and contradictive streams of research, one highlighting cooperation and the other competition.

An ISA is a loosely coupled system in which parties interdependently share existing resources or jointly develop new knowledge (coupling) while maintaining their separateness, control of resources and private benefits (looseness). Coupling facilitates cooperation and joint activities that pursue mutual interests, while looseness allows for private pursuit and individual activities that enable parties to compete in order to outlearn each other and maintain competitive advantage.

Figure 1: Conceptual Framework



3.3 Hypotheses Development

3.3.1. Partners' Goals and Learning Strategies

Partners' goals refer to the extent to which the objectives of the parties involved in the ISA, are aligned (Luo, 2008). It basically denotes the degree to which one party perceives to have compatible goals with the other party, regarding what they aim to achieve through the alliance. Goal congruency between partner firms is a robust predictor of strategic decisions (Liu et al., 2012). The level of similarity between partners' goals as perceived by the focal firm predict their behaviour regarding whether to further couple or decouple the relationship (Ho and Ganesan, 2013).

As discussed loose coupling theory provides a framework that explains the level of inter-partner compatibility and their role on strategic decisions for the collaboration. From a loose coupling perspective alliances' strategic decisions whether to engage in coupling or loosening behaviour is determined by inter-partner dynamics-based factors (Liu et al., 2012). Coupling depicted by cooperative strategy where both parties jointly strive for mutual benefits and value creation, and loosening reflected on competitive strategy where partners endeavour to out-perform each other by working individually, infer that such strategic decisions are governed by inter-partner strategic dynamics related to the alliance management, such as partners' resources and goals alignment (Beekun and Glick, 2001.

Gnyawali et al. (2016) demonstrates that inter-firm competition resulting from goal differences makes many strategic alliances unsuccessful. Jap and Anderson (2003), in their study of goal incongruence and opportunism in buyer–supplier relationships, found that at high levels of goal incongruence, opportunism and competitiveness were increased. In line with such assertions, we posit that the similarity or differences of goals set by the partners for the strategic alliance affect the extent to which they behave cooperatively or competitively (Parkhe, 1993). Diverse goals for the strategic alliance

development and evolution, maximizes the potential for opportunism and conflict emergence between partners (Luo, 2002).

In particular, goal differences are often found amongst international strategic partners in emerging market alliances (Luo, 1997; Osland and Cavusgil, 1996; Yan and Gray, 1994). While foreign parents may seek for profitability and market expansion through the alliance, local parents may see it as a source of new skills development and foreign technologies acquisition (Luo, 1997). When such differences exist, the contribution of joint activities is limited. According to Luo (2002), goal incongruity gives way to antagonistic pursuits. When goals are incongruous, partners' views differ with regards to what is best for the effective and efficient operation of the alliance. In protecting the alliance, firms engage in competitive learning activities, aiming to acquire more skills and knowledge than the partner firm in order to maximize their power and have more saying about alliance decisions. For example, the termination of Peugeot's joint venture in Guangzhou may have in part to do with this: while Peugeot realized the goal differences with the Chinese party from the very beginning, it decided to tolerate them until the point where the Chinese partner out-learned them and Peugeot's power in participating in joint decision was weakened and its voice was ignored (Luo, 2007).

When strategic goals diverge, partner firms are more likely to use competitive rather than cooperative learning strategy during the operations of the alliances (Das and Teng, 1998), because goal differences divide interests between parties, increase partners' separation and give way to private, self-interest goals. These private goals increase partners' uncertainty in terms of what to expect from one another and create a tense environment because they become sceptic for each other's intentions (Arino, 2003). In their aim to protect their private interests and minimize exploitation of valuable information by opportunistic partners, they avoid joint activities such cooperative learning. In turn they deploy competitive learning strategy and strive to outlearn partner firm to ensure dominance over the other party (Das and Rahman, 2010).

Goals differences imply that each party could aim to achieve its private objectives, even on the expense of the alliance (Hoffman et al., 2001). In so doing, partners engage in a learning race strategy where the first one to acquire more knowledge and skills use them for private benefits (Gulati et al., 2000). For example, the objectives of ISA partners are typically incompatible. In general firms enter a strategic collaboration with the aim to achieve not only mutual goals for the alliance but also pursue private benefits. By developing goal congruence between the parties the incentive for competing can be reduced or even eliminated (Liu et al. 2009). Indeed, Rosseti and Choi (2008) demonstrate that goal differences leads a partner firm to behave opportunistically by engaging in competitive behaviour in order to safeguard their self-interests.

Cooperative learning strategy could be perceived as offering fewer payoffs in comparison to competitive learning strategy when goals are incongruent. Because alliance partners are unable to accurately predict payoffs, they generally gauge cooperation risks (e.g. unintended valuable information leakage, partner's opportunism). Differences in the strategic goals hamper their commitment toward the favourability of collective gains. When goals are incongruent cooperative learning becomes harder to employ because partners have to set agreed-upon strategies, overcome their differences and jointly work for value and knowledge co-creation. This process requires open communication and transparency (Hauck et al., 2004), amongst the partner firms involved in inter-organizational relationships (Lansley, 1994). Therefore, inter-partner cooperation becomes a hurdle to overcome since gaining pay-offs from cooperative learning strategy requires more effort.

On the other hand, the higher the goal congruence, the more cooperative the environment for strategic learning to take place. Goal compatibility offers a higher likelihood that every party will be more committed and cooperative in accomplishing common goals (Whipple and Frankel, 2000). This congruency cultivates a climate for mutual learning (Holt et al., 2000). Because partners share common goals, they are prompted to work together, and share joint efforts in order to co-create new

knowledge. This is so because, initially, the establishment of shared goals may reduce relational risks in alliances and, thus, deter partner firms from acting competitively (Das and Teng, 2001). Goal congruence therefore, can provide direction for the activities and efforts of the dyad; by engaging in cooperative behaviours and knowledge co-creation activities they ensure and improve joint returns (Jap and Anderson, 2003).

Mutually shared goals ensures that the preference of each party is understood and integrated into joint activities, hence it is likely to reduce potential conflicts among the alliance partners and facilitate more cooperative working relationships. In sum there appears to be a strong rationale for the link between goal incongruence/congruency and competitive/cooperative learning behaviours. Accordingly, this study hypothesizes:

H1a: *There is a positive relationship between partners' goals similarity and focal firm's cooperative learning strategy*

H1b: *There is a negative relationship between partners' goals similarity and focal firm's competitive learning strategy*

3.2.2. Partners' Resources and Learning Strategies

We now turn to the effects of partner resource alignment on strategic decisions they pursue in order to optimise value, which in turn affect alliance performance. Partners' resources refer to individual firm's knowledge-based resources contributed in the alliance (Luo, 2002). The degree to which partners contribute resources in the alliance and the extent to which they are similar or different determine the inter-partner alignment of resources. Such alignments emerge from the similarity or dissimilarity of the resources contributed by each party in the alliance. Similar resources represent the compatibility while different resources the complementarity of those resources.

Firms develop resources and capabilities that become their distinctive competencies in competing with other firms (Zott and Amit, 2010). International strategic alliances scholars have repeatedly

highlighted the importance of establishing strategic collaborations with partners who possess and contribute complementary resources to the alliance (Lin et al., 2009). Combining partners' distinctive competences assists in overcoming resource limitations and consequently achieves cooperation between partners in the alliance (Harisson et al., 2001). Alliance literature views strategic alliances as a useful mean for enhancing knowledge in areas where the requisite level of knowledge is lacking. Emphases that firms' decision to engage in collaborations is highly driven by the lack of sacred resources, indicates that trading of resources is a strategic necessity for learning to emerge.

In generally, firms have either similar or diverse resources or capabilities. Scholars suggest that firms should form strategic collaborations with partners who contribute different and complementary resources (Lane and Lubatkin, 1998; Murray and Kotabe, 2005). If firms are to effectively take advantage of the resources involved in an alliance to achieve desired objectives (e.g. learning new skills and capabilities), the resources must be complementary. When alliance partners contribute similar types of resources, there will be little knowledge to share and also few benefits to receive. More specifically, excessive resource similarity indicates that the partners have little to learn from each other, discouraging partners from engaging in cooperative learning behaviours because the payoffs from deploying such strategy seem less than the efforts required to deploy it. In turn resource symmetry drives alliance partners to work individually for developing new knowledge and skills, creating a learning race environment with strategic parties striving to outlearn each other (Jiang et al., 2008).

Collaboration between two individual firms that have a low degree of resource similarity is justified because of the opportunity to cooperatively create new knowledge (Dussauge, et al., 2000) through a combination of different and complementary skills and resources that are helpful in developing and maintaining competitive advantage. This situation reflects a cooperative agreement whereby resource complementarity leads to different conditions that increase the degree of cooperation. For example

resource asymmetry increases interdependence between alliance partners. Henderson and Mitchell (1997) highlight, weakened interdependence is likely to reduce cooperation and increase competition. In the absence of resource interdependence, partners are likely to engage in a competitive learning behaviour in which each seeks to individually generate a competitive advantage over the alliance partner (Chung et al., 2000). Weakened resource interdependence also limits mutual opportunities for realizing positive-sum benefits through cooperative learning; further pushing partners to follow a competitive learning strategy toward each other (Lado et al., 1997).

Therefore, this study suggests that firms' decision whether to employ competitive or cooperative learning strategy depends on the degree of symmetrical resources contributed to the alliance by each party. The following hypothesis is formed as:

H2a: *There is a positive relationship between partners' resources degree–symmetry and focal firm's competitive learning strategy*

H2b: *There is a negative relationship between partners' resources degree–symmetry and focal firm's cooperative learning strategy*

3.2.3. Focal Firm's Cooperative Learning Strategy and Alliance Performance

Alliance performance is defined in the current study as effectiveness, or as the degree to which alliances achieve their objectives (robson, 2019). Studies in cross-border collaborations have observed two countervailing arguments on the effects of cooperative learning strategy of a focal firm on the alliance performance. One line of argumentation suggests that strong cooperative learning strategies could enhance collective knowledge which consequently leads to alliance positive outcomes, while the other suggests that very strong cooperative learning could limit new knowledge development and/or invite exploitation by the opportunistic partner leading to alliance underperformance (Lui et al. 2009).

Heiman and Nickerson (2004) argue that cooperative activities often involve the exchange of knowledge to solve complex problems, and partners' joints efforts in order to co-create value. When firms engage in cooperative learning strategies, they can create effective knowledge sharing routines with each other, which will increase the alliances' performance. The frequent and richer interactions between partners allow the participants to develop a shared understanding (Srivastava, 2007) and partner firms are able to efficiently deploy a larger variety of resources together and convert the inputs into venture outputs ensuring the effective operation of the alliance.

Under cooperative learning strategies, firms work together closely on a regular basis, serving as a trust-based governance mechanism (Rowley et al., 2000) which enhances knowledge transfer and alliance performance consequently. Since strategic collaborations are filled with risks and uncertainties with regards to future developments (Teng, 2007), scholars have highlighted the important role that informal safeguards and trust-building initiatives play in deterring the potential opportunistic behaviour of alliance partners (Dyer and Singh, 1998). Cooperative strategies will encourage reciprocity, and joint problem-solving arrangements will improve alliance outcomes (Uzzi, 1997).

This study argues that cooperative learning strategy's positive impact on alliance performance reduce after a certain level. When cooperative learning is too strong, firms may become over-embedded in the relationship and could miss learning opportunities outside the relationship which would enhance alliance positive outcomes. While cooperative learning initially brings benefits because encourages exchange of heterogeneous and complementary resources, cooperative learning with the same partner do not bring further novel knowledge and skills. Intense cooperative learning leads to developing homogenous competences inhibiting new knowledge development and consequently disabling partners from developing further distinct capabilities.

Though the above mechanisms imply a positive linear link between cooperative learning strategy and performance, we also theorize a relational over-coupling condition suggestive of a curvilinear relationship. Beyond a threshold, cooperation produces no additional benefits, or even yields declining performance returns, in ISAs. High levels of cooperation can have hidden, negative consequences that limit the effectiveness of cooperative strategies generally and ISAs specifically (Joshi and Lahiri, 2015). As inter-partner joint activities in order to co-create value increase to high levels, the ISA partners incur greater (objective) risk from their cooperative behaviours, but perceive less relationship risk. Cooperation in partners encourages the firm to rely less on formal control mechanisms, as these can signal decoupling behaviours. Such complacency is a natural by-product of cooperation, leading to underestimation of costs and blindness to unintended consequences (Scheer et al., 2012; Uzzi, 1997). Because the cross-border nature of ISAs often requires resourcing with an unfamiliar overseas partner, there is a realistic chance that the counterpart could act in a manner that puts their own alliance interests first. Further, as cooperation builds to high levels, inter-partner familiarity can breed relational inertia (Scheer et al., 2012). Under these conditions, the partners are less likely to search for, and respond to, internal and external information that challenges alliance-level decisions.

Cooperative learning strategy requires a certain level of transparency between partners with regards to knowledge and skills to be shared by each party for the learning process. Firms who employ intense cooperative learning strategy may be perceived as easy targets because this transparency may be exploited by the more opportunistic partner. Opportunistic behaviours are generally associated with negative alliance outcomes because opportunistic partners prioritize their private goals over the alliance benefits. It is therefore preferable firms to employ moderate levels of cooperative learning strategies to firstly avoid being demoralized by opportunistic partners and secondly remain open in recognising learning opportunities outside the relationship. The following hypothesis is formed as:

***H3**: There is an inverted U-shaped relationship between focal firm's cooperative learning strategy and alliance performance*

3.2.4. Focal Firm's Competitive Learning Strategy and Alliance Performance

In our context of strategic learning and alliance performance, competitive learning strategy refers to the focal firm working individually and striving to outlearn the partner firm. Alliance firms that are focused on individual activities and private benefits are likely to contribute less to the alliance success than firms that work together to co-create new knowledge. That is so because competitive learning strategy indicates that focal firms avoid sharing their valuable knowledge and skills with their strategic partners. This strategy most likely will encourage a tit-for-tat strategy from the other partner, making harder the development of new skills necessary for the effective and efficient operation of the alliance since both parties restrict access to valuable knowledge.

In situations of competitive learning strategies and become learning races, where each party aims to outlearn each other (Hamel, 1991; Khanna et al., 1998). In so doing, firms work independently, rather than cooperatively, in order to ensure that their self-interests are attained. Such competitive behaviour, limits partners contributions and communication, which diminishes the benefits from a joint effort to co-create value. Because in competitive learning firms are more likely to behave opportunistically, and pursue their own competitive objectives on the expense of the alliance and the alliance partner (Park and Russo, 1996). Further, because firms want to protect themselves from the opportunistic behaviour of their partner to retain their own core proprietary assets (Kale et al., 2000), they engage in competitive learning behaviour, which may limit knowledge flow between partner firms, and the development superior value which enables the effectiveness of the alliance.

When the degree of competitive learning between partners is really high, competitive tension between the focal firm and its partners will increase because knowledge gained from the partner through a collaborative relationship could also be used against the same partner in order to more effectively

compete in the markets (Gnyawali and Park, 2009; Srivastava and Gnyawali, 2011). This high level of competitive tension will diminish knowledge sharing and could result into a narrow scope of cooperation, which in turn, will result in a low level of alliance performance. Based on these arguments, the following hypothesis formulates as:

H4: *There is a negative relationship between focal firm's competitive learning strategy and alliance performance*

3.2.5. Balance between competitive and cooperative learning strategies and alliance performance

Our theorization thus far suggested that competitive learning and alliance performance have a negative relationship, while with respect to cooperative learning strategy, our theory suggested that is generally beneficial for the alliance performance but at high levels the benefits start to reduce.

Some scholars (Chen, 2008; Das and Teng, 2000) suggest that firms should balance the contradictory forces (i.e., competition and cooperation), insofar as tension from the paradox can lead to the most positive effects. For example, Das and Teng (2000) suggest that the balance between competition and cooperation will increase alliance positive outcomes. Integrating the paradox perspective utilised in the literature of coopetition and the loose coupling theory, Chen (2008) suggests that these two opposites reflect the loosely coupled structure of ISA (Das and Teng, 2000). The current study suggests that when the intensity of competition is very high, having strong cooperation is an effective way to create a balance in the relationship so that drawbacks of competition are mitigated by cooperative strategies and losses from cooperative learning strategy are prevented by deploying competitive learning strategy. In that way both competition and cooperation are realized and alliances can manage to maintain a loosely coupled structure.

Such simultaneous strategy helps to maximize common benefits while maintaining the possibility of pursuing private benefits. This is consistent with Lado et al's (1997) argument that the combination of competitive and cooperative strategies will create a higher rent for strategic alliances. The key argument is that coopetitive learning strategy that exhibits a simultaneous deployment of cooperative and competitive strategies will allow firms to optimise the maximum value from the ISA. Firms engaged in coopetition in order to jointly maximize the private benefits and common benefits (Khanna et al., 1998) instead of focusing on pursuing just private benefits or common benefits. This serves the opportunity for individual firms to seek for new knowledge beyond the alliance partner by engaging in a learning race strategy. By simultaneously pursuing both strategies firms ensure to absorb the benefits from both strategies while mitigating and preventing losses caused by a unified strategy. Based on this logic, this study hypothesizes the following:

H5: *The interaction between focal firm's cooperative and competitive learning strategies has a positive relationship with alliance performance.*

3.6. Summary

This chapter presented a description of the overarching theoretical rationales used to ground the conceptual framework that guided this investigation. It continued by explaining the theoretical development of the research hypotheses and the conceptual definitions of all the variables under investigation. Specifically, the chapter illustrates the theoretical arguments underpinning the research hypotheses, which aim to answer the research questions of the study.

CHAPTER 4:

Research Methodology

4.1 Introduction

The purpose of this chapter is to identify and explain the methodological approach concerning the empirical test of the hypothesised relationships between the constructs included in the study. Detailed explanation is given to (a) the alternative research approaches and designs available and the final (b) research approach and design followed by this study. The chapter continues with the (c) data collection and (d) sampling procedures, along with the study's (e) research instrument, followed by the (f) constructs' operationalisation and measures, and (g) the analytical procedures deployed to assess the validity and reliability of the measurement scales and test the research hypotheses.

4.2 Philosophical Perspectives and Research Paradigms

Research paradigm describes researchers' philosophical views regarding the ontological reality and epistemological approach to discover the reality. These views underpin the methodological approaches followed in order to investigate the social phenomenon of interest (Hughes and Sharrock, 2016). The pertinent literature suggests three different research paradigms in explaining reality, that is, interpretivism, positivism, and pragmatism.

Interpretivism contends that only through the subjective interpretation of reality can that reality be examined and understood (Wicks and Freeman, 1998). The study of phenomena in their natural environment is 'key' to the interpretivist philosophy, together with the acknowledgement that scientists cannot be separated from the research; that is their influence on the phenomena under investigation is inevitable (Benton and Craib, 2001). They believe there are many interpretations of reality, and argue that these interpretations are in themselves a part of the scientific knowledge they are pursuing. Using mainly qualitative methods to collect data, the objective is to develop deeper

understanding regarding a specific phenomenon and the subsequent actions undertaken by individuals in response to this phenomenon (Williams, 2000).

On the other hand, positivists believe that reality can be observed and explained from an objective point of view, i.e., without the researcher interfering with the phenomena under investigation (Smith et al., 1996). They contend that phenomena should be isolated and that observations should be repeatable. This often involves the use of quantitative methods to collect data that are statistically analysed so as to identify regularities and causalities in, and to form relationships between concepts. Predictions can be made based on previous studies, such that hypotheses are formulated and tested with quantitative procedures (Caldwell, 2015).

There has been much debate on the issue of whether a seldom paradigm is entirely suitable and adequate in explaining phenomena in social sciences, with many researchers calling for a more pluralistic approach (Hughes and Sharrock, 2016). In response to these callings, researchers suggest an alternative paradigm, namely pragmatism. Pragmatism integrates both views and argues that either or both quantitative and qualitative are suitable methods to understand reality and gain valuable knowledge (Saunders and Lewis, 2009). Pragmatists apply practical theory to justify actions. Specifically, they conceptualise the social problems to be observed, and drawing upon these conceptualisations, formulate hypotheses which are the prediction of the practical actions undertaken by actors in their environment (Morgan, 2007).

The researcher's philosophical view agrees with the pragmatist paradigm. To achieve the research objectives one has to assess and choose the most suitable epistemological approaches that enable answering the research questions (Saunders et al., 2007). Pragmatism enables this assessment by adopting a more flexible view regarding what constitutes valuable and acceptable knowledge (Wicks and Freeman, 1998). This study examines both observable phenomena such as the performance of the alliance and the differences in partners' resources and strategic goals and subjective meanings

such as the learning strategies adopted by the focal firm and their perception of what strategies are adopted by their partner.

More specifically, this study aims to enhance understanding on what are the antecedences of learning strategies, and how do they impact the performance of the ISA. The nature and complexity of the study render the pragmatism view of combining qualitative and quantitative methods more suitable for answering the research questions and objectives. The qualitative approach serves in understanding better how learning strategies are conceptualised by alliance managers and accordingly establish the appropriate measurements offered in the literature. Qualitative approach also facilitates in a better comprehension of the social phenomenon under investigation (i.e. learning strategies), by examining relevant concepts and potential drivers. Therefore, the main concern of qualitative methods regards the individual judgements, whereas the quantitative method approaches the research problem from a broad perspective and focuses on testing hypotheses following standard procedures. Accordingly, to confirm and test the various proposed research hypotheses, the study employs the positivist quantitative approach.

4.3 Research Design

Research design refers to the overall strategy that integrates the different components of the study in a coherent and rational way, thereby, ensuring the researcher will effectively address the research problem (DeMatteo et al., 2005). The research design constitutes a blueprint of the methods and procedures required for the study's data collection, measurement and analysis. It guides researchers throughout the entire process, and ensures that the study is conducted effectively and efficiently (Burns and Bush, 2010; Malhotra, et al., 2006). The most common classifications of research designs are a) exploratory, b) descriptive and c) explanatory (Saunders et al., 2009).

The three types of research design differ in terms of what research questions they address and what research methods are used (Aaker et al., 2011) (*Please refer to Table 4.1 for a brief description*).

Exploratory research design aims to investigate the underlying causes of an issue and discover factors that may play a role in the emergence of the problem. The most appropriate method is qualitative research (Hair et al., 2008), because researchers should be flexible in order to understand the problem and the key variables affecting or being affected by it. This approach aids in understanding areas which would benefit from future quantitative research (Malhotra, 2004). On the other hand, descriptive and explanatory research follow a statistical research approach with the aim to test whether the insights gained from exploratory research are valid (Malhotra, 2009). While descriptive research focuses on identifying repeated phenomenon, explanatory research investigates the causal effects of the concepts (Churchill and Iacobucci, 2006).

Table 4.1: Comparison of Research Designs

	Exploratory	**Descriptive**	**Explanatory**
Emphasis	Discovery of ideas and insights Develop background information	Frequency of occurrences Make predictions of relationships	Determine cause and effect Provide evidence on causal relationships (i.e. which variable occurs first)
Research Objectives	Clarify research problem and build research questions Generate new ideas, conjectures, or hypotheses Develop techniques for measuring and locating future data Flexible	Predict market and consumer behaviors Describe groups characteristics Report on the background or context of a situation Hypotheses based	Determine which of several explanations is the best Extend a theory to new issues and topics Variable control
Features	Unstructured	Structured	
Techniques	Literature Review Focus groups In-depth interview Mostly qualitative research	Surveys Observation Panel data Cross-sectional study Longitudinal study Mostly quantitative research	Experimentation Longitudinal study

Descriptive research was used to make predictions of behaviours and relationships based on previous understandings and the exploratory findings. With the aim to generalise the findings into the alliance population, quantitative methods were used to test the conceptual model and hypotheses and establish relationships between the concepts.

4.4 Research Approach

4.4.1 Research Context and Setting

The empirical setting for this study is Greek firms that are involved in and have established strategic alliance activities with a partner firm from a foreign country. In referring to international strategic alliances, we include all the main forms of cooperative agreements between two parents of 'different nationality', such as joint ventures, licensing, distribution and supply agreements, research and development partnerships, or technical assistance and management contracts (Contractor et al., 2013). The inclusion of these agreements is in line with Contractor and Lorange's (2002) definition, who consider ISA as any inter-firm cooperation that falls between the extremes of discrete, short-term contracts and the complete merger of two or more organizations.

The reason this study is contextualised within strategic alliances lays on the argument that learning is one of the main reasons firms not only establish collaborations with other firms but also choose international partners to ensure higher levels of knowledge exchange (Martin et al., 2019) The annual report for the country's firms activities and success shows that the most skills and capability development occurs through collaboration with partner firms, especially with international organisations (Stoias and Filippaios, 2008). This suggests that ISA has proven to be a very effective and efficient way of knowledge, capabilities and skills development, which is the main focus of this study. Nevertheless, Greek firms has shown low rates of success when collaborating with alliance partner firms (Stoias and Filippaios, 2008). The most common explanation has been due to the fact that firms enter alliance collaborations with suspicion that almost all members are identified with the

interests of each individual firm and not with the collaboration (Jiang et al., 2013).

The focus on international alliances is based on the assumption that international partners are expected to have more differences with regard to their strategic objectives and the resource capabilities each contributes to the alliance. The study limits itself to Knowledge-Intensive Industries (i.e. manufacturing: drugs and medicine, computer and office equipment, electrical equipment, communications equipment, aerospace and aircraft, and in service sector: computer programming, data processing, engineering services, R&D and testing services (Zaheer et al., 2010; Hagedoorn and Duysters, 2002) in order to ensure that strategic learning is a key component in these agreements. On this note, many scholars argue that the more knowledge-intensive the firm, the higher the fear for misappropriation of knowledge and resources by allies with higher risks of them behaving competitively (Contractor and Lorange, 2002). Similarly, other scholars suggest that knowledge and capabilities are so deeply embedded in the organisation that its transfer to another firm could be very costly (Cohen and Levinthal, 1990; Von Hippel, 1994; Contractor and Lorange, 2002). Thus, the formation of alliances is impeded by risk of opportunism and costs of cooperative knowledge transfer. Despite the specification of knowledge-intensive industries, the study still considers a large multi-industry sample which allows a rigorous data analysis, improves variability in the sample, and augments the generalisability of the findings (Cannon and Perreault, 1999).

The study focuses on ISA between two partners as these constitute the majority of alliances. We exclude multi-party alliances due to the assumption that have behavioural differences that is, they involve more complicated decisions and encounters, and more specifically to our study, partners' goal and resource asymmetries become harder to assess and consequently predict learning behaviours. In line with prior work (Stuart, 2000; Zaheer and Bell, 2005), the present study adopts a focal firm's perspective which reveals information on focal firm's and partner's goals and resources, their strategic learning decisions and the alliance performance.

Attention was given to identifying suitable informants to report information on inter-partner attributes. The investigator asked informants to select a bona fide strategic alliance, that is, one connected to the focal partner firm's corporate goals and involving exchange flows and linkages of its resources with those of the counterpart (Robson et al., 2008). This ensures that the sample ISAs are strategically important for the focal firm, hence guaranties that informants are knowledgeable of partner's resources and goals. Informants were also asked to give answers for the alliance based on their firm's perspective, rather than their personal one. Further, international strategic alliances with less than one year of operation were excluded from the study based on the assumption that relational sentiments and performance outcomes may have not be revealed and established yet (Mussara et al., 2016). Firms operating in public, and social sectors were excluded as they are non-profit driven and have idiosyncratic partnering characteristics.

The study adopts a firm-level perspective to identify how firms choose between two learning strategies. Prior scholars suggest that to study firm-level variables, it is important to identify managers who take the decisions on behalf of the firm they represent. Senior managers play a key role in the achievement of firm's goals, as they influence strategic decisions and these in turn affect firm performance. That being said, the investigator identified key informants as individuals that: a) occupied executive position in their firm, b) were involved in the management of an ongoing strategic alliance for over one year, c) were familiar with the international alliance partner in such level they were confident to answer questions regarding the focal firm's and partner's goals and resources contributed in the alliance, and d) were responsible for and knowledgeable about the strategic learning decisions on behalf of their firm in the alliance.

4.5 Data Collection

4.5.1 Quantitative procedure

While there are several types of research designs such as: experimental, longitudinal, cross-sectional, factorial designs; cross-sectional and longitudinal are considered the most commonly used in business and management studies. Cross-sectional design involves data collection from a large sample size at a particular time, while longitudinal design involves data collection from a constant sample over an extended period of time (Rindfleisch et al., 2008). In line with prior studies concerning alliance management and outcomes, this study also adopts a cross-sectional design because of the opportunity to gather a large size of responses. Despite the benefits of a longitudinal approach, it was impossible for this study to adopt that type of design, due to lack or resources (i.e. time and financial constrains).

Unlike, longitudinal studies, in cross-sectional surveys, the presence of common method variance (CMV) in the data is more frequent and causal relationships between independent and dependent variables are difficult to establish. While the investigator is unable to deal with the issue of (reverse) causality, several procedures were followed to prevent and test the presence of CMV. Literature suggests that the use of multiple respondents and data sources may assist in preventing CMV (Rindfleisch et al., 2008; Podsakoff et al., 2003). Accordingly, this study employs both ex ante and ex post procedures to minimize the effect of CMV on the data. For instance, a varied and mixed formats and sequence of questions was used to prevent respondents' biases due to guesses of the inherent relationships. A marker variable was also incorporated in the questionnaire, which was used in retrospect to statistically test the presence of CMV. Additionally, to mitigate any perceptual biases respondents were asked to answer the questions on behalf of their respective firm.

There are different approaches to conduct survey research (Zikmund, 2000). These are: personal interviews, door-to-door interviews, central location interviews, telephone and online interviews, e-mail survey, fax survey, and internet/online survey. Based on the merits, demerits and most

importantly the peculiar features of the study settings and convenience of the researcher, the investigator deployed an online survey questionnaire, and face to face survey to collect primary data. The decision to pursue two different data collection methods lies on the investigator's attempt to ensure high response rates while not putting any pressure to respondents for filling the questionnaire (Bryman, 2004; Churchill, 2005).

4.5.2 Sampling frame

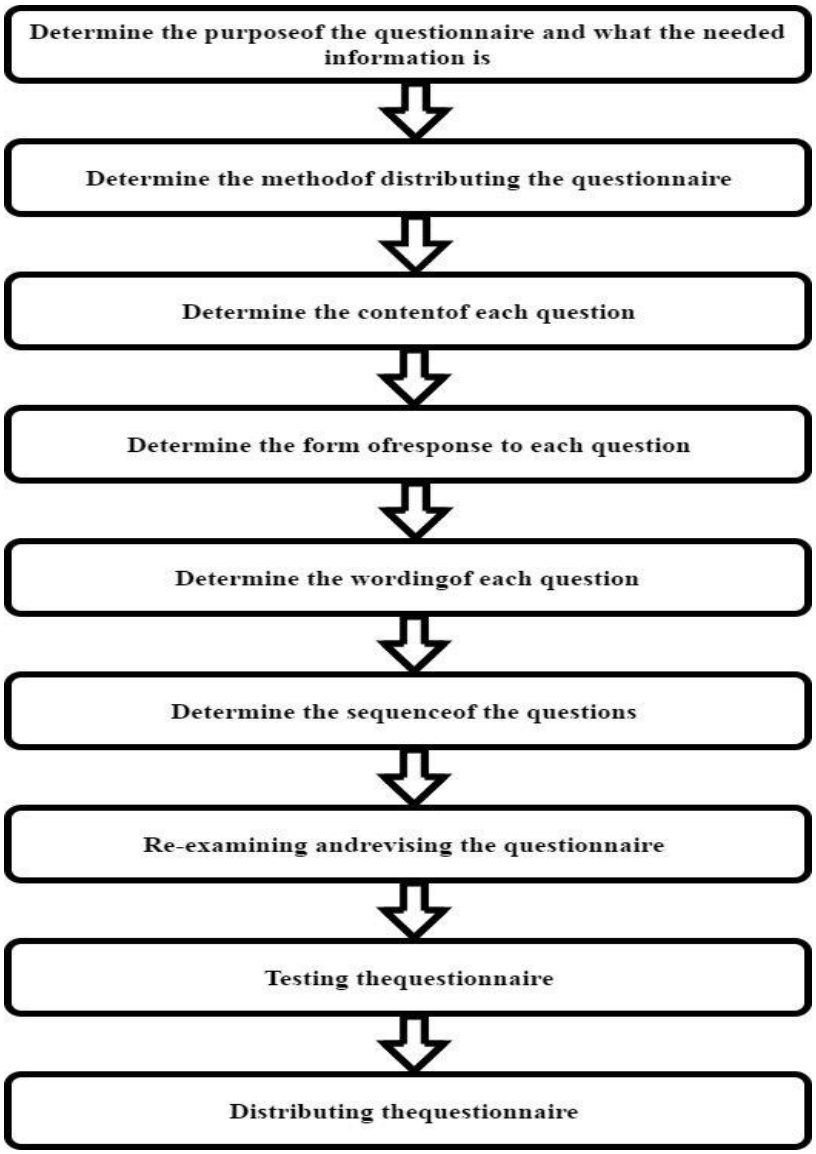
The purpose of the study is to investigate the drivers and outcomes of learning strategies deployed by the focal firm within the alliance. Accordingly, the study's population comprises Greek firms involved in strategic alliance activities (as defined above) with one strategic partner from a different country. The researcher developed the study's sampling frame by compiling data from complementary databases (i.e. Greek Financial Directory, Greek Export Directory) provided by the ICAP Greek Business Directory, a sampling frame source for firms typically employed in Greece. The data clearing process included two steps, firstly all firms engaged in collaborative agreements with an international partner, as defined earlier. From that list we classified those firms operating in knowledge intensive industry by related sectors as defined above. In total, 758 firms met the study's criteria for inclusion, qualifying knowledge intense international alliances.

Thereafter, key informants were identified as individuals involved in the management of the ongoing international alliances and responsible for taking strategic decisions or be knowledgeable about the strategic decisions taken on behalf of the focal firm as well as the partner. To ensure that knowledgeability, key respondents consist of TMT informants such as CEOs, Presidents, alliance directors and alliance managers. Thus, in order to get accurate and vivid description of entrepreneurial activities in the chosen firms, it is important to adopt the key informant approach in administering the survey questionnaire (Kumar et al., 1993).

4.6 Questionnaire Design

It is important to adopt a comprehensive questionnaire design approach in order to avoid errors associated with sampling, measurements and non-response biases. Following the psychometric procedures recommended by many scholars (Zikmund, 2003; Hair et al., 2006; Saunders et al., 2009), the following section describe in details the type of information sought, question wording, question sequencing, physical design of the questionnaire and pilot study. Figure 4.1 shows the steps in a sequential other as introduced by Churchill and Iacobucci (2006).

Figure 4.1: Recommended steps for questionnaire development



4.6.1 Type of Information Sought

To adequately achieve the study's objectives, it is important to obtain the most relevant and current information for the development of scales and/or the questionnaire. There was an extensive and detailed search of the literature for existing scales for the selected constructs. Most especially for the learning strategies constructs (i.e. cooperative learning and competitive learning strategies) which have not been measured empirically in the extant strategic alliance literature, it was crucial to do a thorough search of the related literature that would assist the study in developing relevant and valid scales. In order to ensure high content validity and variation among responses, the main constructs were measured by a seven-point likert scale. Most of the other constructs are measured by using existing scales; nonetheless, adaptation was needed to better reflect the alliance business context. The following section presents the measurement scales used to capture the current study's constructs.

4.6.1.1 Partners' Goals

Goal$_{DS}$ is conceptualised as the extent to which parent firms have symmetric strategic objectives in establishing the strategic alliance (Luo, 2002; Luo, 2007). Respondents were asked to give their opinion regarding the objectives their firm and their alliance partner had in establishing the strategic alliance by answering a seven item scale. Respondents were asked firstly to answer the questions in the first column which represent goals of the focal firm and next fill the second column which represent goals of the international partner. A seven-point Likert-type scale ranging from "not at all" (1) to "to a very great extent" (7) was adopted.

Examining both sides of exchange relationships at once allows for measures of the relational dyadic symmetry. However, measuring only symmetry in the relationship fails to capture the degree of the construct values. The empirically tested technique (Straub et al., 2004) employed in this study conceptualizes the degree symmetry of constructs by assessing both symmetry and degree. In brief, the derivation of degree-symmetric constructs is as follows: a) summing all measures for a given

construct an standardazing to a value between 0 and 1 yields the degree for focal firm, C_F and international firm C_I, b) the mean value of the focal an international partners degrees, C_F and C_I, yields the degree value, C_{DV}, c) dividing the lesser degree by the greater yields the symmetric value of the construct, C_{SV}, and d) the mean value of C_{DV} and C_{SV} yields the degree-symmetry value for the construct, C_{DS}.

4.6.1.2 Partners' Resources

Resource$_{DS}$ is conceptualised as the degree to which capability-based resources contributed by each partner are symmetric or not (Luo, 2002). Respondents were asked to give their opinion regarding the resources their firm and their alliance partner contribute in the alliance by answering a 9 item scale. Respondents were asked firstly to answer the questions in the first column which represent resources of the focal firm and next fill the second column which represent resources of the international partner. A seven-point Likert-type scale ranging from "not at all" (1) to "to a very great extent" (7) was adopted. Similarly to partners' goals measurement, resource's degree-symmetry is also assessed.

4.6.1.3 Focal Firm's Learning Strategies

Cooperative Learning is conceptualised as learning from the alliance experience and is characterized by the focal firm striving to co-create and learn new knowledge for the benefit of the alliance (Kale et al., 2000; Muthusamy and White, 2005; Liu, 2012), While ***competitive learning*** refers to focal firm's learning from the alliance while aiming to out-learn its partner (Khanna et al., 1998; Kale et al., 2000). Respondents were asked to give their opinion regarding the extent to which they agree with the 4 statements for each construct's measurement. Two seven-point likert-type scale ranging from "strongly disagree" (1) to "strongly agree" (7) were adopted.

4.6.1.4 Alliance Performance

Alliance Performance refers to the effective operation of the alliance that is, the degree to which the alliance has achieved its strategic goals (Robson et al., 2008). Respondents were asked to give their opinion regarding the extent to which they agree with the four statements. A seven-point Likert-type scale ranging from "strongly disagree" (1) to "strongly agree" (7) was adopted.

4.6.1.5 Control variables

In line with previous ISA research (references) several control variables were included in the study to capture possible effects on firms' activities and ISA performance. Specifically, the study controlled for partner firms' learning strategies (i.e. cooperative and competitive learning strategies), alliance structure (i.e. equity/non-equity), alliance size, alliance age and prior relationship between partner firms. The selection of the particular variables lies on the assumption that they have potential effects on the activities and the performance of the alliance.

Partner firms' learning strategies are expected to have an impact on the performance of the alliance. Since, the study aims to predict the antecedents of alliance performance within alliance interrelationships between two partners, it is expected both parties to affect alliance outcomes (Bignoux, 2006). To measure these variables, focal firms were asked to answer the extent to which they believe alliance partners are deploying cooperative and competitive strategies. Similar to focal firms' learning strategies, the study adopts and adapts Muthusamy and White's (2005), Liu's (2012), and Kale et al's. (2000) scales for cooperative learning strategy and Khanna et al's. (1998) and Kale et al's. (2000) measures for competitive learning strategy.

Alliance structure was captured by asking respondents to specify whether the alliance has an independently incorporated business, involving equity or a contractual agreement without any equity arrangement (Kale and Singh, 2007). Scholars have continuously suggested that the structure of the alliance may act as a determinant of partners' strategies and consequently affect alliance performance.

The rationale is based on the assumption that alliances with a separate business equity may imply more frequent interactions between partners, which facilitates resource exchange and in turn may produce more cooperative behaviours (Contractor et al., 2011). On the other hand, non-equity alliances may come with the risk of private benefits to play more important role for each alliance firm, which may translate into more competitive behaviours in order each firm to achieve their individual objectives (Inkpen, 2000).

Alliance size was assessed by asking for the approximate number of employees working for the alliance (Schilke and Goerzen, 2010). Size has been argued that may have implications to the performance of the alliance. It is expected that larger alliances have more positive outcomes since a large alliance is associated with better operations and financial outcomes (Lunnan and Haugland, 2008). Further, ISA age was measured in years using the question: "How long has the alliance been in operation?" (Robson et al., 2012). The assumption is that longer collaborations have established relational mechanisms such as trust, which enhance the likelihood of cooperative behaviours. Similarly, partners' prior relationship implies that firms are familiar with each other's operations, hence it is easier to produce positive outcomes through cooperation. Firms with prior experience are more possible to have developed relationship-specific benefits that positively impact on the performance of the alliance (Gulati et al., 2009). The presence of a prior relationship was also captured dichotomously by asking: "Did your company have any other alliance with this partner prior to this alliance?" (Parkhe, 1993).

4.6.2 Question Wording

Due to the fact that the study's instrument used for the data collection was self-administrated, it was important to ensure that the question format and question phrasing were clear and concise. Clear instructions and wording in the questionnaire enhance respondents' understanding of the questions (Christian and Dillman, 2004) and consequently ensure a higher response rate. To ensure clear

understanding of the questions, simple and easy words, sentences and phrases were used. The language used for the questionnaire is English. Although, Greek firms are not considered to be native English speakers, the decision to administrate the questionnaire in English is based on the fact that the study is focusing on international alliances. That is, the collaborative partner is based in a different country, therefore, is expected communication in English language between them, since English is the international accepted language (Rogerson-Revell, 2007). For words with ambiguity meaning, footnote with further explanation was added, and finally, use of double-barrel questions, generalizations, implicit alternatives and leading words was avoided.

4.6.3 Question Sequencing

According to Zikmund (2003) sequence of questions may have a significant effect on participants' willingness to take part in a study. Some scholars advice that the questions should be set in a logical order for the respondents (Hair et al., 2006; Churchill and Iacobucci, 2006; Saunders et al., 2009). In this study the questionnaire was divided into eleven sections and clear instructions were included at the beginning of each section to assist the informants' understanding of the questions. The questionnaire started with general and simple questions and ended with more specific and classificatory questions (Hair et al., 2006; Churchill and Iacobucci, 2006; Saunders et al., 2009). Accordingly, to ensure the achievement of a high response rate, constructs-specific and relevant questions were introduced on the first pages of the questionnaire. The logic is based on the assumption that participants might not fully complete the questionnaire, therefore this tactic ensures that the most important and relevant to the study questions have been answered. Clarifications regarding the questions were given at the introduction of each construct. For example, when participants were asked to answer questions regarding resources, goals and learning strategies, they were specifically instructed to answer for both their own and the partner firms.

4.6.4 Questionnaire Layout

It is argued that the layout of the questionnaire is an important factor that can either facilitate or diminish response rate (Churchill, 1995; DeVellis, 2003). The layout of the questionnaire creates participants' first impression for the study, hence it is really important for the researcher to establish trustworthiness and credibility so respondent have no doubt concerning their privacy. In so doing, the researcher incorporated a cover letter in the first page of the questionnaire, introducing the purpose of the study and the general instructions to be taken for completing the questionnaire. The cover letter also consisted of information that ensure the anonymity, confidentiality and the non-misuse of respondents' information. On this note, the logo of Leeds University was placed at the head of the first page in order to clarify that the study is only interested in using the data for academic purposes. A final concern with regards to the questionnaire layout should be given in the length. Scholars claim that long questionnaires decrease participants' motivation to complete it, while short ones may reduce reliability of the data (Deutskens et al., 2004). Hence, the completion time needed for the questionnaire was around 10 minutes, which balances high response rate and reliability (Appendix 4a).

4.7 Pilot Study

It is important researchers to pre-test the questionnaires before proceeding with the main data collection in order to overcome problems with the clarity and instruction of the questions and ensure high validity in the measurement scale. In so doing, first, face validity should be confirmed by expert in the field. For this study academics were asked to determine whether the constructs were effectively captured by their respective measurement scale. This is a particular important step for the current study which incorporates existing measurement items, newly developed scales and scales borrowed from a different setting and adapted into the alliance context (Hair et al., 2006).

After improving the questionnaire based on the experts' recommendations, the revised questionnaire

was evaluated by academic researchers with particular knowledge in the field of strategic alliances. Some further corrections were made, such as spelling mistakes, clarification of some word meanings and sentence flows. Further, five face to face interviews with Greek alliance managers were conducted, who recommended using more business language and replace some academic terms with business ones. Following the revision based on managers' recommendations, a pilot study with 30 alliance managers fulfilling the study's sample characteristics was conducted. As recommended by Churchill and Iacobucci (2006) this step acts as an indication of the response rate for the main study and an overall image of the relationships between the constructs. Results indicated no further issues allowing the researcher to proceed to the next phase of the survey.

4.8 Field work procedures

Initially the investigator contacted the sampled firms via telephone and email to: a) verify their contact details, b) evaluate their eligibility, c) identify key informants meeting the study's criteria, d) pre-notify informants of the objectives of the study, e) confirm their agreement to participate in the survey, and f) determine whether the informants preferred an online or hard copy version of the questionnaire. Eventually, a list of 758 firms was developed. The residual firms were excluded from the sample due to difficulties reaching sampled firms (21), informants did not meet the criteria (34), no longer operation of alliance (17), and unwillingness to participate in the survey (23).

According to key informants' preferences the investigator sent via email in all 758 pieces of web-based online questionnaires. Reminders were sent either through emails or via telephone calls on weekly basis to remind the respondents on completing the questionnaire. After 14 weeks of reminder, a total of 118 questionnaires were received as the first round of responses. Due to inadequate size of responses the investigator at this point started personal visits to each firm who agreed to participate in the survey. Within 10 weeks, 112 additional questionnaires were received. Out of the 758 pieces of questionnaires, some were not responded to at all, while others were returned empty even though, the

sample firms had earlier agreed to take part in the survey, while some others were incomplete therefore not used for the analysis stage.

4.8.1 Respondents' Characteristics

Out of 758 questionnaires a total of 228 respondents returned the questionnaire. To reinsure the validity of the responses filter questions were included at the beginning of the questionnaire testing for the level of knowledgeability regarding alliance related strategic decisions, and activities employed by both focal and partner firms, alliance performance aspects

The study's key informants consisted of 228 TMT of international strategic alliances across Greece. As already explained above, several characteristics were required in order the informants to be considered for the study research. Each sample firm collaborates with an international partner. Table 5.1 illustrates the firms' profile characteristics that is, respondents' position in the alliance, alliance age and size, alliance structure, competing partners based on the similarity of the industry as well as partner's country of operation.

Table 4.1: Characteristics of the Sample

Variables	**No.**	**Percentage**
Respondents' Position		
CEO	37	16.2%
Presidents	22	9.7%
Alliance Directors	76	33.3%
Alliance Managers	93	40.8%
Alliance age		
1-4 years	104	45.6%
5-8 years	106	46.5%
9+ years	18	7.9%
Alliance size		

Small-medium	116	50.9%
Large (over 500 employees)	112	49.1%
Partners' COO		
Bulgaria	26	11.4%
Romania	22	9.7%
Czech Republic	29	12.7%
USA	56	24.7%
Cyprus	25	10.9%
Turkey	26	11.4%
Russia	22	9.6%
Italy	22	9.6%
Alliance structure		
Equity	56	24.6%
Non-equity	172	75.4%
Competing Partners		
Same Industry	104	45.1%
Different Industry	124	54.9%
Agreement Form		
Joint ventures	56	24.6%
Licensing	43	18.8%
Distribution and supply agreements	53	23.4%
Research and development partnership	76	33.3%

4.8.2 Non-response Bias

Several steps were taken to ensure that there were no issues of survey bias. One such common bias is the response bias within samples. Especially, because the survey was completed after two rounds of data collection, it was important to check for any issue of non-response bias. Blair and Zinkhan (2006,

p.4) defines non-response bias as "*if failure to respond (or be observed) is disproportionate across groups*". The first approach to reducing this phenomenon is to ensure that response rate is high. Following (Rindfleisch et al., 2008), the researcher also assessed the possible impact of the non-response bias after the data collection exercise. Accordingly, the data was grouped into early respondents and late respondents. Those who responded to the survey questionnaire first 14 weeks of the survey were classified as early respondents while, those who answered within the last 10 weeks were classified late respondents. Thus, there were 116 early responses and 112 late responses (referring to only the completed questionnaire). Accordingly, a non-response bias test was conducted for the mean values of the main constructs. Using a t-test, the mean value of all study's constructs between the early and late respondents were compared. The results show no significant differences across the two groups of early and late respondents.

Table 4.2: Response bias assessment

Variables	Mean (early respondents)	Mean (late respondents)	t-value (sig.)
Resources$_{DS}$	.59	.63	.34
Goals$_{DS}$	.53	.57	.41
Cooperative Learning Strategy	4.12	4.24	.24
Competitive Learning Strategy	5.75	5.66	.52
Performance	3.29	3.33	.23

4.9 Common Method Bias

Common Method Bias (CMB) is a measurement error that may drive incorrect conclusions with regard to the validity and reliability of the multiple-item scales used to capture the variance of each of the latent constructs and covariance between them (MacKenzie and Podsakoff, 2012). It exists when informants are asked to report information on both independent and dependent variables (Podsakoff et al., 2003). In this study, in order to minimise the potential threat of common method bias, the investigator followed the procedures suggested by MacKenzie and Podsakoff (2012).

As such, during the design of the questionnaire, the items included were concisely phrased in order to: (a) eliminate items ambiguity; (b) avoid double-barrelled questions; (c) avoid complex, unfamiliar and abstract terms; and (d) reverse (in meaning) the overall direction of the scale for some items (reverse items). Thereafter, the draft questionnaire was assessed by academics and top managers to ensure its comprehensiveness.

Moreover, the investigator ensured that informants had adequate experience about the topics covered in the present study and used anonymised written questionnaires to assure informants that their responses would be completely confidential and anonymous. To prevent informants attempting to guess the systematic relationships between independent and dependent variables, the investigator counter-balanced the order of predictor and criterion variables included in the study. Finally, as mentioned earlier the investigator deployed several statistical approaches using marker variable to determine the presence of CMB.

4.10 Data Analysis Techniques

The study applied various descriptive and analytical techniques to validate the data and test the hypothesis. Specifically, missing data analysis, normality test and other descriptive analysis were conducted. Following previous alliance studies, all the constructs were assessed for validity and reliability through both exploratory and confirmatory factor analysis procedures. Widely accepted fit indices criteria such as Comparative Fit Index, Normed Fit Index/Non- Normed Fit Index, Root Mean Square Error of Approximation, and the Chi-square statistic (Hu and Bentler, 1999) were employed to see how well the model fits the data. Per the many interrelationships among the study variables, the researcher employed linear and non-linear regression analysis in testing the hypothesis. Further, various post-hoc and robustness analysis such as endogeneity test was conducted to confirm the reliability and unbiased nature of estimates. Depending on the specific analysis, different statistical software packages such as SPSS 23 and EQS 6.3 were used.

4.11 Summary

The chapter has presented the methodological issues to be considered and justification for each research method, design and approach adopted for this study. Issues concerning sampling, interviews, development of data collection instruments, survey procedure and field work and data analysis have all been discussed. More specifically, the investigator determines the most appropriate ontological and epistemological approaches to guide the study. The research strategy is also discussed, as well as a summary of the exploratory research is demonstrated. Finally, the research instrument for the quantitative approach is discussed along with the data collection and fieldwork procedures. The following chapter continues with the analysis and findings related to the present investigation.

CHAPTER 5:

Data Analysis and Results

5.1 Introduction

This chapter outlines the statistical procedures conducted to analyse the data and ultimately address the research questions. First, missing value analysis is deployed to eliminate the risk of misleading results due to incomplete data, followed by descriptive statistics which offer a basic understanding of the data by testing the normality and the possible presence of outliers. The chapter continues with the measurement assessment by testing the validity and reliability of the constructs' measures employed. Specifically, convergent and discriminant validity assessed the validity of the scales, followed by reliability and common method bias tests. The chapter finishes with the hypotheses testing and post-hoc analysis.

5.2 Data Examination and Descriptive Analysis

Considering the volume and length of the questionnaire, the presence of missing data is expected. Missing value analysis helps address several concerns caused by incomplete data. If cases with missing values are systematically different from cases without missing values, the results can be misleading. Also, missing data may reduce the precision of calculated statistics because there is less information than originally planned. Another concern is that the assumptions behind many statistical procedures are based on complete cases, and missing values can complicate the theory required.

Because incomplete data may produce misleading results, it is important to check for potential missing values and data entry errors before proceeding to multivariate data analysis. Missing value analysis identified only a few missing values, which did not present a risk to the accuracy of the results. After correcting and replacing the missing values, descriptive statistical procedures were used to offer a preliminary understanding of the data, assess their normal distribution and identify potential outliers. Specifically, first the investigator corrected the missing values by adopting the imputation

technique instead of the removing data technique. This decision lies on the fact that only few missing values occurred in the data. Scholars suggest that only in extreme missing cases is better to remove data, rather is preferable to replace the missing values by computing the overall mean, median and mode imputation method (Little and Rubin, 1989). Thereafter, the central tendencies (i.e. mean) and measures of dispersion (i.e. standard deviation) were analysed to check the presence of outliers, while skewness and kurtosis tested the assumption of a normal distribution. According to Hair et al. (2013) skewness values should fall between -1 and +1 and kurtosis values between -3 and +3 in order to conclude that the data are normally distributed. Results of these tests indicate no issues concerning either the potential presence of outlier or the non-normal distribution of the data (*see Appendix A*).

5.3 Measurement Assessment

Having conducted preliminary data analysis to ensure the appropriateness of the data for further analysis, the chapter continues with the assessment of the measurements used in the study. Specifically, the investigator follows the recommended psychometric procedures for scale purification (Bagozzi et al., 1991; Bearden et al., 2003). Using SPSS, Exploratory Factor Analysis (EFA), inter-item correlations and Cronbach Alpha analysis were conducted for the item elimination/selection stage. Finally, using EQS, the researcher assesses the validity and reliability of the measures with Confirmatory Factor Analysis (CFA).

5.3.1 Items selection with Exploratory Factor Analysis (EFA)

EFA was initially employed for the purification and validation of all multi-item constructs. All items of the study were inserted in SPSS for data reduction testing. The measurements of the study consist of 7 constructs with 36 items overall, namely, Focal Cooperative Learning Strategy, Focal Competitive Learning Strategy, Alliance Performance, $Goals_{DS}$, $Resources_{DS}$, Partner Cooperative Learning Strategy and Partner Competitive Learning Strategy.

Accordingly, EFA solution with principal axis factor extraction and varimax rotation was conducted to extract factors loading above 0.40. As per the sample of the study (i.e. 228), and in line with Hair et al's (2010) suggestion, factors loading below the threshold of .40 were not considered for further analysis. Therefore, items with factor loading ≤ 0.40 were not selected for EFA analysis. The initial EFA returned a 7-factor model, as expected, with 32% of the cumulative variance in the model. All factors loaded between 0.63 and 0.88; above the recommended threshold (*See table 5.1*).

Table 5.1: EFA of All Constructs

	ITEMS/CONSTRUCTS	1	2	3	4	5	6	7
	FOCAL_COOP_LEARN1	.853						
1	FOCAL_COOP_LEARN2	.842						
	FOCAL_COOP_LEARN3	.834						
	FOCAL_COOP_LEARN4	.842						
	FOCAL_COMP1		.687					
	FOCAL_COMP2		.640					
2	FOCAL_COMP3		.638					
	FOCAL_COMP4		.649					
	GOALS_DS1			.857				
	GOALS_DS2			.826				
	GOALS_DS3			.857				
3	GOALS_DS4			.822				
	GOALS_DS5			.811				
	GOALS_DS6			.800				
	GOALS_DS7			.773				
	RESOUR_DS1				.817			
	RESOUR_DS2				.780			
	RESOUR_DS3				.853			
	RESOUR_DS4				.865			
4	RESOUR_DS5				.855			
	RESOUR_DS6				.830			
	RESOUR_DS7				.798			

	RESOUR_DS8	.882				
	RESOUR_DS9	.861				
	ISA_PERF1		.775			
	ISA_PERF2		.755			
5	ISA_PERF3		.818			
	ISA_PERF4		.899			
	PARTNER_COOP1			.647		
	PARTNER_COOP2			.732		
6	PARTNER_COOP3			.653		
	PARTNER_COOP4			.647		
	PARTNER_COMP1				.736	
	PARTNER_COMP2				.847	
7	PARTNER_COMP3				.793	
	PARTNER_COMP4				.804	

KMO: .896; BARTLETT'S TEST: 7.745; SIG: .000; % OF VARIANCE: 32%

Before proceeding to CFA, the researcher conducted an inter-item correlation analysis and estimated the Cronbach alpha for each construct to check the reliability of the selected items. As recommended by Hair et al., (2013), a threshold of 0.50 and 0.70 was established for item-total correlation and Cronbach alpha, respectively. *Table 5.2* shows that all items surpass the recommended thresholds with item-total correlations ranging between 0.672 and 0.925, while Cronbach alpha ranged from 0.852 to 0.966.

Table 5.2: Descriptive Statistics of Items and Item-Total Correlation

Latent Construct (No. of Items)	**Items**	**Mean**	**SD**	**Item-Total Correlations**	**Alpha**
FOCAL COOPERATIVE LEARNING (4)	FOCAL_COOP1	4.21	1.85	.925	.966
	FOCAL_COOP2	4.23	1.82	.908	
	FOCAL_COOP3	4.17	1.83	.910	
	FOCAL_COOP4	4.31	1.84	.919	
FOCAL COMPETITIVE LEARNING (4)	FOCAL_COMP1	5.76	1.12	.700	.852
	FOCAL_COMP2	5.73	1.09	.672	

	FOCAL_COMP3	5.61	1.11	.699	
	FOCAL_COMP4	5.69	1.10	.699	
$GOALS_{DS}$ (7)	GOALS_DS1	.54	.21	.829	.942
	GOALS_DS2	.55	.19	.815	
	GOALS_DS3	.55	.21	.843	
	GOALS_DS4	.54	.21	.804	
	GOALS_DS5	.54	.20	.807	
	GOALS_DS6	.56	.21	.796	
	GOALS_DS7	.54	.20	.763	
$RESOURCES_{DS}$ (9)	RESOU_DS1	.62	.19	.824	.961
	RESOU_DS2	.62	.17	.789	
	RESOU_DS3	.63	.18	.836	
	RESOU_DS4	.64	.24	.873	
	RESOU_DS5	.65	.22	.856	
	RESOU_DS6	.63	.19	.836	
	RESOU_DS7	.64	.18	.809	
	RESOU_DS8	.63	.19	.873	
	RESOU_DS9	.64	.23	.874	
ISA PERFORMANCE (4)	EFFECT1	4.12	1.47	.732	.888
	EFFECT2	3.38	1.70	.703	
	EFFECT3	3.61	1.24	.785	
	EFFECT4	3.92	1.52	.836	
PARTNER COOPERATIVE LEARNING (4)	PART_COOPE1	4.10	1.70	.858	.935
	PART_COOPE2	4.11	1.73	.865	
	PART_COOPE3	4.10	1.67	.862	
	PART_COOPE4	3.83	1.96	.818	
PARTNER COMPETITIVE LEARNING (4)	PART_COMPE1	5.16	1.29	.702	.883
	PART_COMPE2	5.53	1.31	.778	
	PART_COMPE3	5.33	1.30	.751	
	PART_COMPE4	5.37	1.38	.752	

5.3.2 Measurement Model Fit and Construct Validity

After assessing the internal consistency of all constructs through item-total correlations, the researcher used EQS 6.3 to assess the measurement model and establish convergent validity. Following the guidelines recommended by Gerbing and Anderson (1988) and widely employed in marketing studies (e.g. Hultman et al., 2009, Katsikeas et al., 2009), CFA was used to compute a model which specifies the relationship of each construct and its indicators. To establish convergent validity, the measures deployed should demonstrate standardized loadings higher than 0.70 and t-values above 1.96, as well as the model should fit the data (Hair et al., 2013).

In order to evaluate the fit of the model in the data, the investigator used approximate fit heuristics such as the chi-square test statistic ($\chi 2$) and Root Mean Square Error of Approximation (RMSEA); relative fit indices including Non-Normed Fit Index (NNFI) and Comparative Fit Index (CFI); and the absolute fit index Standardized Root Mean Squared Residual (SRMR) (Bagozzi and Yi, 2012).

The investigator incorporated all constructs and their respective predictors under investigation in a measurement model using elliptical reweighted least squares (ERLS), since this method is less constrained by normality assumptions and thus yields unbiased parameter estimates for both multivariate normal and non-normal data (Robson et al., 2019). The model contained 40 items measuring focal and partner firms' cooperative and competitive learning strategies, partners' goal and resource degree-symmetry, ISA performance, age, size, type and prior relationship. The measurement model was estimated by restricting each measure to load in its related construct and each construct to freely correlate with each other. The error for the single-item constructs were set at 0.10 (Anderson and Gerbing, 1998; Hair et al., 2013).

Table 5.3: CFA Model Fit Indices and Thresholds

MEASUREMENT INDEX	RECOMMENDED THRESHOLD
Chi-square (x^2)	>0.05
Normed chi-square (x^2/DF)	<3
Root mean square error of approximation (RMSEA)	≤0.08
Normed fit index (NFI)	≥0.9
Non-normed fit index (NNFI)	≥0.9
Comparative fit index (CFI)	≥0.9
Standardized root mean squared residual (SRMR)	≤0.05

The CFA model provided the following model fit for the data: $\chi 2 = 1140.574$, d.f. = 685 (significant at 5%; p=0.000); $\chi 2$/d.f. = 1.66; NNFI = 0.97; NFI = 0.93 CFI = 0.97; RMSEA = 0.054; and SRMR =0.043. The significance levels of the factor loadings and the reported fit indices demonstrate a satisfactory fit to the data (*Table 5.4 illustrates the CFA results*).

Table 5.4: CFA for Full Model

CONSTRUCTS	ITEMS	STANDARDIZED LOADINGS (T-VALUES)
FOCAL COOPERATIVE LEARNING	FOCAL_COOP1	.948b
	FOCAL_COOP2	.928 (27.28)
	FOCAL_COOP3	.931 (27.64)
	FOCAL_COOP4	.940 (28.83)
FOCAL COMPETITIVE LEARNING	FOCAL_COMP1	.769b
	FOCAL_COMP2	.746 (10.88)
	FOCAL_COMP3	.785 (11.48)
	FOCAL_COMP4	.773 (11.29)
PARTNERS' GOALS $_{DS}$	GOALS_DS1	.857b
	GOALS_DS2	.843 (16.18)
	GOALS_DS3	.874 (17.30)
	GOALS_DS4	.833 (15.87)
	GOALS_DS5	.835 (15.91)
	GOALS_DS6	.827 (15.67)

	GOALS_DS7	.787 (14.43)
PARTNERS' RESOURCES $_{DS}$	RESOU_DS1	.842b
	RESOU_DS2	.804 (14.82)
	RESOU_DS3	.857 (16.48)
	RESOU_DS4	.898 (17.91)
	RESOU_DS5	.872 (16.98)
	RESOU_DS6	.849 (16.22)
	RESOU_DS7	.817 (15.19)
	RESOU_DS8	.891 (17.66)
	RESOU_DS9	.898 (17.93)
ISA PERFORMANCE	EFFECT1	.849[b]
	EFFECT2	.732 (12.41)
	EFFECT3	.787 (13.78)
	EFFECT4	.921 (17.01)
PARTNER COOPERATIVE LEARNING	PART_COOP1	.921b
	PART _COOP2	.904 (21.90)
	PART _COOP3	.889 (20.92)
	PART _COOP4	.837 (18.10)
PARTNER COMPETITIVE LEARNING	PART _COMP1	.757b
	PART _COMP2	.848 (12.48)
	PART _COMP3	.812 (11.97)
	PART _COMP4	.819 (12.06)
ISA STRUCTURE	ALLIANCE TYPE	.995b
ISA SIZE	ALLIANCE SIZE	.995b
ISA AGE	ALLIANCE AGE	.998b
PRIOR RELATION	ALLIANCE EXPERIENCE	.995b

Fit Indices: χ2= 1140.574; df =685; χ2/df= 1.66 p=0.0000; NFI=0.93; NNFI=0.97; CFI=0.97; RMSEA=0.054; SRMR= 0.043; t-values in parenthesis; b Fixed parameter

5.4 Reliability and Discriminant Validity

The alpha scores reported earlier are higher than the recommended cutoff 0.70 indicating strong construct reliability. In addition, the investigator calculated the Composite Reliability (CR) for each

latent variable examined by taking into account standardised loadings and standard errors. Compared to Cronbach's alpha, CR is robust to the number of indicators in a scale. An acceptable level of composite reliability is 0.70 and above (Fornell and Larcker, 1981). The CR values are above the level required, ranging from 0.85 to 0.96.

Discriminant validity is regarded as the degree to which the constructs investigated are truly distinct from each other. As such, very high correlation amongst constructs is not desirable. For the purpose of this study, the investigator assessed the discriminant validity of the measures by determining whether the Average Variance Extracted (AVE) for each construct was greater than its highest shared variance with other constructs ((Bagozzi and Yi, 2012). Shared variance is equal to squared correlation coefficient (Netemeyer et al., 2003; Fornell and Larcker, 1981). The results of this test revealed no problems, since all AVE scores reported values above .50. As such, discriminant validity does not pose any issues. Taken together, these tests show that the constructs under investigation are internally consistent, reliable and valid (*See Table 5.5*).

The risk of multicollinearity is high in multivariate analysis, and is considered as an important statistical issue which may lead to misleading results (Tabachnick and Fidell, 2007). To establish that there were no acute issues with multicollinearity, the investigator reports the correlations between all constructs in Table 5.5. Since correlation analysis is not adequate to establish no issues with multicollinearity, the investigator tested the hypotheses with multicollinearity test in order to demonstrate the VIF values, which should be below the recommended threshold 4 (Hair et al., 2010). The results of multicollinearity test with VIF scores will be discussed later in this chapter.

Table 5.5: Descriptive Statistics and Correlations

	MEAN	SD	1	2	3	4	5	6	7	8	9	10	11
(1) ISA PERFORMANCE	3.32	1.01	1										
(2) GOALS $_{DS}$	.55	.18	.404**	1									
(3) RESOURCES $_{DS}$	.63	.18	-.316**	-.063	1								
(4) F_COOP_LEARN	4.23	1.75	.707**	.437**	-.288**	1							
(5) F_COMP_LEARN	5.69	.92	-.753**	-.323**	.468**	-.551**	1						
(6) P_COOP_LEARN	4.03	1.62	.516**	.224**	-.673**	.459**	-.515**	1					
(7) P_COMP_LEARN	5.35	1.14	-.149*	-.067	.076	-.157*	.090	-.133*	1				
(8) ISA_AGE	.70	.83	.030	-.105	.009	.010	-.001	.011	-.048	1			
(9) ISA_SIZE[a]	.51	.50	.021	-.147*	-.037	-.026	-.042	.028	-.050	.580**	1		
(10) ISA_STRUCTURE[a]	.24	.43	.090	-.004	-.063	.001	-.057	.074	-.005	.070	.031	1	
(11) PRIOR RELATION[a]	.48	.50	-.018	.009	-.019	-.013	.051	.048	-.061	.094	.088	.040	1
CRONBACH ALPHA			.888	.942	.961	.966	.852	.935	.883	-	-	-	-
AVE			.681	.700	.738	.878	.590	.789	.656	-	-	-	-
CR			.895	.942	.962	.966	.852	.937	.884	-	-	-	-

** = $p \leq .000$
* = $p \leq .050$
[a] = Dichotomous measure

5.5 Common Method Bias (CMB)

Considering the risk of Common Method Bias (CMB) in cross-sectional studies, it is important for the investigator to follow several procedures in order to assess the presence of Common Method Bias (CMB) (Siemsen et al., 2010; Podsakoff et al., 2003). First, respondents' anonymity was guaranteed in order to encourage open and honest answers. Further, questions in the questionnaire were ordered in a way that respondents would not understand the concepts under investigation and guess their interrelationships.

In order to assess whether the data are characterized by CMB, partial correlation with a marker variable technique was employed. Lindell and Whitney (2001) developed the Marker Variable (MV) technique to estimate and control for the effect of CMB within mono-method studies. The MV technique relies on the inclusion of a 'marker variable' in studies: a scale that is theoretically unrelated to at least one other scale in the questionnaire. The smallest correlation among the manifest variables provides a reasonable proxy for CMB, therefore it can be employed to partial out the effect of CMB from the study and obtain estimates of true construct score correlations unbiased by CMB. The MV technique computes CMV-adjusted correlations as follows (Malhotra et. al., 2006, Equation 1, p. 1868):

$$rA = (rU - rM) / (1 - rM)$$

where:

r_A = CMV-adjusted estimate of a focal correlation

r_U = Observed value of the focal correlation

r_M = Marker variable correlation for the study

Accordingly, the marker variable incorporated in the questionnaire captured respondents' attitude towards luxury brands, which is a variable that satisfies the necessary criteria of a marker variable (i.e. theoretically unrelated to the variables of the study) (Lindell and Whitney 2001). In keeping with Podsakoff and Organ (1986) and Kemery and Dunlap (1986), Equation 1 shows that each of the observed correlations will be inflated by the square of the common method correlation, but it is only the smallest observed correlation that estimates CMV. Consequently, it is the smallest correlation (.003) that must be partialed out of the remaining correlations. As a result of these tests, it is reasonable to claim that common method bias is not explaining factors relationships in this research and does not undermine the interpretation of the study findings; hence, CMB does not pose any concerns in this study.

Table 5.6: Correlation with Marker Variable

	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**
(1) ISA PERFORMANCE	**1**	.402	-.319	.706	-.758	.514	-.152	.027	.018	.087	-.021
(2) GOALS$_{DS}$	.404	**1**	-.066	.435	-.327	.221	-.070	-.108	-.150	-.007	.006
(3) RESOURCES$_{DS}$	-.316	-.063	**1**	-.291	.466	-.678	.073	.006	-.040	-.066	-.022
(4) F_COOP_LEARN	.707	.437	-.288	**1**	-.555	.457	-.160	.007	-.029	-.002	-.016
(5) F_COMP_LEARN	-.753	-.323	.468	-.551	**1**	-.519	.087	-.004	-.045	-.060	.048
(6) P_COOP_LEARN	.516	.224	-.673	.459	-.515	**1**	-.136	.008	.025	.071	.045
(7) P_COMP_LEARN	-.149	-.067	.076	-.157	.090	-.133	**1**	-.051	-.053	-.008	-.064
(8) ISA_AGE	.030	-.105	.009	.010	-.001	.011	-.048	**1**	.578	.067	.091
(9) ISA_SIZE	.021	-.147	-.037	-.026	-.042	.028	-.050	.580	**1**	.028	.085
(10) ISA_STRUCTURE	.090	-.004	-.063	.001	-.057	.074	-.005	.070	.031	**1**	.037
(11) PRIOR RELATION	-.018	.009	-.019	-.013	.051	.048	-.061	.094	.088	.040	**1**
(12) ATTITUDE TOWARDS LUXURY PRODUCTS	.006	-.005	.189	.003	.029	-.057	-.030	.055	-.089	.060	.003

5.6 Hypothesis Testing

The present study uses regression analysis with interaction and quadratic effects to test the hypotheses. Separate regression models were estimated for the three dependent variables; Cooperative Learning Strategy, Competitive Learning Strategy, and ISA Performance (*see Table 5.7*). The decision for employing this analysis is based on the complexity of the hypothesized relationships. Since, hitherto results demonstrate no issues with measurement biases, regression analysis offers the flexibility to include a number of control variables, test complex summated variables and relationships (i.e. quadratic effects), while correcting for endogeneity biases (Najafi-Tavani et al., 2018).

In line with recent ISA studies (e.g. Nielsen and Raswant, 2018, Robson et al., 2019), the first step was to include only the effects of control variables on Cooperative Learning Strategy (Model 1), Competitive Learning Strategy (Model 3), and ISA Performance (Model 5). Thereafter, the respective predictors of each dependent variable were added in Model 2, Model 4 (i.e. Partners' Resources and Partners' Goals), and Model 6 (i.e. Cooperative Learning Strategy, Competitive Learning Strategy), in order to test hypotheses $H1_{a\text{-}b}$, $H2_{a\text{-}b}$, $H3_a$, and $H4_a$. Finally, the quadratic term of Cooperative and Competitive Learning Strategies and their interaction effect on ISA performance were incorporated in Model 7 to test hypotheses $H3_b$, $H4_b$, and H5.

To reduce possible collinearity between the main and quadratic/interaction effects, the researcher mean-centred Cooperative and Competitive Learning Strategies and examined the collinearity diagnostics derived from the regressions. The highest variance inflation factor (VIF) score of 3.38, which is well below the cut-off point of 5 (Hair et al., 2010), indicates no issues with multicollinearity and ensures that independent variables with high correlations are not confounders that produce spurious results (Nielsen and Raswant, 2018).

To address any concerns for omitted variables, simultaneity or self-selection biases (Wooldridge, 2003), 3SLS regression was conducted to correct such endogeneity effects. Since learning strategies are strategic decisions made by partner firms, it is expected those decisions to rely on self-biased factors. The 3SLS approach is widely used by international business studies (Mudambi et al., 2014; Najafi-Tavani et al., 2018). In our model, cooperative and competitive learning strategies are likely to be endogeneous. Alliance characteristics (i.e. ISA size, age and partners' prior relationship) may increase the likelihood that parties (social exchange variables related to norms of reciprocity may increase the likelihood that parties act according to the other party's behaviour. This assumption is based in social exchange theory, specifically the norm of reciprocity. That is exchange relationships are affected by each other's behaviour, therefore when one party acts cooperatively or competitively the other party with reciprocate the same behaviour accordingly (reference from reciprocity). In response, managers select appropriate governance mechanism to safeguard relational exchanges. Thus, proper model specification should include reciprocal attributes as the antecedents of cooperative and competitive learning strategies. That is, partner firm's learning strategies. Similarly, alliance characteristics may also favour one of the learning strategies. For example, prior relationship between partners may increase the likelihood for cooperative learning strategy to occur, since relationship-specific attributes are established (such as trust) which minimizes the tendency to act competitively, rather it embraces a more cooperative behaviour since partners do not fear for each other's opportunistic actions. Therefore, additionally to partner's learning strategies, ISA size, structure, age and partners' prior relationship were considered as determinants of focal firms' learning strategies.

Accordingly, in stage 1, the researcher regressed Cooperative and Competitive Learning Strategies against the control variables (i.e. ISA size, structure, age, and prior relationship), in order to partial out any potential effects of the control variables on the predictors of ISA Performance. The regression analysis produces the residuals of both predictors, which are saved and used for further analysis.

Hence, stage 2 involves conducting the regression analysis with the residuals as the independent variable in order to test the effects on ISA Performance. In stage 3, the interaction term between Cooperative Learning Strategy $_{RESIDUAL}$ and Competitive Learning Strategy $_{RESIDUAL}$ were created and tested the effect on ISA Performance (*Table 5.7 shows the results*).

5.7 Results

5.7.1 Antecedents of focal firm's learning strategies

Hypotheses $H1_{a-b,}$ and $H2_{a-b}$ sought to examine the effects of Partners' $Resource_{DS}$ and $Goals_{DS}$ on focal firm's cooperative and competitive learning strategies. Specifically, the study hypothesized for a negative/positive relationship between $Resource_{DS}$ and Cooperative Learning Strategy/Competitive Learning Strategy and a positive/negative between $Goals_{DS}$ and Cooperative Learning Strategy/Competitive Learning Strategy respectively.

The results do not support H1a, as the Partners' Resource DS → Cooperative Learning Strategy coefficient is not significant ($b = -.02$, $t = -.28$, $p \geq .05$), while Partners' Resource DS is positively related to Competitive Learning Strategy ($b = .26$, $t = 3.49$, $p \leq .01$) supporting H1b. Partners' Goal DS is positively related to Cooperative Learning Strategy ($b = .35$, $t = 6.14$, $p \leq .01$) and negatively to Competitive Learning Strategy ($b = -.25$, $t = -4.45$, $p \leq .01$), as per H2a and H2b respectively (*see Table 5.7, Models 1-4*).

5.7.2 Antecedents of ISA Performance

H3a and H4a concern the relationship between Learning Strategies and ISA Performance. Specifically, the study hypothesized that Cooperative Learning Strategy has a positive relationship with ISA Performance, while Competitive Learning Strategy is negatively related to ISA Performance. Results support the positive relation between Cooperative Learning Strategy and ISA

Performance (b = .55, t = 10.2, p ≤ .01) and the negative between Competitive Learning Strategy and ISA Performance (b = -.43, t = 6.93, p ≤ .01), as per H3a and H4a respectively.

H3b an H4b relate to the nonlinear effects of Learning Strategies on ISA Performance. H3b is supported, as Cooperative Learning Strategy^2 is related negatively with ISA Performance (b = -.24 t = -5.45, p ≤ .01), while H4b does not find support (b = .11, t = 1.88, p ≥ .05). H5 also finds support as Cooperative Learning Strategy * Competitive Learning Strategy is positively associated with ISA Performance (b = .12, t = 2.37, p ≥ .01).

Using procedures from Aiken and West (1991) Dawson (2014) and Dawson and Richter (2006) to plot the interaction effects. Therefore, Figures 5.1 and 5.2 illustrate the Cooperative Learning Strategy^2 and ISA Performance relationship and the two-way interaction for Cooperative and Competitive Learning Strategies, respectively.

5.7.3 Control Variables

Apart from Partner Cooperative Learning Strategy, none of the control variables was significantly related to any of the respective dependent variables. Specifically, Partner Cooperative Learning Strategy was positively related to Focal Firm's Cooperative Learning Strategy (b = .35, t = 4.64, p = ≤ .01) and negatively related to Focal Firm's Competitive Learning Strategy (b = -.28, t = -3.70, p = ≤ .01). See *Table 5.7* Model 2 and Model 4.

Figure 5.1: Cooperative Learning Strategy - Quadratic Regression

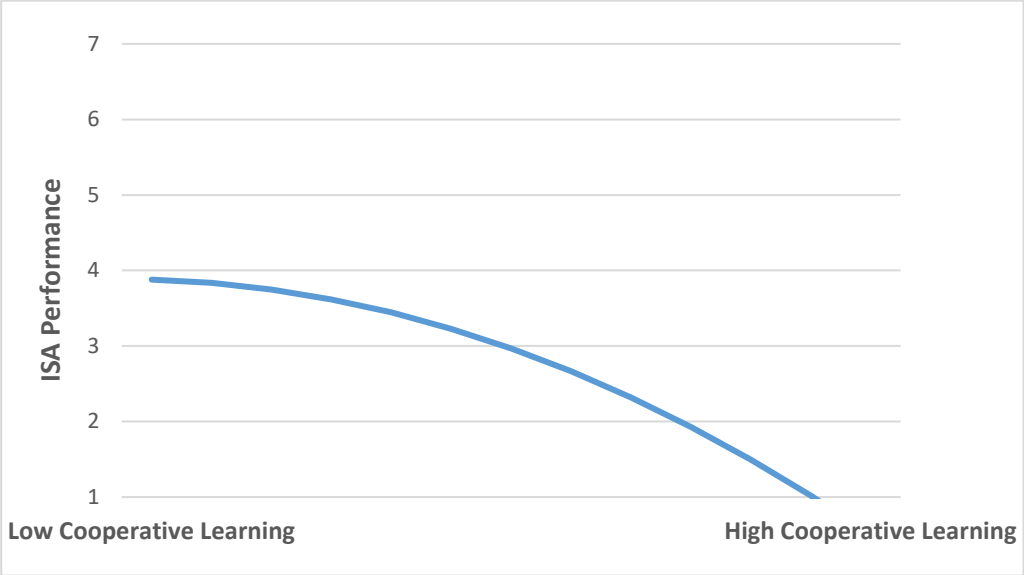


Figure 5.2: Two-way interaction of Cooperative and Competitive Learning Strategies

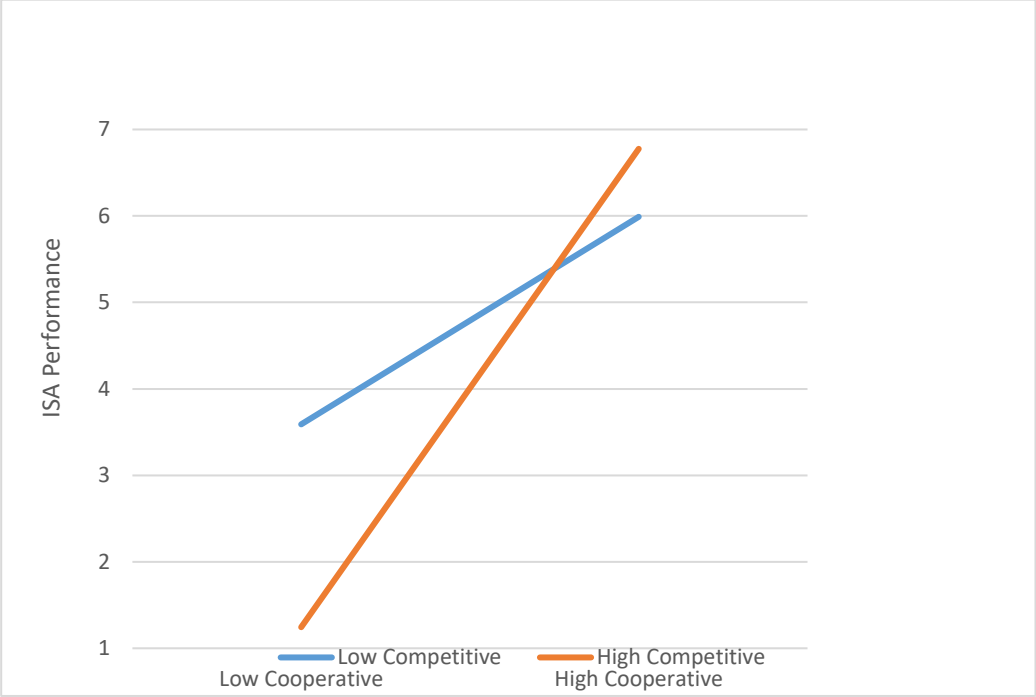


Table 5.7: Regression Analysis Results

		Cooperative Learning				Competitive Learning				Alliance Performance					
Variables	**Hypothesis**	**Model 1**		**Model 2**		**Model 3**		**Model 4**		**Model 5**		**Model 6**		**Model 7**	
Control Variables		B	t- value	b	t- value	b	t- value	b	t- value	b	t- value	b	t- value	b	t- value
Partner Cooperative Learning		.45	7.53**	.35	4.64**	-.51	-8.82**	-.28	-3.70**	.50	8.71**	.07	1.61	.06	1.63
Partner Competitive Learning		-.10	-1.68	-.08	-1.53	.03	.45	.02	.33	-.08	-1.46	-.03	-.84	-.04	-1.23
Alliance Structure		-.03	-.53	-.03	-.49	-.02	-.40	-.02	-.42	.05	.92	.05	1.45	.04	1.28
Alliance Size		-.06	-.89	-.02	-.24	-.05	-.70	-.07	-1.10	-.01	-.15	-.01	-.19	.02	.35
Alliance Age		.04	.595	.05	.80	.03	.41	.01	.17	.03	.39	.02	.53	-.01	.18
Prior Relationship		-.04	-.63	-.04	-.75	.08	.17	.08	1.44	-.05	-.87	.01	.08	.01	.37
Linear Effects															
Partners' Resources $_{DS}$[a]	H1a-H1b			-.02	-.28			.26	3.49**						
Partners' Goals $_{DS}$[a]	H2a-H2b			.35	6.14**			-.25	-4.45**						
Cooperative Learning $_{RESIDUAL}$	H3a											.40	8.60**	.55	10.2**
Competitive Learning $_{RESIDUAL}$	H4a											-.49	-10.3**	-.43	-6.93**
Nonlinear Effects															
Focal Cooperative Learning^2	H3b													-.24	-5.45**
Focal Competitive Learning^2	H4b													.08	1.52
Cooperative * Competitive	H5													.10	2.04*
Cooperative Learning^2 * Competitive Learning														.32	5.43**
F-statistics		2.43		2.09		.63		.56		.76		.32		.27	
Adj. R^2		.20		.32		.25		.33		.26		.69		.74	
Highest VIF		1.52		1.98		1.52		1.98		1.52		1.65		3.38	

[a] *= Degree-Symmetry computed as (D+S)/2*

*** = $p \leq .01$ * = $p \leq .05$*

5.8. Post-hoc Analysis

In order to rule out any alternative explanations and explore potential reasons for the non-supported hypothesis (H1a), the investigator performed a set of supplementary tests. First, the current study adopted the mean value approach (DV+SV)/2 to produce the degree-symmetry values of partners' resources and goals. However, as suggested by Straub et al., (2007), the degree-symmetry value can also be computed as a product, that is (DV*SV)/2. To ensure that results are not affected by the computing method, the investigator tested the hypothesised relationships (i.e. $Goals_{DS}$ – Cooperative/Competitive Learning and $Resources_{DS}$ – Cooperative/Competitive Learning) with the degree*symmetry product. As expected, the results are consistent with the initial findings. As per the literature, both computing methods should produce similar results since they are substitutional to each other. That is o matter what approach is taken for the study results should maintain the same as the original ones. Therefore, since all hypothesised relationships maintain significant and with same direction (positive or negative respectively) we can conclude that the computing method does not affect the results.

Second, this study measures both partners' characteristics (Goals and Resources) from the focal firm's viewpoint. This approach is in line with previous studies (e.g. Lavie et al., 2012) and lies in the logic that behaviours are driven by subjective opinions as perceived by firms. Alliance literature suggests that cooperative relationships rely on reciprocity (Dyer and Singh, 1998; Khanna et al., 1998). Based on this logic, it is expected that partner firms will deploy similar learning strategies. That is, if focal firms deploy cooperative learning strategy, most likely is that partner firms deploy the same strategy because their decision is influenced by their perception or expectation of partner's behaviour. To test for this assumption, the degree-symmetry of partners' Cooperative and Competitive Learning Strategies are computed and tested in a regression model. Results show that $Resource_{DS}$ and Cooperative $Learning\ Strategy_{DS}$ are significantly and negatively related ($b = -.39$, $t = -6.55$, $p \leq .001$) as opposed to the initial hypothesize relationship ($Resource_{DS}$ and focal firm's

Cooperative Learning Strategy), however the Adjusted R^2 of the overall model is 20%, which is lower than the initial model which incorporates focal firm's learning strategies instead of the degree-symmetry (*See Table 5.8 for further information).*

Table 5.8: Post-hoc Regression Analysis Results

	Cooperative Learning$_{DS}$				**Competitive Learning$_{DS}$**				**Alliance Performance**					
Variables	**Model 1**		**Model 2**		**Model 3**		**Model 4**		**Model 5**		**Model 6**		**Model 7**	
Control Variables	b	t- value	b	t- value	b	t- value	b	t- value	b	t- value	b	t- value	b	t- value
Alliance Structure	.03	.40	.00	-.01	-.02	-.36	-.01	-.11	.09	1.33	.07	1.31	.06	1.07
Alliance Size	.02	.19	.02	.32	-.02	-.27	-.03	-.43	.01	.10	-.01	-.08	-.04	-.58
Alliance Age	-.03	-.34	-.01	-.11	-.01	-.07	-.02	-.25	.02	.26	.03	.49	.04	.66
Prior Relationship	.03	.40	.02	.36	.-01	-.08	-.00	-.03	-.02	-.36	-.04	-.70	-.02	-.27
Linear Effects														
Partners' Resources $_{DS}$[a]			-.39	-6.55**			.24	3.71**						
Partners' Goals $_{DS}$[a]			.22	3.64**			-.20	-3.02*						
Partners' Cooperative Learning $_{DS}$[a]											.44	7.87**	.47	8.52**
Partners' Competitive Learning $_{DS}$[a]											-.30	-5.46**	-.25	-4.28**
Nonlinear Effects														
Cooperative $_{DS}$ * Competitive $_{DS}$													-.18	-3.22*
F-statistics	.05		.04		.03		.02		.01		.35		.38	
Adj. R^2	.02		.20		.02		.10		1.03		.66		.63	
Highest VIF	1.52		1.53		1.52		1.53		1.52		1.52		1.55	

[a]*= Degree-Symmetry computed as (D*S)/2*

*** = p ≤ .01*
** = p ≤ .05*

5.9 Summary

The aim of the chapter was to follow all the statistical approaches in order to analyse the data and test the hypothesised relationships. After establishing discriminant and convergent validity as well as the reliability of the data, regression analysis was conducted to for the three independent variables Cooperative, Competitive Learning Strategies and ISA Performance. First, the control variables' effect was examined by only incorporating them in Models 1, 3 and 5and thereafter, the respective predictors of each dependent variable were added. That is, $Resources_{DS}$ and $Goals_{DS}$ for Cooperative and Competitive Learning Strategies and Cooperative/Competitive Learning Strategies for ISA Performance respectively. Finally, supplementary analysis was conducted to test for any alternative explanations and explore potential reasons for the unsupported hypothesis.

Chapter 6

Discussion and Conclusions

6.1 Introduction

This chapter of the thesis presents discussions of the study's findings and implications for alliance literature. Specifically, key findings are presented vis-a-vis the study's research gap and questions raised in the first chapter. Also, implication of the findings for both theory development and ISA practice are discussed. Finally, the study's limitations are presented and suggestions for future research avenues are made.

6.2 Discussion of Findings

Our findings indicate that coopetitive learning strategy is indeed pivotal in determining the success or failure of a strategic alliance effectiveness. However, although coopetition has been investigated at an empirical context through case studies it has remained unexplored at survey data research. Despite the survey studies examining coopetition and the effects and the conditions under which it is effective, hitherto studies have not incorporated the latest conceptualisation of the concept that highlights essential elements and characteristics of its nature. To date, those empirical evidence conceptualise coopetition as the cooperation between competing firms, usually captured at an industry level, that is firms that operate in the same industry by default are competing for the same pie. Such firms although they cooperate to achieve mutual benefits that otherwise would not be able individually while compete for establishing a competitive position in the market, they do not represent coopetitive strategy as conceptualised in the study. Such analysis does not allow for operationalisation of the degree and balance of the two opposing strategies (i.e. cooperation and competition), preventing for examining the effects of those elements. Those elements are essential in explaining the ambiguous findings concerning the impact of coopetition on performance outcomes. Another

issue related to this simplified conceptualisation is that it does not capture the strategic notion of coopetition. That is, coopetition is a strategic decision that serves for the purpose to create value both for the alliance and the individual firms involved. Capturing all this aspects of coopetition by separately measuring the degree of each strategy and calculating the balance between them, offers a more holistic understanding of the effects and the determinants of the concept. Findings confirm that high degree of cooperation has a positive effect on the effectiveness of the alliance but after a certain degree the effect starts to weaken, showing a nonlinear relationship between them. Competition on the other hand is found to have a negative impact on the effectiveness of the alliance. The interaction between the two strategies positively relates to the performance outcome, as such indicating the interplay of the two strategies. Testing for the degree of coopetition and balance between the two strategies results support that high degree and balance of coopetition leads to increased effectiveness.

Our results highlight the role of two crucial partner-specific factors in predicting cooperation and competition in ISA relationships. First, similarity/differences in partners' goals determine the strategic decision of firms. Similarity between partners goals in establishing the alliance encourage cooperative behaviours while decreases competitive activities. This is because goal congruency encourage partners' willingness to jointly work in order to achieve mutual benefits and mutually pursue strategic practices that simultaneously fulfil self and collective interests. Contrary, goal congruency discourages competitive behaviours because working individually to create value and achieve the objectives hinder superior benefits gained by the interaction and sharing and assistance of each other. Second, our findings emphasize that the alignment of resources between the interacting parties reduces the opportunity of combining complementary skills and capabilities that facilitate in value creation, instead, leads to the adoption of more selfish behaviour where firms in their aim to develop new skills engage in a learning race to ensure that they outlearn each other. Results support the assumption that symmetric resources

negatively relate to cooperative strategy, indicating that when partners have similar resources working together do not contribute to developing added value, since those skills are already acquired by them individually offering no opportunity for added value creation.

6.2.1 Antecedents of Learning Strategies

Results indicate that partners' Goals positively affect competitive learning strategy while negatively drive cooperative learning strategy. As argued earlier in the hypotheses chapter, when goals are asymmetrical partners' views differ with regards to what is best for the effective and efficient operation of the alliance. In protecting the alliance, firms engage in competitive learning activities, aiming to acquire more skills and knowledge than the partner firm in order to maximize their power and have more saying about alliance decisions. This is justified by the fact that different goals between strategic alliance partners imply different private benefits aimed to be gained through the operation of the alliance. That being said, the assumption dictates that each firm will work to achieve their private benefits even if that means on the expense of the partner firm. As partner firms enter a strategic alliance relationship try to interpret and make predictions of the other firm's behaviour. In the case of asymmetric goals firms assume for each other that will employ a competitive strategy that is to aim for outlearning partner firm in order to make sure that their own private benefits are not jeopardized. In a similar vein, symmetric goals imply that private interests are in line with common benefits, therefore, partner firms are more likely to work cooperatively and engage in collaborative activities to ensure that goals are effectively achieved. These findings are consistent with previous studies and the theoretical perspectives adapted for this research.

Second, results show that partners' Resources positively impact on competitive learning strategy while contrary to the study's hypothesis that will negatively affect cooperative learning strategy, the analysis found no significant impact. In line with previous studies, this study

argues that high symmetry in partners' resources will have a negative impact on cooperative learning strategy because partners have not much of new knowledge to contribute in the alliance. In other words, high symmetric resources mean high compatibility between partners' resources that are contributed to the alliance. Partners that have no added value to offer to the alliance are prompt to behave competitively rather than cooperatively. More specifically, excessive resource similarity indicates that the partners have little to learn from each other, discouraging partners from engaging in cooperative learning behaviours because the payoffs from deploying such strategy seem less than the efforts required to deploy it. In turn resource symmetry drives alliance partners to work individually for developing new knowledge and skills, creating a learning race environment with strategic parties striving to outlearn each other (Jiang et al., 2008).

As for the non-significant results for hypothesis H2a, an explanation could be that the study measures the degree and symmetry of resources, hence low degree of resources contributed to the alliance might not drive cooperative learning behaviour, because it implies that alliance partners do not contribute the necessary resources. This may potentially occur because partner firms do not trust each other therefore they do not provide access to each other on their valuable resources and capabilities. Such explanation is in line with previous studies (Tsang and Dos, 2000), who argue that low degree of resource contribution may reflect low communication and transparency between partners, which is key for cooperative behaviours to occur.

In general, analysis show consistent results with previous studies and the hypothesised relationships of the study. That is, both partners' resources and goals do constitute great predictors of cooperative and competitive learning strategies. More specifically both resources and goals have a positive and negative impact on competitive learning strategy respectively, while only goals have a negative on cooperative learning strategy contrary to the expected

results of resources having a negative on it.

6.2.2 Outcomes of Learning Strategies

The relationship between learning strategies and performance outcomes of the alliance has been the focus of many scholars from marketing, organisational and management studies (Hamel, 1991; Larsson et al, 1998; Kale et al., 2000). Aiming to uncover the ambiguous results of previous studies, this research also interests in the outcomes of the learning strategies deployed by the focal firm. Accordingly, this section discusses the findings on the effects of cooperative and competitive learning strategies separately and the effect of coopetitive learning strategy, conceptualised and operationalised as the simultaneous employment of both strategies.

In line with other scholars, this study argues that cooperative learning strategy has a non-linear effect on the performance of the alliance. That is, cooperative learning has a positive effect on performance up to a certain level, once this level is passed the impact switches to negative. As Muthusamy and White (2005) suggest, cooperative learning has a positive impact on alliance performance up to a certain point but the benefits reduce after that point. When cooperative learning is too strong, firms may become over-embedded in the relationship and could miss learning opportunities outside the relationship which would enhance alliance positive outcomes. While cooperative learning initially brings benefits because encourages exchange of heterogeneous and complementary resources, cooperative learning do not bring further novel knowledge and skills. Intense cooperative learning leads to developing homogenous competences inhibiting new knowledge development and consequently disabling partners from developing further distinct capabilities. Results are consistent with the hypothesised relationships and the previous literature.

With regards to competitive learning strategy and the impact on performance of the alliance, this study in line with previous ones, hypothesised that competitive learning has a negative impact on performance. When the degree of competitive learning between partners is really high, competitive tension between the focal firm and its partners will increase because knowledge gained from the partner through a collaborative relationship could also be used against the same partner in order to more effectively compete in the markets (Gnyawali and Park, 2009). This high level of competitive tension will diminish knowledge sharing and could result into a narrow scope of cooperation, which in turn, will result in a low level of alliance performance. Again, the findings are consistent with the previous suggestions and the hypothesis of the study.

Our theorization thus far suggested that competitive learning and alliance performance have a negative relationship, while with respect to cooperative learning strategy, our theory suggested that is generally beneficial for the alliance performance but at high levels the benefits start to reduce. The current study suggests that when the intensity of competition is very high, having strong cooperation is an effective way to create a balance in the relationship so that drawbacks of competition are mitigated by cooperative strategies and losses from cooperative learning strategy are prevented by deploying competitive learning strategy. In that way both competition and cooperation are realized and the downsides of competition are managed through countervailing cooperative engagements. In other words, we hypothesise that coopetitive learning strategy has a positive impact on the performance of the alliance. Consistent with the previous studies the results do confirm that this relationship is indeed significant and positive.

In conclusion, in general terms, most of the results of this study supports previous studies and the hypotheses of the current research. That is all hypotheses are accepted except the impact of resources on cooperative learning strategy which was shown to be insignificant.

6.3 Implications of the study

6.3.1 Theoretical contributions

In an endeavour to contribute to the coopetition literature, both theoretical and methodological improvements were pursued. First, in terms of theoretical improvements, a contribution of this research lies in a conceptualization and operationalization of coopetition. Building on previous works (e.g., Bengtsson et al., 2010; Chen, 2008; Das and Teng, 2000; Gnyawali et al., 2008; Luo, 2007a), I conceptualized coopetition as being composed of three components: 1) competition between partners, 2) cooperation between partners, and 3) the interplay between competition and cooperation. Although previous works imply that coopetition is composed of three components, there was no empirical work to operationalize coopetition by considering the three components. Gnyawali et al. (2008) suggest that the tension from the paradoxical and dynamic nature of coopetition will clearly appear when the degrees of competition and cooperation are both high. Thus, it is essential that the conceptualization and operationalization of coopetition consider both competition and cooperation to explore the role of tension in coopetition.

Our study has stressed the crucial role of coopetition in cross-border inter-organisational relationships, a phenomenon that despite the excessive attention it has received the past decade, remains unclear and fragmented regarding its nature, such as conceptualisation, and its mechanisms, drivers, process and outcomes. The fact that the antecedent factors of cooperation and competition as well as their performance outcomes separetaly and together as coopetition, were found significant gives credibility to the approach of considering coopetition as two separate constructs that together form the one of coopetition. This empirical verification of our conceptual model is in line with loose coupling theory, which implies that contradictive and opposing elements are expected to be present in inter-organisational relationships, and that

managing and balancing them constitute as a solution for preventing harmful consequences. Maintain a loosely coupled relationship, where congruent goals and resource similarity are underpinned by the loose coupling logic, invites for further attention by business scholars. Similarity in goals indicates a coupled relationship where the parties involved engage in joint activities in order to achieve mutual benefits, while similarity in resources presumes that the pre-existing capabilities that each party individually possess do not allow for coupling behaviours as sharing compatible resources do not facilitate in value co-creation, rather individual activities where each party work separately to develop added value.

Methodologically, this study differentiates from other studies by operationalising coopetition as a scale measurement that captures both the degree of competition and cooperation, and the balance between the two strategies. Measuring separately the two constructs, instead of asking the level to which parties cooperate with competitor firms, allows for a more nuanced understanding of the interplay of cooperation and competition. Utilising the degree-symmetry approach offers a methodological advancement that aligns with the conceptualisation of the construct. Degree symmetry gives further room for investigation to lead to a prevalent measurement that can determine the optimal degree and balance of coopetition for succeeding superior outcomes.

6.3.2 Managerial implications

This study has a series of important managerial implications that derive from the knowledge it offers on what drives learning strategies employed by ISA and how these learning strategies impact the alliance performance. Firstly, the present study offers a general framework on how companies should choose learning strategies in international strategic alliances. Choosing between cooperation and competition as means of value co-creation and appropriation has long been a difficult dilemma for managers. This study offers important insights on how managers can resolute this dilemma. Specifically, it distinguishes between cooperative and competitive

learning strategies and offers empirical evidence to support the view that deploying a sole strategy (either cooperative or competitive learning) does not lead to superior performance. Our findings indicate that competitive learning has a negative impact on alliance performance, while cooperative learning has a positive impact, but only up to a certain level. On the other hand a holistic, careful, simultaneous deployment of both strategies leads to better results both for the alliance and for the partners involved.

Employing a combination of cooperative and competitive learning strategies is not an easy task though. In principle, a cooperative strategy implies firms working together with other firms to create and/or maintain competitive advantage through the exchange of resources, capabilities and knowledge, implement joint activities and adopt a collaborative culture and attitude. On the contrary, competitive strategy may derive from incongruence in strategic objectives between partner firms, which put managers in the position of choosing between private benefits and mutual benefits. In their aim to pursue the interests of their focal firm, partner firms enter in a learning race where they compete with each other in order to out-learn each other. Nevertheless, based on our findings, we recommend to managers in alliance firms to try to combine the two and deploy a coopetitive strategy as a means of value creation, in order to generate greater performance outcomes for the alliance. In doing so, they need to balance cooperative and competitive activities in their collaborative relationships with international partners in order to prevent tensions arising from such asymmetries, exchange knowledge and capabilities with their partners, but at the same time protect their own knowledge competencies and seek to also fulfil their own individual objectives.

A second major practical managerial implication of this study relates to the way alliance managers could benefit by this research with regards to how they should allocate and manage their skills and resources in order to achieve superior outcomes for the alliance. Specifically, the study shows that regardless of the different private objectives of participant firms, when

resources are complementary managers should engage in cooperative behaviours in order to ensure the development of value within the alliance, while at the same time may employ competitive learning strategy in order to pursue their private benefits. From a different point of view this may indicate that firms should generally try to establish strategic collaborations with firms that possess complementary resources. On a similar basis, our findings indicate that the proclivity to pursue coopetition itself is associated with enhanced financial performance. This might suggest that coopetition is not so much an action of necessity as it is a coherent strategy for mitigating risk and leveraging resources. Albeit no one can deny that working with one's competitor entails some level of risk, it would seem that coopetition is actually a risk management strategy for the small firm as it enables the optimization of its resources. This is particularly important for SMEs and/or companies with relatively limited skills, competencies and resources. By relying on the intelligence, experience, human resources, and networks of suppliers, distributors and customers of a competitor, a firm like that can minimize fixed cost investment, lessening learning costs, and exposing the firm to less trial and error.

Another managerial implication that the study's conclusions have pertains to the way companies can alleviate the risks of misappropriation and opportunistic behavior by their "ostensible partners". Acknowledging that firms may enter an alliance with the intention to exploit partner for their own benefit, and pursue self-interests on the expense of partner and the alliance, we offer a blueprint of how these dangers can be tackled. Specifically, one way managers can prevent that is by selecting partners that have similar strategic goals for establishing the alliance. Such approach encourages cooperative behavior from both parties since they share mutual interests and aim to co-create value by sharing and exchanging knowledge both for the benefit of the collaboration and for each individual firm. At the same time though, this study's findings demonstrate that as cooperative behavior becomes more intense the positive effects on the alliance's performance start to reduce. This suggests that

companies should not forget their individual performance objectives and aim to balance their competitive and cooperative activities in order to create value for their firm too, on the top of their alliance. On the latter recommendation, our findings indicate that in successful alliances, each firm enters the alliance with specific mutual goals, but also have their own private goals.

An additional managerial implication of the current research has to do with the organizational agility required to successfully implement a coopetitive learning strategy i.e. how fast the firms are able adapt their strategic cooperation and other strategic activities for the needs of a turbulent business environment. Managers should create an internal environment that fosters change and adaptation, in which a coopetitive strategy can flourish. At the same time they should develop alternative strategies and activities such as sales, acquisitions & mergers of enterprises or units to maintain the success of their businesses, if drastic changes occur. Firms should also be ready for fundamental changes, such as breaking up or selling a company or on the other side to extend the alliance to even higher levels of integration. This kind of agility may guarantee that both the firm in the alliance and the industry survive during recessionary times.

Finally, the present study has industry or cross-industry level policy implications. Specifically, its conclusions indicate the need for paying more attention to the importance of government in supporting industries vital to the country's economy. Taking an active role in developing these industries, might take forms such as membership of joint organizations, joint research and development work, and sometimes also, part-ownership. Furthermore, the study highlights the importance of coopetition and especially the timing and placement (center of gravity) of coopetitive actions within an industry sector. Especially in the current era of globalization, firms should be encouraged to compete with each other without questing for opportunities said to be afforded by cooperation and coopetition, and which might reduce the overall performance of the industry sector.

6.4 Study Limitations and Future Recommendations

The present study is not without limitations. Each of these limitations though constitute a useful suggestion for future research. Firstly, the study is among the first to investigate antecedents and outcomes of coopetition in international business relationships and particularly in international strategic alliances. Therefore, its external validity needs to be tested through its replication and expansion to other country settings (e.g., emerging economies) and international relational contexts (e.g., importer - exporter relationships). Testing the validity of the study's findings in comparative research designs (e.g., low versus high context cultures) would be particularly valuable to better understand the interaction of variables in various contexts. Similarly, future research should also examine differences in the antecedents, boundary conditions and consequences of coopetition strategy between domestic an international market settings.

The second limitation of the study comes from the variables in our conceptual framework which derive exclusively from theories that do not distinguish between domestic and international relationships. Although testing the influence of such variables on alliances' performance in an international context it's a very important theoretical contribution, future researchers should seek to augment the model by incorporating constructs that have a more international flavor, such as the role of cultural differences and organizational differences. A similar, but methodological suggestion for future research pertains to the fact that some of our scales, although established, coming from reliable sources and extensively used in the literature, were adapted from other contexts tan international collaborations. That creates the need to operationalize the constructs used in the study with scales that have been designed to measure the variables exclusively in an international relationships' context. The latter may require future researchers to embark on the development of new scales following the procedures recommended by Churchill (1979).

Future research could tackle two additional limitations of the current study that relate to the width of its conceptual framework. Firstly, this study adopts a strategic, knowledge and resource based capabilities perspectives for explaining the alliance functioning while views alliances as loosely coupled systems which explains the coopetitive view of learning strategies and to identify the mechanisms for positive alliance and partners' outcomes. Future research would benefit by integrating different perspectives of alliance functioning and develop a holistic theoretical framework that will examine the interplay of all theories simultaneously. Such research would enhance our understanding for the governance of strategic alliances and would potentially offer a universal blueprint of the alliance governance. The rationale is that only by adapting a multi-theoretical perspective we can accurately explain the functioning of alliances, because all mechanisms operate separately and simultaneously and influence each other, consequently influence the outcomes. Therefore, it is valuable to identify all theoretical perspectives in alliance literature and integrate all the knowledge developed throughout the years and empirically investigate how their mechanisms impact on performance outcomes. Secondly, studies in the future should identify boundary conditions of the learning strategies' effects. By adapting a multifaceted perspective, the identification of conditioning factors is encouraged since many theoretical views are contradictory which means that other theories would take a boundary role that condition the effects of each perspective on performance outcomes. Such study not only would contribute on loose coupling theory by explaining both the conditions under which alliances are loosely or tightly coupled but also would serve as a handbook of strategic alliances governance.

Although the relational phenomena included in our conceptual framework are dynamic, for this study a cross-sectional research design was adopted. Although under certain conditions, the results from cross-sectional data exhibit validity comparable to the results obtained from longitudinal data (Rindfleisch, Malter, Ganesan, & Moorman, 2008) in this case this should be

considered a limitation. In the future, longitudinal studies that cover changes in the relationship dynamics over time should be adopted that could confirm and expand the study's conclusions. This is particularly important because coopetitive behaviours are usually repeated over time and there is therefore a need to monitor their development and the forms they take. Similarly, as recent studies suggest (Czakon et al., 2020; Bouncken et al., 2020; Gnyawali and Charleton, 2018), it would also be interesting to explore the short-term and long-term effects of coopetition on alliance and individual firms' performance. Finally, researchers could also examine how the levels of power and dependence change over time or over different relationship stages (e.g. initiation, growth, maturity, and decline) and how these changes in turn affect the link between partners' differences and coopetitive strategy.

Another limitation that doesn't undermine the study's importance but should be taken into consideration derives from the fact that the study examined only the perspective of the focal firm's side, although working relationships have at least two parties. Future studies should employ dyadic methods of data collection (i.e., obtaining the opinions of both local and foreign alliance partner) on issues associated with coopetition. This is critical, because the way the two parties perceive, evaluate, and respond to inter-organisational differences is usually not the same (Kowalski, 2001a). Hence, future researchers aiming to make a significant contribution should investigate both partners' perspectives and evaluate not only the effectiveness of cooperative strategies on the alliance, but also what the effects are on both firms separately.

Since coopetition can also be driven by personal (e.g., Machiavellianism), organizational (e.g., strategy), and institutional (e.g., law enforcement) factors, the role of such predictors of coopetition is also worth investigating. In addition to perceptual consequences, coopetition may also have attitudinal (e.g., hostility), behavioural (e.g., reciprocation) and emotional (e.g., dissatisfaction) outcomes. This clearly calls for scholarly attention. On the same basis, future scholars should also examine the moderating role of governance mechanisms (e.g., markets

versus hierarchies), temporal factors (e.g., new versus old relationships), cultural differences (e.g., high versus low uncertainty avoidance) and capabilities (eg., absorptive capacity).

6.5 Summary

To conclude, this study has explored the recent and ongoing scholarly work on entrepreneurial opportunity, dealing with the question of whether entrepreneurial opportunity can be created and/or discovered. First, the study has established the distinctive and non-contradictory nature of both opportunity creation and discovery. Second, from cognitive psychology, the study finds that, entrepreneurial cognition plays an important role in entrepreneurs' attempt to either create or discover opportunities. Third, findings from the study show that, there are differential effect of opportunity creation and discovery on new venture performance; while opportunity creation directly impacts on new venture performance, the effect of opportunity discovery on new venture performance is conditioned upon levels of firms' adaptive capability. It is hoped that, these findings may spark scholarly and practitioner interest in the form, antecedent, consequences and boundary conditions of the entrepreneurial opportunity creation and discovery concepts.

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APPENDICES

QUESTIONNAIRE

Dear Sir/Madam,

Further to our telephone conversation, thank you for agreeing to participate in this survey. The purpose of our international strategic alliances study is to understand how firms can benefit from using different types of learning strategies in their international strategic alliances. In referring to international strategic alliances, we include all forms of cooperative agreements between two parents of 'different nationality', such as joint ventures, licensing, distribution and supply agreements, research and development partnerships, or technical assistance and management contracts. For this survey, you will need to select a focal international strategic alliance between your firm and a single partner firm.

This survey is sponsored by Leeds University Business School in the UK, and has secured ethical approval at the School. Your answers will be treated in a strictly confidential manner to ensure total anonymity and the results will be used for academic purposes only. Your participation in our study is completely voluntary. We value your opinion and it is important to the successful completion of the study. We very much hope that you will take the time to answer every question in the questionnaire. Please complete and submit the questionnaire electronically.

The survey will take around 15-18 minutes to complete. Upon completion of the survey, all participants will receive a report providing a summary of the major findings, and a diagnostic contrasting your firm's responses with average responses.

Thank you again for accepting to participate, and for providing your expert opinion on this topic.

…….

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Learning Intent

One of the intentions of your firm in forming this alliance, was to:	***Strongly disagree***						***Strongly agree***
Learn specific skills and competences (e.g. technology, know-how)	1	2	3	4	5	6	7
Learn about operations and management techniques	1	2	3	4	5	6	7
Learn about an unfamiliar market	1	2	3	4	5	6	7
Acquire important and valuable information	1	2	3	4	5	6	7
Learn or improve the skills of inter-firm cooperation in a strategic alliance setting	1	2	3	4	5	6	7

Knowledge Use Intention

Please indicate the extent to which you agree with the following statement	***Strongly disagree***						***Strongly agree***
What your firm learns from the alliance partner it intends to use in projects developed independently from the alliance	1	2	3	4	5	6	7
What your firm learns from the alliance partner it intends to apply to its own operations in areas unrelated to the alliance activities	1	2	3	4	5	6	7
What your firm learns from the alliance partner it intends to use beyond the scope of the alliance	1	2	3	4	5	6	7
What your firm learns from the alliance partner it intends to use for its private benefit	1	2	3	4	5	6	7
What your firm learns from the partner it intends to use for pursuing its individual goals	1	2	3	4	5	6	7

Absorptive Capacity

Please indicate to what extent you agree with the following statements ***Your firm has the ability to...***	***Strongly disagree***						***Strongly agree***
…adapt acquired new knowledge to fit the firm's development needs	1	2	3	4	5	6	7
…develop new product/service by using assimilated new knowledge	1	2	3	4	5	6	7
…find alternative uses of assimilated new knowledge	1	2	3	4	5	6	7
…fuse assimilated new knowledge with existing knowledge	1	2	3	4	5	6	7
…revise manufacturing processes based on acquired new knowledge	1	2	3	4	5	6	7
…revise business procedures based on acquired new knowledge	1	2	3	4	5	6	7
…introduce product procedures based on acquired new knowledge	1	2	3	4	5	6	7
…revise quality control operations based on acquired new knowledge	1	2	3	4	5	6	7

Cultural Intelligence

Please indicate to what extent you agree with the following statements	***Strongly disagree***						***Strongly agree***
Your firm knows how your alliance partner's expectations differ from your own	1	2	3	4	5	6	7
Your firm knows how to resolve cultural differences in expectations with your alliance partner	1	2	3	4	5	6	7

Your firm knows how to develop mutual expectations that are culturally agreeable with your alliance partner	1	2	3	4	5	6	7
Your firm is confident in building culturally appropriate plans that ensure smooth transitions and limited disruption when activities are moved to the alliance partner	1	2	3	4	5	6	7
Your firm knows how to develop culturally appropriate norms and standard operating procedures with your alliance partner	1	2	3	4	5	6	7
Your firm knows how to design culturally appropriate governance mechanisms to ensure high performance	1	2	3	4	5	6	7
Please indicate to what extent you agree with the following statements	***Strongly disagree***						***Strongly agree***
Your alliance partner knows how your firm's expectations differ from their own	1	2	3	4	5	6	7
Your alliance partner knows how to resolve cultural differences in expectations with your firm	1	2	3	4	5	6	7
Your alliance partner knows how to develop mutual expectations that are culturally agreeable with your firm	1	2	3	4	5	6	7
Your alliance partner is confident in building culturally appropriate plans that ensure smooth transitions and limited disruption when activities are moved to your firm	1	2	3	4	5	6	7
Your alliance partner knows how to develop culturally appropriate norms and standard operating procedures with your firm	1	2	3	4	5	6	7
Your alliance partner knows how to design culturally appropriate governance mechanisms to ensure high performance	1	2	3	4	5	6	7

Knowledge Protectiveness

To what extent does your partner restrict access to...	***Not at all***						***To a very great extent***
…knowledge and competences	1	2	3	4	5	6	7
…marketing plans and information	1	2	3	4	5	6	7
…technical information.	1	2	3	4	5	6	7
…new and important information	1	2	3	4	5	6	7

Knowledge Sharing

Please indicate to what extent you agree that your alliance partner is <u>willing</u> to...	***Strongly disagree***						***Strongly agree***
… share information on hints when they think it might help your firm	1	2	3	4	5	6	7
… share information on strategies that work well	1	2	3	4	5	6	7
… let your firm know about what strategies or decisions do not work well	1	2	3	4	5	6	7
… share know-how and know-whom with your firm	1	2	3	4	5	6	7
… share information with your firm without being asked	1	2	3	4	5	6	7

Knowledge Sharing Capability

Your alliance partner has <u>processes</u> that enable it...	***Strongly disagree***						***Strongly agree***
… to share information effectively with your firm	1	2	3	4	5	6	7
… to share information between all parties involved in alliance decisions	1	2	3	4	5	6	7

… to share information on strategies that work well	1	2	3	4	5	6	7
…to share newly acquired knowledge with your firm	1	2	3	4	5	6	7
… to let your firm know about what strategies or decisions do not work well	1	2	3	4	5	6	7
… to share know-how and know-whom with your firm	1	2	3	4	5	6	7

Goal Differences

In the following areas, please give your opinion on the objectives your firm and your alliance partner had in establishing this strategic alliance		***Not at all***						***To a very great extent***
Overcoming entry barriers to the local industry	Your Firm	1	2	3	4	5	6	7
	Your Partner	1	2	3	4	5	6	7
Generating short-term profits	Your Firm	1	2	3	4	5	6	7
	Your Partner	1	2	3	4	5	6	7
Reducing financial risks	Your Firm	1	2	3	4	5	6	7
	Your Partner	1	2	3	4	5	6	7
Reducing production costs	Your Firm	1	2	3	4	5	6	7
	Your Partner	1	2	3	4	5	6	7
Improving corporate reputation	Your Firm	1	2	3	4	5	6	7
	Your Partner	1	2	3	4	5	6	7
Gaining access to the partner firm's technology, experience and skills	Your Firm	1	2	3	4	5	6	7
	Your Partner	1	2	3	4	5	6	7
Expanding market share overseas	Your Firm	1	2	3	4	5	6	7
	Your Partner	1	2	3	4	5	6	7

Organisational differences

In this alliance, please indicate the extent to which you agree with the following statements regarding your firm and your alliance partner		***Strongly disagree***						***Strongly agree***
____uses consensus-seeking rather than authoritarian decision making (e.g. many people are democratically involved in decisions instead of one senior person making all the calls)	Your Firm	1	2	3	4	5	6	7
	Your Partner	1	2	3	4	5	6	7
_____prefers informal over formal communication (e.g. bullet-point presentations or verbal communication instead of lengthy written reports)	Your Firm	1	2	3	4	5	6	7
	Your Partner	1	2	3	4	5	6	7
_____relies on an informal organization (e.g. has few managerial layers, loose control and monitoring; would settle for a handshake instead of sticking to bureaucratic procedures, contracts and legal documentation)	Your Firm	1	2	3	4	5	6	7
	Your Partner	1	2	3	4	5	6	7
_____has an open approach to conflict resolution (e.g. disagreements are monitored, discussed openly, and resolved by the parties involved)	Your Firm	1	2	3	4	5	6	7
	Your Partner	1	2	3	4	5	6	7
_____is open minded and creative in its approach to problem solving (e.g. is flexible, explores its boundaries, and differentiates its value proposition)	Your Firm	1	2	3	4	5	6	7
	Your Partner	1	2	3	4	5	6	7

_____is agile (e.g. quick to respond to emerging situations, reach decisions, sign agreements, enter markets, launch products, and seize opportunities)	Your Firm Your Partner	1 1	2 2	3 3	4 4	5 5	6 6	7 7
_____has goal-focused and achievement-oriented employees	Your Firm Your Partner	1 1	2 2	3 3	4 4	5 5	6 6	7 7
_____has employees with a strong work ethic (e.g. defy the 9-to-5 attitude, work overtime to get tasks done, willing to do whatever it takes to get the job done)	Your Firm Your Partner	1 1	2 2	3 3	4 4	5 5	6 6	7 7
_____gives autonomy and discretion to employees for making decisions	Your Firm Your Partner	1 1	2 2	3 3	4 4	5 5	6 6	7 7
_____is proactive rather than reactive with customers (e.g. has a hungry sales force, goes public with information about products under development)	Your Firm Your Partner	1 1	2 2	3 3	4 4	5 5	6 6	7 7
_____incorporates the best products, solutions or platforms available to the industry instead of simply pushing proprietary technology, solutions or products	Your Firm Your Partner	1 1	2 2	3 3	4 4	5 5	6 6	7 7
_____objectively presents alternative competing solutions that can best serve customers' needs rather than force-fitting its own solutions	Your Firm Your Partner	1 1	2 2	3 3	4 4	5 5	6 6	7 7

Resource Differences

Please indicate the extent to which your firm and your partner contribute the following resources to the alliance		***Not at all***						***To a very great extent***
Technological capability	Your Firm Your Partner	1 1	2 2	3 3	4 4	5 5	6 6	7 7
Marketing expertise	Your Firm Your Partner	1 1	2 2	3 3	4 4	5 5	6 6	7 7
Managerial skills	Your Firm Your Partner	1 1	2 2	3 3	4 4	5 5	6 6	7 7
Positive organisational reputation	Your Firm Your Partner	1 1	2 2	3 3	4 4	5 5	6 6	7 7
Cost reduction ability	Your Firm Your Partner	1 1	2 2	3 3	4 4	5 5	6 6	7 7
Capital allocation ability	Your Firm Your Partner	1 1	2 2	3 3	4 4	5 5	6 6	7 7
International experience (e.g. international trading or investment, directly or indirectly)	Your Firm Your Partner	1 1	2 2	3 3	4 4	5 5	6 6	7 7
Market experience (i.e. in the market it operates in)	Your Firm Your Partner	1 1	2 2	3 3	4 4	5 5	6 6	7 7
Experience with strategic alliances	Your Firm Your Partner	1 1	2 2	3 3	4 4	5 5	6 6	7 7

Psychic Distance

Please indicate the extent to which you perceive the home country (i.e. the country in which your firm is based) is different or similar to the country in which your alliance partner is based)	***Completely different***						***Completely the same***
Culture of the country	1	2	3	4	5	6	7
Language of the country	1	2	3	4	5	6	7
Customs and values of people	1	2	3	4	5	6	7

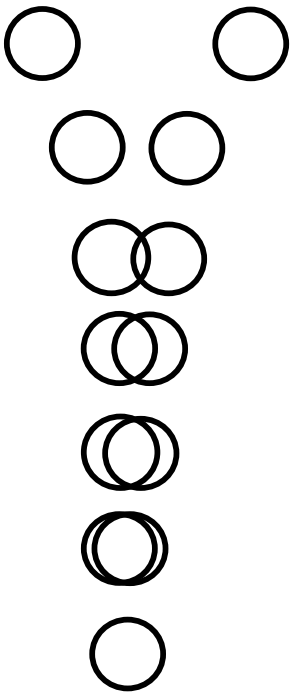
Legal and political environment	1	2	3	4	5	6	7
Market structure	1	2	3	4	5	6	7
Economic environment	1	2	3	4	5	6	7
Business practices	1	2	3	4	5	6	7

Identification

Please indicate the extent to which you agree with the following statements	***Strongly disagree***						***Strongly agree***
When someone criticizes your alliance partner, it feels like an insult to your firm	1	2	3	4	5	6	7
Your firm is very interested in what people think about your alliance partner	1	2	3	4	5	6	7
When your firm talks about your alliance partner, it often says “we” rather than “they”	1	2	3	4	5	6	7
When someone makes positive remarks about your alliance partner, it feels like a compliment to your firm	1	2	3	4	5	6	7
If a story in the media criticizes your alliance partner, your firm feels embarrassed	1	2	3	4	5	6	7
Your alliance partner's successes are your firm's successes	1	2	3	4	5	6	7

Imagine that one of the circles at the left (display below) represents your firm's identity and the other circle at the right represents your alliance partner's identity. Please indicate which case (A, B, C, D, E, F, or G) best describes the level of overlap between your firm's identity and your alliance partner's identity

(NOTE: Identity refers to a set of specific and enduring attributes that characterize a firm)

	Far Apart Close Together But Very Small Overlap Moderate Overlap Large Overlap Very Large Overlap Complete Overlap

Mutual Trust

The relationship between your firm and your alliance partner is characterized by:	***Strongly disagree***						***Strongly agree***
Mutual trust	1	2	3	4	5	6	7
Reciprocity (e.g. endorsing each other's products, cross-referencing into customer accounts, giving special discounts, matching investments, placing a link on each other's website)	1	2	3	4	5	6	7
Open communication about all alliance-related issues	1	2	3	4	5	6	7
Confidence that each party will keep its obligations	1	2	3	4	5	6	7
Confidence that each party would go out of its way to make sure the relationship is not damaged or harmed	1	2	3	4	5	6	7
Confidence that each party would carry out its duties as promised (saying what they are going to do and then doing it)	1	2	3	4	5	6	7

Procedural Justice

(NOTE: Fair means that the below procedures and the execution of these procedures are (i) transparent, adjustable and correctable; (ii) representative, unbiased and non-discriminatory to each party; and (iii) accordant with contractual specifications)

Please indicate the extent to which you agree with the following statements	***Strongly disagree***						***Strongly agree***
The procedures used by both parties in their decision-making process are fair	1	2	3	4	5	6	7
The procedures used by two parties in negotiating, stipulating, and codifying the alliance contract are fair	1	2	3	4	5	6	7
The procedures used by two parties in formulating and structuring the alliance are fair	1	2	3	4	5	6	7
The procedures used by two parties in planning, organizing, and managing alliance activities (i.e., strategic planning, autonomy allocation, and routine management) are fair	1	2	3	4	5	6	7
The procedures used to govern knowledge or resource sharing between two parties (i.e., knowledge transfer, innovation development, and resource contribution) are fair	1	2	3	4	5	6	7
The procedures of executing strategic decisions are clearly defined and performed consistently by both parties	1	2	3	4	5	6	7
The execution of the alliance contract is administered and monitored fairly by both parties	1	2	3	4	5	6	7
The implementation of strategic decisions is administered and monitored fairly by both parties	1	2	3	4	5	6	7

Cooperative Learning (co-create with partner)

Please indicate to what extent you agree with the following statements	***Strongly disagree***						***Strongly agree***
Your firm works together with the alliance partner to develop new technologies and know-how	1	2	3	4	5	6	7
Your firm works together with the alliance partner to learn new techniques and competencies	1	2	3	4	5	6	7

Your firm works together with the alliance partner to develop new ideas and skills	1	2	3	4	5	6	7
Your firm works together with the alliance partner to learn new and important information	1	2	3	4	5	6	7

Focal Firm's Competitive Learning (out-learn partner)

Please indicate to what extent you agree with the following statements	***Strongly disagree***						***Strongly agree***
Your firm works to acquire more important and new information from the alliance than your alliance partner does	1	2	3	4	5	6	7
Your firm works to gain more critical capability and skills from the alliance than your alliance partner does	1	2	3	4	5	6	7
Your firm works to obtain more technologies and know-how from the alliance than your alliance partner does	1	2	3	4	5	6	7
Your firm works to acquire more techniques and competencies from the alliance than your alliance partner does	1	2	3	4	5	6	7

Partner Firm Competitive Learning

Please indicate to what extent you agree with the following statements	***Strongly disagree***						***Strongly agree***
Your alliance partner works to acquire more important and new information from the alliance than your firm does	1	2	3	4	5	6	7
Your alliance partner works to gain more critical capability and skills from the alliance than your firm does	1	2	3	4	5	6	7
Your alliance partner works to obtain more technologies and know-how from the alliance than your firm does	1	2	3	4	5	6	7
Your alliance partner works to acquire more techniques and competencies from the alliance than your firm does	1	2	3	4	5	6	7

Performance

Please indicate to what extent you agree with the following statements	***Strongly disagree***						***Strongly agree***
The alliance has achieved its set goals	1	2	3	4	5	6	7
The time and effort spent by the partners in developing and maintaining the alliance has been worthwhile	1	2	3	4	5	6	7
The partners have effectively performed their alliance responsibilities and commitments	1	2	3	4	5	6	7
This alliance has been productive enough	1	2	3	4	5	6	7
In this alliance, resources are deployed efficiently	1	2	3	4	5	6	7
Procedures and mechanisms for alliance resource utilization are cost-effective	1	2	3	4	5	6	7
The alliance is effective in converting resource inputs into venture outputs	1	2	3	4	5	6	7
Partners' resource contributions are used efficiently in this alliance	1	2	3	4	5	6	7
The alliance's operations can adapt quickly to environmental changes	1	2	3	4	5	6	7
The partners are able to make adjustments in the alliance to cope with changing circumstances	1	2	3	4	5	6	7

Whenever some unexpected situation arises, the alliance management is capable of modifying the existing structure and strategies of the alliance	1	2	3	4	5	6	7
In the face of problems or special circumstances, managers can make adjustments to the alliance as required	1	2	3	4	5	6	7

Focal Firm's Performance Improvement

Thinking about <u>your firm's</u> performance improvement since the <u>start</u> of this alliance, please indicate your level of agreement with the following statements	***Strongly disagree***						***Strongly agree***
This alliance has resulted in improved net contribution	1	2	3	4	5	6	7
This alliance has resulted in firm growth	1	2	3	4	5	6	7
This alliance has resulted in market growth	1	2	3	4	5	6	7
This alliance has resulted in new products/services	1	2	3	4	5	6	7
This alliance has resulted in new competencies	1	2	3	4	5	6	7
This alliance has resulted in new market entrances	1	2	3	4	5	6	7

Power (Im)Balance	***Your firm***			***Equal say***			***Your partner***
Please indicate which party has the most say in all alliance-related decisions	-3	-2	-1	0	1	2	3

Alliance Scope

This alliance involves the following activities (Please tick all that apply)

R&D	
Manufacturing	
Marketing	
Supply	
Distribution	

Learning Orientation

Please indicate to what extent you agree with the following statements	***Strongly disagree***						***Strongly agree***
Learning in your firm is viewed as key to organisational survival	1	2	3	4	5	6	7
The sense around your firm is that your ability to learn is key to remaining competitive	1	2	3	4	5	6	7

Market Turbulence

Please indicate the extent to which you agree with the following statements	***Strongly disagree***						***Strongly agree***
Customers in your markets are very receptive to new product ideas	1	2	3	4	5	6	7
In your markets, customers' preferences change relatively fast	1	2	3	4	5	6	7
New customers tend to have product-related needs that are different from those of existing customers	1	2	3	4	5	6	7
You mainly address the same customer base that you did in the past	1	2	3	4	5	6	7

Please indicate the extent to which you agree with the following statements	***Strongly disagree***						***Strongly agree***
Your firm plans to continue working with this partner for a long time	1	2	3	4	5	6	7

Please indicate the extent to which you agree with the following statements	***Strongly disagree***						***Strongly agree***
Generally, I have a positive opinion of luxury products	1	2	3	4	5	6	7

For how long has the alliance been running/operating? ……years …….months

How much time is left in your alliance contract with this partner? …….years ……months

Has your firm been engaged to your alliance partner in relational ties (e.g. licensing arrangement, equity joint ventures, supply partnerships, R&D contract, technology development projects…) established before the focal alliance venture?

Yes ☐ No ☐

If YES: How many? …….. And, for how many years prior to the formation of the focal alliance venture did these ties exist? …….

What governance structure does the alliance have?

a) Equity (i.e. independently 'incorporated' business, involving equity) ☐

b) Non-equity (i.e. contractual agreement without any equity arrangement) ☐

What is your alliance partner's nationality? …….

What is the approximate number of employees in: Your firm…… Your alliance partner……..

Please specify the main industry where your partner operates.....

Please specify the main industry where your firm operates ……..