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Thanks mum and dad to believe in me,

To you I dedicate this thesis.

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CHAPTER I

INTRODUCTION

1.1 Introduction

As we look at the structure of organizations from the middle years of the last century to nowadays, we observe a shift from vertically-integrated corporations to organizations that shrink their boundaries through the outsourcing of non-core activities and also open them to collaborations with other economic entities.

Such a shift appears to be a response to the changing competitive landscape characteristics. During the mass production era (1940-1960) the competitive context where firms operate, is characterized by low volatility of market demand, not differentiated products, highly integrated firms that operate in local industry and by a very low development of the information and communication technology (ICT). In such a context the vertically-integrated organizational structure enables firms to achieve high level of efficiency, high level of control and thus of costs, to produce high level of standardized volumes and thus to exploit the benefits of economy of scale. Then, the volatility of demand increases since the market ask for new and more differentiated products; also the liberalization of trade, finance, and investment across the world open vast new territories for the expansion of dynamic enterprises; and we observe the boom of the ICT technologies that open new frontiers for inter-firm communication. These changes of the competitive environment, also in conjunction with the emergence of intermediate markets, increase the firm's trend of externalizing, delocalizing of economic activities and also of collaborating with complementary firms. Indeed as a response to the increased competitive pressures, the rapidity of technological change, and the dispersion of knowledge across different organizations and geographic markets (Hoetker, 2005; Teece, 1992), the organizational structure of the firm shifts from a highly integrated to a networking structure. Business networking or inter-firm networking can be defined as "modes of organizing economic activities through inter-firm coordination and cooperation of specialized organizational units" (Soda and Grandori, 1995). The business-networking trend can be found both in the business and in the research field.

In the business field it is evidenced by the growing announcements over the last two decades of different kinds of business agreements. For example the past two decades

have witnessed an unprecedented growth worldwide in the number of strategic alliances (Contractor and Lorange, 1988; Dyer, Kale, and Singh, 2001; Gulati, 1995; Koka and Prescott, 2002). The number of alliances exploded to more than 10,200 in 2000 alone (Schifrin, 2001). Many of the world's largest companies have from 20 percent to 50 percent of their assets tied up in alliances (Thompson, 2004). Also, high levels of outsourcing to very competent, independently operating suppliers, increased dramatically during the 1990s, especially in complex assembly sectors such as electronics and motor vehicles. At the same time, the mergers and acquisitions in the 1990s represent the fifth merger wave of the twentieth century and their size and number suggest that the decade of the 1990s might be remembered for "megamerger mania" (Hitt, Harrison, and Ireland, 2001).

On the other hand, as a reflection of the increasing importance of inter-firm relationships, even research focus moved from viewing firms as autonomous entities striving for competitive advantage to networks of relationships in which firms are embedded and that profoundly influence their conduct and performance (Gulati et al., 2000). Many studies both in the operations and strategic management literature focus on different kinds of network forms (e.g. sub-contracting, outsourcing, franchising, alliances, mergers and acquisitions) and investigate the strategic issues embedded in such kinds of governance mode.

Thus, since the strategic relevance of business networking that have been witnessed both in the practitioner and academicians fields, this study is focused on issues related to business networking, in order to give a contribution to both the two fields. Specifically I conduct both a literature and an empirical investigation regarding issues related to business networking in term of decisions, strategic intents, agreements and drivers with the final purpose of shed more light on the use of business networking as a strategic tool in nowadays economy.

The following section 1.2 briefly presents an overview on existing research on business networking. Then section 1.3 synthesizes the literature gaps and the corresponding purposes that I pursue in this study in order to fill these gaps. Then the corresponding research questions are derived and section 1.4 explains the research methods I adopt to face such issues. Finally section 1.5 gives a quick overview of the contents of this study and how they are structured.

1.2 Theoretical background

Many studies in both the strategic and operations management field suggests the strategic role of business networking as an industry solution to the competitive drivers today. Such drivers can be grouped in the following three main categories: efficiency, innovation and globalization (Mazzola et al., 2009). Also, many studies are focused on a specific kind of network form. In the operations management field, supply chains are the most studied network forms and research papers generally concerns the buyer-supplier relationship and/or supplier-supplier relationship. These studies generally aim at investigating the positive impact of specific characteristics of these kinds of business relationships (e.g. the duration of the relationship, the inter-organizational communication, the level of integration) on specific operations performance (e.g. cost, flexibility, innovativeness, quality and time) (Paulray et al., 2008). Also this stream of literature generally considers outsourcing as business networking agreement. On the other side, the strategic management field generally studies agreements that aim at fulfilling a specific business activity (e.g. alliances for research and development activities; joint ventures for marketing activities in foreign countries). Generally these studies focus on issue concerning the choice of partner, the specific characteristics of the agreement (e.g. duration, coordination mechanism) and the impact that they have on the performance of the relationship itself (Mitchell et al., 2002).

This thesis approaches the analysis of the vast literature and the set up of theoretical background by presenting in each chapter the main theoretical background around the three main research issues investigated. Specifically Chapter II presents the main theories about networking issues and discusses many studies that give support to the way by which different kinds of networking decisions allow the firm to achieve a competitive advantage by presenting both market-based and resource-based arguments. Chapter III provides an overview of both the operations and the strategic management studies that take in consideration business objectives, networking decisions and business agreements. Finally Chapter IV presents theory-based arguments that support the impact that different drivers have on the governance choice.

1.3 Literature gaps, purposes of the study and research questions

Despite the relevant amount of literature research on business networking, none of these studies identifies the key networking decisions embedded in every kind of business relationship, independently if it regards a relationship with a supplier, a customer, or a competitor. In order to fill this gap this study aim at identifying the main typologies of networking decisions that constitute the main characteristics of every kind of business relationship and how firms are using such decisions in order to implement their business strategy. Indeed, despite it is well recognized in literature the strategic importance of business networking for the achievement of competitive advantage (Porter, 1996), very few studies deal with the issue of business strategy alignment with business networking decisions.

Also, most of the studies are focused on a specific agreement (e.g. outsourcing, alliance, joint venture) and on the analysis that specific characteristics (e.g. duration, asset specificity) of the agreement can have on specific measures of performance (e.g. business performance, operations performance, agreement performance). None of these studies analyze the overall agreements portfolio, the overall kinds of decisions undertaken about the characteristics of the relationships and the overall kinds of strategic intents that the firm pursue in accordance with its business strategy. In order to fill this gap and to give a contribution to the business networking literature this study explores the linkages existing between the overall agreements, networking decisions and strategic intents that are embedded in a firm networking strategy. Also this research aims at individualizing different clusters of such linkages in order to suggest a classification of business networking strategy.

Finally, since Williamson (1975) proposed the drivers (i.e. asset specificity, frequency of the transaction, uncertainty) that lead to the choice of governance mode in a continuum from market to hierarchy (i.e. market, hybrid and hierarchy), many studies approached the issue of governance choice. Anyway, most of these studies are generally focused on the choice between two governance modes (e.g. make or buy).

In order to contribute to this stream of research, this study aim at investigating if and how different kinds of drivers impact on the choice among the following three different governance mode in a continuum from market to hierarchy: make, make together and buy.

By summing up, this study aims at looking at the business networking as a whole strategy that firm can use to pursue their business strategy and that I refer as networking strategy. Accordingly, this study aims at 1) identifying the main decisional dimensions that constitute a networking strategy and understanding if and how each of this decisional dimension allow the firm to pursue its business strategy; 2) classifying networking strategy by the identification of different kinds of clusters that represent different linkages among business agreements, business networking decisions and strategic intents; 3) exploring if and how different kinds of internal, transactional, and external factors act in respect to the networking decision regarding the choice among three main governance modes in a continuum from market to hierarchy.

These purposes can be expressed by the following research questions:

(1) What are the main decisions that constitute a networking strategy and how do they act for the achievement of firm competitive advantage?

(2) What are the linkages (and their multiplicity) among intents, decisions, and agreements?

(3) What are the main drivers that generally lead a firm to choose a specific governance mode for a specific business activity in a continuum from market to hierarchy?

The three core chapters of this thesis will be each focused in one of the three questions above mentioned. Each question will be discussed and justified. A proper research method will be designed in order to answer to each of them.

1.4 Research methodology

In order to pursue the research objectives declared in the last section I adopt both a theoretical and an empirical research approach. Accordingly three main research phases emerge, each of who aim at addressing each of the research purposes and answering to the relative research questions. The methodology adopted to face each issue is initially just theoretical and becomes both theoretical and empirical in the last two phases of the research.

In the first phase, the study starts with a review of the literature that aims at answering to the first research question by identifying the most discussed issues in the literature about business networking. The resulting results consist of three decisional dimensions that constitute what we refer as networking strategy decisional

dimensions. Then a systematic literature analysis is conducted in order to understand how these networking dimensions act for the competitive advantage achievement. Specifically the literature analysis consists in a review of the literature in order to find arguments that link each of the elements of specificity belonging to the networking strategy construct to each of the elements of specificity belonging to the competitive advantage construct. This analysis is repeated twice since I adopt two different perspectives for the operationalization of the competitive advantage construct. Indeed, the integration of different perspectives on strategy provides a more realistic view, and thus a better theory of the practical problems of strategic management (Elfring and Volberda, 2004; Mintzberg et al., 1998).

The second phase of the research adopts both a theoretical and an empirical approach. The theoretical approach consists in the identification of three main constructs to be investigated: the business agreement, the networking decisions and the strategic intents. Such identification is first suggested by the results coming from the second phase of the research and on a systematic review of journals belonging to both the operations and strategic management literature. Once the theoretical constructs have been identified an empirical approach is adopted in order to build theories about the linkages (and their multiplicity) existing among these constructs. Specifically the empirical research method adopted is a multiple case study analysis. Indeed because the purpose of the study in this phase is to build theory by the identification of a set of relationships and specific predictions (Wacker, 1998), the adoption of case research has consistently been recognized one of the most powerful research method in the development of new theory (Voss, 2009). The case studies are based on primary data source. As primary data it refers as data collected by who is conducting the research. In this study data are collected by direct interviews with managers of the case study companies. Approaching the investigated issue by a case study research with primary data source enables the adoption of a managerial perspective.

The third phase of the research also adopts both a theoretical and an empirical approach. The theoretical approach consists on a review of literature that aims at building a conceptual model where the linkages among the constructs are expressed by theory-based hypothesis. Then an empirical approach is adopted to test the developed hypothesis. It consists on the application of an econometric model (i.e. ordered logistic regression) on a secondary data set. Secondary data can be obtained

from various sources (Hussey and Hussey, 1997) and they are one of the cheapest and easiest means of access to companies' information. This study uses secondary data collected from the Security Data Companies (SDC) database and from ORBIS. A brief descriptions of them is provided in section 4.3.

Table 1 summarizes the three main phases of the study, the research question faced in each phase and the research approaches adopted to face such issue.

Research phase	Research question	Research approach
1	• What are the main decisions that constitute a networking strategy and how do they act for the achievement of firm competitive advantage?	• Literature review • Literature analysis
2	• What are the linkages (and their multiplicity) among intents, decisions, and agreements?	• Literature review • Building theories through a multiple case studies analysis based on primary data source
3	• What are the main drivers that generally lead a firm to choose a specific governance mode for a specific business activity in a continuum from market to hierarchy?	• Literature review • Testing theory-based hypothesis through a statistical analysis on secondary data source

Table 1. Research methodology: phases, questions and approaches

1.5 Thesis outline

This study is organized into five chapters. The present chapter, Chapter I, presents reasons that motivate the strategic relevance of business networking in today's business environment and gives a quick overview on the existing research literature about this topic. Finally it individualizes the literature gaps and presents the research purposes and research questions. Finally, it gives a brief overview of the research process and methods adopted in this thesis to answers to the research questions.

Chapter II presents the first research phase of the present study (Table 1). It presents the theoretical foundations of the study describing the most influential theories that approaches in different ways issues regarding firm business networking. Then it presents the literature analysis conducted for the definition of the networking strategy and the understanding of the role played by this kind of strategy for the competitive advantage achievement.

Chapter III presents the second phase of the research (Table 1). It begins with by a review of literature of both operations management and strategic management studies that consider business agreements, networking decisions and strategic intents. Then it presents the multiple case study method adopted to find insights of the linkages existing among these three constructs. Finally it describes the resulting four archetypes of networking strategy.

Chapter IV presents the third phase of the research (Table 1). It begins with a review of literature about governance choice and drivers. Then it derives the conceptual model that aim at filling the gap of the reported literature and it presents the literature based hypothesis that explain how each of the drivers individualized in the model lead to the choice of a certain governance mode rather then an other. Thus the research method is presented, the secondary data source sample is discussed and the hypotheses are tested through the ordered logistic regression econometric model. The results of the analysis are finally discussed and conclusions are drawn.

The final chapter begins with the summary and conclusions of the study. Hence, the main theoretical and managerial implications and contributions of this study are presented. Finally, it outlines the limitation of the study and suggests further research development.

CHAPTER II

MARKET-BASED AND RESOURCE-BASED PERSPECTIVES IN NETWORKING STRATEGY: THEORETICAL BACKGROUND AND LITERATURE ANALYSIS

2.1 Theoretical foundation of business networking

Since Coase (1937) has addressed the issue about the existence and the dimension of the firm, different literature streams have tried to understand the nature of the firm and its boundaries definition. Moreover, theoretical and empirical studies concerning firm boundary decisions focused on the ability of the various "theories of the firm" to predict or explain existing firm boundaries (Harrigan, 1986; Masten et al., 1989; Novak and Eppinger, 2001). The complexity of boundary decisions has intensified in recent years stimulated by increased competitive pressures, the rapidity of technological change, and the dispersion of knowledge across different organizations and geographic markets (Hoetker, 2005; Teece, 1992). The research presented in this chapter aims at exploring the literature based arguments that study the strategic role played by firm's networking decisions.

By reviewing production economics as well as strategic and operations management scientific literature on firm networking, I individualized the five theories that approaches in different way issues regarding firm business networking: the transaction cost theory approach (Coase, 1937; Williamson, 1975), the resource based view (Barney, 1991; Penrose, 1959; Wernerfelt, 1984;), the relational theory (Dyer, 1998), the co-opetition approach (Brandenburger and Nalebuff, 1998) and the operational view (Chopra and Meindl 2007; Sturgeon, 2003).

The **Transaction Cost theory (TCT)** proposes a framework for the choice of different governance structures in a continuum from market to hierarchy. This framework is based on the premise that firm organize their business activities in order to minimize the cost of doing transaction (i.e. the cost of economic exchange), that is caused by the cost of the transaction its self and the risk of having a business relationship. This risk is mainly due to the opportunism risk and the bounded rationality (Simon, 1957). Williamson (1975) individualizes three main drivers that a firm should be considered in order to minimize such cost: the uncertainty and the

frequency of the transaction, and the asset specificity of the investment carried out by the parties for the specific transaction. The higher (lower) the level of these drivers the more hierarchy oriented the governance structure should be in order to minimize the cost of the transaction.

While the TCT views firms as a way to organize business activities while minimizing transaction costs; the **Resource based theory (RBT)** explains firms as bundles of resources (Penrose, 1959) that are considered as the source of company's competitive advantage in the case they are valuable, rare, inimitable and not-substitutable (VRIN). From this perspective inter-firm business relationships allow firms to create additional value by the synergies developed through the unique pooling of bundles of resources. Basically the RBT shifts the focus from cost to value consideration about business networking.

The **Relational** theory emphasizes the strategic dimension of business relationships characterized by relational governance mechanism. Specifically, a growing body of researchers (e.g., Dyer and Singh, 1998; Lorenzoni and Lipparini, 1999) analyzes how competitive advantage may result from external relationships governed by informal mechanisms such as trust. This ''relational view'' emphasises the benefits of relational partnership type, the management of the relationships between buyers and sellers, focusing on aspects such as mutuality, win–win, trust, information sharing, and risk and benefit sharing. Basically they state that relational tight with business partners can generate a "relational rent" that is defined as ''a supernormal profit jointly generated in an exchange relationship that cannot be generated by either firm in isolation and can only be created through the joint idiosyncratic contributions of the specific alliance partners'' (Dyer and Singh, 1998). Specifically they individualize four sources of relational rent: (1) inter-firm specific assets; (2) inter-firm knowledge-sharing routines; (3) complementary resource endowments; and (4) effective governance. According to this view, self-enforcing safeguards (e.g., trust) are preferable to third-party safeguards (e.g., legal contracts), and informal self-enforcing safeguards (e.g., trust) are preferable to formal self-enforcing safeguards (e.g., financial hostages) owing to lower marginal cost and the difficulty of imitation. On the contrary, arm's-length market relationships are incapable of generating such relational rents because there is nothing idiosyncratic about such an exchange relationship, and they are not rare and difficult to imitate. Thus, according to the

relational approach, companies make relational business networking in order to create unique and valuable synergies that will improve their competitive position.

Brandenburger and Nalebuff, (1998) suggest a very interesting network analysis perspective that they refer as the **Co-opetition** approach. By recognizing that nowadays competition is not among firms but among firm networks, the authors have proposed the idea of the "value-net". The value net consists of the company, its suppliers and customers, competitors and "complementors"; this last player represents the original part of the co-opetition approach. Indeed, the complementor is able to get the products of the firm more competitive and can be represented by a company or a set of companies, who help the firm to build more value for the final customers. The added value is defined as "the difference of the dimension of the cake when you are in the game compared when you are not", meaning that companies should look for partners who are able to make bigger the whole cake. Thus, according to this approach, business networking enables firms to be more competitive by allowing them to create and increase the value of their product/service.

Finally, the **Operational** approach mainly refers to the work of Sturgeon (2002). This approach is more oriented toward an operations management point of view, that is the management of activities and resources required by an organisation to produce goods or services for customers. According to this perspective the most important characteristics of the contemporary economies are production and market globalization. Globalization has transformed the way firms manage manufacturing operations. The most relevant change is the vertical disintegration of transnational corporations. Organisations are redefining their core competencies to focus on innovation, product strategy, and the highest value-added segments of manufacturing and services. In order to obtain such a vertical disintegration they are reducing their direct ownership of ‘non-core' activities. This kind of vision brings to the development of different kinds of network forms. The new concept of supply networks is settled down in response to manufacturing and production needs. Thus, from an operational point of view business networking practices allow firm to get production as efficient as possible in a global and increasingly competitive environment.

The theories so far discussed shed some light on the linkage existing between specific dimension of business networking and the obtainment of specific strategic advantage. Specifically, the TCT links the business networking dimension of governance mode to adopt in a continuum from market to hierarchy with the strategic advantage of

transaction cost minimization. The RBT links the business-networking dimension of inter-firm cooperation with the strategic advantage of the creation new and unique resources. The relational theory draws a linkage between the networking dimension of relational governance mechanism and the strategic advantage of relational rent. The co-opetition approach links the business networking dimension of collaborative relationships with "complementors" with the strategic advantage of increasing the value of their product/service. Finally the operational approach traces a linkage between the networking dimension of make or buy decisions for manufacturing operations with the strategic advantage of increasing the efficiency of supply networks in response to new market and competitive environment. The review of these influential theories in the domain of business networking underlines two gaps that deserve more research strengths. First, each of these theories is focused in a particular dimension of business networking, while none of this theories considers all the business networking dimensions that both singularly and complementary play a strategic role in the achievement of competitive advantage. In this sense the literature suffers the lack of the complementary effect that different networking dimension play in the gaining of competitive advantage. Second, they express the advantage that firms can gain through a univocal and often general measure (e.g. unique resources, relational rent). Thus, in contrast with the networking dimension that is very specific (e.g. make vs. buy governance mode, relational vs. arm's-length market governance mechanism), the strategic advantage dimension is expressed through high-level concept. Also, by considering just one and generic advantage the literature does not explain what and how many sources of competitive advantage can be achieved by business networking practices.

Based on the premise of the existence of these literature gaps, the research presented in this chapter aims at answering to the following research question: what are the main decisions that constitute a networking strategy and how do they act for the achievement of firm competitive advantage?

In an attempt to answer to the upon stated research question, I review and analyze the literature with a two-fold intent. First, I give a definition of networking strategy and individualize the strategic decisions dimensions that constitute them. Second, I analyze how networking strategies allow firms to gain competitive advantages from two different perspectives that refer to the two main schools of thought regarding competitive advantage creation: the positioning school (Porter, 1985), and the

resource-based view school (Barney, 1991; 1997). Indeed, in accordance with suggestions by Elfring and Volberda (2004) and Mintzberg et al. (1998) and, the research presented in this chapter is based on the premise that integrating different perspectives on strategy provides a more realistic view, and thus a better theory, of the practical problems of strategic management. The research developed in this chapter gives a more comprehensive, detailed, and managerially oriented knowledge regarding the linkages between networking strategies and competitive advantage creation.

This chapter is structured as follows. The following section 2.2 presents the research method I adopt to develop and investigate the issues related to the conceptual model (Figure 1). Section 2.3 gives a definition of networking strategy and the decision dimensions that constitute it. Section 2.4 and 2.5 develop the propositions resulting from the literature-based arguments that link the networking strategy decision dimensions with different sources of competitive advantage derived from the positioning school and the resource-based theory, respectively. Finally section 2.6 draws conclusions and contributions of the literature-based research presented in this chapter.

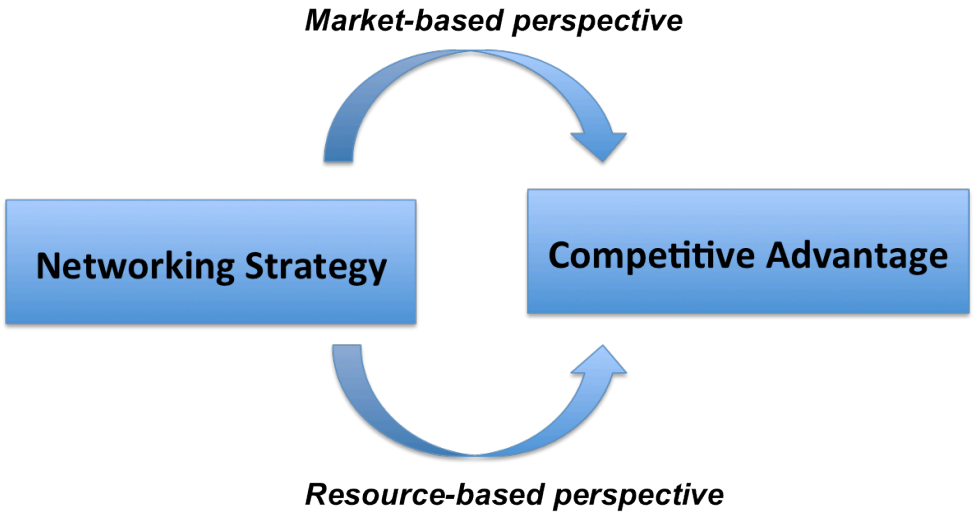


Figure 1. Conceptual model

2.2 Research method: literature review and analysis

In order to develop propositions regarding how networking strategy allows firms to get a competitive advantage from the market and resource based perspectives, I conduct a three-fold literature analysis.

First, I review the literature in order to give a detail definition of networking strategy and to operazionalize it. From this literature analysis I derive a networking strategy definition and the identification of three dimensions that identify the networking strategy its self.

Second, I review the literature in order to develop market-based arguments for competitive advantage creation. Specifically I first operationalize the competitive advantage construct through elements of specificity derived from positioning school considerations. Then, I systematically review the operations and strategic management literature in order to find arguments that explain how each of the three networking strategy dimensions strategically achieves each element of specificity derived from the positioning school. From this literature analysis I derive literature-based propositions that support the market-based perspective of the conceptual framework.

Finally, I review the literature in order to develop resource-based arguments for competitive advantage creation. Specifically I first operationalize the competitive advantage construct through elements of specificity derived from resource based school considerations. Then, I systematically review the Operations Management (OM) and Strategic Management (SM) literature in order to find arguments that explain how each of the three networking strategy dimensions strategically achieves each element of specificity derived from the resource based school. From this literature analysis I derive literature-based propositions that support the resource-based perspective of the conceptual framework.

Figure 2 anticipates the operationalization of the conceptual model illustrated in Figure 1, as resulting by the literature analysis presented in the next sections.

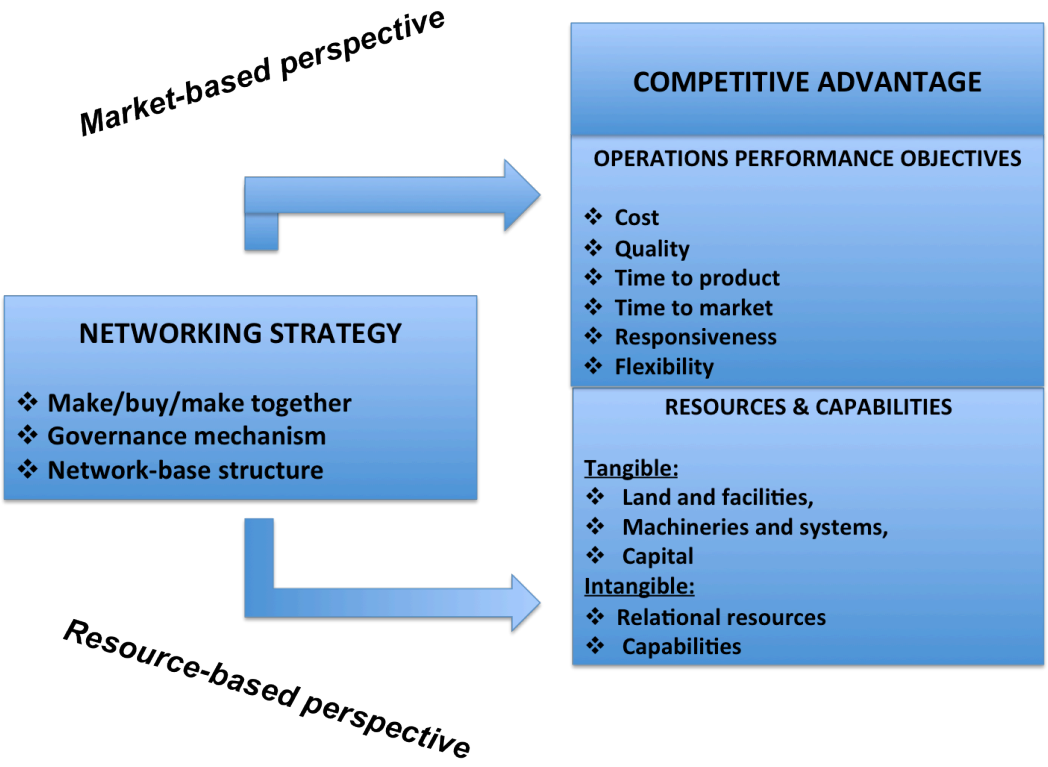


Figure 2. Conceptual model operationalized

2.3 Networking Strategy defined

I define Networking Strategy (NS) as the set of long-term decisions that determine the boundaries of the firm value-chain by defining its business relationships with one or more in-shore/off-shore partners/suppliers for the fulfillment of one or more business activities. In particular I individualize three dimensions along which networking decisions can be classified and that constitute the overall kinds of decisions belonging to a NS. These dimensions, which are an extension of those considered by (Nordin, 2008) for service sourcing, can be described as follows.

- *Make/Buy/Make together dimension* concerns the extent to which different operations are internally made (Make), externally sourced (Buy), or made with somebody else (Make together). Decisions along this dimension depends on whether operations are part of core or non-core business process, whether they are part of firm distinctive capabilities, their degree of complexity, specialization, standardization, etc. (Sturgeon, 2003). Different agreement solutions exist as results of such decision: takeover, merger and acquisitions (make decision); outsourcing and supply agreements (buy solution); joint venture, alliance, supplier and/or

customer integration (make together solution).

- *Governance mechanism dimension* concerns the intensity of the relationship between the firm and its partners/suppliers: the more intensive the bound is, the more relational the governance mechanism will be (Johnston and Staughton, 2009; Lee and Johnson, 2010); the less intensive the bound is, the more transactional the governance mechanism will be (Hoetker and Mellewigt, 2009). A relational governance mechanism is characterized by long term contracting relationship, by strategic nature of exchanged information, and by informal control mechanisms (trust, reciprocity, reputation, and peer pressure).
- *Network base-structure dimension* concerns the topography of the network coming from the focal firm business relationships. It thus regards the type and the number of partners choose (that are the node of the network), their localization respect to the focal firm (that are the position of the node of the network and define its international expansion), the relationships (e.g. the degree of leadership, collaboration etc.) between the focal firm and its partners and between the partners themselves (that define the existence and the kinds of linkages between the nodes of the network) (Wu and Choi, 2005). The higher the number of suppliers/partners that execute the same business activity and the more international are their location the more extended and globalized the network-base structure will be. Moreover, the more the focal firm is connected with its partners and the less the partners are connected each other, the more centralized the network-base structure will be.

Figure 3 graphically represents the identification of a networking strategy through the definition of different decisions along the three main networking decision dimensions.

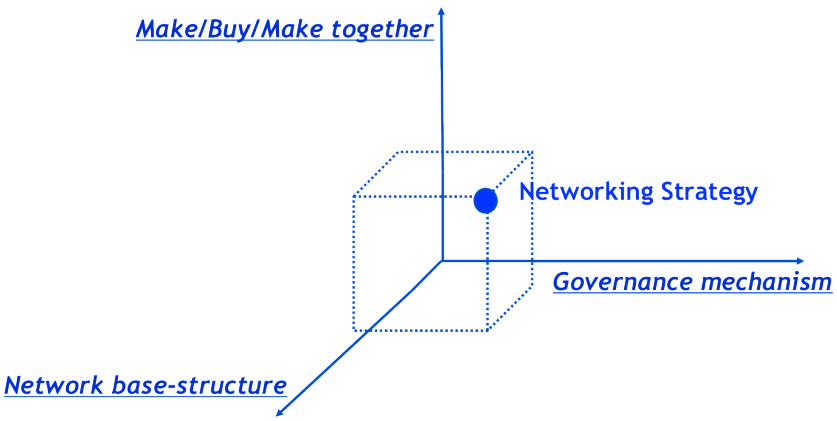


Figure 3. Networking strategy dimensions

2.4 Market-based arguments for networking strategy

Understanding the characteristics of the market and the positions of competitors in the segment that the firm wishes to serve is the first step in making networking decision from a market-based perspective. According to the classical positioning school, once the firm assesses market requirements and competitor positioning, it will be able to define its competitive strategy such as differentiation, cost leadership, and focus (Porter, 1980). Such strategy should be then operationalized in terms of performance objectives for its operations, i.e. "the aspects of operations performance that satisfy market requirements and therefore that the operation is expected to pursue" (Slack and Lewis, 2002). In the field of operations and supply chain management there is a commonly agreement about the list of competitive priorities. Firms in manufacturing industries have four primary competitive priorities in their end-market: cost, quality, delivery time and reliability, and flexibility (Ward et al., 1998). Specifically, delivery time and reliability can be further operationalized into three time based performance variables that are: time to market, time to product and responsiveness (Handfield, 1995). Once the firm established its operations performance objectives that satisfy market requirements it is likely that new needs for operations will emerge. I argue that firms can cover these needs by implementing a networking strategy that allow them to pursue those operations needs, that I refer as operations needs drivers, since they lead the specific characteristics of networking decisions. This approach is inspired by the one proposed by Nordin (2008) for service sourcing decisions, where he explains how specific decisions of service sourcing pursue specific operations competitive priorities, allowing the firm to achieve and maintain advantage over competitors.

Figure 4 describes the process through whom networking decision are derived from a market-based perspective. Specifically, starting from the market requirements and competitors positioning, the firm defines its competitive strategy, that is then operationalized into operations performance objectives, from which the firm finally individualizes the operations performance needs that will lead to adopt a specific networking strategy.

Figure 4. Market-based process for networking strategy definition

Summing up, the market-based part of the conceptual model (Figure 1) can be can be operationalized as reported in Figure 5. Such an operationalization allows to formulate the considerations presented in the following sections. These literature-based considerations explain the way through which specific decisions along the above identified networking decision dimensions (i.e. make/buy/make together, governance mechanism; network based-structure) allow firm to pursue each of the above identified OPO (i.e. cost, quality, time to market, time to product and responsiveness, and flexibility).

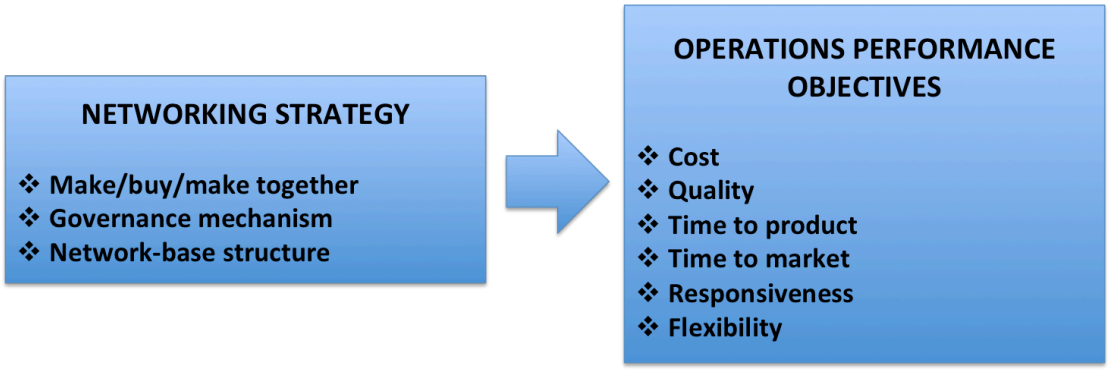


Figure 5. Conceptual model: market-based part operationalization

2.4.1 Reducing cost

If a firm fails to achieve sufficient production scale to overcome operating expenditures disadvantages, it can rely on intermediate markets that are able to minimize production cost and to attain economies of scale (Holcomb and Hitt, 2007). Thus, according to TCT (Williamson, 1975), a *Buy solution* can enable the firm tp reduce operating costs by the attainment of economies of scale when transaction cost due to the externalization to market are smaller than internal production costs. In a different way, also a *Make together solution* can enable the firm to reduce operating costs by both horizontal and vertical relationships. Indeed from horizontal side, firms could gain greater efficiency through alliances (Mitchell et al., 2002) by sharing with selected partner/s overhead costs of activity/process that are relation specific. From the vertical side, the objective of cost reduction can be obtained by supplier development investments. Indeed, according to the relational approach, investments are made by buyers in the development of suppliers in order to accrue tangible benefits such as reduced cost, greater quality and flexibility, and more reliable delivery (Dyer, 1996; Dyer and Singh, 1998; Madhok and Tallman, 1998). In the case of buy solution, the objective of lowering costs generally lead firms to build transactional relationship (*Governance mechanism*) with their suppliers in order to maintain and exploit the competitive market mechanism that lead specialized firm to offer their price as lower as possible. On the contrary, in the case of make together solution the firm will likely to build a more relational bond with its partners in order to better manage the relation specific activities that will lead the companies to obtain economies of scale (Krause, Handfield, and Tyler, 2007). When the firm decides to adopt the buy solution in order to reduce the costs of a specific non core activity, it should refer to a high number of suppliers (*Network-base structure*) for the same activity and build among them competing relationships in order to lead them to keep costs low due to the competitive pressure. Wu and Choi (2005) identify this kind of low cost relationship mechanism as "dog-fighting" supplier-supplier relationship archetype. In this kind of network structure the firm has clearly a high level of leadership. Also, cost can be reduced by supplier involvement investments with a low number of selected suppliers (*Make together approach* for vertical relationship). In both cases the location of the network actors should be designed with the objective of minimizing operating expenditure, such as labor cost but also transportation and

logistic costs (Galbreth and Blackburn, 2010). Different considerations should be made if the objective of the firm is to lower the capital expenditure of an investment. In this case, a *Make together solution* can enable the firm to share the risk of the investment with other partners and asset specificity may serve as a catalyst for inter-firm cooperation that reduces the incentive to engage in opportunism. The firm will share the risk of the investment and obtain benefits from resources and capacities pooling. These conditions reduce the costs of using capabilities from intermediate markets (Combs and Ketchen, 1999; Teece, 1992). The number of partners involved in the joint investment will depend on the level of capital expenditure for the investment and on the capital availability of each partner (*Network-base structure*). Also, the network will be more/less centralized depending on the level of investment of each partner: if each partner invests the same quote it is more likely that each partner will have the same bargaining power, and thus a symmetric network will emerge.
Therefore, the following proposition may be stated:

P1*: A company who wishes to achieve cost-related operation performance objectives in order to obtain competitive advantage is expected to make a set of decisions along all the identified networking strategy dimensions.*

2.4.2 Improving quality

From an operational point of view the product/service quality directly depends on the quality of the process. For this reason I identify the quality of the product/service not like product conformance to market requirements, but like the quality of the production process. In order to improve the quality of production process, a *Make solution* could be adopted by employing high skilled workforce if the process is labor intensive or by investing in more technological machinery if the process is capital intensive. Depending on the kind of workforce/machinery it would be more or less difficult to acquire these in the market. If these are not available but there are specialized firm that own these resources, than a *Buy solution* could endow the firm with them. Moreover if the pooling of the firm workforce/machineries resources with other/s firms ones could create a unique synergic effect that improve the production process quality, than a *Make together solution* is suggested. Also, high supply chain

integration intensity directly influences the product quality capability (Rosenzweig, 2003). According to the total quality management literature (Anderson et al., 1994), manufacturers cannot consistently produce quality products (Garvin, 1987) without effective collaboration among supply chain entities (*Governance mechanism*). When supply chain entities work in harmony over time, transaction-specific know-how accumulates. It is important that the collaboration is intensive not only between buyer and suppliers but also between the suppliers that collaborate to supply the same buyer (Wu and Choi, 2005). Finally, as already discussed, the higher the intensity of relationships between buyer and its suppliers is (i.e. governed by informal mechanism such as trust), the higher the possibility to obtain relational rent is (Dyer and Singh, 1998). It means that the firm should select over time the best supplier, with whom it is able to create the highest value, and thus to continually improve the quality of its design and manufacturing processes.
Therefore, the following proposition may be stated:

P2. *A company who wishes to achieve quality-related operation performance objectives in order to obtain competitive advantage is expected to make a set of decisions along all the identified networking strategy dimensions.*

2.4.3 Reducing time to product

Depending on the firm planning strategy, the time to product (the overall product delivery cycle, i.e. the fulfillment process) can vary. Indeed the procurement and manufacturing lead-time components depend on the supply chain management cycles that can be pushed by the firm forecast or pulled by customer orders. Generally a supply chain is managed with a mixed push-pull approach, where the reversal point depends on the intrinsic value of the product. The higher the value of the product is, the more pull the supply chain and the higher the time to product will be. The manufacturing lead-time depends on the process performance of the facility that realizes the product. It means that the more the process is efficient and effective, the shorter the manufacturing lead-time will be. Thus if the market can offer a superior performance, in term of manufacturing lead time, a firm should choose a *Buy solution* while staying careful to externalizes processes that have a low intellectual property risk (Sturgeon, 2003). On the other side, the objective of reducing the delivery time

could lead a firm to adopt a *Make together solution*. Indeed if a company decides to be closer to its customers in order to reduce the product/service delivery time, the collaboration with partners located near to customers (*Network-base structure*) could enable such time reduction. The more the firm is well coordinated with its suppliers and the nearer they are located, the shorter the procurement lead-time will be. It is also true that a lead firm that is located close to its suppliers will be able to implement a just in time strategy and to achieve lower procurement lead times. Accordingly, These the more relational the bond between a firm and its suppliers and the nearer the firm and its suppliers are, the shorter the procurement lead-time will be. Thus the objective of reducing procurement lead-time should influence the *Governance mechanism* that a firm establishes with its supply base and the location of its suppliers.
Therefore, the following proposition may be stated:

P3. *A company who wishes to achieve time to product-related operation performance objectives in order to obtain competitive advantage is expected to make a set of decisions along all the identified networking strategy dimensions.*

2.4.4 Reducing time to market

Empirical investigations have shown that in complex assembly sectors, such as electronics, one of the main advantages of value chain modularity, characterized by high level of outsourcing to very competent and independently operating suppliers, is the possibility to reduce the time to market of new products (Berger, 2005). This means that a *Buy solution* for product components may enable a firm to reduce the time to market. Moreover the operations management literature suggests that external strategic design integration (with customers and suppliers) engenders quicker product development and introduction times. Indeed the strategic collaboration between a firm and its suppliers during the design phase reduces the product development time by ensuring a match between what the supplier provides and what the firm actually needs (*Governance mechanism*). Supplier early involvement helps accelerate the process by eliminating steps, preventing delays, presenting opportunities for simplification and parallel processing, and speeding up the times for ramp-up manufacturing (Wheelwright and Clark, 1992). At the same time a strategic collaboration between a firm and its customers reduces the product introduction time because the product has

been developed according to market requirements and thus it is likely that the new product will be well accepted by the market.
Therefore, the following proposition may be stated:

P4. *A company who wishes to achieve time to market-related operation performance objectives in order to obtain competitive advantage is expected to make a set of decisions along all the identified networking strategy dimensions.*

2.4.5 Improving responsiveness

An empirical investigation conducted by Droge et al. (2004) in the American automotive sector, suggests that external strategic design integration, which reaches across firm boundaries to involve suppliers and customers in the new product development process, is vital in ensuring responsiveness to customers after the product launch. Regarding the integration with customers, they suggest that building a collaborative relationship with customers ensures the company to stay near to its customer in a way that enable the firm to know its customer needs and complaints, and thus improving the overall responsiveness performance (*Governance mechanism*). Regarding the integration with suppliers they suggest that building trust and commitment with first tier suppliers ensures the production and the delivery of systems and sub-assemblies in a timely fashion, and thus enables the firm to improve its responsiveness by improving the responsiveness to customers (Chopra and Meindl, 2007). The *Network-base structure* plays an important role in ensuring the focal firm responsiveness to its customers (Goodman et al., 1995). Supplier responsiveness is viewed as the degree of promptness and accuracy of the supplier's response to the focal company's requests for new requirements. Further, a close relationship and open communication between the focal company and its suppliers is what really leads to supplier responsiveness (Liker and Choi, 2004). Most likely this is the reason why in many industries a widespread use of ''preferred'' suppliers emerge. By working with a limited number of preferred suppliers for consolidated purchases, the focal company can be more effective communicating its needs and can better induce the suppliers to be more responsive to its immediate needs. Single sourcing provides greater responsiveness and flexibility due to the closer communication linkages between the focal company and its supplier (Larson and Kulchitsky, 1998) and a good relationship

between the focal company and its suppliers is key in improving supplier responsiveness and thus focal firm responsiveness to its customers (*Governance mechanism*) (Handfield and Bechtel, 2002). The "just-in-time" purchasing strategy also suggests that the nearer the focal firm is to its suppliers the more responsive the supply base is. Thus a local network-base structure is expected if the firm aim at improving its responsiveness.
Therefore, the following proposition may be stated:

P5. *A company who wishes to achieve responsiveness-related operation performance objectives in order to obtain competitive advantage is expected to make a set of decisions along all the identified networking strategy dimensions.*

2.4.6 Improving flexibility

Different networking decisions can affect different dimensions of flexibility. For example, the product or service flexibility is a concept very close to the time to market. Indeed when a firm is able to achieve a very small time to market, it will be able to introduce novel product or service in short time. It follows that a *Buy solution* for product components enables the firm to create new product at low cost: it should have been definitely impossible for Apple to introduce the iPod at the price it had, if the firm had to design and produce each component internally. Also, volume flexibility depends on networking decisions. Considering the supply base of a focal firm, its ability to change its production capacity quickly and at low cost will also depend on the production capacity of its suppliers (*Network-base structure*). The more the number of suppliers for each of the component that the firm buys is, the more it will be able to increase its capacity when needed. Of course, the number of suppliers for each component should also depends on the component characteristics such as its degree of standardization, its maturity level, and its volume request (Sturgeon, 2003). Finally, even the delivery flexibility could be enabled thanks to networking decisions. Considering generic part inventories, because relatively standard, they can be taken back by component suppliers or reused by contract manufacturers, with permission, for producing products for other customers. This allows the firm to change the delivery dates of the orders it planned with its suppliers. Indeed, if the lead firm postpones its orders, the standard component suppliers will be able to replace that

orders to other customers; while, if the lead firms requires an anticipate delivery date the standard component suppliers will be able to use the components that other customers postponed. Clearly, the situations will be very different for custom part inventories that can be utilized just for the firm that order them.
Therefore, the following proposition may be stated:

P6. *A company who wishes to achieve flexibility-related operation performance objectives, in order to obtain competitive advantage is expected to make a set of decisions along all the identified networking strategy dimensions.*

2.5 Resource-based arguments for networking strategy

The aspect of resource orientation in a NS can be found in (Mitchell et al. 2002), "alliances allow firms to pool imperfectly tradable resources in order to gain greater efficiency in the use of existing resources as well as opportunities to create new resources". From a resource-based view a firm will make agreements with other firms in order to exploit new resources and to get advantage from the synergies coming from the pooling of them. Firm's resources can be classified into two main categories (Barney, 1991): tangible and intangible. A tangible resource is every kind of physical asset that a firm uses to run its operations, such as land, facilities, machineries and systems, technologies and capital. The intangible resources can be further divided into two classes: relational resources and capabilities. The relational ones are all the firm intangible instruments generated by the interaction between the firm and the environment. Among these there are the relationships with other firms and its reputation. A capability, instead, refers to the firm ability to have specific performance in a specific field, such as knowledge, skills and aptitudes. Moreover dynamic capabilities are the organizational and strategic routines by which firms achieve new resource configurations as markets emerge, collide, split, evolve and die (Eisenhardt and Martin, 2000). Among others, dynamic capabilities are recognized by literature as an important source of competitive advantage; for example by their indirect impact on competitive advantage through the creation of new operational routines (Cepeda and Vera, 2007). Barney (1991) argues that the firm resources that hold the potential of sustain competitive advantage, must have four attributes: (1) it must be *valuable*, in the sense that it exploit opportunities and/or neutralizes threats in a firm's

environment, (2) it must be *rare* among a firm's current and potential competition, (3) it must be *imperfectly imitable*, and (4) it must be *not substitutable* in the sense that there cannot be strategically equivalent substitutes for this resource that are valuable but neither rare or imperfectly imitable. In this research I refer to these kinds of resources as VRIN resources.

Figure 6 describes the process through whom networking decision are derived from a resource-based perspective. A firm that aims at achieving a competitive advantage over its competitors will start from the analysis of its resources endowment and will individualize the potential resources that it needs in order to create/obtain VRIN resources (i.e. resources needs drivers).

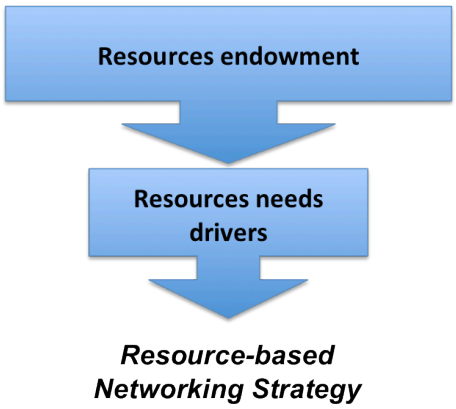


Figure 6. Resource-based process for networking strategy definition

Summing up, the resource-based part of our conceptual model (Figure 1), can be operationalized by decomposing the competitive strategy in resources and capabilities (R&C) needs that should drive NS decisions (Figure 7). Such operationalization allowed us to formulate the literature-based considerations presented in the next section. These considerations explain the way through which specific decisions along the above identified networking decision dimensions (i.e. make/buy/make together, governance mechanism; network based-structure) allow firm to pursue each of the above identified resources and capabilities (i.e. tangible resources: land and facilities, machineries and systems, capital; intangible resources: relational resources, capabilities).

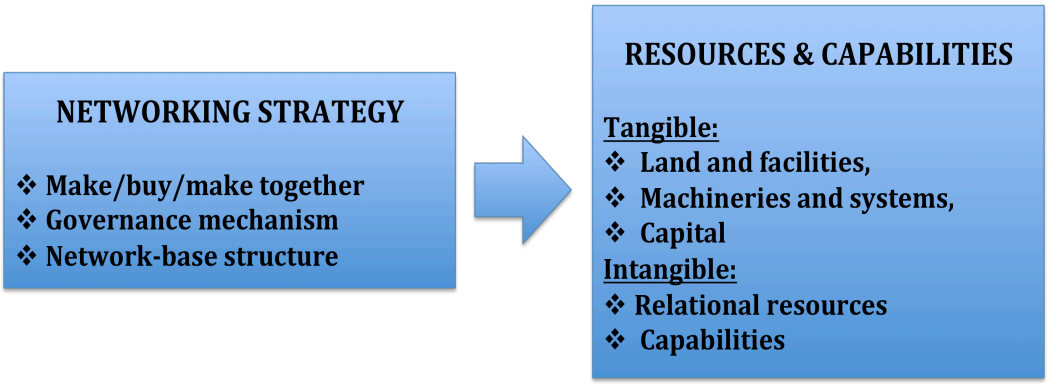


Figure 7. Conceptual model: resource-based part operationalization

2.5.1 Achieving VRIN tangible resources

Using data on the governance choices and performance of alliances in the German telecommunications industry, Hoetker and Mellewigt (2009) find that the optimal configuration of governance mechanisms depends on the assets involved in an alliance, with formal mechanisms best suited to property-based assets and relational governance best suited to knowledge-based assets. In other words a firm willing to achieve a competitive advantage through the tangible resources of its partners should build a transactional bond with them. However, in order to deeply investigate how tangible resources needs impact NS decisions, tangible resource categories should be considered. Production facilities are VRIN resources if they enable the firm to achieve a competitive advantage. Ferdows (2008) argues that there are two seemingly irreconcilable models for building successful production networks. One is the footloose manufacturing network, that is "continuing searching for a better factory inside or outside the company and moving production there", while the other is the rooted manufacturing network and advocates "developing deep roots, making long term commitment to each production site and giving it the resources to reach its full potential".

The former model is appropriate only when the product is turning into a commodity and the processes used for its production and delivery, are becoming more standardized and widely available. In reverse, companies that compete through producing unique products with proprietary production systems need the stability of the latter model to succeed. Accordingly, I argue that if a firm believes that proprietary capabilities in manufacturing are not significant sources of competitive advantage, than a *Buy solution* should be pursued in order to achieve low cost

benefits; otherwise if the firm competes with highly differentiated products that can only be made by proprietary production methods, a *Make solution* should be adopted. Moreover, recent alliances in the automotive sector suggest that a *Make together solution* can enable the partners to exploit the production and distribution facilities of each other. Indeed "the alliance would also allow Fiat Group and Chrysler to take advantage of each other's distribution networks and to fully optimize their respective manufacturing footprints and global supplier bases" (Fiat Group annual report, 2008). The land where a facility is located could have a strategic valence. The land is valuable if it is located in a country where there are low cost resources such as labor and energy and where the political factors influencing operations costs, such as government financial assistance and local tax are low. At the same time the land where locate for example R&D activities is valuable if in that land there exists other R&D centers for which knowledge sharing routines can be implemented. It is rare if no others competitors can have access to the same territory. It is imperfectly imitable and not substitutable if the resources of that land are unique of that territory. Machineries and systems could provide a competitive advantage to a firm depending on their characteristics and on the extent to which they are VRIN. Machineries and systems are VRIN if they are not easily accessible in the market and are owned by few firms. In this case a firm should be interested to exploit these resources without develop them. This situation could lead a firm to make a strategic alliance with the partner that already own VRIN machineries and systems. In turn, the firm could offer some of its VRIN resources to the partner. "On the basis of the term sheet, the alliance, to be a key element of Chrysler's viability plan, would provide Chrysler with access to competitive, fuel-efficient vehicle platforms, power-trains, and components to be produced at Chrysler manufacturing sites" (Fiat Group annual report, 2008). This allow us to make the following consideration: a firm that wants to achieve a competitive advantage by using machineries and systems, should develop internally (*Make solution*) or with one or more partners (*Make together solution*), for example through a joint venture, machineries and systems that have the potential to provide a competitive advantage for the firm that uses them. When it comes to the capital resource needs and networking decisions, it is useful to cite (Holcomb and Hitt, 2007), which in their paper individualize three possible economic motives behind strategic outsourcing. First, firms pursuing strategic outsourcing through substitution benefit from financial capital (cash) exchanged for internal factors of production (e.g.

facilities, equipment, management and production personnel, etc.) when assets are transferred or sold to firms in intermediate markets. Second, with strategic outsourcing, firms can reduce or eliminate longer-term capital outlays to fund future investments related to the outsourced production. Third, increases in bureaucratic complexity increase the coordination costs associated with different factors of production, especially when specialization reduces the degrees of freedom. Thus, a *Buy solution* surely enables a firm to have a higher availability of working capital. On the other side, if we consider a firm that needs a high sum of capital to invest in a project, a *Make together solution* could enable the firm to have a higher availability of capital to spend in the project and to share the risk of the investment with its partners. The higher the number of partners is, the higher the capital availability for the project will be (*Network-base structure*).

However, coordination costs increase when the number of partners increases and, because partners are selected according to the specific project, their number will depend also from the availability of partners that have the right competence to participate it.

Therefore, the following proposition may be stated:

P7. *A company who wishes to achieve specific tangible VRIN resources in order to obtain competitive advantage is expected to make a set of decisions along all the identified networking strategy dimensions.*

2.5.2 Achieving VRIN intangible resources

The relational school suggests that relationships between firms can be a source of competitive advantage when they are able to build a relational rent. According to (Dyer and Singh, 1998), there are four sources of relational rent: inter-firm specific assets, inter-firm knowledge-sharing routines, complementary resource endowments, and effective governance.

Analogously, (Holcomb and Hitt, 2007) individualize three characteristics that partners should have in order to build a successful relationship with the firm. Accordingly, a firm who wishes to achieve a competitive advantage through relationships should build a relationship network characterized by partners/suppliers that have complementary of capabilities, strategic relatedness, and cooperative

experience (*Network-base structure*). Complementary capabilities are uniquely and valuable if the information about the capabilities combination is obscured from rivals and when no other combination of firms could produce the same value.

They are generally relationship-specific and this suggests that a firm will ally with partners (*Make together solution*) with whom the greatest complementarities exist between the firm's capability endowment and those held by partners that operate either in the same or in a different market.

Strategic relatedness means that the firm should have congruent goals with the partner's ones and share common or similar knowledge-sharing routines. When firms' goals are aligned, a *Make together solution* not only reduces monitoring and enforcement costs associated with the arrangement by reducing the probability of opportunism (Uzzi, 1996), but also increases synergies by reducing conflict and encouraging cooperative behaviour (Parkhe, 1993), making the exchange partners more willing to make additional resources available. Finally, cooperative experience means that the partner has had repeated ties, direct and indirect, with the firm. Indeed past and/or repeated business exchanges with the same partner allow a firm to know its reliability and performance. Thus, if the exchange relationship is trust-based (*Governance mechanisms*), exchange partners are more likely to share resources and consequently to exploit market opportunities. In conclusion, new capabilities may be obtained through relationship established within and across a firm's relationship network. For example, alliances allow partners to gain access to new knowledge (Dyer and Singh, 1998). In particular it has been demonstrated that firm capabilities can be built through the alliance learning process that involves the articulation, codification, sharing, and internalization of alliance management know-how (Prashant and Singh, 2007). In our view a firm that would just exploit the capabilities of another firm should adopt a *Buy solution*, while, it should adopt a *Make together solution* if it wants not just to exploit but also to acquire new capabilities from other firms and/or create new capabilities from the synergic effect that come from the pooling of its capabilities with the ones of the partner/s, that I refer as synergic capabilities. It has been for example demonstrated that higher order dynamic capabilities in services can be created as a result from collaboration between stakeholders (Agarwal and Selen, 2009). Moreover, relational *Governance mechanisms* offer advantages over formal mechanisms in governing and coordinating the use of knowledge-based assets.

Indeed it may be difficult to develop concrete performance criteria for knowledge that one party is to supply, particularly considering the reluctance of the asset owner to disclose detailed information about the knowledge (Teece, 1992). Finally, Nelson and Winter (1982) suggest that the knowledge and the level of learning of the firm is highly affected both by the context where it acts and by the network in which it is in. Moreover an empirical study conducted by Dell'era and Verganti (2009) suggests that innovative companies often collaborate with designers coming from different nations. One possible explanation for this is that the combination of different approaches and cultural frameworks may allow innovators to capture stimuli and emerging phenomena in socio-cultural contexts far from their territorial boundaries, consequently developing innovative product languages and meanings. These considerations lead us to consider that the knowledge, skills and aptitudes (capabilities) of a firm are strictly related with the localization of its *Network-base structure*. Thus a firm that aim at achieving a competitive advantage through its capabilities will locate its high capabilities activities, like R&D or, in some cases, manufacturing where there is a context with high expertise in developing the capabilities the firm needs. The industrial district is a very good example to explain how the location of a firm can play a strategic role in developing its know-how and capabilities.

Therefore, the following proposition may be stated:

P8. *A company who wishes to achieve specific intangible VRIN resources in order to obtain competitive advantage is expected to make a set of decisions along all the identified networking strategy dimensions.*

2.6 Conclusions and contributions

The research presented in this chapter identifies the key decisions to be made during the definition of a business relationship and explains how such decisions enable a firm to achieve competitive advantage from two different perspectives (market and resource-based).

Theoretical and managerial implications mainly refer to the idea that no just partnership contract selection, no just partner location, not just identification of processes to be outsourced, and so on, can be sufficient enough to define company

networking strategy but an entire set of complex and related decisions constitute the strategy itself. For such reason, from a theoretical point of view, I think that exploring issues related to the alignment between networking strategy and business strategy require and deserve further efforts and studies from the OM community. Such literature, indeed, does not lack of studies concerning just one or few aspects of networking strategy (e.g. most papers focus on outsourcing, others on supplier selection, others on customer integration, others on contract designs, others are more focused on competitive priorities and networking, or on resource based view of networking strategy) but very few papers deals with how the entire set of decisions concerning company boundaries definition should be made in accordance with the business strategy. Research should keep facing such complex issue and proposing new theoretical models for explaining the complex alignment of business and networking strategies. This research faces such issue and proposes a conceptual framework which is based first on a more precise and detailed definition of networking strategy by extending the three decision dimensions proposed by Nordin (2008) for service sourcing; second, on an integrated operationalization of the concept of competitive advantage in terms of both operations performance objectives and resources & capabilities; third on a set of identified linkages among the identified element of specificity. On the other side, from a managerial point of view, the main implications for practitioners can be re-conducted to the fact that managers should not be supposed to achieve a strategic goal by making single networking decisions or set of decisions along only one identified dimension. Deciding to outsource a given business process or selecting contractual specifications for a joint venture, are not sufficient to create competitive advantage; a set of orchestrated decisions along each networking strategy dimensions is required in order to effectively pursue strategic goals and thus enable competitive advantage creation.

CHAPTER III

THE ALIGNMENT OF NETWORKING DECISIONS, INTENTS AND AGREEMENTS: A MULTIPLE CASE STUDY ANALYSIS

3.1 Introduction and theoretical background

It is abundantly evident that business agreements such as sourcing, outsourcing, agency, alliance, consortium, and industrial district membership agreements are key business trends that have become increasingly important in recent years. With the advance of such tendency even research focus moved from viewing firms as autonomous entities striving for competitive advantage to networks of relationships in which firms are embedded and that profoundly influence their conduct and performance (Gulati et al., 2000). Relationships make it possible to access and exploit resources owned by other parties and to link the parties' activities together (Ford et al., 2003). Once a focal firm defines its business relationships, both vertical (with suppliers and customers) and horizontal (with competitors and firms that own complementary capabilities), its network context emerges.

The literature-based arguments developed in Chapter II suggests that networking decisions are actually aligned to the firm strategic intents, both in terms of operations performance objectives and resources and capabilities. Moreover, since business agreements are basically the formalization of networking decisions, they are also strictly linked to networking decisions. This chapter starts by a review of papers that are focused on the specific topic of linking strategic objectives and networking decisions related to a business agreement. These papers are mainly published in Operations Management (OM) and Strategic Management (SM) journals. Specifically I select the most relevant papers that have been published in the last ten years in the top ranked journals of the Association of Business School (ABS) classification within the OM and SM subject fields (Harvey et al., 2010). Table 2 and Table 3 summarize respectively the OM and SM review main results. These two groups of literature studies reflect the market based and the resource based perspectives analysed in Chapter II since they are mainly focused in operations performance and resource strategic intents respectively.

The first set of papers (Table 2) is manly focused on vertical relationships and explores how a buyer establishes and manages different types of relationships with (Autry and Golicic, 2010) and between (Choi et al., 2002) its suppliers, and the impact that such relationships have on their operations performance, such as cost, flexibility, innovativeness, quality and time (Paulray et al., 2008). Specifically, there is a relevant amount of studies that investigate the impact that specific characteristics of buyer-supplier relationship have on operations and business performance. It has been demonstrated that: 1) long- term relationship orientation, network governance and information technology facilitate the creation of inter-organizational communication as a relational competency that enhances buyers' and suppliers' performance in a supply chain context; 2) outsourcing of core business-related activities, offshore outsourcing, and shorter-term outsourcing have positive effects on outsourcing firms' market value. In contrast, outsourcing of non-core business-related activities, domestic outsourcing, and longer-term outsourcing are not found to enhance firm value; 3) strategic integration with both suppliers and customers positively affects operations performance, expressed in terms of cost, efficiency, quality, delivery, process flexibility and new product flexibility, and also performance measures such as market value and customer satisfaction; 4) buyer commitments to long-term relationships and social capital accumulation with key suppliers can improve buying company performances (in terms of cost, quality, delivery and manufacturing flexibility performance); 5) supply base decisions impact on transaction cost, supply risk, supplier responsiveness and innovation; 6) coordination between a firm and its suppliers and customers effectively supports product design and development activities and improves time-based performance (time to market, time to product and responsiveness), which in turns has a positive impact on firm performance (market-share and financial performance).

On the other hand, the second set of papers (Table 3) is mainly focused on horizontal relationships and investigates why firms decide to collaborate with competitors and how different collaboration choices impact on the performance of the agreement itself. Such stream of literature emphasises how horizontal agreements enable firms to acquire, access, or develop specific desired resources and capabilities (Mitchell et al., 2002). Firms may form strategic partnerships to access or acquire unique and valuable resources that they lack, or leverage "social" resources, such as reputation, status, and legitimacy. Garrette et al. (2009) argue that firms turn to horizontal alliances with

competitors to implement projects that require greater resources than those available to them. The optimal configuration of formal and relational governance mechanisms in strategic alliance depends on the assets involved in an alliance, with formal mechanisms best suited to property-based assets and relational governance best suited to knowledge-based assets. Also it has been investigated how different international joint venture structures affect the productivity of such strategic agreement. The selection of partners also affects the performance of the firms involved in the alliance and depends on resource complementarities and institutional associations (reflected through both societal and network status) between the firm and its partners.

By reviewing these two streams of literature it emerges that both horizontal and vertical agreements surely sustain competitive advantage achievement. There is a large body of literature that gives managers suggestions on how decisions concerning a specific form of vertical or horizontal agreement can positively impact on different strategic intents (basically resources' obtainment and performance improvement). However, no studies exist in the literature that relate the "set" of strategic objectives that managers are willing to pursue, with the "set" of networking decisions that they consider, and with the "set" of strategic agreements that they actually adopt. Indeed most of the studies considers high level networking decisional dimensions (e.g. make or buy) and does not consider the business agreement as a whole set of different and specific networking decisions that pursue specific strategic intents. For example, the decision "demanding product promotion and commercialization for non-local customers to a retailer localized close to them" contains a number of specific decisions in different strategic dimensions (such as make or buy, partner selection and localization, etc), each pursuing specific objectives, such as cost reduction and responsiveness improvement. For this reason, it would be interesting to investigate the associations (together with their multiplicities) among agreements and networking decisions, among agreements and strategic intents, and among networking decisions and strategic intents. Focusing on association and multiplicities (multiplicity specifies cardinality - i.e. number of elements - of some collection of elements) means understanding how many and which decisions are needed to gain one specific objective? And, vice-versa, how many and which intents can be pursued by one specific networking decision? Also, how many and which decisions are needed to define one specific business agreement? And, vice-versa, how many and which business agreements implement a specific decision? Finally, how many and which

intents are pursued by one specific business agreement? And, vice-versa, how many and which business agreements are needed to pursue a specific objective?

Figure 8 represents the theoretical constructs of networking strategy representation in terms of their relationships and multiplicities. Given the association A between two constructs X and Y, two multiplicities $M_{A,X}$ and $M_{A,Y}$, one for each construct in the association, are identified. $M_{A,X}$ indicates the number of objects of construct X referred by one sole object of construct Y. For instance, in the general representation given in Figure 8, given the association (A) between "Agreement" (X) and "Networking decision" (Y), the 1….N (one to many) multiplicity graphically positioned near to "Networking Decision" ($M_{A,Y}$) means that one Agreement is associated to one to many Networking decisions.

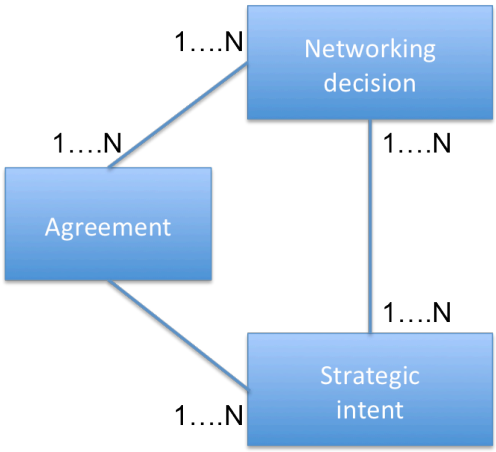


Figure 8. Networking strategy main elements, their linkages, and multiplicities

I strongly believe that a deeper analysis of companies' networking strategy that takes into account the above considerations is needed. This would indeed contribute to the research stream that develops models supporting the so called "strategic alignment" and tries to answer to the call for "how to achieve strategic fit" (Porter, 1996). Strategic fit regards the process of linking organizational strategy, its objectives and decisions. This also regards linking business strategy, competitive priorities, and intents with networking strategy, decisions, and agreements (Kroes, 2010). In fact, in order to contribute to this research stream, the research presented in this chapter adopts a managerial perspective and examines how firms are adopting networking strategies, i.e. they are combining intents, decisions and business agreements. In

particular, the research presented in this chapter intends to answer to the following research question: what are the linkages (and their multiplicity) among intents, decisions, and agreements? I do not focus on specific kinds of agreements (e.g. only vertical or horizontal), on specific kinds of decisions (e.g. only make vs. buy or transactional vs. relational bond), on specific kinds of objectives (e.g. only operations performance or resource endowment), as most of the papers in OM and SM do. Indeed, the main goal of this research goes beyond the specific operations or strategic management interests and, instead, it relies on exploring the managerial perspective when defining a networking strategy.

Also, networking is recognized to be especially valuable for small and medium enterprises (SMEs) that more than larger firms need to seek for external resources to compensate their resources lacks. Despite this awareness, most of the empirical works address medium and large enterprises when exploring networking related issues. I explore the research issue by focusing on SMEs, because especially for such companies making networking decisions and signing business agreements play a strategic role to access resources and get competitive advantage.

Using a grounded theory-building approach, I collect and analyze qualitative data from three case studies in collaboration with one other researcher in order to increase the reliability of data collection and analysis. The research presented in this chapter contains both within-case and cross-case analysis. The main finding of the research can be summarized in the identification of four different decisional archetypes for networking strategy whose analysis and discussion suitably answer to the research question faced in this chapter.

This chapter is structured as follows. Section 3.2 presents the field research methodology I adopted. Section 3.3 describes the within-case analysis while section 3.4 the cross-case analysis. Results and main findings are reported in section 3.5, while section 3.6 draws conclusions.

Authors	Journal	Objectives	Decisions	Kinds of agreement contracts
Autry and Golicic, 2010	Journal of Operations Management	Improve operations performance	Type of relationship with suppliers	Sourcing
Kroes and Ghosh, 2010	Journal of Operations Management	Improve supply chain and business performance	Outsourcing decisions	Outsourcing
Bakshi and Kleindorfer, 2009	Production and Operations Management	Improve supply chain resilience	Co-opetition vs. competition in the context of managing supply chain security	Cooperative contract
Rhee et al., 2009	International Journal of Production Economics	Achieve superior business performance	Supplier selection	Sourcing
Nordin, 2008	International Journal of Production Economics	Achieve competitive advantage	Service Sourcing Decisions: - Make-or-buy issues - Supply-base structure - Nature of buyer-seller relationship	Sourcing
Paulray et al., 2008	Journal of Operations Management	Improve operations performance	- Type of relationships with suppliers - Network governance - Information technology	Sourcing
Jiang et al., 2007	Journal of Operations Management	Improve firm's market value	- Outsource or not - Outsourcing either core or non core activities - Offshore or domestic outsourcing - Outsourcing term	Outsourcing
Krause et al., 2007	Journal of Operations Management	Improve operation performance	- Commitment term - Level of cognitive capital sharing - Level of information sharing - Level involvement in supplier's activities - Length of relationships with key suppliers - Level of reliance on supplier	Sourcing
Li et al., 2007	International Journal of Production Economics	Improve competitive advantage	Supplier development efforts	Sourcing
Swink et al., 2007	Journal of Operations Management	Improve manufacturing-based competitive capabilities and business level performance	Level of integration with customers and suppliers	Sourcing
Choi and Krause, 2006	Journal of Operations Management	Improve operations performance	The level of complexity of the supply base	Sourcing
Lai et al., 2005	International Journal of Production Economics	Ensure quality	Relationship stability and supplier commitment	Sourcing
Droge et al., 2004	Journal of Operations Management	Improve time based and firm performance	The level of integration with suppliers and customers for design and development activities.	Sourcing
Rosenzweig et al, 2003	Journal of Operations Management	Improve competitive capabilities and business performance	The level of integration with the supply chain entities	Sourcing
Choi et al., 2002	IEEE Transactions on Engineering Management	Improve operations performance	Type of relationship to structure among suppliers	Sourcing
Salvador et al., 2001	Production and Operations Management Journal	Improve time-related performances	Governance mechanism with customers and suppliers	Sourcing
Jian et al., 2000	Supply Chain Management	Improve operations performance	Supplier selection	Sourcing

Table 2. Operations management studies

Authors	Journal	Objectives	Decisions	Kinds of agreement contracts
Yang et al., 2010	Strategic Management Journal	Acquire needed external resources	Non-partnering, allying or acquiring	Acquisition Alliance
Garrette et al., 2009	Strategic Management Journal	Product expansion	Make or ally	Alliance
Hoetker and Mellewigt, 2009	Strategic Management Journal	Improve alliance performance	Governance mechanisms	Alliance
Li et al., 2009	Strategic Management Journal	Improve IJV productivity	Control and collaboration mechanism to adopt in IJV (partner commitment, partner knowledge contributions, partner risks)	International Joint Venture
Belderbos et al., 2008	Journal of Economics and Management Srategy	Capture a larger share of profits on the foreign market (for the leading firm) Defend home market position	Strategic R&D location (foreign vs. local)	Inter-firm R&D spillover
Creane, 2008	Journal of Economics and Management Strategy	Increase profit related to the buyer-supplier relationship	Level of information sharing with suppliers	Sourcing
Hoffman, 2007	Strategic Management Journal	Improve company performance	Choice among different types of portfolio of alliances	Alliance
Bierly and Gallager, 2007	Long Range Planning	Obtain resources and capabilities	Alliance partner selection	Alliance
Shipilov, 2006	Advances in Strategic Management	Share complimentary resources	Partner selection	Partnership
Bell, 2005	Strategic Management Journal	Increase innovation	Collaborative firm location	Cluster
Villalonga and McGahan, 2005	Strategic Management Journal	Acquire intangible resources to diversify, expand and/or complement firm's resource endowment	Acquisitions, alliances or divestitures	Acquisitions Alliances Divestitures
Karim and Mitchell, 2004	Long Range Planning	Increase value and innovation	Redefinition of unit and firm boundaries	Acquisition
Chacar and Lieberman, 2003	Advances in Strategic Management	Increase innovation	Strategic R&D location (foreign vs. local)	Inter-firm R&D spillover
Hung, 2002	Long Range Planning	Gain access to a structure of network resources in order to achieve strategic differentiation	Rely on very different social network relations	Social network
Ingram and Baum, 2001	Advances in Strategic Management	Acquire operating know-how	Build chain between hotels	Chain relationship
Tsai, 2000	Strategic Management Journal	Exchange resources	Network formation	Not specified

Table 3. Strategic management studies

3.2 Research design: multiple case studies from primary data source

The objective of the research presented in this chapter is to investigate and build theories about linkages among networking decisions, networking objectives and business agreements. I adopt a grounded theory approach, i.e. I seek to generate theory grounded in empirical evidence (McGhee, 2007; Strauss and Corbin, 1998). Accordingly, I start with the definition of the research question (i.e. what are the linkages (and their multiplicity) among objectives, decisions and agreements); I then gather data with an other researcher through interviews and develop field-based theories. Since case research has consistently been recognized one of the most powerful research method in the development of new theory (Voss, 2009), we collect and analyse empirical data by conducting three case studies with theory building purpose according to the case study types taxonomy proposed by Voss (2009). Also, since I am exploring a relatively new research area, study of cases is considered appropriate (McCutcheon and Meridith, 1993; Yin, 2009). Case study data come from interviews conducted over three small sized manufacturing firms from two different industries: industrial vehicles and medical equipments. The choice of small size firms is leaded by the awareness that networking is particularly valuable to the small business sector since it allows small firms to offset their resources' lack by collaborating with other firms (Szarka, 1990). It has also been demonstrated that SMEs that adopt a networking strategy perform better (in terms of return on asset and return on expenditure) than those firms that don't actively pursue the development of networks (George et al., 2001). The sampling method is deeper explained in the following section.

Table 4 gives an overview of the firms involved in the case studies. Fictitious names of companies have been used to ensure anonymity. I use names that refer to their business products.

Focal firm	Products	Business activities	Number of employees	Firm age [Number of years]	Annual sales volume [€]	Market areas
Industrial Vehicles Equipments	Sub-systems for industrial vehicles	– Design and production of sub-systems for industrial vehicles – Final assembly of subsystem into commercial trucks – Maintenance service of industrial vehicles	35	15	4.000.000	National
X-ray	X-ray equipments for medical purpose	– Design and production of customized x-ray equipments – After sales services	6	30	800.000	National
Collective Transport Vehicles	Components and inside furnishings for railway transportation	– Design and production of components and furnishings for collective means of transport	76	21	12.000.000	National and International

Table 4. Overview of sample firms

3.2.1 Sampling

The final sample consists of three SMEs among those belonging to the Mechatronic District in Sicily (Italy). I initially extracted a sample composed by all the firms of the district that, at the time of the interview, were participating in an industrial-research project whose objective was to implement an ICT platform supporting the selection of partners starting from the declared needs of the company itself. Also, the platform supports the identification of the best form of business agreement with the selected partner, in the case the firm was actually interested to collaborate with it. The intent of the project shows similarities with the research goal, i.e. exploring the relationships between strategic intents, networking decisions, and business agreements. I thus believe that interviewing firms involved in this kind of project brings benefits in terms of managers' commitment and feeling about the three main constructs of the research issue. Accordingly, the fourteen companies involved in the project compose the first-cut sample. In collaboration with one other researcher, I conducted a first round of interviews to such companies and I finally selected three of them. The final selection is made basing on the level of managers' inclination in making networking agreements and on the level of managers tendency in signing business relationships due to strategic reasons. Such tendency is assessed considering the number of the signed agreements over the last years and the number of strategic reasons declared by managers in regard of networking decisions. I thus select the three companies that at the moment of the interview had more networking contracts (sourcing, outsourcing, alliances, consortia, and other partnership contracts) and that seemed to make networking decisions in a more strategic way.

3.2.2 Data collection

Semi-structured face-to-face interviews were held, throughout October to December 2009, with senior managers and CEO that hold the primary responsibility for setting strategic decisions related to business networking. The semi-structured interviews were mp3 file recorded and transcribed in detail. Two investigators (an other researcher and I) conducted the interviews in order to increase confidence in the findings by convergence of observations (Eisenhardt, 1989). The role of each of the two investigators was different; in particular one was to conduct the interview by

direct making questions to the respondent, while the other one was to transcribe in detail the given information. The transcribed information was then reviewed by the two interviewers and checked with the recorded material.

Specifically at *Industrial Vehicles Equipments* we interviewed the general manager in the strategic and operations area; he is also the president of the mechatronic district in Sicily; at *X-ray* we interviewed the CEO and at *Collective Transport Vehicles* the senior manager in the area of operations and supply chain management. We conducted two interviews per company. The first one was conducted through a site visit and generally took from 1 to 2 hours; the second one was a telephone call that generally lasted between 15 and 30 minutes and was due to clarify and/or add information to the data collected in the first round. An interview protocol was adopted as a guide for the site-visit interview. It included about 10 sections, the first ones were needed for collecting information about business activities, market, and other general information; other questions were focused at exploring the main constructs (i.e. networking decisions, business agreements, strategic intents); in case managers statements seemed to deserve more investigation, other questions were asked to get more details.

Such an interview protocol is attached in appendix. It was designed for the collection of data needed by both the Sicilia Meccatronica project and the here presented case study analysis. Indeed the participation of some of the mechatronic district firms to such a project allowed to directly interview all the firms involved in the project, since the firms had signed the agreement to participate in the project and had the duty to participate in the interview. Since the information needed for the objective of both the research presented in this chapter and the Sicilia Meccatronica project were quite similar, I design just one questionnaire to collect such information. The questionnaire is composed by three main sections. The first section aims at investigating the business strategy pursued by the firm and how it can be supported by potential collaborations. The second section aims at collecting information about at least one specific agreement among those owning to each of the following category of contracts. The third one aims at individualizing the strategic intents that the firm is willing to achieve through business relationships.

After the site visit interviews we conducted a plant tour in all the plants visited. Through these visits we captured contextual information and in-depth understanding of the products and processes. Also, we collected information from the company

internet web-site and from the contract documents showed by the managers during the site-interviews. Getting the data from different sources (interviews, observation, public information from internet web-site and documentation), allowed to triangulate the information we were collecting (Eisenhardt, 1989; Miles and Huberman, 1994). From the three analysed companies we ultimately collected thirteen agreements descriptions.

3.2.3 Data analysis

Data were collected, coded and analyzed by the two interviewers. In order to validate findings we compare our coding. We conducted several discussion sessions about coding comparison to establish a deep understanding of the findings related to the research question. When information was missing, we collected more specific information from telephone calls with company managers and/or from the company internet web-site. Data collection and discussion stopped when they were not providing more information to the understanding of the research question.

Following the procedure suggested by Miles and Huberman (1994), we first conducted within-case analysis where case studies were built based on data. The analysis of data in this stage consists in identifying, for each agreement, the manager strategic intent when making networking decisions and the characteristics of such decisions. Then, we conducted cross-case analysis. In this second stage of analysis, we compared all the specific strategic intents and networking decisions emerged in the within case analysis and we abstracted their definition from the specific agreement in order to define general strategic intents and networking decisions. Then we classified each of the two groups in three main dimensions of strategic intent and networking decision, respectively, that I identified in the literature (see Table 2 and Table 3). The results of within-case and cross-case analyses are presented in the next two sections. Finally, for each agreement, we individualize the multiplicity of the linkages existing between each pair of constructs (i.e. agreement, strategic intent and networking decision). The configuration linking the constructs with the same multiplicity were independently identified and grouped by each of the two researchers and four archetypes of networking strategy were identified, according to the approach of Doty and Glick (1994).

3.3 Within-case descriptions

Descriptions of each case study have been obtained through data triangulations and have been formulated as objectively as possible with minimal subjective interpretations. Each case begins with a brief description of the firm and then proceeds with the description of each business agreement presented by the respondent. Specifically, for each agreement I present the content of the agreement itself, the characteristics of the relationship (as declared by the manager), and the strategic intent behind such characteristics (when it does exist). For sake of clarity, before proceeding with the description of cases, I report brief Wikipedia-based definition of each kind of agreement that appears in the analysed cases (i.e. sourcing, outsourcing, agency contract, consortium, industrial district).

A sourcing agreement can be defined as "medium-long term purchasing contract".

An outsourcing agreement can be defined as a "deal under which the company contracts out a business function - commonly one previously performed in-house - to an external provider".

An agency agreement can be defined as "a deal creating a fiduciary relationship whereby the first party (the principal) agrees that the actions of a second party (the agent) binds the principal to later agreements made by the agent as if the principal had himself personally made the later agreements".

An alliance agreement can be defined as "a partnership contract between two or more parties, made in order to advance common goals and to secure common interests."

A consortium agreement can be defined as "an association contract of two or more individuals, companies, organizations or governments (or any combination of these entities) with the objective of participating in a common activity or pooling their resources for achieving a common goal".

An industrial district agreement can be defined as "a membership contract to an industrial district, i.e. an association of companies belonging to the same Industry and localized in a particular industry-zoned urban area".

3.3.1 Industrial Vehicles Equipments: a customized product-oriented firm

The company, located in Palermo (Sicily), produces sub-systems for industrial vehicles, in particular equipments for collecting, handling and compacting materials, for street washing, etc. Its business activities regard both the manufacturing of

equipment carpentry components (the mechanical components are externally sourced) and the assembly of the equipments into the truck; also, the company offers industrial vehicle maintenance services both for its products and for third party industrial vehicles. Its customers are spread over Sicily except for some of them, localized in the north of Italy. The strategy pursued by the company is to serve a restrict market by customizing its product on customer requirements. The general manager declares to have four kinds of relationship agreements with others firms: sourcing, outsourcing, alliance, and industrial district membership.

- *Sourcing*: the company has several sourcing agreements for mechanical components with local and non-local suppliers, and for mechanical processing and vehicle washing services with local suppliers. The company is in a trust relationship with its selected suppliers and has been collaborating with them since the beginning. Moreover for each kind of sourcing (mechanical components, mechanical processing on existing components, washing services) the company has more than one supplier in order to reduce the supply risk and, specifically regarding the mechanical components and processing, the manager declares that having several suppliers ensures the company to increase/decrease the requested volume in case it would need it. Finally the general manager affirms to prefer local supplier to reduce the lead-time and the time to product.
- *Outsourcing*: the company outsources maintenance services to companies located in different part of Sicily with whom the company has a long-lasting trust-based relationship. The aim is to have multi-site facilities that supply the maintenance service close to the final customer. By this way, the company increases its responsiveness to customer needs, by exploiting the outsourcers geographical proximity to customers, and reduces the cost of post-sale services, both in terms of operating costs (due to managing non-local operations) and capital expenditures (due to investments in different facilities). Finally the manager declares to have chosen and selected small companies as outsourcers in order to reduce the market entry risk.
- *Alliance*: the company has two alliance agreements with two big companies that produce industrial vehicles located in the north of Italy. These companies were previously suppliers of components for Industrial Vehicles. According to these agreements, Industrial Vehicle offers maintenance services for vehicles that are produced by the two companies and sold in Sicily. Thanks to these alliances, while the two companies increased their responsiveness to Sicilian customers, Industrial

Vehicles increased its market share and penetrated a new market segment (maintenance services for different kinds of vehicles). Moreover the general manager declares that by increasing maintenance service business, the service "unit cost" decreases as a consequence of sharing "common costs" among larger production volumes.

- *Industrial district membership*: The general manager, that is the promoter and legal representative of the Sicilian mechatronic district, describes the reason that pushed him to constitute the district. He states that, due to the recent economic crisis, disadvantages for small and micro enterprises increase because, respect to medium and large companies, they are under-capitalized, have less purchasing power, low bargaining power respect to suppliers, and financial credit obtainment becomes even more difficult. Integration between firms (through alliances and partnerships) can enable the firms to have advantages in terms of bargaining powers respect to banks, but also to customers (such as Public Administration in "call for tenders") and suppliers. This advantage can indirectly reduce the working capital expenditure by three ways. Firstly, it enables firms to obtain a lower rate of interest on loans. Secondly, it facilitates bargaining conditions (such as obtain higher credit delay to suppliers) in the buyer-supplier relationships. Indeed according to manager, the awareness to belong to a district facilitates firms to build trust relationships among them. Thirdly, it reduces the lead-time and consequently inventories by exploiting suppliers geographical proximity. Finally, the general manager views in the district the opportunity to involve firms in collaborating in a way that can enable them towards innovation, research and industrialization. He assesses that, especially for micro enterprises, being in a district represents a source of competitive advantage and that, from its practical experience, the higher the level of cooperation between the firms the higher their performance will be.

3.3.2 X-ray: a quality-oriented provider

The company has been operating for more than 25 years in the radiology industry. Its business products are x-ray equipments for medical purpose. The company business activities regard: the pre-sale consulting that aims at individualizing the type and the model of equipment suited to both customer and prescriptive law needs; the design of customized x-ray equipments; the production and assembling of equipments on

customer location, and finally the subsequent technical support during the warranty and post-warranty period. Both the company manufacturing plant and its research and head offices are located in Palermo. The leading strategy of the company is focused on the quality of the products throughout all their life cycle. Customers are public and private hospitals and radiology centres. The company market is located at a national level and the company CEO wishes to broad its market at an international level through the introduction of new customized products. Specifically, the company is developing a new product to be produced and commercialized in the emerging countries, especially the ones localized in the Mediterranean basin. Indeed the CEO has already several contacts with companies located in Marocco. The manager declared that such contacts "represent excellent opportunities for collaboration not just from a market point of view but also for product development and especially for production, given the low labour costs of this country". Regarding this intention the director individualizes two main advantages: the geographical proximity and the cultural affinity. The company CEO declares to have four kinds of relationship agreements with others firms: sourcing, agency, alliance, district.

- *Sourcing*: the company has several sourcing agreements for mechanical components with national and international (Japan, Germany and France) suppliers that have been selected based on price, quality and technological level criteria. The CEO declares to be in a transactional relationship with them, but to also have high trust in them because of their well-known reputation at international level. The company has always produced in-house the electrical components and has never being willing to externally source them because, concerning this type of components, it has achieved high quality standard that well fit with its business strategy focused on quality. Concerning the mechanical components it buys them because since they are highly standardized, the suppliers are able to eventually modify firm order delivery time and to replace that initial orders to other customers. Finally, the CEO declares that sourcing the mechanical components from specialized firms allowed its company to rapidly modify existent products or introduce new products by exploiting the suppliers mix flexibility.
- *Agency*: the company (principal) has an agency contract for two years with a Russian company (agent) for product promotion and commercialization in Russia. The CEO declared that the agency contract with the Russian company allowed its firm to penetrate the Russian market by ensuring to customers high level of responsiveness at

lower costs. Indeed by this way X-ray customers can be supported, during both the pre and post purchasing phases, by a company with similar cultural endowment and thus more comprehensive of their requirements and complaints. Moreover such agency contract allowed the company not incurring in capital expenditures due to offshore sale and distribution facilities. Finally, the CEO stated that it was its first agency contract for product commercialization and that he never have had antecedent experiences with this Russian company, but he was satisfied about the results so far.

- *Alliance*: the company has an alliance agreement with a global service supplier, located in north of Italy, for maintenance service of biomedical equipments. The partner supplies the maintenance service for X-ray equipments of two public hospitals (one located in Palermo and the other one in Rome). The CEO declared that the strategic intent of the alliance was to exploit the customers global network of this partner. On the other side, the partner was interested in acquiring the company know-how and skill. Also, the company is nowadays negotiating an alliance agreement with a manufacturer of mechanical components, located in Palermo, for the collaborative development of a new x-ray equipment to be launched in the market next year. The partner has been selected in order to deliver the mechanical part on the basis of the company designs. The CEO declares that this choice has been leaded by the objective of pooling different types of know-how: from one side the electronic, electrical and computer based competences of X-ray, and from the other side the mechanical based competences of the partner. The firm wants to exploit the specialization of the supplier mechanical know-how with a double intent: to obtain a decrease in costs by exploiting the partner economies of scales and learning, and to acquire more expertise in the mechanical field. The CEO declares he wishes to build a long-term and deep relationship with this partner.
- *Industrial district membership*: The CEO said that the main reason that pushed him to participate to the mechatronic district is that collaboration among district partners can help to improve the quality of its product/process by combining the expertise of different and complementary professional experiences. He declares that participating in the district represents one of the most powerful weapons for micro and small companies to penetrate foreign markets. Indeed, due to the competitive price of products/services from emerging east countries, firms should focus in technological innovation. Thanks to the district, even the smallest companies can act as the large ones.

3.3.3 Collective Transport Vehicles: differentiation and quality-oriented firm

The company operates in the market of components and interior designing for collective means of transport. Dating back 1990 when Collective Transport Vehicles was established, the company's production specialized towards the rolling stock field. Nowadays Collective Transport Vehicles is included in the panel of suppliers of the most important domestic and international rolling stock manufacturers. The market to which the company refers, is composed by firms that operate in the transport industry at national and international level. The company business activities regard both the design and the production of most of the components and inside furnishings for collective means of transport. The production is carried out in two sites located in a Sicilian industrial area (Italy). The strategy pursued by the company is to serve a restrict market by customizing its product on customer requirements, with a focus on the quality of the products. The senior manager declared to have four kinds of relationship agreements with others firms: sourcing, alliance, consortium and industrial district membership.

- *Sourcing*: the company has several sourcing agreements for mechanical and non-mechanical components needed for the production of the final good (i.e. aluminium profiles and sheets, mechanical bellows and springs, paints, window glasses, textile fabric and so on), for mechanical processing (e.g. zinc plating process) and for the logistic service. In particular the manager specified that for the core component, i.e. aluminium component, they do the design and commit to the suppliers just the production. The most of the suppliers are from the north of Italy, others from the centre and the south and just two from foreign countries (one from Spain and an other one from Germany). The choice was initially based on reputation (the company looked for suppliers with high capability and preferably located in Italy) and then on the efficacy and efficiency of the collaboration. In particular regarding the aluminium component suppliers the selection was based on the product quality certification. The company is now in a trust relationship with all its selected suppliers since past collaborations have being demonstrated efficacy and efficiency. Moreover for almost all components (i.e. aluminium profiles and sheets, textile fabric, gaskets, paints and so on) the company has minimum two different suppliers in order to reduce the supply risk and specifically, regarding the aluminium profiles and sheets, having several

suppliers ensures the company to increase/decrease the requested volume in case it would need it.

- *Alliance*: the company had different kinds of alliances in the past. All of these were call for tender driven. Indeed depending on the product requested by the call for tender the company choose the partners (that were almost always their direct competitors) that owned the complementary competencies needed for the fulfilment of the product/service requested by the call for tenders. The duration of these alliances is call-for-tender driven: the relationship stops with the end of the call-for-tender. The manager declares that each of this kind of collaboration increased the company know-how.
- *Consortium*: the company created a consortium with other two companies that operate in the rail transport sector as well. The product offered by the consortium regards the design and the production of railway vehicle interiors under commitment. The senior manager declares that the main objective of the consortium is to acquire more commitments on one hand by achieving certain dimension (in terms of turnover, number of employees and so on) required by some customers, and on the other hand by acquiring new technical, technological, and complementary competences that allow the company to be more responsive to different customer requests.
- *Industrial district membership*: The senior manager says that the participation in the mechatronic district was led by the expectation to easily find local and complementary partners with who pool capabilities in order to respond to new customer requirements.

3.4 Cross-case descriptions

For each business agreement analysed and described in the previous sub-sections, different operationalizations for two main constructs emerged, that respectively refer to the strategic intent and the networking decision of the analysed company. Table 5 lists strategic intents, while Table 6 lists the networking decisions and the corresponding strategic intents. In this section I discuss how each of these areas of comparison is nested in the cases.

3.4.1 Strategic intent

The focal firm strategic intent is the objective that the manager is willing to pursue when defines a specific characteristic of the business relationship. Nine kinds of strategic intents emerged from the cross-case analysis. These intents have been classified into three main strategic intent dimensions inspired by the three strategic objectives individualized by Mazzola et al. (2009) for network formation. Table 5 lists these three dimensions and the corresponding strategic intents. Such dimensions are described in what follows together with some examples.

Strategic intent dimension	Strategic intent
Globalization	1. Increase market share and/or penetrate foreign market
Knowledge	2. Rise innovation and know-how
Efficiency	3. Reduce costs 4. Increase responsiveness 5. Ensure dependability 6. Achieve high quality 7. Increase flexibility 8. Reduce risk 9. Reduce time to product/service

Table 5. Strategic intents emerging from cases study agreements

According to Mazzola et al. (2009), the "*Globalization*" strategic intent dimension refers to every objective related to entering new and global markets; in this research, it includes the first strategic intent listed in Table 5, which concerns the manager willing to expand the firm market at a local, national, and/or international level. Such intent occurs in eight agreements and is pursued through different networking decisions. For example, in the Alliance of *Industrial Vehicles Equipments* it regards the acquisition of maintenance service commitments for the customers of the partners that compete in the same sector of the company. In the Alliance of *X-ray* such commitments are demanded to a partner that has a very extended customer network that the company is

willing to access thanks to the agreement itself. Also the strategic intent of increasing market share refers to the penetration of foreign markets by rising innovation through collaboration (e.g. Industrial district membership of *X-ray*). Finally such intent regards the acquisition of more commitments by being stronger in terms of dimension, resources and competences (e.g. Industrial district membership of *Industrial Vehicles Equipments* and Consortium of *Collective Transport Vehicles*).

On the other side, the "*Knowledge*" strategic intent dimension refers to every objective related to the development of new knowledge: in this research, it includes the second strategic intent of Table 5 and concerns the manager willing of acquiring new and complementary knowledge and competencies. Such intent occurs in three different agreements (i.e. Industrial district membership of *Industrial Vehicles Equipments*, Alliance and Sourcing of *X-ray*) and it mainly refers to the ability to develop new products or to modify existing ones by creating new knowledge and capabilities by pooling different and complementary competences and capabilities.

Finally, the "*Efficiency*" strategic intent dimension refers to every objective related to efficiency achievement; in this research, it includes the third group of strategic intents listed in Table 5 and concerns the manager willing to improve efficiency and responsiveness. Such intent is the most frequent. As an example, the intent of increasing responsiveness occurs in three agreements and is pursued by different networking decisions. In particular, in the Agency contract of *X-ray* such intent refers to the ability to serve non-local customers during both the pre and post purchasing phases and is pursued by demanding such phases to partners that are localized where the customers are. Also the increasing responsiveness strategic intent refers to the ability to design and manufacture products that respond to specific and different customers requirements. Such intent is pursued by pooling new technical, technological, and complementary competences with companies that compete/operate in the same sector (e.g. Consortium and Industrial district membership of *Collective Transport Vehicles*).

3.4.2 Strategic Networking decision

I refer to strategic networking decisions as choices regarding business relationships with one or more firms that aim at pursuing one or more strategic objectives. Twelve strategic networking decisions emerged from the cross-case analysis. All of these

decisions have been classified into the three main networking decision dimensions individualized in Chapter II as an extension of the three kinds of decision proposed by Nordin (2008) for service sourcing. Table 6 lists these three dimensions, the corresponding networking decisions and the corresponding strategic intents to which they are associated. In what follows I give again a short description of each dimension and some examples of networking decision that come from case studies.

Networking decision dimension	Networking decision	Strategic Intent
Make/Buy/Make together	Collaborate for the design and production of product/services that respond to customer requests	− Increase market share − Rise innovation and know-how − Increase responsiveness
	Make together R&D activities for new product development	− Rise innovation and know-how − Reduce costs − Increase responsiveness
	Buy components from specialized intermediate market	− Achieve high quality
	Demand maintenance services for non-local customers to partners that operate in the same business	− Reduce costs
	Offer maintenance services for competitors local customers	− Increase market share − Reduce costs
	Demand product promotion and commercialization for non-local customers	− Reduce costs
Network base-structure	Choose several supplier for the same product/service sourcing	− Reduce risk − Increase flexibility − Increase responsiveness
	Choose local supplier for product/service sourcing	− Reduce time to product/service
	Select small companies as partners that have to supply after sales services to your customers	− Reduce risk
	Choose partners localized near to customers	− Increase responsiveness
	Select high number of partners to collaborate with	− Increase market share and penetrate foreign market
Governance mechanism	Keep suppliers you already had past cooperative experience with	− Ensure dependability
	Being part of mechatronic industrial district	− Increase market share and penetrate foreign market − Rise innovation and know-how − Reduce costs − Increase responsiveness − Achieve high quality

Table 6. Networking decisions emerging from cases study agreements

The "*Make/Buy/Make together*" networking decision dimension is an extension of the "*Make or buy issues*" considered by Nordin (2008) for service sourcing. It refers to the extent to which different operations are internally made, externally sourced or made with somebody else. An example is the willing of managers to collaborate with other companies (that own complementary capabilities) for designing and producing customized product/services. Such kind of decision occurs in two agreements and aims at pursuing different strategic objectives. In the *Collective Transport Vehicles* Alliance such decision refers to a call for tender-driven collaboration with partners that own the complementary requested by the call for tender. Such kind of decision enables the firm to acquire more customer orders and consequently increase its market share. In the *Collective Transport Vehicles* Consortium such decision refers to a specific product to be developed for severe customer requirements (i.e. railway vehicle interiors). In particular the strategic intent of creating such consortium is to increase the firm technical competences and dimension. Indeed such two requirements allow the firm to be able to acquire more orders.

The "*Network base-structure*" networking decision dimension is an extension of the "*Supply-base structure*" considered by Nordin (2008) for service sourcing. It refers to decisions about the dimension of the network (i.e. number of partner/suppliers), its international expansion (i.e. partner/suppliers localization) and the level of leadership the focal firm wields over its network (i.e. level of bargaining power). An example is choosing several suppliers for the same component. Such decision occurs in two sourcing agreements of two case study companies and aims at pursuing two main objectives. In the *Industrial Vehicles Equipments* Sourcing, having several suppliers for mechanical components and processing ensures the company to both reduce the supply risk and increase the volume flexibility. Also in the *Collective Transport Vehicles* Sourcing the choice to have, at minimum, two different suppliers for all kinds of components ensures the firm to reduce the supply risk and, in specific cases such as aluminium profiles and sheets, also to increase the volume flexibility, which is highly requested for such kind of components.

The "*Governance mechanism*" networking decision dimension is an extension of the "*Nature of buyer-seller relationship*" considered by Nordin (2008) for service sourcing. It refers to decisions about the intensity of the relationship between a firm and the partners/suppliers it selected (i.e. transactional vs. relational bond). An example is maintaining relationships with suppliers the firm already had constructive

past cooperative experience with. This is the case of *Industrial Vehicles Equipments* Sourcing and Outsourcing agreements. Indeed for these agreements the firm selects old suppliers in order to exploit the trust-based relationship and keep high the level of dependability.

3.5 Results

Using three case studies, four different types of networking strategy have been identified, that I refer to as networking strategy archetypes. These archetypes give an answer to the research question by capturing the intricacies of networking strategy as a combination of strategic networking decisions, strategic intents and business agreements, their linkages and their multiplicity (see Figure 8).

In order to answer to the research question, we take as unit of analysis each case study. For each case study, we first consider each agreement and the corresponding strategic intent/s and networking decision/s as expressed in Table 5 and 6, respectively. Then we individualize the associations existing between each pair of constructs (i.e. agreement, strategic intent and networking decision). Specifically, four possible kinds of association emerge, each identified by a couple of multiplicities ($M_{A,X} : M_{A,Y}$).

- Association (1 : 1). This association occurs when a given element of specificity of construct X is related to just one element of specificity of the construct Y. Vice-versa, a given element of specificity of construct Y is related to just one element of specificity of the construct X. For instance, X-Ray decided to adopt a sourcing agreement for mechanical components supply (this is an element of specificity of the construct "agreement") just in order to achieve high quality standards for the final product (this is an element of specificity of the construct "strategic intent", see Table 5). Vice-versa, the objective of achieving high quality standards for the final product has been achieved by just adopting a sourcing agreement for mechanical components.
- Association (1 : N). This association occurs when a given element of specificity of construct X is related to N elements of specificity of the construct Y. Vice-versa, a given element of specificity of construct Y is related to just one element of specificity of the construct X. For instance, Collective Transport Vehicles decided to collaborate for the design and production of product/services that respond to

customer requests (this is an element of specificity of construct "networking decision", see Table 6) through three kinds of agreements, i.e. alliance, consortium, and industrial district membership (this are elements of specificities of the construct "agreement"). Vice-versa, a given agreement (either alliance, or consortium, or industrial district membership) implements just one networking decision (i.e. collaborate for the design and production of product/services that respond to customer requests).

- Association (1..N : 1..N). This association occurs when a given element of specificity of construct X is related to one or more elements of specificity of the construct Y. Vice-versa, a given element of specificity of construct Y is related to one or more elements of specificity of construct X. For instance, Industrial Vehicles implements many networking decisions through the sourcing and outsourcing agreements. Among these decisions, there are some that pursue just one strategic intent (e.g. "Keep suppliers you already had past cooperative experience with" that pursues the strategic intent of "Ensure dependability"); on the other side, there are other decisions that pursue more then one strategic intent (e.g. "Choose local supplier for product/service sourcing" that pursues both the "Increase responsiveness" and "Reduce time to product/service" strategic intents). Vice-versa, among the overall strategic intents pursued by the two agreements there are many that are pursued by just one networking decision, and others that are pursued by more then one networking decision ("Reduce time to product/service" is pursued by both "Choose local supplier for product/service sourcing" and "Choose partners localized near to customers" networking decisions).
- Association (1..N : N). This association occurs when a given element of specificity of construct X is related to more then one elements of specificities of the construct Y. Vice-versa, a given element of specificity of construct Y is related to one or more elements of specificities of construct X. For instance, Industrial Vehicles implements many strategic intents through the sourcing and outsourcing agreements. Both the agreements pursue more then one strategic intent, vice-versa there are some strategic intents pursued by the two agreements (e.g. reduce risk) and others just by one of the two (e.g. increase flexibility).

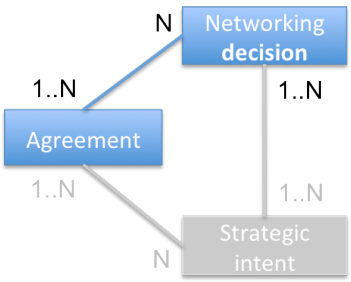
We finally group the configurations of networking decisions, strategic intents and business agreements associated with the same multiplicity. After comparing and

discussing the respectively findings, we finally agree in the individualization of the following described four configurations that I refer to as networking strategy archetypes.

The description of each of is structured as follows. Each archetype is identified by a name that tries to summarize as much as possible its conceptual content. The description of each archetype underlines the multiplicity of the linkages between the implemented business agreements, the undertaken strategic networking decisions and the pursued strategic intents. Then, I underline the empirical evidences from which the archetype is derived. Also, for each archetype, one of such evidences is explained through a table (Table 7, Table 8, Table 9 and Table 10) that illustrates and describes the multiplicity of the linkages among the constructs as emerged by the specific evidence.

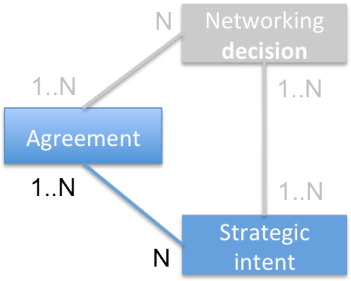
3.5.1 Multi-alignment archetype

The *Multi-alignment* archetype describes a networking strategy type where a specific agreement implements N networking decisions and pursues N strategic intents; vice-versa a specific networking decision is implemented by one or more agreements and a specific strategic intent is pursued by one or more agreements. A specific networking decision pursues one or more strategic intents and, vice-versa, a specific strategic intent is pursued by 1 or more networking decisions. Such finding applies to Industrial Vehicles Equipments and X-ray cases. Table 7 illustrates and describes the evidences emerged from the Industrial Vehicles Equipments case study.

Linkage and multiplicity illustration	**Linkage and multiplicity description**
	*From Agreement to Networking decision:* The agreement "Sourcing" is linked to (implements) the following networking decisions: - Choose several suppliers for the same product/service sourcing - Choose local supplier for product/service sourcing - Keep suppliers you already had past cooperative experience with The agreement "Outsourcing" is linked to (implements) the following networking decisions: - Choose several suppliers for the same product/service sourcing

- Demand maintenance services for non-local customers to partners that operate in the same business
- Select small companies as partners that have to supply after sales services to your customers
- Keep suppliers you already had past cooperative experience with
- Choose partners localized near to customers

From Networking Decision to Agreement:



The networking decision "Choose several suppliers for the same product/service sourcing" (and also "Choose local supplier for product/service sourcing") is linked to (is implemented by) the following agreements:
- Sourcing
- Outsourcing

The networking decision "Demand maintenance services for non-local customers to partners that operate in the same business" (and also "Select small companies as partners that have to supply after sales services to your customers" and "Choose partners localized near to customers") is linked to (is implemented by) the following agreement:
- Outsourcing

The networking decision "Keep suppliers you already had past cooperative experience with" is linked to (is implemented by) the following agreements:
- Sourcing
- Outsourcing

From agreement to strategic intent:

The agreement "Sourcing" is linked to (pursues) the following strategic intents:
- Ensure dependability
- Increase flexibility
- Reduce risk
- Reduce time to product/service

The agreement "Outsourcing" is linked to (pursues) the following strategic intents:
- Ensure dependability
- Increase responsiveness
- Reduce costs
- Reduce risk
- Reduce time to product/service

From strategic intent to the agreement:

The strategic intent "Increase flexibility" is linked to (is pursued by) the following agreement:
- Sourcing

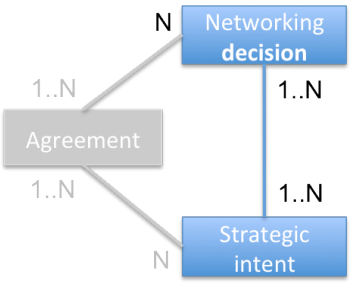
The strategic intent "Reduce costs" (and also "Increase responsiveness") is linked to (is pursued by) the following agreement:
- Outsourcing

The strategic intent “Reduce risk” (and also “Increase dependability” and “Reduce time to product/service”) is linked to (is pursued by) the following agreements:
- Sourcing
- Outsourcing

From networking decision to strategic intent:

The networking decision “Choose several suppliers for the same product/service sourcing” is linked to (pursues) the following strategic intents:
- Increase flexibility
- Increase responsiveness
- Reduce risk

The networking decision “Choose local supplier for product/service sourcing” is linked to (pursues) the following strategic intents:
- Increase responsiveness
- Reduce time to product/service



The networking decision “Keep suppliers you already had past cooperative experience with” is linked to (pursues) the following strategic intent:
- Ensure dependability

The networking decision “Demand maintenance services for non-local customers to partners that operate in the same business” is linked to (pursues) the following strategic intent:
- Reduce costs

The networking decision “Choose partners localized near to customers” is linked to (pursues) the following strategic intents:
- Reduce time to product/service
- Increase responsiveness

The networking decision “Select small companies as partners that have to supply after sales services to your customers” is linked to (pursues) the following strategic intent:
- Reduce risk

From networking decision to strategic intent:

The strategic intent “Ensure dependability” is linked to (is pursued by) the following networking decision:
- Keep suppliers you already had past cooperative experience

The strategic intent “Increase flexibility” is linked to (is pursued by) the following networking decision:
- Choose several suppliers for the same product/service sourcing

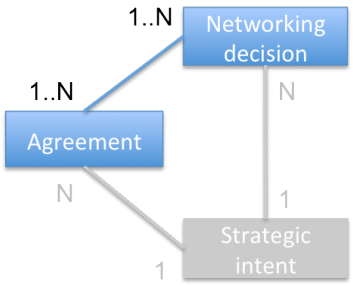
The strategic intent “Reduce risk” is linked to (is pursued by) the following networking decisions:
- Choose several suppliers for the same product/service sourcing
- Select small companies as partners that have to supply after sales services to your customers

	The strategic intent "Reduce time to product/service" is linked to (is pursued by) the following networking decisions: - Choose local supplier for product/service sourcing - Choose partners localized near to customers The strategic intent "Increase responsiveness" is linked to (is pursued by) the following networking decisions: - Choose several suppliers for the same product/service sourcing - Choose partners localized near to customers - Choose local supplier for product/service sourcing The strategic intent "Reduce costs" is linked to (is pursued by) the following networking decision: - Demand maintenance services for non-local customers to partners that operate in the same business

Table 7. *Multi-alignment* archetype: Evidence from *Industrial Vehicles Equipments*

3.5.2 Multi-agreement archetype (Diversification)

The *Multi-agreement* archetype describes a networking strategy type where a specific agreement implements one or more networking decisions and pursues just one strategic intent; and vice-versa a specific networking decision is implemented by one or more agreements and a specific strategic intent is pursued by more then one agreements; a specific networking decision pursues just one strategic intents and, vice-versa, a specific strategic intent is pursued by more then one networking decisions. Such finding applies to the Collective Transport Vehicles case. Table 8 illustrates and describes such evidence.

Linkage and multiplicity illustration	Linkage and multiplicity description
	*From agreement to networking decision:* The agreement "Alliance" (and also "Industrial district membership") is linked to (implements) the following networking decision: - Collaborate for the design and production of product/services that respond to customer requests The agreement "Consortium" is linked to (implements) the following networking decisions: - Collaborate for the design and production of product/services that respond to customer requests - Select high number of partners to collaborate with

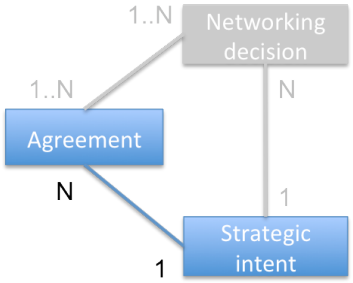
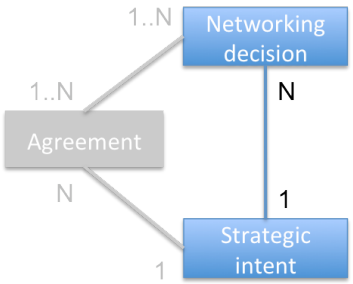
	From networking decision to agreement: The networking decision "Collaborate for the design and production of product/services that respond to customer requests" is linked to is implemented by) the following agreements: - Alliance - Consortium - Industrial district membership The networking decision "Select high number of partners to collaborate with" is linked to (is implemented by) the following agreement: - Consortium
	*From the agreement to strategic intent:* The agreement "Alliance" (and also "Consortium" and "Industrial district membership") is linked to (pursues) the following strategic intent: - Increase market share and/or penetrate foreign market *From strategic intent to agreement:* The strategic intent "Increase market share and/or penetrate foreign market" is linked to (is implemented by) the following agreements: - Alliance - Consortium - Industrial district membership
	*From networking decision to strategic intent:* The networking decision "Collaborate for the design and production of product/services that respond to customer requests" (and also "Select high number of partners to collaborate with") is linked to (pursues) the following strategic intent: - Increase market share and/or penetrate foreign market *From networking decision to strategic intent:* The strategic intent "Increase market share and/or penetrate foreign market" is linked to (is pursued by) the following networking decisions: - Collaborate for the design and production of product/services that respond to customer requests - Select high number of partners to collaborate with

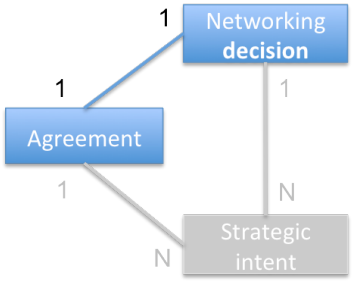
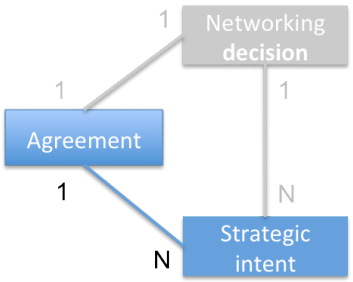
Table 8. *Multi-agreement* (*Diversification*) archetype: Evidence from *Collective Transport Vehicles*

3.5.3 Multi-objective archetype

The Multi-objective archetype describes a networking strategy type where a specific agreement implements just one networking decision and pursues N strategic intents; and vice-versa a specific networking decision is implemented by just one agreement and a specific strategic intent is pursued by just one agreement; and where a specific networking decision pursues N strategic intents and vice-versa a specific strategic intent is pursued by just one networking decision.

Such finding applies to Industrial Vehicles Equipments, X-ray and Collective Transport Vehicles.

In Table 9 the linkages among the constructs and their multiplicity are illustrated and described as emerged by the alliance agreement of Industrial Vehicles Equipments.

Linkage and multiplicity illustration	**Linkage and multiplicity description**
	*From Agreement to Networking decision:* The agreement "Alliance" is linked to (implements) the following networking decision: - Offer maintenance services for competitors local customers *From Networking to Agreement:* The networking decision "Offer maintenance services for competitors local customers" is linked to (is implemented by) the following agreement: - Alliance
	*From Agreement to Strategic Intent:* The agreement "Alliance" is linked to (implements) the following strategic intents: - Increase market share and/or penetrate foreign market - Reduce costs *From Strategic Intent to Agreement:* The strategic intent "Increase market share and/or penetrate foreign market" ("Reduce costs") is linked to (is pursued by) the following agreement: - Alliance

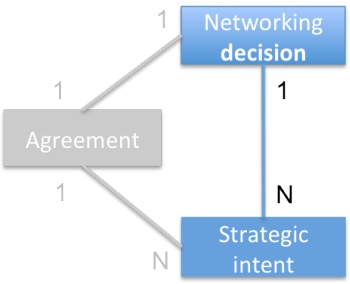
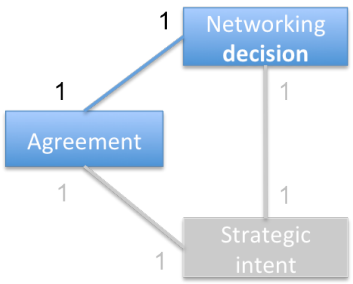
	*From Networking Decision to Strategic Intent:* The networking decision "Offer maintenance services for competitors local customers" is linked to (pursues) the following strategic intents: - Increase market share and/or - Reduce costs *From Strategic Intent to Networking Decision:* The strategic intent "Increase market share and/or penetrate foreign market" (and also "Reduce costs") is linked to (is pursued by) the following networking decision: - Offer maintenance services for competitors local customers

Table 9. *Multi-objective* archetype: Evidence from *Industrial Vehicles Equipments*

3.5.4 Mono-alignment (Focus)

The Mono-alignment archetype describes a networking strategy type where a specific agreement implements just one networking decision and pursues just one strategic intent; and, vice-versa, a specific networking decision is implemented by just one agreement and a specific strategic intent is pursued by just one agreement. Also, a specific networking decision pursues just one strategic intent and, vice-versa, a specific strategic intent is pursued by just one networking decision.

Such finding applies to the X-ray case. Table 10 illustrates and describes such evidence.

Linkage and multiplicity illustration	**Linkage and multiplicity description**
	*From Agreement to Networking decision:* The agreement "Sourcing" is linked to (implements) the following networking decision: - Buy components from specialized intermediate market *From Networking decision to Agreement:* The networking decision "Buy components from specialized intermediate market" is linked to (implemented by) the following agreement: - Sourcing

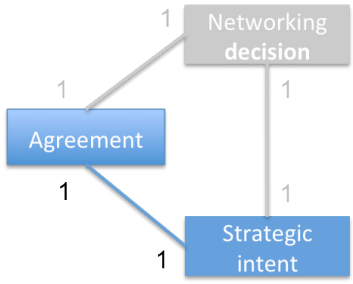
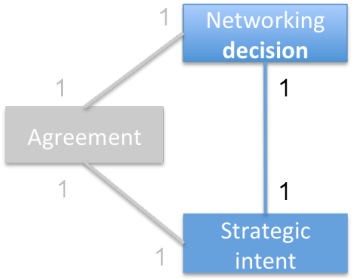
	*From Agreement to Strategic Intent:* The agreement "Sourcing" is linked to (implements) the following strategic intent: - Achieve high quality *From Strategic Intent to Agreement:* The strategic intent "Achieve high quality" is linked to (is pursued by) the following agreement: - Sourcing
	*From Networking Decision to Strategic Intent:* The networking decision "Buy components from specialized intermediate market" is linked to (pursues) the following strategic intent: - Achieve high quality *From Strategic Intent to Networking Decision:* The strategic intent "Achieve high quality" is linked to (is pursued by) the following networking decision: - Buy components from specialized intermediate market

Table 10. *Mono-alignment* (*Focus*) archetype: Evidence from *X-ray*

The presented archetypes represent an answer to the research question by capturing the intricacies of networking strategy as a combination of strategic networking decisions, strategic objectives, business agreements, their linkages and their multiplicity. Table 11 summarizes such results by listing the archetypes, the empirical evidences from which they emerged, their definition and the illustrative representations that graphically capture the classification of networking strategies we derived from the present research study.

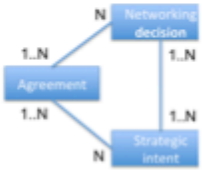
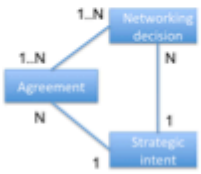
Archetype	*Multi-alignment*	*Multi-agreement (Diversification)*	*Multi-objective*	*Mono-alignment (Focus)*
Empirical evidences from case study	1) Sourcing and outsourcing (from Industrial Vehicle Equipments) 2) Agency contract (from X-ray) 3) Alliance (from X-ray)	1) Alliance, consortium, industrial district membership (from Collective Transport Vehicles)	1) Industrial district membership (from Industrial Vehicle Equipments) 2) Industrial district membership (from X-ray) 3) Alliance (from Industrial Vehicles Equipments) 4) Alliance (from X-ray) 5) Sourcing (from Collective Transport Vehicles)	1) Sourcing (from X-ray)
Definition	A specific agreement implements N networking decisions and pursues N strategic intents; and vice-versa a specific networking decision is implemented by 1 or more agreement/s and a specific strategic intent is pursued by 1 or more agreement/s; and where a specific networking decision pursues 1 or more strategic intent/s and vice-versa a specific strategic intent is pursued by 1 or more networking decision/s.	A specific agreement implements one or more networking decision/s and pursues just one strategic intent; and vice-versa a specific networking decision is implemented by 1 or more agreement/s and a specific strategic intent is pursued by more then one agreements; and where a specific networking decision pursues just one strategic intents and vice-versa a specific strategic intent is pursued by more then one networking decisions.	The Multi-objective archetype describes a networking strategy type where a specific agreement implements just one networking decision and pursues N strategic intents; and vice-versa a specific networking decision is implemented by just one agreement and a specific strategic intent is pursued by just one agreement; and where a specific networking decision pursues N strategic intents and vice-versa a specific strategic intent is pursued by just one networking decision.	The Multi-alignment (Focus) archetype describes a networking strategy type where a specific agreement implements just one networking decision and pursues just one strategic intent; and vice-versa a specific networking decision is implemented by just one agreement and a specific strategic intent is pursued by just one agreement; and where a specific networking decision pursues just one strategic intent and vice-versa a specific strategic intent is pursued by just one networking decision.
Illustrative description				

Table 11. Summary of networking strategy archetypes

3.6 Discussion and Conclusions

The research presented in this chapter adopts a managerial perspective in order to investigate how firms are using networking strategy. Specifically I explore the existence of relationships and focus on associations' multiplicities among networking decisions, strategic intents and business agreements. Using three case studies, an other researcher and I identified four archetypes that relate, in different ways, networking strategy constructs and classify networking strategies in four different groups. The

analysis shows that managers, as theory suggests, always define their business networking strategy by aligning intents, decisions, and business agreement characteristics. However, what theory does not tell us is that there may be many, different, and complex combinations of the three elements above mentioned when formulating a networking strategy. In the research presented in this chapter I approach such an issue by focusing on the multiplicity of relations among them. In fact, interesting results have been found. Sometimes managers define and adopt a single business agreement contract to pursue a specific strategic objective, sometimes to reach the same objective they use a set of agreements, sometimes they choose a specific business agreement to reach a set of objectives. Things get still more complex if we also consider the element "networking decision" as a connecting bridge between strategic objectives and business agreements' choices. And, even in this case, empirical analysis shows that sometimes one decision (which can be made to pursue either one or many objectives) impacts on different agreements, sometimes on just one. Sometimes one agreement is influenced by just one manager networking decision, sometimes by many.

When investigating business-to-business relationships, this research suggests to focus not just on one kind of agreement but on the firm overall portfolio of agreements to understand how different agreements can play a complementary role in achieving firm's pre-fixed business objectives, both in terms of resources and operations performance. This introduces the need for new and innovative theories explaining and describing networking strategy as a complex set of elements, together with their linkages and relationships' multiplicities. For example it would be interesting to investigate what is the optimal level of contracts that meets the optimal trade-off between networking managing costs and networking strategic benefits. Also firm's characteristics could play an important role in the use of a networking strategy rather then other. For example, the *mono-alignment* strategy is pursued just by the X-ray company that is the smallest one. So it would be interesting to investigate how firm's characteristics, in term of size, industry and core activities, push managers to implement specific kinds of networking strategies.

The research presented in this chapter has both theoretical and practical implications.

It contributes to theory development in both OM and SM studies mainly in two ways. First, the identified archetypes represent an attractive theory development endeavor by offering a new taxonomy of networking strategies. They indeed suggest a diverse

mode of interpreting networking strategy by considering the multiplicity of relations among intents, decisions and business agreements. Second, by reviewing both OM and SM (Table 2, Table 3), it emerges that the most of studies in business networking focuses on just one kind of agreement (i.e. sourcing, alliance, joint venture) as a strategic weapon. However, the existence of *multi-agreement* and *multi-alignment* archetypes shows that sometimes managers make simultaneous use of different kinds of agreements to pursue one or more objectives. This suggests that new theoretical models explaining the strategic fit within business networking strategy formulation are strongly needed.

This research has also two main implications for practitioners. First, the existence of *multi-agreement (Diversification)* archetype suggests that managers can minimize the risk of loosing the potentiality of networking collaboration by undertaking different kinds of agreements for the same strategic objective. Like finance managers diversify their portfolio to reduce risk by investing in a variety of assets, networking managers diversify their business agreements portfolio in order to increase the probability of success in pursuing their strategic objective. Second, the *multi-objective* archetype suggests practitioners that multiple strategic objectives can potentially be pursued by signing just one agreement. This means that precise and calculated business agreement specifications can lead to the obtainment of more than one strategic objective, minimizing by this way the cost of managing several networking relationships. Managers should take into account this possibility and not simply sign contract to respond to sole objectives.

The main limitation of this research lays in its exploratory nature and its lack of confirmatory analysis for external validity (Eisenhardt, 1989). By using a small set of information and data, empirical evidences of the four archetypes have been found as described in the previous section. However, enlarging the data set would probably let emerge new or other kinds of relationship (in terms of multiplicity) among the investigated business networking elements (i.e. strategic intents, networking decisions, and business agreements). Both to keep exploring such issue and testing the here presented results and findings, further research will consist in collecting larger samples of empirical data on business agreements and use cluster analysis or other classification methods to identify types of networking strategy and compare them with the ones specified in this research.

The results of the present research show that managers opt for different networking strategy configurations as a combination of agreements, networking decisions and strategic objectives. This finding points to several areas where additional research may be particularly fruitful. First, there may be much to learn about the reasons and the drivers behind networking strategy configuration choice by investigating for the endogenous and external variables that influence such a choice. Second, it should be valuable to examine if the networking decisions made by managers effectively bring firms to pursue their pre-fixed strategic intents by conducting a longitudinal study that goes along overall the period from the elaboration of networking decisions until and after their implementations.

CHAPTER IV

INTERNAL, EXTERNAL, AND TRANSACTIONAL DRIVERS OF GOVERNANCE CHOICE: A SECONDARY DATA SOURCE ANALYSIS

4.1 Introduction

The results presented in Chapters II and III provide support to the strategic role played by networking decisions as a tool to gain competitive advantage, both in terms of operations performance objectives and resources and capabilities achievement, through the adoption of specific business agreements. Specifically, the resource-based perspective of the conceptual model presented in Chapter II (Figure 2) underlines and supports the importance of business-to-business relationships as a way to gain access to external resources from which firms can achieve a competitive advantage (Pfeffer and Salancik, 1978). In this chapter, I focus my attention on this perspective and specifically on the networking decision dimension of make/buy/make together (Section 2.3). However this time I do not analyze how this networking decision dimension allows firm to achieve specific kind of resources, but how specific resource based drivers lead the firm to choose among different kinds of governance mode, in a continuum from hierarchy to market (i.e. make/make together/buy). Moreover, I categorize the resource-based drivers into two drivers categories that are generally considered in the literature for governance mode choice, and that are generally referred as *internal* and *transactional* factors. Finally I also consider one other class of drivers that are generally referred as *external* factors. The investigation about what are the drivers that can predict the adoption a certain kind of governance mode rather then an other is an issue that has attracted different researchers. The TCT (Coase 1937; Williamson 1975, 1985) and the RBT (Barney, 1991; Penrose, 1959; Wernefelt, 1984) offer two different but complementary perspectives that identify the main drivers for such kind of choice. In particular the transaction-cost theory suggests that a more integrative form of governance should be preferred to the market when the asset specificity, the frequency of the transaction and the environmental uncertainty are high, while a market based relationship should be choose otherwise in order to minimize the cost of the transaction. On the other side the resource-based view recommends to choose the governance mode that, better then others, provides the best

opportunity for sharing and transferring resources. Accordingly, a hierarchical-oriented form of governance should be chosen for a permanent share and transfer of resources, an hybrid form (e.g. alliance and joint venture) for a spot pooling of resources in response of a changing environment, while a market-oriented form of governance to get access to specialized resources and capabilities.

Studies on how to make decisions about boundary largely fall into three groups depending on the governance mode involved in the choice. The first and older group regards the *make or buy* dichotomy and includes those studies that adopt TCT to explain empirical phenomena related to the choice between a hierarchy-oriented versus a market-oriented form of governance for a specific transaction (e.g. Monteverde and Teece, 1982). The second group regards the choice between *make or ally* and involves those studies that investigate what are the main drivers that lead a firm to adopt a hierarchy-oriented governance (i.e. merger or acquisition) or an hybrid form (i.e. alliance or joint venture) (e.g. Hoffmann and Schaper-Rinkel, 2002). The third group regards the choice between *make, make together or sell* and is well represented by the work of Villalonga and Mcgahan (2005) that analyze the drivers that lead a firm to choose among acquisitions, alliances, or divestitures. Also by reviewing these studies I individualize three main kinds of drivers that affect the choice between different governance modes. The first category regards *internal factors* that refer to firm's characteristics, such as its resources and capabilities endowment (e.g. White, 2000). The second category regards *transactional factors* that refer to transactional characteristics, such as specificity of transaction-related investments and transaction cost (e.g. Hoffmann and Schaper-Rinkel, 2002). The third category regards *external factors* that refer to environmental characteristics, such as industry competitiveness and environmental uncertainty (e.g. Geyskens et al., 2006).

While there has been extensive study of the drivers affecting the choice of make vs. buy, there has been little study about factors influencing the choice between make vs. make together vs. buy. Also, to the best of my knowledge, none of these kinds of studies consider at the same time all the three kinds of factors. Finally all these studies consider as *transactional factors* the TCT based drivers (i.e. transaction cost, frequency, asset specificity, uncertainty) while neglecting the characteristics of the business activity, which is the object of the transaction.

In an attempt to fill this gap, the research presented in this chapter aim at answering the following research question: "What are the main drivers that generally lead a firm

to choose a specific governance mode for a specific business activity in a continuum from market to hierarchy?"

In this chapter I build a framework and operationalize it into hypotheses regarding how the choice between make, make together or buy is affected by *transactional factors* that are not derived from TCT, *internal factors* that are related to the activity involved in the transaction, and *external factors* that are related to the competitive environment. Specifically I consider mergers and acquisitions (M&A), strategic alliances and joint ventures (A&JV), and supply agreements (SA) as strategic alternatives along a continuum from hierarchy to market of business-to-business relationships. In the hierarchical side of such continuum are the M&A deals where the target partner resources are permanently pooled with the acquiror ones. In the market side are the SA deals where the partner resources are temporally or permanently indirectly accessed and exploited. In the middle of the spectrum are the A&JV deals where the partner resources are temporally pooled with the focal firm ones.

Then I test the developed hypotheses by a secondary data source longitudinal study. Specifically the sample includes all of the M&A, A&JV, and SA announced and completed between 2000 and 2010 by 88 of the first 100-ranked members of the *Fortune* 500 of the year 2000. In total, I collect data from 4316 agreements. I take the agreement as unit of analysis and I test the hypotheses by using an ordered logistic model of the choice among make, make together, and buy. The results support three among four hypotheses and show that all the three kinds of factors (internal, transactional, and external) should be considered when analysing drivers that impact the firm's choice among different forms of governance.

This chapter is structured as follows. The following section 4.2 develops hypotheses from theories (RBT, knowledge-based theory and institutional theory). Section 4.3 presents the research method I adopt to test the hypothesis. Section 4.4 shows and discusses results and findings. Finally, conclusions are drawn in section 4.5.

4.2 Theory and Hypotheses

I rely on different theoretical perspectives and empirical evidences to identify the key drivers that lead to the choice of a specific governance mode in a continuum from hierarchy to market of business-to-business relationships. Specifically I operationalize internal factors by using the variable "firm's internal resource and capability"

involved in the transaction in line with RBT and knowledge based theory; transactional factors by using the variable "business activity type" in line with the knowledge based theory and empirical evidences; external factors by using the variable "complementary firms" in line with the vertical disintegration stream of research and empirical evidences as well, and "governance mode trend" in line with the institution theory.

Figure 9 summarizes the resulting conceptual framework and the relative hypotheses I build regarding the linkage among such factors and the choice between make, make together or buy. In the following sections I describe in details how such hypotheses have been derived.

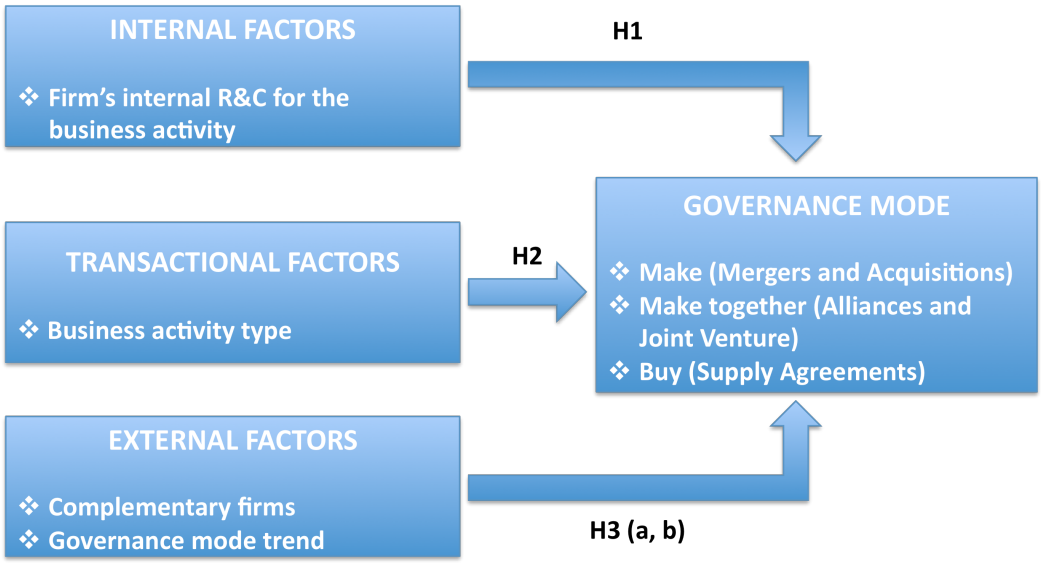


Figure 9. Conceptual Model

4.2.1 Firm's internal R&C for the business activity (Internal factor)

Resource based view explains firms as bundles of resources (Penrose, 1959). Business-to-business relationships can be viewed as a response to firm's claim for specific resources.

From one side, M&A and A&JV allow firms to permanently/temporally pool and enrich their existing resource endowment; on the other side, SA allow them to gain access to the resources they need without integrating with them or internally develop them.

Also, according to the knowledge-based theory (Grant, 1996) firms can gain benefits of their cooperation through exchange knowledge, combining complementary

knowledge and create new capabilities. Thus if a firm already owns resources and capabilities to deliver specific activity/s it can leverage such competencies and thus improves the activity performance itself by exchanging its existing knowledge with other partners. Especially M&A allow firms to gain benefits of economies of scale and scope by pooling their similar resources for the delivery of similar activities. Also, such economies allow the acquiror sinking the high level of capital requested by this kind of deals. On the other side, a firm can acquire knowledge to deliver a specific activity when it owns in part the knowledge to do it but it still needs more. In this case A&JV represent a good way to get advantage by the synergic effect of pooling complementary resources. Finally, when the firm's resource endowment to deliver a specific activity is very low, the benefits of cooperation are lower and it's more convenient to demand it directly to specialized firms. Accordingly the following hypothesis can be stated:

Hypothesis 1: The higher the firm's internal R&C to carry out the business activity (which is the object of the transaction) is, the higher the likelihood the firm chooses M&A over A&JV over SA.

4.2.2 Business activity type (Transactional factor)

Since innovation primarily requires new synergies of resources and capabilities, a constant inflow of knowledge from external sources is required to create a productive research and development (R&D) environment (Fey and Birkinshaw, 2005). The biopharmaceutical industry shows how pharmaceutical firms acquire new R&D capabilities by acquiring (M&A) the new entrants biotechnology firms. Moreover there is a huge amount of literature that confirms A&JV as instrument of organizational learning (Hamel, 1991; Kogut and Singh, 1988) and of acquiring new capabilities to get competitive advantage, also in line with the knowledge based theory. The formation of A&JV for R&D activities is a continuous trend in technology-intensive industries (e.g., semiconductors, computers, software) since 1975. Such a trend has been empirically motivated by the involvement of higher levels of knowledge and technology transfer among participants (Mowery et al., 1996). Furthermore, because of the high level of tacit knowledge frequently involved in technological capabilities for this task alliances and joint venture have shown to

have advantages over conventional contracts or market since they allow more knowledge transferability (Fey and Birkinshaw, 2005). Accordingly, I state that:

Hypothesis 2: The more knowledge-intensive the business activity (which is the object of the transaction) is, the more, the higher the likelihood the firm chooses M&A over A&JV over SA.

4.2.3 Complementary firms (External factor)

I refer to complementary firms of an industry as firms (incumbents or new entrants) that own capabilities that are different, yet mutually supportive (Luo, 2002; Hitt et al., 2001). The emergence of intermediate markets that own specialized and complementary capabilities leads the focal firm to demand many of its activities to such specialized firms. Indeed these strategic relationships can create unique and valuable synergy that can allow the firm to get advantage in the industry. According to the stream of research originally characterized as 'vertical disintegration' (Stigler, 1951), the emergence of intermediate markets is mainly driven by the willing of firms to gain advantages from the trade of specialized production. Also, it has been asserted that outsourcing to specialized firms capital-intensive production activities enhances a firm's ability to respond flexibly to changes in technology or demand and to reduce product development cycle times (e.g., Harrigan, 1983). This trend can be for example observed in the electronic industry with the emergence of electronics manufacturing services and original design manufacturing firms and the corresponding growth of original equipment manufacturers in these sectors that only market, but do not design or manufacture, their own equipment. Accordingly firms can have access to valuable and specialized capabilities cost effectively by demanding activities to newly formed intermediate markets. Accordingly the following hypothesis can be stated:

Hypothesis 3a: The higher the number of complementary firms in the focal firm industry, the higher the likelihood the firm chooses SA over A&JV over M&A.

4.2.4 Governance mode trend (External factor)

The cognitive domain refers to the shared beliefs and values that lead the actors of a given organization or societal entity to interpret and motivate specific context in a

certain way. Such a domain is considered as the "internalized symbolic representations of the world" (Scott, 1995). Consequently, firms decision makers are unaware of the full range of known alternatives (DiMaggio and Powell, 1983; Greenwood and Hinings, 1996) and consider just the options with high levels of cognitive legitimacy. Regarding the adoption of specific governance mode rather than other, the cognitive domain suggests that firms that belong to a particular industry will tend to imitate the governance mode choice adopted by the most of firms in the industry.

Hypothesis 3b: The higher the M&A governance mode trend in the focal firm industry is, the higher the likelihood the firm chooses M&A over A&JV over SA.

4.3 Research method: Secondary data analysis

The research method adopted to test the theory-based hypotheses consists in a secondary data-set analysis. Secondary data analysis consists of analyzing data collected by someone else, not specifically for the research questions at hand, and using these data to get a better understanding of a theoretical concept (Stewart, 1984; Frankfort-Nachmias and Nachmias, 1992). The main advantage of adopting a secondary source of data consists in time and cost saving, since the collection research phase just consists in the definition of the search criteria and the output information. On the other side, the main drawback of using such kind of data is the reliability and the accuracy of the data provided. Thus an accurate phase of data check is suggested. Also, the use of secondary data sourcing for scientific research is usually suggested in the exploratory phase or for theory building purpose, that is the objective of the research presented in this chapter. Different sources are generally used to collect such kind of data. Basically four categories of secondary data sources can be identified according to the reference collector: 1) scientific literature-based source that refers to data collected by researchers, such as articles, books and research reports; 2) organization-based source that refers to information offered by organization and that are available in the public domain, such as annual reports and organizational statistics; 3) government-based source that refers to company and industry information collected by government agencies, such as industry statistics; 4) business data provider-source that refers to private companies who collect different kind of business data. I actually

used this last kind of secondary data-source. Specifically I collected the information I needed from the Security Data Company (SDC) Platinum and from ORBIS. SDC is a multi-sector database that collects a very wide range of agreements typologies from 1990 and 2005. Specifically, regarding business deals, SDC provides two data set, one regarding M&A agreements and an other regarding alliances and joint ventures. The information provided concern, among others, the name, the SIC code, the nationality of the participants, and the terms of the deal. ORBIS is a global company database that provides private company financial information (depending on the country in which the company is located.). Also ORBIS, allow the user to get extensive data about a company including locations of subsidiaries; screen for companies based on geography, financial performance, industry, deals, ownership structure, number of employees, year of incorporation and other criteria; compare a company to its competitors along multiple dimensions.

In the following section 4.3.1, 4.3.2, and 4.3.3, I present the three main stages that constitute the research method phases. The first stage regards the operationalization of variables emerging from the hypothesis. Such an operationalization aims at defining the way to measure each of these variables in a quantitative way and the source of information for collecting the raw data to be transformed in such measures. The second stage consists in the data collection for which I refer to SDC and ORBIS. This stage aims at building the final data set. The third stage consists in the analysis of the data by applying an ordered logit regression. Finally in section 4.4 and 4.5 I present the results of the data-set analysis and I discuss findings, contributions and conclusions of the here presented research.

4.3.1 Variables operationalization

The first stage of the empirical research consists in defining the measures of the variables emerged by the hypotheses. Starting from Hypothesis 1 the first variable to be measured is the level of *firm's internal R&C for the business activity*. This variable refers to the contribution of the focal firm R&C to the ones requested for the delivery of the business activities involved in the transaction. Specifically, I measure this variable as the ratio between the R&C that the focal firm already owns to carry out the business activities involved in the transaction, and the overall R&C requested to carry out these activities. Thus its value is 1 if the focal firm owns all the R&C requested by

the business activities involved in the transaction, 0 if it does not own any of the R&C requested, a percentage value between (0, 1) in the other cases. For the measure of this variable I collect information in SDC about the participants SIC code and the deal SIC code when the deal regards an alliance, a joint venture or a supply agreement; about the acquiror and target SIC code when the deal is a merger or an acquisition.

The variable involved in Hypothesis 2 regards the *business activity type*. This variable individualizes two main activity categories: from one side the research and development (R&D) activities and from the other the manufacturing and marketing (M&M) activity. Specifically, it assumes the value 2 if the business activities involved in the transaction regard R&D activities, while 1 if concern M&M activities. The higher value considered for the R&D activities signals the higher level of tacit knowledge frequently involved in this kind of activities. Information about the activity type was found in SDC. Specifically it refers to the activity type involved in the deal for A&JV and SA; while to the target business activity type for M&A. Proceeding with Hypothesis 3, there is the *complementary firms* variable. This variable refers to the number of firms that belongs to the same major group of the standard industry classification (SIC) as the focal firm, but operate in different SIC industry groups. For example let's suppose that the focal firm belongs to the SIC major group "transportation equipment", and specifically to the SIC industry group "motor vehicles and motor vehicles equipment". In this case the focal firm's complementary firms are those that belongs to the SIC major group "transportation equipment" but do not operate in the SIC industry group "motor vehicles and motor vehicles equipment". I collect information about focal firm SIC code in SDC, while about the number of complementary firms in ORBIS. Hypothesis 4 concerns the *governance mode trend*. This variable refers to the trend of the industry (i.e. of companies that have the same SIC code) towards adopting hierarchy-oriented governance mode (i.e. there are more M&A than A&JV or SA). Specifically the variable takes the value 2 if the number of mergers and acquisitions is bigger than the alliances and joint venture and supply agreements; 1 otherwise. Also this information is obtained through SDC, by screening for M&A, A&JV and SA deals that were undertook between 2000 and 2010 by firms that belong to the same SIC code of the focal firm. Finally there is the *governance mode* variable that is the dependent one. This variable takes the value 2 if the deal of the focal firm is a merger or an acquisition; 1 if it is an alliance or a joint venture; 0 if it is a supply agreement. SDC was the main data source for deals collection.

Table 12 presents for each variable, the way it is measured, the hypothesis it serves to test, its predicted sign, and the data source.

Variable	Measure	Hypotheses	Sign	Source
Governance mode	The variable takes the value 2 if the deal of the focal firm is a merger or an acquisition; 1 if it is an alliance or a joint venture; 0 if it is a supply agreement	1, 2, 3a, 3b	/	SDC
Firm's internal R&C for the business activity	Proximity in the SIC codes of the focal firm and the business activities involved in the transaction. In case of M&A, the measure is the ratio of the number of focal firm's SIC codes that are equal to the target firms and the number of all the SIC codes of the target firms. In case of JV&A and SA, the measure is the ratio of the number of focal firm's SIC codes that are equal to those of the deal and the number of all the SIC codes of the deal.	1	+	SDC
Business activity type	The variable takes the value 2 if the activities of the target firm (in mergers and acquisitions) and of the deal (in alliances and joint ventures, and supply agreements) regard research and development; while 1 if they concern manufacturing and marketing	2	+	SDC
Complementary firms	The measure is the ratio of the number of firms that have the first two digits of their primary SIC code equal to the focal firm ones while the last two different, to the number of firms that have the first two digits of their primary SIC code equal to the focal firm ones	3a	-	SDC; ORBIS
Governance mode trend	The variable takes the value 2 if the number of mergers and acquisitions is bigger than the alliances and joint venture and supply agreements; 1 otherwise.	3b	+	SDC

Table 12. Hypothesis variables: measures, expected sign and source of information

4.3.2 Data collection

The second stage of the empirical research consists in collecting the information to measure the variables. I construct the dataset in seven steps. First, I select among the first 100-ranked members of the *Fortune* 500 of the year 2000 those who engaged in at least one of the three kinds of deals I consider (M&A, A&JV, SA) between the 2000 and 2010. The final sample was composed by 88 of the first 100-ranked members. Second, I collect information from SDC *Mergers and Acquisitions* database on mergers and acquisitions announced and completed between January 1, 2000, and January 1, 2010, by the 88 firms and by their subsidiaries. Specifically, I collect the following information about the acquiror and the target firm: ultimate and immediate parent company, full name, SIC codes and full business descriptions. Also I collect information about the synopsis of the deal. Third, I collect information from SDC *Joint venture and Alliances* database on joint ventures and alliances announced and completed between January 1, 2000, and January 1, 2010, by the 88 firms and their subsidiaries. Specifically, I collect information about the name and the SIC codes of the focal firm and its partners, the kind of the agreement (among manufacturing, marketing, research and development, and supply) and all the deal SIC codes. Fourth, I collect information from SDC *Mergers and Acquisitions* and *Joint venture and Alliances* on the total number of M&A and A&JV and SA announced and completed between January 1, 2000, and January 1, 2010 by firms with the same primary SIC codes of the 88 firms and their subsidiaries. Fifth I depurate collected data from the reporting errors in SDC (repeated announcements of a single deal, wrong name of the focal firm). Sixth, I collect information from ORBIS on the total number of firms that belong to the same SIC industry major group of the 88 firms and their subsidiaries; and on the total number of firms that belong to the same SIC industry major group of the 88 firms and their subsidiaries but operate in different SIC industry groups. Finally, I take each deal as unit of analysis and build the dataset by transforming the raw data collected into the variable measures previously defined. The final dataset includes 4316 observations coming from all of the M&A, A&JV, and SA announced and completed between 2000 and 2010 by 88 of the first 100-ranked members of the *Fortune* 500 of the year 2000.

Table 13, 14 and 15 describe the screened data set. Table 13 indicates that 2926 of the deals in the sample (68%) are mergers and acquisitions, 1370 (32%) are alliances and

joint ventures, and 20 (0%) are supply agreements. The sample firms engaged in an average of 49 deals, of which 33 were M&A, 15 were A&JV, and 0,22 were SA.

Table 14 lists the number of mergers and acquisitions, alliances and joint ventures, and supply agreements for each firm of the sample over the period between 2000 and 2010. As the table shows, some firms used mixed governance strategies, while others specialized in one particular governance form. Citigroup had most acquisitions (330). Microsoft had most alliances (210). Dell had most supply agreements (4), immediately followed by General Motors and Ford (3). Finally Citigroup pursued more total deals than any other firm (347). TIAA-CREF, Chevron Texaco and FleetBoston Financial pursued fewer deals than any other firm (1).

Table 15 shows the distribution of deals by focal firm sector (where the sector refers to the industry division as classified by the Standard Industrial Classification). The most deals of all types are in manufacturing. The fewest deals occur in the mining sector.

	Mergers and acquisitions	Alliances and joint ventures	Supply agreements	All deals
Average	33,25	15,56818182	0,227272727	49,04
Median	14,5	7	0	28,5
Min.	0	0	0	1
Max.	330	210	4	347
Total no. of deals	2926	1370	20	4316

Table 13. Mergers and acquisitions, alliances and joint ventures, supply agreements by 88 of the first 100-ranked Fortune 500 over the year 2000

Focal firm name	**Mergers and acquisitions**	**Alliances and joint ventures**	**Supply agreements**	**All deals**
Aetna	2	1	0	3
Allstate	4	2	0	6
Altria Group	42	0	0	42
American Express	27	36	0	63
American Intl. Group	0	2	0	2
AMR	1	3	0	4
Aquila	4	2	0	6
AT&T	66	39	0	105
AutoNation	8	0	0	8
Bank of America Corp.	75	20	0	95
Bank One Corp.	0	2	0	2
BellSouth	10	12	2	24
Berkshire Hathaway	128	1	0	129

Boeing	22	28	0	50
Bristol-Myers Squibb	9	33	0	42
Cardinal Health	34	11	0	45
Caterpillar	32	7	0	39
Chase Manhattan Corp.	0	7	0	7
ChevronTexaco	0	1	0	1
Cigna	15	0	0	15
Citigroup	330	17	0	347
Coca-Cola	120	15	0	135
Compaq Computer	16	32	0	48
ConAgra Foods	13	2	0	15
Conoco	21	5	1	27
Costco Wholesale	1	1	0	2
CVS	0	2	0	2
Dell	0	27	4	31
Dow Chemical	2	17	0	19
Duke Energy	28	10	0	38
DuPont	0	9	0	9
Electronic Data Systems	0	27	0	27
Enron	19	9	0	28
Exxon Mobil	21	11	0	32
FleetBoston Financial	0	1	0	1
Ford Motor	42	28	3	73
General Electric	196	20	0	216
General Motors	12	19	3	34
Georgia-Pacific	11	2	0	13
Goldman Sachs Group	288	11	0	299
GTE	0	2	0	2
Hewlett-Packard	74	98	0	172
Home Depot	35	3	0	38
Honeywell Intl.	48	32	0	80
Ingram Micro	15	13	0	28
Intel	78	57	1	136
International Paper	32	4	0	36
Intl. Business Machines	148	3	0	151
J.P. Morgan	0	20	0	20
Johnson & Johnson	63	9	0	72
Kroger	12	1	0	13
Lehman Brothers Hldgs.	120	12	0	132
Lockheed Martin	31	33	2	66
Loews	14	0	0	14
Lucent Technologies	21	52	0	73
Marathon Oil	0	6	0	6
McKesson	0	13	1	14
Merck	17	60	0	77
Merrill Lynch	0	21	0	21
MetLife	31	4	0	35
Microsoft	110	210	0	320
Morgan Stanley	0	8	0	8
Motorola	1	82	1	84
New York Life Insurance	14	1	0	15
PepsiCo	24	7	0	31
Procter & Gamble	28	13	1	42
Prudential Financial	66	3	0	69

Raytheon	15	17	1	33
Safeway	12	0	0	12
Sara Lee	0	2	0	2
SBC Communications	0	7	0	7
Sears Roebuck	9	5	0	14
Sprint	5	7	0	12
State Farm Insurance Cos	0	2	0	2
Supervalu	4	0	0	4
Sysco	21	0	0	21
Target	0	4	0	4
Texaco	0	11	0	11
TIAA-CREF	0	1	0	1
Time Warner	0	29	0	29
United Technologies	126	5	0	131
UnitedHealth Group	35	3	0	38
Wachovia Corp.	0	5	0	5
Wal-Mart Stores	26	7	0	33
Walgreen	38	4	0	42
Walt Disney	39	0	0	39
Wells Fargo	0	8	0	8
Xerox	15	14	0	29

Table 14. Mergers and acquisitions, alliances and joint ventures, supply agreements for each of the 88 firms selected from the first 100-ranked Fortune 500 over the year 2000

Sector (SIC Division)	**Mergers and acquisitions**		**Alliances and joint ventures**		**Supply agreements**		**All deals**	
	Number	% of all deals	Number	% of all deals	Number	% of all deals	Number	% of all deals
Finance, Insurance, and Real Estate	1149	86%	188	14%	0	0%	1337	100%
Manufacturing	831	55%	659	44%	17	1%	1507	100%
Mining	40	60%	27	40%	0	0%	67	100%
Retail Trade	145	84%	27	16%	0	0%	172	100%
Services	360	56%	278	44%	0	0%	638	100%
Transportation, Communications, Electric, Gas, and Sanitary Services	331	68%	154	32%	2	0%	487	100%
Wholesale Trade	70	65%	37	34%	1	1%	108	100%
All sectors	2926	68%	1370	32%	20	0%	4316	100%

Table 15. Number of mergers and acquisitions, alliances and joint ventures, and total number of deals by focal firm sector

Finally, Table 16 shows the number of values, the minimum, the maximum, the average and the standard deviation of each of the variable involved in the final data set.

Variables	N	Minimum	Maximum	Average	Standard Deviation
Governance mode	4316	0,00	2,00	1,6230	0,49462
Firm's internal R&C for the business activity	4316	1,00	2,00	1,1077	0,31009
Business activity type	4316	0,00	1,00	0,3643	0,42442
Complementary firms	4316	0,00	1,00	0,8763	0,14921
Governance mode trend	4316	1,00	2,00	1,4634	0,49872

Table 16. Descriptive statistics of the model variables

4.3.3 Data analysis

All of the developed hypotheses predict a linear relationship between the independent variable and the level of integrity of the governance mode. Indeed they suggest that higher values of the independent variable will lead to higher (or lower) values of the dependent. I use an ordered logistic model where the dependent variable is called "governance mode" and takes three possible values. Specifically, the governance mode variable is set to 2 if the deal involves a merger or acquisition, 1 if it concerns an alliance or a joint venture, and 0 if the deal regards a supply agreement. Higher values indicate higher degrees of integration along the market-hierarchy continuum. Thus, a positive (negative) coefficient on any of the independent variables can be interpreted as a higher (lower) probability that the firm chooses to adopt M&A over A&JV over SA.

The ordered logistic model (also known as the proportional odds model) is a regression model for ordinal dependent variables that can assume more than two ordered response categories. Also the multinomial logistic regression can be used when the dependent variable consists of more then two categories but in this case the response is nominal (also known as categorical), that in other words means that the dependent variables can assume a set of categories which cannot be ordered in any

meaningful way. Thus, since the ordinal nature of the dependent variable of this research the most appropriate models fall into either an *ordered probit* or *ordered logit* model. I prefer the adoption of an ordered *logit* model rather then a *probit* one, even if the results of *probit* and *logit* are quite similar (Greene, 1990), because of the observational and nor experimental nature of the study conducted in this research.

The ordinal logistic regression is also called proportional odds model, since the parameters (regression coefficients) of the independent variable are independent of the levels (categories) of the ordinal dependent variable, and because these coefficients may be converted to odds ratio, as in logistic regression. Ordinal regression requires assuming that the coefficients of the independents are the same for each level of the dependent. This assumption is called the *proportional odds* or the *parallel regression* assumption. In the ordinal regression there will be multiple regression equations, one for each level of the ordinal dependent except the last. The *parallel regression assumption* assumes that the regression lines are parallel for each level of the dependent that means that the coefficient estimates for each independent variable are the same; only the intercepts differ. The violation of this assumption can render the use of ordinal regression inappropriate since estimates may be seriously biased. Thus, before to proceed with the analysis of the data, I execute the parallel line test in order to check the parallel regression assumption over the built data set. The parallel line test is non-significant in a well fitting model. The test I conduct over the data set is a likelihood ratio test of the difference in -2 log likelihood between a model constrained to have equal slopes for the predictor variables and an unconstrained model. Table 17 shows that the parallel lines test is non-significant, meaning that the regression slopes do not differ significantly across levels of the dependent variable, "governance mode".

Model	**-2 Log Likelihood**	**Chi-Square**	**df**	**Sig.**
Null Hypothesis	1819,427			
General	1815,920	3,506	4	0,477

Table 17. Test of parallel lines[1]

1 The link function is a logit. The null hypothesis states that the slope coefficients are the same across response categories.

Also I check that the independent variables of the model are not correlated. Table 18 reports the resulting correlation matrix of the dataset. The matrix reports the Pearson coefficients. By assuming that the correlation is significant when such coefficients are equal or higher then 0.5, the matrix shows that the independent variables of the model are not correlated.

	1	2	3	4
1. Firm's internal R&C for the business activity type	1			
2. Business activity type	0.055	1		
3. Complementary firms	0.004	0. 056	1	
4. Governance mode trend	-0. 120	-0.134	-0.213	1

Table 18. Correlation matrix

In order to test the literature-based hypotheses developed in section 4.2, I assume the following regression model:

$$Y_i = \alpha + \beta_1 \cdot x_{i1} + \beta_2 \cdot x_{i2} + \beta_3 \cdot x_{i3} + \beta_4 \cdot x_{i4}$$

Where:

Y_i refers to the governance mode associated to the i^{th} deal;

x_{ij} refers to the j^{th} independent variable associated to the i^{th} deal;

α is the intercept of the linear regression;

β_j is the angular coefficient of the j^{th} independent variable.

According to Hypothesis 1, 2 and 3b, I expect a positive value for β_1, β_2 and β_4, since the more the firm owns the R&C requested by the business activity that is the object of the transaction (it refers to β_1); the more this activity is knowledge based (it refers to β_2); and the more the governance mode in the industry is hierarchy oriented (it refers to β_1), the more the governance form should be oriented towards the hierarchy. On the other side I expect a negative value for β_4 since the higher the number of complementary firms in the industry where the firm operates, the more the governance mode in the industry should be oriented towards the market.

The results coming from the ordered logistic regression applied on the data set built for this research (see sub section 4.3.2), are presented and discussed in the next section.

4.4 Results

The results of the ordered logistic analysis linking internal, transactional and external factors to the governance mode choice are presented in Table 19. The table shows the results when the dependent variable (i.e. the governance mode) assumes three possible values (for M&A, A&JV, and SA).

The firm's internal R&C for the business activity variable is significantly and positively associated with the choice of a more hierarchical governance mode, as predicted by Hypothesis 1. This result shows that the higher the fitting between the firm's internal resources endowment with the resources requested by the business activities involved in the transaction, the higher the intent of the firm to strictly share it with other partners. This result enriches the knowledge-based theory by suggesting that firms can gain benefits not just combining complementary knowledge, but also by pooling their expertise in the same area of knowledge.

The business activity type variable is significantly and positively associated with the choice of a more hierarchical governance mode, as predicted by Hypothesis 2. This result supports the idea that high tacit knowledge-oriented business activities are carried out by more hierarchical governance mode. Thus, in this sense, a hierarchical solution appears as an instrument to easier acquire tacit knowledge from partners.

The complementary firms variable is statistically non-significant in the ordered logistic model. Thus, Hypothesis 3a is not supported in the analysis.

The governance mode trend is significantly and positively associated with the choice of a more hierarchical governance mode, as predicted by Hypothesis 3b. This finding supports the institutional theory for which organizations adopt structures and practices that are "isomorphic" to those of the other organizations. This result also alerts researchers that investigate the adoption of governance mode choices in specific industry to consider the indirect effect that the industry governance mode trend has on the specific firm choice.

Variable [a]	Hypothesis	Coefficient	Standard Error
Firm's internal R&C for the business activity type	1	0.431***	0.1073388
Business activity type	2	0.338***	0.0812987
Complementary firms	3a	-0.102	0.0002638
Governance mode trend	3b	1.630***	0.0723046
Cut point no. 1		-2.782	
Cut point no. 2		2.216	
Log likelihood		-1819,427	
No. of observations		4316	
Prob. > χ^2		0.000	
Pseudo R^2		0.169	

[a] The dependent variable is an ordinal variable called "governance mode" and can takes one of three values: 2 for mergers and acquisitions, 1 for alliances and joint ventures, 0 for supply agreements.
[b] *** $p < 0.01$

Table 19. Ordered logistic analysis of governance mode choice

4.5 Findings, contribution, and conclusions

The research presented in this chapter examines 4316 deal announcements among M&A, A&JV and SA made by the first 100-ranked members of the *Fortune* 500 of the year 2000 between 2000 and 2010. The purpose is to study how firm's internal R&C for the business activity, the business activity type, the number of complementary firms and the governance mode trend of the focal firm industry, affect the choice among mergers and acquisitions, alliances and joint ventures and supply agreements.

These factors belong to the three main categories of factors considered in the literature stream of studies regarding the drivers that lead firms to choose among different kinds of governance modes for the delivery of specific business activities.

The first category refers to the focal firm internal characteristics. Among others, the most recurrent firm attribute considered regards the firm's resources existing endowment. Indeed according to the RBT, resources consideration is the most important driver of firm strategic decision. I specifically address the *internal factor* by considering not the overall firm's resources endowment but the level of R&C that the firm owns respect to the R&C requested to carry out the activities that are involved in the transaction. The high significance of this factor (that I refer to as firm's internal R&C for the business activity) provides support for the resource-based view by suggesting that R&C considerations are actually one of the main drivers for strategic

decisions in general and for governance choice in particular. Moreover the positive coefficient that relates this variable to the governance mode in a continuum from market to hierarchy suggests that firms are willing to combine resources that are similar to the partners one. This result gives a contribution to both the RBT and the knowledge-based theory. It contributes to the RBT by suggesting that not just the lack of resources leads firms to build relationship with others firms, but also the willing to share common resources leads them to strictly cooperate. Also, in regards to the knowledge-based theory, this finding provides a contribution suggesting that firms can gain advantage not just by pooling complementary capabilities but also by combining similar resources.

The second category refers to the transactional characteristics. In the literature these characteristics generally refer to the TCT based drivers (i.e. transaction cost, frequency, asset specificity, uncertainty) and consider the activity involved in the transaction as part of the governance mode choice (e.g. make or buy manufacturing of certain components). Since many studies in literature provide a huge support for TCT and the significance of transaction cost, frequency, asset specificity and uncertainty as drivers of hierarchy vs. market governance mode, I choose to consider a different transaction driver that in the conceptual model (Figure 9) I refer to as business activity type and that distinguishes R&D from M&M activities. The difference between the two kinds of activities is based on the characteristics of the tacit knowledge requested to carry out them. Specifically, R&D activities are generally characterized by higher level of tacit knowledge than those of M&M; accordingly, in the model R&D activities take higher value then M&M. The significance of the business activity type variable contributes to the TCT by suggesting that also the characteristics of the business activity involved in the transaction play a strategic role in the choice among different kinds of governance. Moreover the positive relation between this variable and the governance mode suggests hierarchical solutions as an instrument to easier acquire tacit knowledge from partners.

Finally, the third category refers to the focal firm's external characteristics. In line with many existing studies I consider industry attributes as external drivers of governance choice. I specifically consider two industry attributes: the number of complementary firms and the governance mode trend. Regarding the first one I build Hypothesis 3a that, according to the 'vertical disintegration' stream of research (Stigler, 1951), suggests that higher number of complementary firms should lead firms

to choose toward more market oriented governance solutions. Anyway this variable was not significantly related to the governance choice. I think that a more appropriate measure of this variable could provide different results. Regarding the governance mode trend variable, I build Hypothesis 3b that is based on considerations on the institutional theory. I specifically adapt this theory to the trend of a focal firm to imitate the governance mode adopted by the other firms that operate in the same industry. The significance of this variable provides support for the institutional theory and alerts researchers that study governance choice phenomena in a particular industry to consider the governance trend as a control variable of their model. Moreover it confirms that competitive environment characteristics actually affect firm's governance choice (Harrigan, 1988).

The results presented in this chapter gives provide support and contribution to the RBT, knowledge-based and TCT. Also the research presented in this chapter contributes to the stream of literature of studies focused on investigating the drivers that lead firms to choose among different kinds of governance modes. This contribution is three-fold. First, to the best of my knowledge, no studies exist exploring the impact of the three kinds of drivers generally considered (i.e. internal, transactional, external) on three different form of governances (i.e. mergers and acquisitions, alliances and joint ventures, strategic agreements). Second I enrich the factors of the three categories by considering new variables. Third the significance of the three categories as explanatory of governance mode choice suggests to future researchers in this area of knowledge to consider variables belonging to these three main categories.

Finally, the significance of the business activity type variable, which is the object of the transaction, opens new frontier for the research of governance mode choice drivers. Indeed it suggests that researchers could focus their attention on the characteristics of the specific activities involved in the transaction as drivers for governance choice. The variable just considers the tacit knowledge requested to carry out the activity. Also, I classify activities in two groups (R&D and M&M) without considering a deeper decomposition of these activities. For example it would be interesting to study the role played by different kinds of governance mode in enhancing the potentiality of different kinds of activities for competitive advantage creation.

CHAPTER V

CONCLUSIONS, CONTRIBUTIONS, AND FUTURE RESEARCH

5.1 Introduction

This chapter draws conclusions about the present study on business networking. Also it discusses the findings and underlines the main theoretical and practical suggestions and contributions coming from the research conducted. Finally the research methods and the findings are critically reviewed and limitations of the study are highlighted.

The organization of the chapter is divided into five sections. Section 5.2 summarizes the purposes, the methods adopted to pursue them and findings obtained in the researches presented in this study. Then section 5.3 and 5.4 present respectively the theoretical and practical implications and contributions derived from the research results. Finally, in section 5.5 the limitations of this study and the potentially future researches that could overcome and develop such limitations are addressed.

5.2 Summary and conclusions

Since the increasing relevance that inter-firms relationships play in nowadays economy, this study aims at contributing to the stream of knowledge about the strategic role of business networking. This study is based on a review of the most influential firm boundaries theories (Coase, 1937; Williamson, 1975Barney, 1991; Penrose, 1959; Wernerfelt, 1984; Dyer, 1998; Brandenburger and Nalebuff, 1998 Chopra and Meindl 2007; Sturgeon, 2003) and on many studies that face different aspects of business networking by referring to such theories and conducting empirical research. The review of the literature suggests that strategic drivers lead to specific form of governance mode and that specific characteristics of such governance mode also play a strategic role in the achievement of operations, business and relationship performance. However the review of such theories and studies has underlined many gaps that I face through a three-fold research in order to fill them and to open new research opportunities in the field of business networking.

First of all, the main theories on firm boundaries in literature focus on specific aspect of networking strategy (e.g. the TCT on the governance mode, the relational theory on

the governance mechanism, the operational approach on the typology of the network), but none of them groups all the most critical characteristics of business networking issues. Also very few studies investigate how such business networking issues are aligned with the business strategy. The purpose of filling these gaps is pursued in the first research phase that is presented in Chapter II. Starting with the individualization of the main theories that approach to different strategic aspects of business networking, the first research question is derived and stated as follows:

(1) "What are the main decisions that constitute a networking strategy and how do they act for the achievement of firm competitive advantage?"

Then a definition of networking strategy is provided as the composition of three main decision dimensions: 1) *make/buy/make together*; 2) *governance mechanism*; 3) *network base structure*. In order to address the second part of the research question (i.e. how do they act for the achievement of firm competitive advantage) and thus investigate how such dimensions are aligned with the business strategy, a market based and a resource based perspective are adopted for the identification of two different decomposition of the competitive advantage construct into elements of specificity. Then, the chapter presents, for each perspective, a systematic analysis of the literature that links each networking decision dimension to each element of specificity of the competitive advantage construct. As a result of such literature analysis, eight propositions are derived. Six of them provide support for the alignment of networking strategy and business strategy from a market based perspective; while the other two supports the resource based perspective.

The results of such research phase give the input for the following one. Indeed such results provide literature-based arguments supporting the alignment of networking strategy and business strategy. The second phase of the research aims at developing managerial-based evidences for the same arguments. Also, it aims at contributing to the literature studies about business networking decisions, agreements and strategic intents. Indeed such studies are generally focus on specific networking decisions, agreements and intents while none of them considers the overall set of each of these element and neither the linkages among such sets. The two fold purpose of filling this gap and providing empirical evidences of the literature based propositions resulting from the first phase of the research is pursued in the second research phase of the study that is presented in Chapter III. The chapter starts by presenting a literature review of OM and SM studies that take into account the following three elements:

agreement, networking decision and strategic intent. Thus the following research question is derived from the literature gap:

(2) What are the linkages (and their multiplicity) among intents, decisions, and agreements?

The research method adopted to face such issue is a multiple-case study-based field research, since case research is mainly used for explorative and theory building purposes (Voss, 2009). Within-case and cross-case analyses are conducted on a sample of 13 business agreements collected by semi-structured face-to-face interviews over 3 manufacturing firms in the mechatronic industry in Italy. The analyses lead to the definition of four different archetypes of networking strategy: 1) *Multi-alignment*; 2) *Multi-agreement (Diversification)*; 3) *Multi-objective*; *Mono-alignment (Focus)*. The archetypes capture different connections between "set" of strategic objectives that managers are willing to pursue, "set" of networking decisions that they consider, and "set" of strategic agreements that they actually adopt.

Finally, by considering just the literature studies focused on the networking decision about governance choice, none of them considers the trichotomy that in chapter II I refer as *make/buy/make together*. Also, even if many of these studies analyzed drivers regarding internal, transactional, and external factors, none of them take into account all of them and the characteristics of the business activity involved in the agreement.

In order to fill this gap and give a contribution to this stream of research, the third research phase presented in Chapter IV takes place. It specifically aims at investigating if and how factors related to 1) the characteristics of the firm respect to the business activity of the transaction (internal factor); 2) the type of business activity that is the object of the transaction (transactional factor); 3) and the characteristic of the industry where the firm operates (external factor), affect the networking decision dimension of make vs. buy vs. make together, that constitutes the first decision dimension of the networking strategy, as individualized in chapter II. Accordingly in the third research phase the following research question is investigated:

(3) What are the main drivers that generally lead a firm to choose a specific governance mode for a specific business activity in a continuum from market to hierarchy?

This issue is faced through a theoretical and empirical research. In the theoretical part I built four hypotheses about the impact that each of the identified driver has on the governance choice; while in the empirical part I build a data-set composed of 4316

mergers and acquisitions, alliances, and divestitures announced and completed by 88 of the first-ranked 100 members of the 2000 Fortune 500 between 2000 and 2010.
Then the hypotheses are tested by the application of an ordered logistic regression to the data set. The analysis provides supports for three among the four hypotheses and shows that internal, transactional and external factors do actually influence the choice among different form of governance in a continuum from market to hierarchy. Specifically the study demonstrate that high level of firm's R&C for the business activity (internal factor), R&D activity type (transactional factor) and the industry governance mode trend towards hierarchy (external factor) leads the firm to choose a more hierarchy-oriented governance mode in a continuum from market to hierarchy.

5.3 Theoretical implications and contributions on business networking literature

The three-fold research conducted in this study provides contribution to both theory and practice. It contributes to theory development in both the operations and strategic management fields in eight ways.
First of all, it provides the literature with a definition of networking strategy by grouping all the most discussed issues about business networking into three main decision dimensions (i.e. make/buy/make together; governance mechanism; network base structure).
Second it enriches the very poor literature concerning the alignment between networking strategy and business strategy. Specifically it provides literature based arguments that support such an alignment from two different perspectives derived from the two most relevant theories about competitive advantage creation: the positioning school (Porter, 1985) and the resource based theory (Barney, 1991; 1997). Such literature- based arguments suggests how the entire set of decisions concerning company boundaries definition should be made in accordance with the business strategy.
Third, it develops such literature-based findings by investigating an unexplored area in the realm of networking strategy. It indeed proposes a new mode of interpreting the alignment of networking strategy and business strategy that consists in considering networking strategy as the multiplicity of relations among strategic intents, networking decisions and business agreements. Accordingly, the study suggests to OM and SM researchers to consider not just one but the overall portfolio of

agreements when investigating the impact of networking decisions on strategic intents. Also it opens new area of research, for example the investigation of the optimal number of contracts that minimize the costs of managing business relationships while maximizing the networking strategic benefits.

Fourth, by conducting an empirical based analysis, this study provides the literature with a new taxonomy of networking strategy. Specifically it identifies four kinds of networking strategy that in this study are referred as networking strategy archetypes. Also one of the identified archetype (i.e. *mono-alignment*) suggests that also firm's characteristics could play an important role in the choice of a networking strategy rather then other. Indeed the *mono-alignment* networking strategy is pursued by the smallest company of the sample. So it would be interesting to investigate how firm's characteristics, in terms of size, industry and core activities, push managers to implement specific kinds of networking strategies.

Such an investigation is in part faced the third phase of the research of this study. Indeed in this research, among others drivers, I test how the level of firm's resources and capabilities needed for the fulfilment of activities involved in a transaction impacts on the networking decision dimension of make/buy/make together. Also I test how two characteristics of the industry where the firm operates (i.e. the number of complementary firms, and the governance mode trend) impact on such a governance choice. The significance of the variable related to the firm's resources endowment and of one of the variable related to the firm industry provide support that firm's characteristics, in term of resources and capabilities endowment and industry, actually Influence at least one of the networking decision involved in a networking strategy.

This third phase of the research also provides the remaining four theoretical contributions of the present study.

Fifth, this study provides support and contribution to one of the most relevant theory in the strategic management field: the resource based theory. It indeed suggests that resources and capabilities considerations are actually one of the main drivers for strategic decisions in general and for governance choice in particular; also it contributes to RBT by suggesting that not just the lack of resources but also the willing to share existing resources, lead firms to cooperative business relationships.

Sixth, it provides contribution to the TCT by adding a transaction-based driver (i.e. the type of the business activity involved in the transaction) among those that lead to the governance mode choice.

Seventh, it supports for the institutional theory by suggesting that the industry trend toward the adoption of a certain mode of governance is highly followed by the firms that operate in the same industry. Such a finding also alerts researchers that study governance choice phenomena in a particular industry to consider the governance trend as a control variable of their model.

Finally, it contributes to studies focused on the identification of drivers that lead to a certain governance mode. It indeed contributes to such a stream of literature by providing a non explored model that investigate the impact of internal, transactional and external factors to the choice among make vs. buy vs. make together; and confirms that competitive environment characteristics actually affect firm's governance choice (Harrigan, 1988). It also opens new frontier to such a stream of literature by suggesting to consider how the characteristics of the specific activities involved in the transaction actually affect the choice to adopt a certain governance mode rather then an other for the fulfilment of such a transaction. The present study offer support for the characteristic related to the level of tacit knowledge requested to carry out the business activity involved in the transaction and suggests that high level of such characteristic lead to the adoption of a more hierarchy oriented governance mode.

5.4 Managerial implications and suggestions on business networking issues

The managerial implications of this study provide managers with useful suggestions that can be summarized by three main managerial contributions. First of all it suggests how 1) decision about the extent to which different operations are internally made, externally sourced, or made with somebody else (i.e. make/buy/make together); 2) decision about the intensity of the relationship between the firm and its partners/suppliers (i.e. governance mechanism); and 3) decision about the topography of the network coming from the focal firm business relationships (i.e. network base structure), can be utilized for the achievement of specific strategic objectives, both in terms of operations performance objectives and resource and capabilities. Second it provides managers with actual managerial practices that give practical examples of how a set of strategic intents is aligned with set of networking decisions and set of business agreements. Specifically the *multi-agreement* archetype suggests how a set of different kinds of agreements that pursue the same set of strategic intents can

minimize the risk of loosing the benefits of networking collaboration. Also, the *multi-objective* archetype shows how different strategic intents can be pursued by signing just one agreement. Accordingly, it suggests to managers that owns the responsibility of designing and managing the firm business relationships, how such kind of networking strategy can minimize the cost of business networking (i.e. coordinating and controlling for several business relationships) while pursuing several strategic intents. Finally, the research about the drivers that lead to governance choice suggests managers that more hierarchy-oriented governance mode are good ways to strengthen the firm existing R&C endowment for the fulfilment of specific business activities; and also to acquire tacit knowledge.

5.5 Limitations of the study and further development

The here presented research study contains some limitations and offers new opportunities for further development both by overcoming such limitations and by developing new area of research on the realm of business networking.

The first set of limitations is three-fold and regards the case study research. The first limitation concerns the lack of a confirmatory analysis for external validity (Eisenhardt, 1989). The second limitation lays in the dimension of the sample and the analysis of data. Indeed conducting a cluster analysis or other classification methods over a larger sample of business agreements could lead to the identification of new kinds of multiplicity among strategic intents, networking decisions and business agreements. Third, a longitudinal case study, that goes overall the period from the definition of networking decisions until they are implemented, should be also conducted in order to examine at what extent networking decisions effectively pursues the managers pre-fixed strategic intents. According to such limitations further research could test the predicted results and develop them by conducting an analysis over a more extended sample in order to confirm the validity of the individualized path and look for new ones. Also a longitudinal case study could show if networking decisions and business agreements effectively act in the achievement of strategic intents and what are the eventually impediments for such a purpose.

Moreover the research about the drivers of the networking decision dimension of make/buy/make together could be further developed both from the drivers side and the networking decision side. Indeed from one side it would be interesting investigating

how others kinds of drivers, and in particular other characteristics of the activities involved in the transaction affect the governance choice. On the other side, further research could consider the impact that such drivers have not just on the choice between different kinds of governance mode that regards the first dimension of a networking strategy (i.e. make/buy/make together) but also on decisions that regards the other two dimensions of networking strategy as individualized in chapter II. Accordingly, such decisions could concern the choice between a relational vs. a transactional kind of relationship, the choice between a long-term vs. a short term agreement (such decisions belong to the decision dimension of governance mechanism); other decisions could regard the choice of a more centralized vs. a more win-to-win network based structure, the choice among local vs. off-shore partners (such decisions belong to the decision dimension of network based structure). Indeed, to the best of my knowledge, no studies exist that study the impact of different kinds of drivers that influence at the same time decisions belonging to the three main dimensions of networking strategy individualized in this study.

Despite its limitations that offer new opportunities for future researches, this study gives a contribution to both the academicians and managerial fields on the strategic role played by business networking and thus shads some light about the motivations behind the increasing adoption of networking strategy that is witnessed both in the managerial and in the research field.

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APPENDIX

Confindustria Palermo

Università degli Studi di Palermo

Università degli Studi di Palermo

DTMPIG

Dipartimento di Tecnologia Meccanica, Produzione e Ingegneria Gestionale

ANALISI DELLE STRATEGIE DI RETE E DEI FABBISOGNI DI RELAZIONE DEL DISTRETTO DI MECCATRONICA SICILIA

QUESTIONARIO

Obiettivo d'indagine

Il "distretto produttivo di Meccatronica" è nato in Sicilia con l'intento di valorizzare un'area di confine ad alta specializzazione tecnologica, ossia quella tra la meccanica, l'elettronica e l'informatica e di promuovere la crescita tecnologica e commerciale dei prodotti di tale area, favorendo una prospettiva di successo alle imprese e al sistema territoriale nel suo complesso.

In questo scenario la creazione di collaborazioni fra le aziende appartenenti al distretto assume una importanza fondamentale per lo sviluppo di competenze nuove e complementari che fungano da traino per lo sviluppo delle singole imprese e dell'intero distretto. La strategia di rete, intesa come l'insieme di decisioni relative alle relazioni di business dell'impresa, diventa, quindi, un elemento essenziale della strategia competitiva delle imprese, specialmente in un settore come quello della meccatronica, in cui la condivisione di Know-how è di fondamentale importanza per la creazione di innovazione.

.Al fine di dare impulso alla competitività di tali imprese, la presente indagine punta a individuare la struttura cooperativa del distretto e la relativa forma di governance.

Inoltre, l'indagine punta a individuare i servizi a valore aggiunto che potranno essere forniti attraverso la piattaforma ICT oggetto del progetto Sicilia Meccatronica.

Obiettivo ultimo del presente questionario è, quindi, quello di mappare le principali relazioni strategiche che le aziende del settore hanno e quelle che è necessario sviluppare al fine di ottenere un vantaggio competitivo.

Struttura e modalità di compilazione del questionario

Il questionario è composto da tre sezioni principali:

Nella prima sezione si punterà ad indagare la strategia finora perseguita dall'azienda e quella che si intende perseguire, anche attraverso eventuali collaborazioni.

Nella seconda sezione si mira ad effettuare una mappatura in termini di relazioni di fornitura, sub-fornitura o outsourcing, o ancora eventuali partnership strategiche o joint-venture intraprese con altre aziende operanti nel settore.

Nella terza sezione, infine, si esaminano i fabbisogni di relazione dell'impresa in termini di relazioni produttive (per il miglioramento dell'efficienza interna); relazioni di internazionalizzazione (per esigenze di globalizzazione) e relazioni tecnologiche (per acquisizione di Know-how)

All'interno del questionario sono presenti tre modalità di risposta:

le domande a *risposta chiusa* sono già formulate dall'intervistatore, ed è sufficiente apporre una crocetta su una delle opzioni presentate nelle tabelle;

le domande a *risposta aperta* in cui è richiesto all'intervistato di formulare la risposta nel momento della compilazione del questionario scrivendo la propria risposta nello spazio lasciato in bianco;

infine nel questionario è presente un caso particolare di domanda a risposta chiusa, quella cioè costituita da una *scala Likert* d'importanza. All'intervistato si chiede di indicare per ciascuna affermazione il grado d'importanza dato a quanto affermato. La scala utilizzata è una scala a 5 livelli, ciascuna indicante un livello specifico di importanza: 1 = non sono affatto d'accordo; 2 = non sono d'accordo; 3 = non sono molto d'accordo; 4 = sono d'accordo; 5 = sono molto d'accordo.

SEZIONE 1: INFORMAZIONI GENERALI

ANAGRAFICA GENERALE

Agglomerato: _____

Ragione sociale: _____

Indirizzo sede legale: _____

Indirizzo altre sedi: _____

Indirizzo e-mail: _____

Recapiti telefonici: _____

Fax e/o telefax: _____

Sito aziendale: _____

Attività: _____

Meccanica
- ❒ Produzione di componentistica meccanica
- ❒ Progettazione, produzione e installazione di impianti/sistemi di sollevamento, macchine utensili, sistemi di trasporto, macchine per confezionamento e imballaggio
- ❒ Produzione di prodotti chimici per l'industria meccanica
- ❒ Produzione di utensileria/ materiale di supporto meccanico
- ❒ Produzione di veicoli commerciali e industriali

Elettronica
- ❒ Elettronica di consumo (apparecchi usati per l'intrattenimento, la comunicazione e il lavoro in ufficio)
- ❒ Apparati elettronici per l'informatica
- ❒ Fabbricazione di schede elettroniche
- ❒ Riparazione e manutenzione di componentistica elettronica
- ❒ Fabbricazione di apparecchiature elettriche ed elettroniche per autoveicoli e loro motori
- ❒ Elettronica strumentale (componenti e sistemi per gli impianti, apparecchi per la distribuzione e trasporto di energia elettrica)

Telecomunicazioni
- ❒ Fabbricazione di apparecchi trasmittenti radiotelevisivi e telecamere;
- ❒ Installazione di apparecchi elettronici per le telecomunicazioni

Informatica
- ❒ Fornitori di computer e unità periferiche
- ❒ Configurazione di pc (assistenza tecnica software e hardware)
- ❒ Installazione di macchine per ufficio, mainframe e computer simili
- ❒ Sistemi informatici per applicazioni (software house)

Logistica
- ❒ Interna (Gestione dei magazzini)
- ❒ Di distribuzione

Altri settori
- ❒ Enti pubblici di Ricerca
- ❒ Enti privati di Ricerca
- ❒ Business Integrators (società di consulenza)
- ❒ Servizi assicurativi
- ❒ Altro (specificare): _____

Fatturato annuo in Euro:

_____

Numero addetti:

_____

Ruolo del rispondente:

_____

STRATEGIA DELL'AZIENDA

Qual è stata la strategia aziendale principalmente perseguita fino ad oggi?

Indicare in una scala da 1 a 5 quanto si è d'accordo con le seguenti risposte (1=non sono affatto d'accordo; 2=non sono d'accordo; 3= non sono molto d'accordo; 4= sono d'accordo; 5= sono molto d'accordo)

Offrire prodotti/servizi al prezzo più basso (strategia di cost-leadership)

□ 1 □ 2 □ 3 □ 4 □ 5

Offrire prodotti/servizi differenziati e unici rispetto ai concorrenti (strategia di differenziazione)

□ 1 □ 2 □ 3 □ 4 □ 5

Offrire prodotti/servizi di elevata qualità per una nicchia ristretta di mercato, un segmento di clientela particolarmente sensibile alla qualità (strategia di focalizzazione)

□ 1 □ 2 □ 3 □ 4 □ 5

Per il futuro l'azienda intende modificare la sua strategia?

❒ Si (indicare verso quale altra strategia l'azienda intende muoversi):

_____

❒ No

Gli sforzi strategici dell'azienda nel prossimo futuro saranno orientati al miglioramento di quali dei seguenti obiettivi operativi? Indicare in una scala da 1 a 5 quanto si è d'accordo con le seguenti risposte

(1=non sono affatto d'accordo; 2=non sono d'accordo; 3= non sono molto d'accordo; 4= sono d'accordo; 5= sono molto d'accordo)

Diminuzione dei costi diretti di produzione (personale, materie prime, energia, etc.)

□ 1 □ 2 □ 3 □ 4 □ 5

Diminuzione dei costi per immobilizzazioni (acquisto impianti, macchinari, stabilimenti, etc.)

□ 1 □ 2 □ 3 □ 4 □ 5

Diminuzione del capitale circolante (riduzione dei magazzini, della dilazione di pagamento concessa alla clientela, etc.)

□ 1 □ 2 □ 3 □ 4 □ 5

Miglioramento della qualità del prodotto/servizio (per es. incremento dell'affidabilità)

□ 1 □ 2 □ 3 □ 4 □ 5

Miglioramento della qualità del processo produttivo (per esempio diminuzione dei prodotti difettosi da eliminare/rilavorare)

□ 1 □ 2 □ 3 □ 4 □ 5

Diminuzione del tempo di produzione

□ 1 □ 2 □ 3 □ 4 □ 5

Diminuzione del tempo di approvvigionamento delle materie prime/componenti acquistati

□ 1 □ 2 □ 3 □ 4 □ 5

Diminuzione del tempo di distribuzione/consegna del prodotto al cliente

□ 1 □ 2 □ 3 □ 4 □ 5

Diminuzione del tempo di sviluppo di un nuovo prodotto

□ 1 □ 2 □ 3 □ 4 □ 5

Diminuzione del tempo necessario a modificare un prodotto già esistente

□ 1 □ 2 □ 3 □ 4 □ 5

Miglioramento della qualità del servizio di vendita (per esempio incremento della assistenza offerta al cliente durante l'acquisto)

□ 1 □ 2 □ 3 □ 4 □ 5

Miglioramento della qualità del servizio di assistenza post-vendita

□ 1 □ 2 □ 3 □ 4 □ 5

Incremento della flessibilità di prodotto (ossia la capacità di modificare un prodotto già esistente o di produrne uno totalmente nuovo)

□ □ □ □ □
1 2 3 4 5

Incremento della flessibilità di mix (ossia la capacità di modificare in breve tempo il mix di produzione)

□ □ □ □ □
1 2 3 4 5

Incremento della flessibilità di volume (ossia la capacità di modificare entro certi limiti il volume aggregato di produzione a senza incorrere a costi elevati)

□ □ □ □ □
1 2 3 4 5

Incremento della flessibilità di consegna (ossia la capacità di modificare con una certa facilità il piano delle consegne a fronte di modifiche agli ordini ricevuti)

□ □ □ □ □
1 2 3 4 5

Quali degli obiettivi operativi sopra citati e nuovamente riportati possono essere raggiunti grazie a delle collaborazioni con altre imprese? Indicare in una scala da 1 a 5 quanto si è d'accordo con le seguenti risposte (1=non sono affatto d'accordo; 2=non sono d'accordo; 3= non sono molto d'accordo; 4= sono d'accordo; 5= sono molto d'accordo)

Diminuzione dei costi diretti di produzione (personale, materie prime, energia, etc.)

□ □ □ □ □
1 2 3 4 5

Diminuzione dei costi per immobilizzazioni (acquisto impianti, macchinari, stabilimenti, etc.)

□ □ □ □ □
1 2 3 4 5

Diminuzione del capitale circolante (riduzione dei magazzini, della dilazione di pagamento concessa alla clientela, etc.)

□ □ □ □ □
1 2 3 4 5

Miglioramento della qualità del prodotto/servizio (per es. incremento dell'affidabilità)

□ □ □ □ □
1 2 3 4 5

Miglioramento della qualità del processo produttivo (per esempio diminuzione dei prodotti difettosi da eliminare/rilavorare)

□ □ □ □ □
1 2 3 4 5

Diminuzione del tempo di produzione

□ □ □ □ □
1 2 3 4 5

Diminuzione del tempo di approvvigionamento delle materie prime/componenti acquistati

□ □ □ □ □
1 2 3 4 5

Diminuzione del tempo di distribuzione/consegna del prodotto al cliente

□ □ □ □ □
1 2 3 4 5

Diminuzione del tempo di sviluppo di introduzione di un nuovo prodotto

□ □ □ □ □
1 2 3 4 5

Diminuzione del tempo necessario a modificare un prodotto già esistente

□ □ □ □ □
1 2 3 4 5

Miglioramento della qualità del servizio di vendita (per esempio incremento della assistenza offerta al cliente durante l'acquisto)

□ □ □ □ □
1 2 3 4 5

Miglioramento della qualità del servizio di assistenza post-vendita

□ □ □ □ □
1 2 3 4 5

Incremento della flessibilità di prodotto (ossia la capacità di modificare un prodotto già esistente o di produrne uno totalmente nuovo)

□ □ □ □ □
1 2 3 4 5

Incremento della flessibilità di mix (ossia la capacità di modificare in breve tempo il mix di produzione)

□ □ □ □ □
1 2 3 4 5

Incremento della flessibilità di volume (ossia la capacità di modificare entro certi limiti il volume aggregato di produzione a senza incorrere a costi elevati)

□ □ □ □ □
1 2 3 4 5

Incremento della flessibilità di consegna (ossia la capacità di modificare con una certa facilità il piano delle consegne a fronte di modifiche agli ordini ricevuti)

□ □ □ □ □
1 2 3 4 5

Gli sforzi strategici dell'azienda nel prossimo futuro saranno orientati all'ottenimento di relazioni con altre imprese se: (1=non sono affatto d'accordo; 2=non sono d'accordo; 3= non sono molto d'accordo; 4= sono d'accordo; 5= sono molto d'accordo)

Esistono nel mercato imprese che hanno capacità e competenze complementari alle vostre

□ □ □ □ □
1 2 3 4 5

Esistono nel mercato imprese con le quali ci sia una forte affinità strategica (per esempio con le quali condividete i medesimi obiettivi di lungo periodo)

□ □ □ □ □
1 2 3 4 5

Esistono nel mercato imprese con le quali ci siano già state esperienze positive di cooperazione o investimenti specifici di relazione

□ □ □ □ □
1 2 3 4 5

Possedete buone capacità nel gestire relazioni con altre imprese

□ □ □ □ □
1 2 3 4 5

Gli sforzi strategici dell'azienda nel prossimo futuro saranno orientati al acquisizione di quale delle seguenti risorse strategiche? Indicare in una scala da 1 a 5 quanto si è d'accordo con le seguenti

risposte (1=non sono affatto d'accordo; 2=non sono d'accordo; 3= non sono molto d'accordo; 4= sono d'accordo; 5= sono molto d'accordo)

Stabilimenti produttivi, impianti, macchinari e attrezzature specifiche

□ 1 □ 2 □ 3 □ 4 □ 5

Capitale

□ 1 □ 2 □ 3 □ 4 □ 5

Competenze specializzate e know-how tecnologico/di processo

□ 1 □ 2 □ 3 □ 4 □ 5

Quali delle risorse strategiche sopra citate e nuovamente riportate possono essere acquisite grazie all'instaurazione di relazioni con altre imprese? Indicare in una scala da 1 a 5 quanto si è d'accordo con le seguenti risposte (1=non sono affatto d'accordo; 2=non sono d'accordo; 3= non sono molto d'accordo; 4= sono d'accordo; 5= sono molto d'accordo)

Stabilimenti produttivi, impianti, macchinari e attrezzature specifiche

□ 1 □ 2 □ 3 □ 4 □ 5

Capitale

□ 1 □ 2 □ 3 □ 4 □ 5

Competenze specializzate e know-how tecnologico/di processo

□ 1 □ 2 □ 3 □ 4 □ 5

SEZIONE 2: MAPPATURA DELLE RELAZIONI COMMERCIALI DELL'IMPRESA

L'azienda ha siglato negli ultimi anni contratti di cooperazione o semplice relazione con altre aziende? Se si, indicare nella tabella sottostante il tipo di contratto.

- ❒ FORNITURA
- ❒ OUTSOURCING/SUB-FORNITURA
- ❒ ALLEANZA/PARTNERSHIP
- ❒ JOINT VENTURE
- ❒ CONSORZI E SOCIETA' COOPERATIVE

Per ogni contratto compilare le schede che seguono a seconda della tipologia.

SCHEDA CONTRATTO DI FORNITURA (compilare tante schede quanti sono i contratti di fornitura)

Durata del contratto: _____

Nome e localizzazione del fornitore: _____

Settore industriale del fornitore:

Meccanica
- ❒ Produzione di componentistica meccanica
- ❒ Progettazione, produzione e installazione di impianti/sistemi di sollevamento, macchine utensili, sistemi di trasporto, macchine per confezionamento e imballaggio
- ❒ Produzione di prodotti chimici per l'industria meccanica
- ❒ Produzione di utensileria/ materiale di supporto meccanico
- ❒ Produzione di veicoli commerciali e industriali

Elettronica
- ❒ Elettronica di consumo (apparecchi usati per l'intrattenimento, la comunicazione e il lavoro in ufficio)
- ❒ Apparati elettronici per l'informatica
- ❒ Fabbricazione di schede elettroniche
- ❒ Riparazione e manutenzione di componentistica elettronica
- ❒ Fabbricazione di apparecchiature elettriche ed elettroniche per autoveicoli e loro motori
- ❒ Elettronica strumentale (componenti e sistemi per gli impianti, apparecchi per la distribuzione e trasporto di energia elettrica)

Telecomunicazioni
- ❒ Fabbricazione di apparecchi trasmittenti radiotelevisivi e telecamere;
- ❒ Installazione di apparecchi elettronici per le telecomunicazioni

Informatica
- ❒ Fornitori di computer e unità periferiche
- ❒ Configurazione di pc (assistenza tecnica software e hardware)
- ❒ Installazione di macchine per ufficio, mainframe e computer simili
- ❒ Sistemi informatici per applicazioni (software house)

Logistica
- ❒ Interna (Gestione dei magazzini)
- ❒ Di distribuzione

Altri settori
- ❒ Enti pubblici di Ricerca
- ❒ Enti privati di Ricerca
- ❒ Business Integrators (società di consulenza)
- ❒ Servizi assicurativi
- ❒ Altro (specificare): _____

Oggetto della fornitura: _____

L'oggetto della fornitura è
- ❒ un componente/servizio di bassa importanza
- ❒ un componente/servizio strategico per l'azienda

L'azienda dispone di una struttura specifica per la gestione del rapporto con il fornitore?
- ❒ Si
- ❒ No

Che tipo di relazione regola il rapporto di fornitura?
- ❒ La relazione inizia e finisce col contratto (contratto spot)
- ❒ Partnership di lungo periodo col fornitore (relazione di fiducia)

Quali sono state le caratteristiche principali che hanno determinato la scelta del fornitore?
- ❒ Durata del rapporto (esperienze passate di cooperazione)
- ❒ Affidabilità operativa (es. puntualità nelle consegne, rispetto delle specifiche, delle quantità, etc…)
- ❒ Affidabilità finanziaria
- ❒ Qualità (es. qualità dei prodotti superiore agli altri fornitori)

- ❒ Capacità tecniche e tecnologiche
- ❒ Vicinanza geografica
- ❒ Costo della fornitura
- ❒ Vincoli di mercato (es. è l'unico fornitore, rapporto di dipendenza, etc…)
- ❒ Complementarietà in termini di capacità e competenze all'impresa
- ❒ Forte affinità strategica (condivisione degli obiettivi di lungo periodo)
- ❒ Investimenti specifici di relazione pregressi (sono stati effettuati investimenti con un altro partner tali che gli investimenti stessi abbiano un valore più elevato all'interno della relazione che al di fuori di essa)
- ❒ Altro (specificare):_____

SCHEDA CONTRATTO DI OUTSOURCING/SUB-FORNITURA (compilare tante schede quanti sono i contratti di outsourcing)

Durata del contratto: _____

Nome del sub-fornitore: _____

Localizzazione del sub-fornitore: _____

Settore industriale del sub-fornitore: _____

Meccanica
- ❒ Produzione di componentistica meccanica
- ❒ Progettazione, produzione e installazione di impianti/sistemi di sollevamento, macchine utensili, sistemi di trasporto, macchine per confezionamento e imballaggio
- ❒ Produzione di prodotti chimici
- ❒ Produzione di utensileria/ materiale di supporto meccanico
- ❒ Produzione di veicoli commerciali e industriali

Telecomunicazioni
- ❒ Fabbricazione di apparecchi trasmittenti radiotelevisivi e telecamere;
- ❒ Installazione di apparecchi elettronici per le telecomunicazioni

Informatica
- ❒ Fornitori di computer e unità periferiche
- ❒ Configurazione di pc (assistenza tecnica software e hardware)
- ❒ Installazione di macchine per ufficio, mainframe e computer simili
- ❒ Sistemi informatici per applicazioni

Elettronica
- ❒ Elettronica di consumo (apparecchi usati per l'intrattenimento, la comunicazione e il lavoro in ufficio)
- ❒ Apparati elettronici per l'informatica
- ❒ Fabbricazione di schede elettroniche
- ❒ Riparazione e manutenzione di componentistica elettronica
- ❒ Fabbricazione di apparecchiature elettriche ed elettroniche per autoveicoli e loro motori
- ❒ Elettronica strumentale (componenti e sistemi per gli impianti, apparecchi per la distribuzione e trasporto di energia elettrica)

Logistica
- ❒ Interna (Gestione dei magazzini)
- ❒ Di distribuzione
- ❒ Enti pubblici di Ricerca
- ❒ Enti privati di Ricerca
- ❒ Business Integrators (società di consulenza)
- ❒ Produzione di lastre, fogli, tubi e profilati in materie plastiche
- ❒ Produzione di imballaggi
- ❒ Attività di pulizia specializzata di edifici e di impianti e macchinari industriali
- ❒ Servizi di Facility Management
- ❒ Servizio Mensa
- ❒ Servizi assicurativi
- ❒ Altro (specificare): _____

L'azienda dispone di una struttura specifica per la gestione del rapporto con il sub-fornitore?

- ❒ Si
- ❒ No

Che tipo di relazione regola il rapporto di sub-fornitura?
- ❒ La relazione inizia e finisce col contratto (contratto spot)
- ❒ Partnership di lungo periodo col sub-fornitore (relazione di fiducia)

Oggetto/attività della sub-fornitura (specificare): _____

L'oggetto/attività data in outsourcing è:
- ❒ semilavorato di bassa importanza

- ❒ semilavorato strategico per l'azienda
- ❒ prodotto finito
- ❒ servizio/attività vicina al core business
- ❒ servizio/attività non vicina al core

L'oggetto/attività data in outsourcing riguarda:

- ❒ Produzione Industriale
- ❒ Produzione Servizi
- ❒ Gestione Magazzino
- ❒ Distribuzione
- ❒ Vendita
- ❒ Manutenzione
- ❒ Logistica/Trasporto
- ❒ Altro (specificare): _____

Quali sono le caratteristiche principali che hanno determinato la scelta del sub-fornitore?

- ❒ Durata del rapporto
- ❒ Affidabilità operativa (es. puntualità nelle consegne, rispetto delle specifiche, delle quantità, etc…)
- ❒ Affidabilità finanziaria
- ❒ Elevata competenza tecnica
- ❒ Qualità (es. qualità dei prodotti superiore agli altri fornitori)
- ❒ Capacità tecnologiche
- ❒ Vicinanza geografica
- ❒ Costo della fornitura
- ❒ Complementarietà in termini di capacità e competenze all'impresa
- ❒ Forte affinità strategica (condivisione degli obiettivi di lungo periodo)
- ❒ Investimenti specifici di relazione pregressi (investimenti con un altro partner tali che gli investimenti stessi abbiano un valore più elevato all'interno della relazione che al di fuori di essa)
- ❒ Altro (specificare):_____

Qual è stato l'obiettivo principale che si voleva ottenere con tale contratto di outsourcing? Indicare in una scala da 1 a 5 quanto si è d'accordo con le seguenti risposte (1=non sono affatto d'accordo; 2=non sono d'accordo; 3= non sono molto d'accordo; 4= sono d'accordo; 5= sono molto d'accordo)

Riduzione dei costi attraverso outsourcing a imprese specializzate nella produzione di componenti (economie di scala e di apprendimento)

❒	❒	❒	❒	❒
1	2	3	4	5

Riduzione di costi attraverso outsourcing a imprese operanti in paesi a basso costo del lavoro nella produzione di componenti

❒	❒	❒	❒	❒
1	2	3	4	5

Riduzione del tempo di evasione degli ordini attraverso l'outsourcing affidato a fornitori più efficienti nella realizzazione di componenti

❒	❒	❒	❒	❒
1	2	3	4	5

Miglioramento del time-to-market dei prodotti attraverso l'outsourcing affidato a fornitori più efficienti nella realizzazione di componenti e/o di fasi della progettazione e sviluppo del prodotto

❒	❒	❒	❒	❒
1	2	3	4	5

Miglioramento del grado di standardizzazione dei prodotti attraverso l'outsourcing affidato a fornitori specializzati nella realizzazione di componenti e/o fasi di progettazione e sviluppo del prodotto

□ 1 □ 2 □ 3 □ 4 □ 5

Miglioramento della qualità del prodotto attraverso l'outsourcing ad aziende specializzate nella realizzazione di componenti

□ 1 □ 2 □ 3 □ 4 □ 5

Miglioramento della qualità del processo produttivo attraverso l'outsourcing di fasi della produzione ad aziende specializzate

□ 1 □ 2 □ 3 □ 4 □ 5

Miglioramento del grado di innovazione tecnologica del prodotto attraverso l'outsourcing di componenti e/o fasi della progettazione e dello sviluppo del prodotto a fornitori specializzati (acquisizione di know-how e skill e innovazione prodotto)

□ 1 □ 2 □ 3 □ 4 □ 5

Miglioramento della quota di mercato esistente attraverso l'outsourcing della produzione di componenti e/o attraverso l'outsourcing di servizi di commercializzazione, vendita e post-vendita

□ 1 □ 2 □ 3 □ 4 □ 5

Penetrazione di nuovi segmenti di business attraverso l'outsourcing ad aziende operanti nei servizi di commercializzazione, post vendita e marketing

□ 1 □ 2 □ 3 □ 4 □ 5

Conseguimento di economie di scala/apprendimento attraverso gli asset del partner (stabilimenti produttivi, macchinari, impianti e attrezzature specifiche) a cui ho ceduto in outsourcing quel processo produttivo

□ 1 □ 2 □ 3 □ 4 □ 5

Riduzione del rischio finanziario attraverso l'outsourcing di attività capital intensive

□ 1 □ 2 □ 3 □ 4 □ 5

SCHEDA CONTRATTO DI ALLEANZA/PARTNERSHIP (compilare tante schede quanti sono i contratti di alleanza)

Durata del contratto: _____

Nome del partner: _____

Localizzazione del partner: _____

Settore industriale del partner:

Meccanica
- ❒ Produzione di componentistica meccanica
- ❒ Progettazione, produzione e installazione di impianti/sistemi di sollevamento, macchine utensili, sistemi di trasporto, macchine per confezionamento e imballaggio
- ❒ Produzione di prodotti chimici
- ❒ Produzione di utensileria/ materiale di supporto meccanico
- ❒ Produzione di veicoli commerciali e industriali

Telecomunicazioni
- ❒ Fabbricazione di apparecchi trasmittenti radiotelevisivi e telecamere;
- ❒ Produzione di apparecchi elettronici per le telecomunicazioni

Informatica
- ❒ Configurazione di pc (assistenza tecnica software e hardware)
- ❒ Installazione di macchine per ufficio, mainframe e computer simili
- ❒ Industrie della produzione software
- ❒ Gestione database (attività delle banche dati)

Elettronica
- ❒ Elettronica di consumo (apparecchi usati per l'intrattenimento, la comunicazione e il lavoro in ufficio)
- ❒ Apparati elettronici per l'informatica
- ❒ Fabbricazione di schede elettroniche
- ❒ Riparazione e manutenzione di componentistica elettronica
- ❒ Fabbricazione di apparecchiature elettriche ed elettroniche per autoveicoli e loro motori
- ❒ Elettronica strumentale (componenti e sistemi per gli impianti, apparecchi per la distribuzione e trasporto di energia elettrica)

Logistica
- ❒ Interna (Gestione dei magazzini)
- ❒ Di distribuzione
- ❒ Enti pubblici di Ricerca
- ❒ Enti privati di Ricerca
- ❒ Business Integrators (società di consulenza)
- ❒ Servizi assicurativi
- ❒ Produzione di lastre, fogli, tubi e profilati in materie plastiche
- ❒ Produzione di imballaggi
- ❒ Fabbricazione di prodotti in calcestruzzo, gesso e cemento
- ❒ Produzione di articoli in gomma
- ❒ Cantieri navali
- ❒ Servizio Mensa
- ❒ Attività di pulizia specializzata di edifici e di impianti e macchinari industriali
- ❒ Industria agroalimentare
- ❒ Fabbricazione infissi metallici
- ❒ Servizi di Facility Management
- ❒ Attività di CRM (Customer Relationship Management)
- ❒ Imprese edili
- ❒ Trasporti ferroviari
- ❒ Enti pubblici locali e nazionali
- ❒ Altro (specificare): _____

L'azienda dispone di una struttura specifica per la gestione del rapporto con il partner?

- ❒ Si
- ❒ No

Che tipo di relazione regola il rapporto di alleanza?

- ❒ La relazione inizia e finisce col contratto
- ❒ Partnership di lungo periodo con l'alleato (relazione di fiducia)

Specificare lo scopo dell'alleanza (come indicato nel contratto):

_____
_____
_____
_____

Quali sono le caratteristiche principali che hanno determinato la scelta del partner?

- ❒ Durata del rapporto
- ❒ Affidabilità operativa (es. puntualità nelle consegne, rispetto delle specifiche, delle quantità, etc…)
- ❒ Affidabilità finanziaria
- ❒ Qualità (es. qualità dei prodotti superiore agli altri fornitori)
- ❒ Capacità tecniche e tecnologiche
- ❒ Vicinanza geografica
- ❒ Rete di vendita del partner
- ❒ Quota di mercato del partner
- ❒ Presenza in nuovi mercati per l'impresa
- ❒ Complementarietà in termini di capacità e competenze all'impresa
- ❒ Forte affinità strategica (condivisione degli obiettivi di lungo periodo)
- ❒ Investimenti specifici di relazione pregressi (sono stati effettuati investimenti con un altro partner tali che gli investimenti stessi abbiano un valore più elevato all'interno della relazione che al di fuori di essa)
- ❒ Altro (specificare):_____

Qual è stato l'obiettivo principale che si voleva ottenere con tale contratto di alleanza/partnership?
Indicare in una scala da 1 a 5 quanto si è d'accordo con le seguenti risposte (1=non sono affatto d'accordo; 2=non sono d'accordo; 3= non sono molto d'accordo; 4= sono d'accordo; 5= sono molto d'accordo)

Riduzione dei costi attraverso alleanze-partnership con imprese specializzate nella produzione di componenti (economie di scala e di apprendimento)

❒	❒	❒	❒	❒
1	2	3	4	5

Riduzione di costi attraverso alleanze-partnership con imprese operanti in paesi a basso costo del lavoro nella produzione di componenti

❒	❒	❒	❒	❒
1	2	3	4	5

Miglioramento del lead time della supply chain attraverso alleanze-partnership con fornitori di componenti più efficienti

❒	❒	❒	❒	❒
1	2	3	4	5

Miglioramento del time-to-market dei prodotti attraverso alleanze-partnership con fornitori di componenti e/o di fasi della progettazione sviluppo del prodotto più efficienti

□ 1 □ 2 □ 3 □ 4 □ 5

Miglioramento della qualità del prodotto attraverso alleanze-partnership con aziende specializzate nella produzione di componenti

□ 1 □ 2 □ 3 □ 4 □ 5

Acquisizione di know-how e skill necessari allo sviluppo di nuovi prodotti-tecnologie attraverso alleanze-partnership con imprese specializzate

□ 1 □ 2 □ 3 □ 4 □ 5

Miglioramento del grado di innovazione tecnologica del prodotto attraverso alleanze-partnership con fornitori specializzati nella produzione di componenti e/o fasi della progettazione e dello sviluppo del prodotto (innovazione prodotto)

□ 1 □ 2 □ 3 □ 4 □ 5

Miglioramento di quote di mercato esistenti attraverso l'alleanze-partnership con aziende operanti nella produzione di servizi di commercializzazione e post-vendita

□ 1 □ 2 □ 3 □ 4 □ 5

Penetrazione in nuovi segmenti di business attraverso l'alleanze-partnership con aziende operanti nel settore dei servizi di commercializzazione , post vendita e marketing

□ 1 □ 2 □ 3 □ 4 □ 5

Possibilità di utilizzare attraverso l'alleanza-partnership strategica reti di distribuzione del partner per produzioni diverse

□ 1 □ 2 □ 3 □ 4 □ 5

Facilitare l'accesso al credito (vantaggi in termini di capitale) attraverso l'alleanza-partnership strategica

□ 1 □ 2 □ 3 □ 4 □ 5

Conseguimento di economie di scala/apprendimento attraverso gli asset del partner (stabilimenti produttivi, macchinari, impianti e attrezzature specifiche) con cui è stata instaurata un'alleanza strategica

□ 1 □ 2 □ 3 □ 4 □ 5

SCHEDA CONTRATTO DI JOINT-VENTURE (compilare tante schede quanti sono i contratti di joint-venture)

Durata del contratto: _____

Nome del partner: _____

Localizzazione del partner: _____

Settore industriale del partner:

Meccanica
- ❒ Produzione di componentistica meccanica
- ❒ Progettazione, produzione e installazione di impianti/sistemi di sollevamento, macchine utensili, sistemi di trasporto, macchine per confezionamento e imballaggio
- ❒ Produzione di prodotti chimici
- ❒ Produzione di utensileria/ materiale di supporto meccanico
- ❒ Produzione di veicoli commerciali e industriali

Telecomunicazioni
- ❒ Fabbricazione di apparecchi trasmittenti radiotelevisivi e telecamere;
- ❒ Produzione di apparecchi elettronici per le telecomunicazioni

Informatica
- ❒ Configurazione di pc (assistenza tecnica software e hardware)
- ❒ Installazione di macchine per ufficio, mainframe e computer simili
- ❒ Industrie della produzione software
- ❒ Gestione database (attività delle banche dati)

Elettronica
- ❒ Elettronica di consumo (apparecchi usati per l'intrattenimento, la comunicazione e il lavoro in ufficio)
- ❒ Apparati elettronici per l'informatica
- ❒ Fabbricazione di schede elettroniche
- ❒ Riparazione e manutenzione di componentistica elettronica
- ❒ Fabbricazione di apparecchiature elettriche ed elettroniche per autoveicoli e loro motori
- ❒ Elettronica strumentale (componenti e sistemi per gli impianti, apparecchi per la distribuzione e trasporto di energia elettrica)

Logistica
- ❒ Interna (Gestione dei magazzini)
- ❒ Di distribuzione
- ❒ Enti pubblici di Ricerca
- ❒ Enti privati di Ricerca
- ❒ Business Integrators (società di consulenza)
- ❒ Servizi assicurativi
- ❒ Attività di CRM (Customer Relationship Management)
- ❒ Produzione di lastre, fogli, tubi e profilati in materie plastiche
- ❒ Fabbricazione di prodotti in calcestruzzo, gesso e cemento
- ❒ Produzione di articoli in gomma
- ❒ Cantieri navali per costruzioni metalliche e non metalliche
- ❒ Servizio Mensa
- ❒ Attività di pulizia specializzata di edifici e di impianti e macchinari industriali
- ❒ Industria agroalimentare
- ❒ Fabbricazione infissi metallici
- ❒ Imprese edili
- ❒ Trasporti ferroviari
- ❒ Enti pubblici locali e nazionali
- ❒ Altro (specificare): _____

L'azienda dispone di una struttura specifica per la gestione del rapporto con il partner?
- ❒ Si
- ❒ No

Che tipo di relazione regola il rapporto di joint-venture?

- ❒ La relazione inizia e finisce col contratto
- ❒ Partnership di lungo periodo con l'alleato (relazione di fiducia)

Specificare lo scopo della joint-venture (come indicato nel contratto):

_____
_____
_____
_____

Quali sono le caratteristiche principali che hanno determinato la scelta del partner?

- ❒ Durata del rapporto
- ❒ Affidabilità operativa (es. puntualità nelle consegne, rispetto delle specifiche, delle quantità, etc…)
- ❒ Affidabilità finanziaria
- ❒ Qualità (es. qualità dei prodotti superiore agli altri fornitori)
- ❒ Capacità tecniche e tecnologiche
- ❒ Vicinanza geografica
- ❒ Maggiore potere nelle gare d'appalti
- ❒ Ingegnerizzazione nuovo prodotto
- ❒ Rete di vendita del partner
- ❒ Presenza in nuovi mercati per l'impresa
- ❒ Sfruttamento di finanziamenti locali per la costituzione di nuovi impianti
- ❒ Complementarietà in termini di capacità e competenze all'impresa
- ❒ Forte affinità strategica (condivisione degli obiettivi di lungo periodo)
- ❒ Investimenti specifici di relazione pregressi (sono stati effettuati investimenti con un altro partner tali che gli investimenti stessi abbiano un valore più elevato all'interno della relazione che al di fuori di essa)
- ❒ Altro (specificare):_____

Qual è stato l'obiettivo principale che si voleva ottenere con tale contratto di alleanza/partnership? Indicare in una scala da 1 a 5 quanto si è d'accordo con le seguenti risposte (1=non sono affatto d'accordo; 2=non sono d'accordo; 3= non sono molto d'accordo; 4= sono d'accordo; 5= sono molto d'accordo)

Riduzione dei costi attraverso joint-venture con imprese specializzate nella produzione di componenti (economie di scala e di apprendimento)

☐	☐	☐	☐	☐
1	2	3	4	5

Riduzione di costi attraverso joint-venture con imprese operanti in paesi a basso costo del lavoro nella produzione di componenti

☐	☐	☐	☐	☐
1	2	3	4	5

Miglioramento del lead time della supply chain attraverso joint-venture con fornitori di componenti più efficienti

☐	☐	☐	☐	☐
1	2	3	4	5

Miglioramento del time-to-market dei prodotti attraverso joint-venture con fornitori più efficienti nella realizzazione di componenti e/o di fasi della progettazione di sviluppo del prodotto

☐	☐	☐	☐	☐
1	2	3	4	5

Miglioramento del grado di standardizzazione dei prodotti attraverso joint-venture con fornitori specializzati nella realizzazione di componenti e/o fasi di progettazione e sviluppo del prodotto

□ 1 □ 2 □ 3 □ 4 □ 5

Miglioramento della qualità del processo produttivo attraverso joint-venture con aziende specializzate nelle fasi della produzione

□ 1 □ 2 □ 3 □ 4 □ 5

Acquisizione di know-how e skill necessari allo sviluppo di nuovi prodotti-tecnologie attraverso joint-venture con imprese specializzate

□ 1 □ 2 □ 3 □ 4 □ 5

Miglioramento del grado di innovazione tecnologica del prodotto attraverso joint-venture con fornitori specializzati nella realizzazione di componenti e/o fasi della progettazione e dello sviluppo del prodotto (innovazione prodotto)

□ 1 □ 2 □ 3 □ 4 □ 5

Miglioramento della propria quota di mercato attraverso joint-venture con aziende specializzate nella produzione di servizi di commercializzazione e post-vendita

□ 1 □ 2 □ 3 □ 4 □ 5

Penetrazione in nuovi segmenti di business attraverso joint-venture con aziende specializzate nella produzione di servizi di commercializzazione, post vendita e marketing

□ 1 □ 2 □ 3 □ 4 □ 5

Riduzione del rischio di opportunismo attraverso joint-venture con un fornitore/partner con cui già esistono relazioni di mercato

□ 1 □ 2 □ 3 □ 4 □ 5

Facilitare l'accesso al credito (vantaggi in termini di capitale) attraverso joint-venture con imprese strategiche e specializzate

□ 1 □ 2 □ 3 □ 4 □ 5

Conseguimento di economie di scala/apprendimento attraverso gli asset del partner (stabilimenti produttivi, macchinari, impianti e attrezzature specifiche) intraprendendo con esso/i una relazione di joint-venture

□ 1 □ 2 □ 3 □ 4 □ 5

SCHEDA CONTRATTO DI CONSORZI E SOCIETA' COOPERATIVE (compilare tante schede quanti sono i consorzi e le cooperative di cui si è parte)

Nome del consorzio/società cooperativa:

_____

Localizzazione del consorzio/società cooperativa:

_____

Settore industriale dei partner del consorzio/società cooperativa (segnare tutti i settori coinvolti):

Meccanica
- ❒ Produzione di componentistica meccanica
- ❒ Progettazione, produzione e installazione di impianti/sistemi di sollevamento, macchine utensili, sistemi di trasporto, macchine per confezionamento e imballaggio
- ❒ Produzione di prodotti chimici
- ❒ Produzione di utensileria/ materiale di supporto meccanico
- ❒ Produzione di veicoli commerciali e industriali

Telecomunicazioni
- ❒ Fabbricazione di apparecchi trasmittenti radiotelevisivi e telecamere;
- ❒ Installazione di apparecchi elettronici per le telecomunicazioni

Informatica
- ❒ Fornitori di computer e unità periferiche
- ❒ Configurazione di pc (assistenza tecnica software e hardware)
- ❒ Installazione di macchine per ufficio, mainframe e computer simili
- ❒ Sistemi informatici per applicazioni nel settore meccanico

Elettronica
- ❒ Elettronica di consumo (apparecchi usati per l'intrattenimento, la comunicazione e il lavoro in ufficio)
- ❒ Apparati elettronici per l'informatica
- ❒ Fabbricazione di schede elettroniche
- ❒ Riparazione e manutenzione di componentistica elettronica
- ❒ Fabbricazione di apparecchiature elettriche ed elettroniche per autoveicoli e loro motori
- ❒ Elettronica strumentale (componenti e sistemi per gli impianti, apparecchi per la distribuzione e trasporto di energia elettrica)

Logistica
- ❒ Interna (Gestione dei magazzini)
- ❒ Di distribuzione
- ❒ Enti pubblici di Ricerca
- ❒ Enti privati di Ricerca
- ❒ Business Integrators (società di consulenza)
- ❒ Human Resources
- ❒ CRM (Customer Relationship Management)
- ❒ Altro (specificare): _____

L'azienda dispone di una struttura specifica per la gestione del rapporto con gli altri membri del consorzio/società cooperativa?

- ❒ Si
- ❒ No

Che tipo di relazione regola il rapporto tra l'azienda e gli altri membri del consorzio/società cooperativa?

- ❒ La relazione inizia e finisce col contratto
- ❒ Partnership di lungo periodo con solo alcuni degli altri membri (relazione di fiducia)
- ❒ Partnership di lungo periodo con tutti i membri (relazione di fiducia)

Specificare lo scopo del consorzio/società cooperativa (come indicato nell'atto costitutivo):

_____

_____

Quali sono le caratteristiche principali che hanno determinato la scelta dei membri del consorzio/società cooperativa?

- ❒ Affidabilità operativa (es. puntualità nelle consegne, rispetto delle specifiche, delle quantità, etc…)
- ❒ Affidabilità finanziaria
- ❒ Durata del rapporto
- ❒ Qualità riconosciuta
- ❒ Capacità tecniche e tecnologiche
- ❒ Vicinanza geografica (territorialità)
- ❒ Intersettorialità (si aggregano cooperative/ imprese che svolgono attività diverse evitando come consorzio di assumere una caratteristica specialistica)
- ❒ Complementarietà in termini di capacità e competenze all'impresa
- ❒ Forte affinità strategica (condivisione degli obiettivi di lungo periodo)
- ❒ Investimenti specifici di relazione pregressi (sono stati effettuati investimenti con un altro partner tali che gli investimenti stessi abbiano un valore più elevato all'interno della relazione che al di fuori di essa)
- ❒ Altro (specificare):_____

Qual è stato l'obiettivo principale che si voleva ottenere partecipando a tale con tale consorzio/società cooperativa? Indicare in una scala da 1 a 5 quanto si è d'accordo con le seguenti risposte (1=non sono affatto d'accordo; 2=non sono d'accordo; 3= non sono molto d'accordo; 4= sono d'accordo; 5= sono molto d'accordo)

Aumento del potere contrattuale verso clienti e fornitori (potenziamento del proprio brand, ottenimento di dilazioni e credito)

❒	❒	❒	❒	❒
1	2	3	4	5

Miglioramento del grado di innovazione tecnologica del prodotto attraverso l'adesione al consorzio d'impresa

❒	❒	❒	❒	❒
1	2	3	4	5

Limitazione dei rischi del proprio business

❒	❒	❒	❒	❒
1	2	3	4	5

Aumento della competitività di mercato grazie all'acquisizione di maggiore know-how e nuove competenze

❒	❒	❒	❒	❒
1	2	3	4	5

Miglioramento del grado di standardizzazione dei prodotti attraverso l'adesione a consorzi d'impresa di componenti e/o fasi di progettazione e sviluppo del prodotto con fornitori specializzati

❒	❒	❒	❒	❒
1	2	3	4	5

Ottenimento di sconti su quantità e conseguente ottenimento di importanti sinergie o economie di scala

❒	❒	❒	❒	❒
1	2	3	4	5

Maggiore potere contrattuale nei confronti degli istituti di credito con conseguenti vantaggi a livello finanziario e riduzione del prezzo del credito

❒	❒	❒	❒	❒
1	2	3	4	5

Contenimento dei costi potendo usufruire di una struttura comune che offre prodotti/servizi a prezzi più bassi rispetto al mercato

□ 1 □ 2 □ 3 □ 4 □ 5

Acquisizione di know-how e skill necessari allo sviluppo di nuovi prodotti-tecnologie attraverso la propria adesione al consorzio

□ 1 □ 2 □ 3 □ 4 □ 5

Facilitare l'accesso al credito (vantaggi in termini di capitale) sfruttando la propria presenza nel consorzio

□ 1 □ 2 □ 3 □ 4 □ 5

Conseguimento di economie di scala/apprendimento attraverso gli asset del/i partner (stabilimenti produttivi, macchinari, impianti e attrezzature specifiche) attraverso la propria presenza nel consorzio

□ 1 □ 2 □ 3 □ 4 □ 5

Adesione al Consorzio per conseguire un aumento del proprio potere contrattuale per la partecipazione a bandi di gara

□ 1 □ 2 □ 3 □ 4 □ 5

SEZIONE 3: ANALISI DEI FABBISOGNI DI RELAZIONI DELL'IMPRESA

FABBISOGNO DI RELAZIONI PRODUTTIVE (PER IL MIGLIORAMENTO DI EFFICIENZA)

I volumi di prodotto realizzati (o di servizio erogati) annualmente sono:

- ❒ Grandi (più di 10.000 unità di prodotto)
- ❒ Medi (compreso tra 500 e 10.000 unità di prodotto)
- ❒ Bassi (meno di 500 unità di prodotto)

La produzione dell'azienda presenta una varietà di prodotti

- ❒ Elevata (più di 500 tipologie di prodotti)
- ❒ Media (compreso tra 20 e 500 unità di prodotti)
- ❒ Bassa (meno di 20 tipologie di prodotti)

Quale è il grado di automazione della struttura produttiva?

- ❒ Alto (Tutta le attività produttive avvengono senza l'ausilio di personale)
- ❒ Medio (Molte attività produttive avvengono senza l'ausilio di personale)
- ❒ Basso (Le attività produttive sono per lo più manuali)

Come è possibile classificare la modalità di risposta alla domanda?

- ❒ Per il magazzino (su previsione della domanda)
- ❒ Su commessa (su ordine)
- ❒ Produzione di componenti per il magazzino e assemblaggio su commessa

La realizzazione dei componenti/prodotti avviene attraverso:

- ❒ Produzione in continuo
- ❒ Produzione discreta per lotti grandi
- ❒ Produzione discreta per lotti medio-piccoli
- ❒ Produzione ibrida (in continuo + discreta)

L'azienda possiede già stabilimenti produttivi all'estero?

- ❒ Si
- ❒ No

Se si, dove sono ubicati?

- ❒ Nord America
- ❒ Giappone
- ❒ Cina
- ❒ Sud America
- ❒ Altro (specificare): _____

L'azienda si propone di instaurare in futuro relazioni "produttive" con altre imprese?

- ❒ Si
- ❒ No

Quali sono gli **obiettivi** che l'azienda si propone di raggiungere instaurando relazioni produttive con altre imprese?

- ❒ Conseguimento di economie di scala o di apprendimento;
- ❒ Riduzione del tempo di produzione;
- ❒ Incremento della qualità del prodotto e del processo;
- ❒ Standardizzazione dei prodotti e dei processi
- ❒ Incremento del potere contrattuale rispetto alle banche per il ricorso a credito
- ❒ Incremento del potere contrattuale rispetto a fornitori per l'ottenimento di sconti di quantità
- ❒ Incremento del potere contrattuale rispetto alla P.A. per la partecipazione a bandi di gara
- ❒ Riduzione del Time to Market (tempo di lancio di un nuovo prodotto sul mercato)
- ❒ Aumentare il rapporto export-import
- ❒ Aumentare la quota di mercato aziendale
- ❒ Penetrazione in mercati esteri
- ❒ Riduzione dei costi dei componenti
- ❒ Riduzione dei costi di manodopera

- ❒ Sviluppo di nuovi segmenti di business (nuovi prodotti, nuovi clienti, nuovi canali di distribuzione)

Che tipo di relazioni l'azienda ritiene di istaurare al fine di raggiungere gli obiettivi sopra individuati?

- ❒ Contratti di fornitura
- ❒ Contratti di outsourcing/sub-fornitura
- ❒ Contratti di alleanza/partnership
- ❒ Contratti di joint venture
- ❒ Partecipazione a consorzi e società cooperative

FABBISOGNO DI RELAZIONI DI INTERNAZIONALIZZAZIONE (PER ESIGENZE DI GLOBALIZZAZIONE)

L'azienda si rivolge ad un mercato la cui estensione geografica è:

- ❒ Provinciale
- ❒ Regionale
- ❒ Multi-regionale
- ❒ Nazionale
- ❒ Internazionale
- ❒ Europeo

Esistono particolari criteri di selezione dei clienti?

- ❒ Si
- ❒ No

Quali sono le caratteristiche principali che determinano la scelta di un cliente?

- ❒ Durata del rapporto
- ❒ Affidabilità finanziaria (es puntualità nei pagamenti)
- ❒ Vicinanza geografica
- ❒ Mercato raggiunto
- ❒ Prezzo
- ❒ Vincoli di mercato (es. è l'unico cliente, rapporto di dipendenza, etc…)
- ❒ Altro (specificare):_____

L'azienda è interessata ad ampliare il proprio mercato?

- ❒ Si
- ❒ No

Se non ancora sviluppato, l'azienda è interessata ad un mercato internazionale?

- ❒ Si
- ❒ No

L'azienda possiede già uffici vendita all'estero?

- ❒ Si
- ❒ No

L'azienda possiede già sedi all'estero?

- ❒ Si
- ❒ No

Se si, dove sono distribuiti?

- ❒ Nord America
- ❒ Giappone
- ❒ Cina
- ❒ Sud America
- ❒ Altro (specificare): _MEDIO ORIENTE, EUROPA, AUSTRALIA, SINGAPORE, THAILANDIA_____

Quali sono gli **obiettivi** che l'azienda si propone di raggiungere mediante l'adozione di politiche di internazionalizzazione?

- ❒ Aumentare il rapporto export-import
- ❒ Sviluppo in mercati esteri (aumentare la quota di mercato aziendale)
- ❒ Penetrazione in mercati esteri
- ❒ Maggiore standardizzazione dei processi
- ❒ Sviluppo di nuovi segmenti di business (nuovi prodotti, nuovi clienti, nuovi canali di distribuzione)

Che tipo di relazioni l'azienda ritiene di istaurare al fine di raggiungere gli obiettivi sopra individuati?

- ❒ Contratti di fornitura
- ❒ Contratti di outsourcing/sub-fornitura
- ❒ Contratti di alleanza/partnership
- ❒ Contratti di joint venture

- ❒ Partecipazione a consorzi e società cooperative

FABBISOGNO DI RELAZIONI TECNOLOGICHE (PER ACQUISIZIONE DI KNOW-HOW)

L'azienda ha sviluppato/acquistato brevetti negli ultimi anni?

- ❒ Si(indicare quali):
  _____
  _____
  _____
- ❒ No

L'azienda ha un ufficio dedicato alla funzione Ricerca e Sviluppo?

- ❒ Si (indicare quante persone lavorano in tale ufficio): __1_____
- ❒ No

Specificare quanto dura mediamente il ciclo di vita dei prodotti/servizi offerto dall'azienda:

_____
_____
_____

Il contenuto tecnologico dei prodotti/servizi può essere considerato:

- ❒ Alto (sono necessari impianti, macchinari e sistemi informativi ad alta tecnologia per la realizzazione del prodotto/servizio)
- ❒ Medio (sono necessari impianti, macchinari e sistemi informativi non molto sofisticati per la realizzazione del prodotto/servizio)
- ❒ Basso (i macchinari usati per la realizzazione del prodotto/servizio sono a bassa tecnologia)

L'azienda dispone di sistemi informativi, intesi come tecnologie Hardware e Software per la gestione dei flussi di informazioni?

- ❒ Si
- ❒ No

Se la risposta è positiva, rilevare le caratteristiche hardware e software in termini di:

- ❒ XPC
- ❒ Mainframe
- ❒ AS400
- ❒ Unix
- ❒ Macintosh
- ❒ Altro (specificare): _____

L'azienda ha una rete locale?

- ❒ Si
- ❒ No

L'azienda dispone di un sistema ERP o altri sistemi gestionali informatizzati?

- ❒ Si
- ❒ No

Se si, si indichino i moduli ERP utilizzati:

- ❒ Produzione
- ❒ Amministrazione
- ❒ Finanza
- ❒ Marketing (CRM)
- ❒ Vendite
- ❒ Human Resources
- ❒ Acquisti
- ❒ Gestiona Magazzino
- ❒ Trasporto
- ❒ Customer Service
- ❒ Altro (specificare): _____

L'azienda è presente su internet?

- ❒ Si (specificare se con sito web proprio o in affitto presso terzi): _____
- ❒ No

L'azienda utilizza soluzioni per l'E-commerce (vendita di prodotti online)?

- ❒ Si
- ❒ No

L'azienda dispone di sistemi di pagamento elettronici?

- ❒ Si
- ❒ No

Quali sono gli **obiettivi** che l'azienda si propone di raggiungere mediante l'adozione di relazioni tecnologiche?

- ❒ Standardizzazione dei processi
- ❒ Sviluppo di nuove tecnologie di prodotto
- ❒ Sviluppo di nuove tecnologie di processo
- ❒ Sviluppo di maggiore conoscenza tecnico scientifiche
- ❒ Sviluppo di nuovi prodotti e processi
- ❒ Sviluppo di maggiore conoscenza del mercato e delle esigenze del cliente
- ❒ Ottenimento di economie legate alle dimensioni (economie di scala, apprendimento)
- ❒ Sviluppo di nuovi segmenti di business (nuovi prodotti, nuovi clienti, nuovi canali di distribuzione)
- ❒ Incremento qualità del prodotto

Che tipo di relazioni l'azienda ritiene di istaurare al fine di raggiungere gli obiettivi sopra individuati?

- ❒ Contratti di fornitura
- ❒ Contratti di outsourcing/sub-fornitura
- ❒ Contratti di alleanza/partnership
- ❒ Contratti di joint venture
- ❒ Partecipazione a consorzi e società cooperative