Chapter 20
Internationalization in Business-to-Business Markets: The Importance of New Product Development

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ABSTRACT

The internationalization of firms is a growing important phenomenon in the Economy. Thus, to face the new competitive challenges of globalized markets, industrial small and medium-sized enterprises (SMEs) need to implement new organizational approaches to take on new challenges in international markets. Based on a case study, this chapter reviews the literature on internationalization theories. Drawing on the network-based approach and on the resource-based view of the firm, we examine how collaborative new product development processes played a fundamental role in the internationalization process of a SME using a relationship-based perspective. The featured case concerns to a successful ex-small technical textile firm that leveraged its competitive strategy, climbed up the value chain, and extended its international activities following a technology-based path.

INTRODUCTION

With the globalization, the world witnessed a rapid increase in the level of international trade. The internationalization of businesses no longer affects large firms exclusively, as today's small and medium-sized enterprises (SMEs) need to internationalize as well, and account for a considerable part of international trade. The internationalization of SMEs is deemed crucial for their growth and survival, contributing to avoid intense domestic competition and pursue a market expansion, ensuring its long-term survival. Nevertheless, the internationalization of SMEs and of large firms differs because of size-related challenges

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(Coviello & McAuley, 1999). Typically, SMEs face higher constraints regarding resources, capabilities and knowledge when compared to large firms, thus, SMEs are inherently subjected to the liabilities of smallness, newness and foreignness in the internationalization process (Lu & Beamish, 2006). Even the concept of a network in the context of internationalization may differ significantly between well-endowed, resourceful firms and less-endowed SMEs (Jin & Jung, 2016). As such, SMEs must carefully evaluate the pros and cons of competing in a global market.

Internationalization has always been reflected in the literature through a variety of frameworks, theories and basic assumptions that have been changing over time (Moreira, 2009a; Bayfield et al., 2009; Ietto-Gillies, 2012). As referred by Ribau, Moreira, and Raposo (2015, 2016), the literature on business internationalization is vast, somewhat fragmented and dispersed. Over time, not only the globalization of business activity has evolved, but scholars' interpretations have also changed (Moreira, 2009a, Ribau et al., 2015; 2016).

If internationalization refers to the strategic process of increasing involvement in cross border activities (Welch & Loustarinen, 1988), the existing research on the process of internationalization can be framed into four main strands: traditional economic approaches; the Uppsala model (Johanson & Vahlne, 1977, 1990), which conceives internationalization as an incremental process where firms proceed through various stages; the network-based perspective; and the international entrepreneurship strategies that cover born-global firms and international new ventures. Ribau et al. (2015) summarize the ontological perspectives of the main strands of the literature on internationalization (economic viewpoint; behavioral viewpoint; ecological viewpoint; new internationalization; integrative models) with the internationalization theories and the main constructs.

Although the internationalization process has been one of the most studied areas in the field of international business (Johanson & Wiersheim-Paul, 1975; Fillis, 2001; Ribau et al., 2016), there are few studies (Holmlund & Kock, 1998; Moreira 2007) dedicated to the internationalization of suppliers throughout the supply chain considering the supplier-client relationship. In this way, set in a context of supplier-client relationship, the role of the client is represented by a multinational company and the supplier by a Portuguese SME with strong research and development (R&D) competences. The existing relationship is analyzed from a relational perspective based on the new product development (NPD) capabilities of the Portuguese supplier firm. Accordingly, the aim of this chapter is to examine to what extent the internationalization of suppliers is conditioned by this inter-organizational relationship.

The contribution of this study stems from the analysis of the internationalization of the supplier, based on the conditions and opportunities provided by its multinational client from the automotive industry. Thus, previous studies are complemented (Holmlund & Kock, 1996, 1998; Moreira, 2007) as new perspectives that analyze the entry into international markets through industrial relationships in the country of origin of the supplier firm are provided, which has been underexplored to date.

The document is structured in seven sections. After the introduction, the second section covers the literature on internationalization process and the main dimensions related to internationalization strategies, with an emphasis on the resource-based view (RBV) of the firm, where the NPD process of the supplier firm played an important role in the relationship with its multinational client. The third section presents the literature on innovation and NPD. The fourth section reviews the literature on supplier-client relationship and its importance in the supply chain. This relationship is followed from an interactive approach and highlights the evolving nature of NPD, logistics and innovation as key elements that frame long-term commitments. In the fifth section, the research methodology is addressed. Section sixth presents a case study pertaining to internationalization following a network-based approach. In this case study,

collaborative new product development (CNPD) is used as the main driver of the relationship. Finally, section seventh concludes the chapter with a summary of the main findings and remaining challenges.

INTERNATIONALIZATION

Because of the globalization, the internationalization of companies is a complex phenomenon framed by a growing business specialization, and by increased instability of the company's external context (Dicken, 2011). It is related with the process of firms' increasing involvement in international activities (Welch & Loustarinen, 1988), export intensity, and with how international markets are exploited.

The classical theories of the internationalization of firms are essentially based on the explanation of why multinational companies emerged (Ribau et al., 2015), where the life cycle theory (Vernon, 1966) and theories based on imperfect markets (Hymer, 1976; Kindleberger, 1969; Caves, 1971; Knickerbroker, 1973; Buckley & Casson, 1976) have been commonly accepted. However, their focus on countries and multinational players jeopardize their explanatory power, especially when SMEs are involved. To find more complete explanations for the growing international involvement of SMEs, it is necessary to resort to more contemporary approaches as demonstrated by Ribau et al. (2016). Based on the analysis of 554 papers covering the period between 1977 and 2014, they found 74 different topics. They also found that the process of internationalization was covered only by 93 papers.

There are several strands explaining the internationalization process: one that addresses the internationalization process from the point of view of the resources and their interaction with the environment (Barney, 1991); another one that defends an evolutionary, sequential, linear model with a growing international evolution, known as Uppsala model (Johanson & Wiersheim-Paul, 1975); and a third one, the network-based view of the firm (Håkansson, 1982, Håkansson & Johanson, 1992), where the relationships between the parties in the market play a crucial role. However, there are other strands that explain innovation-based internationalization (Morgan & Katsikeas, 1997) or rapid internationalization processes (Oviatt & McDougall, 1994).

Some of the most widely accepted theories following economic approaches are: Dunning's Eclectic Paradigm; the International Product Life Cycle Model; or the Transaction Costs theory (Ribau et al., 2015). These economic approaches have their roots on mainstream economics, and analyze the firm and its environment (Andersson, 2000). These approaches focus on two aspects of international production: the ownership of assets used in production activities; and the location patterns of those production activities (Benito & Gripsrud, 1992). Economic approaches are usually static, and investment decisions are an isolated phenomenon driven by both efficiency considerations and cost/benefits relationships (Benito & Gripsrud, 1992). These approaches leave little room for decision makers to take different strategic decisions under the same circumstances (Andersson, 2000). Economic theories conceptualize that firms choose locations based on investments which minimize total costs. Thus, variables such as labor costs, transportation costs, tariffs or governments policies are important determinants of locations choice (Benito & Gripsrud, 1992). Under the light of these theories, when internationalizing, firms identify their specific competitive advantages and look for location-specific advantages in a destiny market which presents the best conditions.

Under a distinct perspective, the Uppsala internationalization model constitutes another internationalization strand. At the heart of this model is the premise that incremental learning at firm level is the main factor explaining firm's international behavior and decision-making process (Andersson, 2000).

Johanson and Wiedersheim-Paul (1975) found that when internationalizing, firms advanced through a pattern of distinctive and clear stages. In their framework, the information flow between firm and market was crucial for the internationalization process. Johanson and Wiedersheim-Paul (1975) draw attention for the importance of concepts such as the psychic distance, laying the foundations for the development of the Uppsala internationalization model (Buckley & Ghauri, 2004). Johanson and Vahlne (1977) considered firms' internationalization as an increasing commitment towards foreign markets process. They argued that the process of internationalization was based on a sequence of stages where firms first acquired experience, built management competences, and decreased uncertainty to incrementally increase investment levels in host markets. Basically, it was possible to identify four stages that differed regarding the company's degree of involvement in the market (Johanson & Wiedersheim-Paul, 1975; Johanson & Vahlne, 1977): no regular export activities; exports through agents; sales through wholly owned subsidiaries; and international production subsidiaries. The Uppsala model is based on the relationship between learning on international operations and commitment to international business, i.e., the risk and commitment of resources increases as the internationalization process progresses. In addition to the sequence of steps that reflects entry modes and performance, new international markets orientation involves strategic decisions and performance patterns regarding the sequence of chosen markets. The main obstacle to the internationalization is the lack of knowledge of a foreign market, however, it can be addressed through the experience and learning gathered from operating in that market. The experience provides firms the ability to properly evaluate business opportunities and decrease the uncertainty concerning the commitment to a foreign market. Since knowledge is developed gradually, international expansion takes place incrementally (Johanson & Vahlne, 2003).

Another strand attempting to explain the internationalization of firms is the Network theory. This approach began in the marketing of industrial goods (Håkansson, 1982; Håkansson & Johanson, 1992), where the emphasis was on the interactions among firms. Networks and relationships are vital for all firms, as they enable linking activities or matching resources together, nonetheless, networks seem to be of the utmost importance for SMEs given their resource constraints (Mort & Weerawardena, 2006). Accordingly, networks may help firms in identifying new market opportunities or building market knowledge (Coviello & Munro, 1995). The Network theory conceives markets as a system of relationships among different actors, including customers, suppliers or competitors (Coviello & Munro, 1995; Glücker, 2006). Strategic actions are not limited to single firms, rather, the nature or existing relationships with others has an influence on the future strategic options (Coviello & Munro, 1995), contributing to decrease production or transaction costs, helping in the development of knowledge and competences, or as a bridge to unrelated actors (Glücker, 2006).

The Network approach (Johanson & Mattsson, 1988) argues that the internationalization of a company is the result of the development of (internal and external) network relations with individuals and/or firms who have resources and experience/knowledge. Within networks, the access to information and knowledge is faster and less expensive. According to Johanson and Mattsson (1988), networks of (internal and external) relationships in foreign markets have a key role. The external network is the result of the subsidiary relationship with business partners such as suppliers and research institutions, among others (Andersson, Forsgren, & Holm, 2002). The internal network is the result of the relationships among subsidiaries (Bjorkman & Forsgren, 2000). This explains why some firms do not follow a sequential entry mode. The Network theory emphasizes external relations over internal conditions and assets, where the access to other firm's resources is as important as internal competences or competitive advantages. Glücker (2006) stresses that firm's position in a network has a specific strategic value and can be con-

sidered a specific intangible resource. Thus, the network relationships influence entry mode and market choice decisions (Coviello & Munro, 1995; Glücker, 2006). Under this approach, internationalization may be the result of initiatives taken by third parties of a network, rather than a conscious decision of a firm to internationalize (Ellis, 2000). Market entries may simply be the outcome of a partner demand to accompany them abroad, or in extending their relationships to include making business in certain foreign markets, which it often the case when firms have close relationships with other firms that are internationalizing (Johanson & Vahlne, 2003). Johanson and Mattsson (1988) argue that production factors and competitive forces in highly internationalized industries create a wide pattern of entry opportunities. This diversity motivates firms to choose markets and entry strategies, which may be quite different from what is expected by the traditional Uppsala model. However, this will only be possible through the implementation of networks of relationships in new markets where firms will operate. As such, relationships can be used as entry modes in other networks.

The main problems of the network theory are not related with country markets, but with managerial issues concerning the development of relationships with suppliers and customers (Johanson & Vahlne, 2003). Based on the Network theory, the internationalization of firms is understood as a natural development from network relationships with foreign individuals and firms. The Network theory argues that the degree of internationalization of a company focuses not only on the resources allocated across borders, but also on the degree of internationalization of the networks in which the company operates. According to Andersson and Johanson (1997), internationalization is not a matter of shifting production abroad; it shall be understood as the exploitation of cross-border potential relationships. Therefore, this theory brings new ways of understanding internationalization, highlighting the relational perspective.

The way companies are managed is crucial to the internationalization process (Leonidou, Katsikeas, & Piercy, 1998). In industrial markets, factors like: technology mastery (Burgel & Murray, 2000); knowledge and networks (Coviello & Munro, 1997); entrepreneurial orientation (Ibeh & Young, 2001); and sociocultural background (Leonidou & Katsikeas, 1996) have been growing in importance in internationalization studies. However, the internationalization process of SMEs still depends on the following main dimensions (Young, Hamill, Wheeler, & Davies, 1989; Ribau et al., 2016): type of products and activities; international modes of entry and operation; types of markets; internal competencies; the ability to manage cooperative relationships; financial constraints; organizational structure; environmental strategies; offshoring activities; export promotion; export barriers; social capital; entry mode selection; technological strategies; innovation strategies; and R&D capabilities, among others.

As SMEs resources are usually limited, established relationships with their clients can be a form of resource acquisition and international penetration (Moreira, 2007). Moreira (2007) found that when industrial SMEs interact with their multinational clients, SMEs managed to evolve in those external networks, arguing that the evolutionary perspective in the supply chain was not only crucial for SMEs, but also that relationships across firms depended on the intensity of the commitment of the client firm.

The number and depth of relationships increase among clients, suppliers, distributors and competitors as firms internationalize (Johanson & Mattsson, 1988). This occurs in three different ways (Johanson & Mattsson, 1988): firstly, building relationships with companies in new countries (international expansion); secondly, increasing commitment in international networks (international penetration); and thirdly, integrating their position in networks in several countries (international integration).

Following the network perspective, Holmlund and Kock (1996) emphasize the existing unequal relationship in the supply chain, where suppliers (usually small firms) are dominated by clients (usually large companies). In a subsequent study, Holmlund and Kock (1998) also point that, despite some

relational progression between suppliers and buyers, the supplier relationship and internationalization evolutionary patterns depended on the client.

As this chapter discusses the relationship between an industrial SME and its large multinational client, it is important to refer that the internationalization process is associated with the conditions and opportunities that multinational clients represent, and the performance achieved by the firm in this relationship. Accordingly, it was decided to embrace the RBV of the firm (Barney, 1991), although the sequential model (Johanson & Wierdersheim-Paul, 1975) also has an important role. This decision was based on the following factors:

- The performance of the supplier depends on obtaining internal and external resources. The former is related with the supplier internal competencies, and the latter with collaborative advantages (Ebers, 1997)
- The client imposes its supplier some market imperfections, as well as means and opportunities that are not normally available to the latter (Moreira, 2007)
- There is a social relationship between both types of firms (Oliver, 1990; Easton & Araújo, 1992)

NETWORK-BASED VIEW OF INTERNATIONALIZATION

As mentioned before, companies competing in industrial markets take part in inter-organizational networks. The range of opportunities and constraints the firm faces influence the firm's strategy, in accordance with the firm's position in the network (Johanson & Mattsson, 1988). The internationalization process depends on the firm position in the network and on the associated relationships with other firms in the international network. As such, the more profound the relationships are, the greater their involvement in international markets, which depends on the control of the resources in international activities, which is associated with the way the firm manages and internalizes the knowledge generated in international markets (Axelsson & Johanson, 1992).

Johanson and Mattsson (1988) indicate that a highly internationalized firm enjoys strong direct relationships with foreign network actors. Furthermore, being positioned within a foreign internationalized network allows the firm to develop relationships that can lead to further linkages with other actors (Axelsson & Johanson, 1992; Johanson & Vahlne, 1992).

Clearly, the development of the internationalization process is influenced by several factors (Johanson & Mattsson, 1988; Axelsson & Johanson, 1992): the firm and market level of internationalization; the partner level of internationalization; and the network level of internationalization. Thus, according to Johanson and Mattsson (1988), one can characterize the firm internationalization typology, as shown in Table 1, in four different conditions: the Early Starter; the Late Starter; the Lonely International; and the International Among Others.

The Early Starter firm possesses a low degree of internationalization, the same occurring with the network the firm belongs to (Johanson & Mattsson, 1988). Also, the level of internationalization suggests that it possesses only weak channels with foreign networks. The relationships the Early Starter has within the international network are considered important for the accumulation of knowledge. The Early Starter's lack of current activities involving foreign actors, either directly or indirectly, deters

Table 1. The network model of internationalization

		Market Level Internationalization	
		Low	**High**
Firm level internationalization	Low	Early Starter	Late Starter
	High	Lonely International	International Among Others

Source: Johanson and Mattsson (1988)

the acquisition and internalization of knowledge. Moreover, the weak position of Early Starters in the network further limits the available knowledge resources. Therefore, knowledge feedback direct from foreign markets to the Early Starter is limited, as the firm has hardly any experience operating in foreign markets and has weak relationships with international firms.

One of the main advantages of Lonely International firms is their high degree of internationalization, which provides them with greater levels of experiential knowledge in international markets. As the firm might be present in various relationships, the firm taps into knowledge resources from several partners. The main disadvantage of the Lonely International firm resides in an internationally inexperienced network.

The Late Starter is characterized by a low level of commitment and activity in international markets and low levels of international experience. On the other hand, it has some direct international relationships. Consequently, it is generally argued that the Late Starter enjoys a knowledge advantage *vis-à-vis* the Early Starter, as it is more committed to international operations and acquires knowledge from an international wider network (Holm, Eriksson, & Johansson, 1996). As such, the participation in international networks gives the Late Starter a valuable experience to develop and coordinate its position in a foreign market. The level of experiential knowledge residing in the Late Starter's network should have a positive influence on the firm's own level of experiential knowledge. When comparing the Late Starter and the Lonely International, the situation might be arguable. On one hand, due to the advantage of being a more highly internationalized firm, the Lonely International might exhibit higher levels of internationalization knowledge and foreign institutional knowledge relative to the Late Starter, but on the other hand, due to the disadvantage of not residing in a highly internationalized network, it might exhibit a lower level of foreign business knowledge relative to the Late Starter. Thus, the knowledge internalized by the firm will be the consequence of its capability to keep abreast of a range of developments the firm has as an outcome of international opportunities taken.

The International Among Others enjoys a high degree of internationalization (Johanson & Mattsson, 1988). Although it has established and developed positions and resources in foreign markets, like the Lonely International, the International Among Others also has a highly internationalized macroposition, which provides it with higher levels of experiential knowledge when compared with the Lonely International. Its participation in a highly internationalized environment forged the International Among Others with the capabilities to co-ordinate and integrate market positions in international networks. Accordingly, the International Among Others exhibits high levels of foreign institutional knowledge and foreign business knowledge *vis-à-vis* the other three firm types. Nonetheless, due to the high number of interdependencies with other firms and environments, obstacles faced by International Among Others are also likely to appear.

INNOVATION AND NEW PRODUCT DEVELOPMENT

Market turbulence and uncertainties are important drivers of change as they force firms to reformulate their strategies, seek new opportunities and adopt risk taking behaviors. Innovation and NPD are crucial for companies to generate competitive advantages (Oliver, Dostaler, & Dewberry, 2004) as NPD activities support firms to cope with market turbulence, and change (Wheelright & Clark, 1992; Montoya-Weiss & Calantone, 1994). As such, NPD activities have been the primary objective of many companies, with the prospect of obtaining excellent results and remaining in the market (Moreira & Karachun, 2014, Trott 2005, Garcia & Calantone 2003).

Although maximizing customer satisfaction and an efficient internal production system that simultaneously allow rapid changes and flexibility are important for survival, they are not enough if firms are to thrive in the markets. For that, NPD activities are crucial (Takayama, Watanabe, & Griffy-Brown, 2002).

NPD invloves a complex process that requires careful and effective management at a strategic and operational level, involving complex decisions that can affect the whole company, requiring a compromise between all functional areas involved, as well as important relationships with external clients (Cooper & Kleinschmidt, 2003; March-Chordà, Gunasekaran, & Lloria-Aramburo, 2002).

Innovation and NPD are not recent research topics. Guan and Ma (2003), in their research of innovation capabilities in China, concluded that innovation capabilities are an important antecedent of export performance. Innovation represented one of the main avenues for building firm-specific advantages (Zucchella & Siano, 2014) and was critical to the growth and success of the firm (Guan & Ma, 2003; Lisboa *et al.*, 2011). Ribau, Moreira, and Raposo (2017) proposed a model to analyze innovation capabilities as antecedents of export performance among SMEs.

NPD is the term that describes the complete process of bringing the new product or service to market. This process begins with identifying a market opportunity and that successfully completes the product launch (Wang et al., 2012), i. e., product development is defined as the "*transformation of a market opportunity and a set of assumptions about a product technology into a product available for sale*" (Krishnan & Ulrich, 2001, p.1).

A detailed study on NPD process was developed by Cooper (1990), being represented as a process of stages of development interpolated by phases of evaluation (known as Stage-Gate). The Stage Gate process can be seen as an effective tool for managing, directing and controlling efforts in product innovation, from product idea to product launch (Cooper, 1990).

The new product may include original products, improved products, modified products, new developed brands, replacement products, new-to-the-world products and new-to-the-firm products, among others (Ilori, Oke, & Sanni, 2000). Clearly, there is no single perspective.

It is difficult to talk about innovation and NPD separately. Trott (2005) considers that NPD is a sub process of innovation, which encompasses several activities from concept development to product launch.

Moreira and Karachun (2014), after reviewing 461 articles on NPD, found 13 important categories that encompass the main topics covered in the development of new products, namely: analysis of the general business environment; innovation; R&D; new product and new process development processes; teams in NPD; cooperation; knowledge management strategies in NPD; supplier integration in NPD processes; marketing and launch of new products; and user involvement in NPD processes.

A general feature is that those categories are largely interrelated. Cooperative strategies are heavily dependent on knowledge transfer and management, which is a required resource for the NPD process.

The role of knowledge – generation, transfer, and sharing – is not only related to the needs of open innovation, but above all, to the improvement of the NPD process. Multifunctional teams are intertwined with knowledge transfer, continuous learning, NPD performance, and organizational arrangements in NPD teams. Innovation is a very broad subject encompassing almost all categories, directly or indirectly.

It is interesting to note that although there are studies that relate NPD and innovation to market orientation, studies involving NPD and export performance are not very extensive (Moreira & Karachun, 2014; Ribau et al., 2017, Oura, Zilber, & Lopes, 2016).

IMPORTANCE OF INTER-ORGANIZATIONAL RELATIONSHIPS

The concept of networks emerged on 1982 (Mattson & Johanson, 2006). It was important as it helped to understand the importance of inter-organizational relationships as a means of generating competitive advantages not only from within the firm, but also as a result of a supplier-customer relationship in which resources and knowledge were exchanged by different individual and organizational players. As such, one can argue that the firms' critical innovation capabilities extend beyond the boundaries of the firm, specifically with suppliers and direct and indirect business-to-business (B2B) customers.

This interactive approach, developed by Håkansson (1982) and Håkansson and Johanson (1992) in the Industrial Marketing and Purchasing Group based on the observation of the relationship between clients (large business groups) and their suppliers in industrial environments, proposes that the most important advantages of this interactive approach lay in the way the resources are organized in the business network.

According to Ring and Van de Ven (1992), numerous firms began to engage in inter-organizational relationships due to the rise of emerging technologies and competitive pressures. It is essential that in highly competitive environments, as is the case of the automotive industry, inter-organizational relational forms are used to address new markets and to gain economies of scale (Moreira, 2007). Inter-organizational networks are important in stimulating firms' competitive advantage and international strategies (Ritter & Gemünden, 2004; Trkman et al., 2007; Chang et al., 2012).

Lamming (1993) was among the pioneers in the study of vertical inter-organizational relationships. He verified that not only they have a cumulative and evolving nature, but they also depend on the participation and on the atmosphere that affects the interaction between the two partners. Nonetheless, Dyer's (1996) contribution regarding the supplier-client relationship is also important: he showed that product quality, new product time-to-market, inventory costs and profitability of both (supplier and client) were affected by the way both companies interrelated. Thus, the main benefits of a supplier-client relationship are (Lamming, 1993; Dyer, 1996):

- A supplier can easily access partner's technology.
- Long-term competitive advantages are generated, e.g., greater market share, faster product development times, improved product quality and lower product costs.
- Short-term improvements are easily generated e.g., productivity increases, lower inventories and improved quality control.
- Lower research and development, production and distribution costs.
- Lower financial risks in joint investments.
- Long-term commitment is encouraged.

The concept of business networks comprises a set of intertwined relationships among firms (Håkansson & Johanson, 1992), whose effect is more powerful than the sum of the effects of all dyadic relationships of the companies involved in the network. For the analysis of business networks, it is necessary to consider actors, activities and resources, all of them interrelated throughout the network structure (Håkansson, 1982).

For all purposes, actors perform activities and/or control resources. They may be individuals or firms, and may belong to different organizational levels. Actors are characterized by performing and controlling activities, developing relationships with several network actors. Actors may belong to stronger or weaker networks, in terms of relationships. Among the several actors of the business network there may be technical, knowledge-based, strategic, socio-economical or legal ties.

Resources are the means used by network actors to perform network activities, and the main reason for the activities to take place, regardless of their type. Resources are heterogeneous for most of the network firms. Finally, activities are various possible ways to transform and/or use network resources. Activities take place when one or more actors combine, develop, exchange or create resources using other resources.

The study of inter-organizational network includes various studies, typologies and functions, characteristics and evolutionary perspectives (Popp et al., 2014; Bergenholtz & Waldstrøm, 2011; Franco et al., 2011). Several studies have emphasized the factors that support successful inter-organizational networks (Simatupang & Sridharan, 2002; Vaart & Donk, 2008; Wiengarten et al., 2010). Moreover, innovation-based networks are important to reduce uncertainty, to share costs and risks, and to access external knowledge among actors' relationships (Pyka & Küppers, 2002).

CNPD is an important competitive tool for business success (Griffin, 1997; Moreira, 2005), especially when there are collaborative relationships between companies throughout the value chain. These findings are in tune with the work of Deschamps and Nayak (1995) that argued that the CNDP was important in identifying consumer needs, satisfying clients and innovating products.

Dealing with the development of new products is somewhat controversial, since the outcomes can be analyzed from a product, project, or firm perspective. Ernst (2002) mentioned some methodological problems in assessing NPD outcomes and features, identifying five key success factors capable of influencing those outcomes: the development process; the organization of the NPD process; the corporate culture; the top management commitment and performance; and the NPD strategy.

Collaborative approaches have recently received increasing attention due to growing global competition and technological complexity (Roy, Sivakumar, & Wilkinson, 2004). However, when NPD is embedded in a collaborative approach, the traditional lack of relational perspective might be called into question since the competitiveness of the various companies in the value chain affects all actors differently, due to its nonlinear and interactive nature (Oke, Prajogo, & Jayaram, 2013; Henke & Zhan, 2010).

Moreira (2005) found that in the supplier-client relationship, suppliers have been investing in improving their competitive position investing in cost reduction activities, product quality management and logistics activities, which is reflected in the operations improvement. However, the issue in CNPD perspectives is on improving relational strategies of both firms as joint actions between producers and suppliers, to increase mutual trust, commitment and information sharing.

A collaborative relationship will only take place when both partners jointly choose highly competitive and relational priorities. Thus, Moreira (2005) concluded that in this type of approach, the inter-organizational relationship embraced collaborative strategies that depended on a double dynamic

involving the two actors in the value chain and the active involvement of the supplier, who must attempt to improve its position in CNPD process, to gain the credibility of its clients.

The main problem of inter-organizational relationships is the progressive integration of some key suppliers in the business model of the client, which implies a commitment between the parties involved and the implementation of collaborative approaches in which suppliers and clients complement their competitive advantages in the supply chain (Oke et al., 2013; Henke & Zhan, 2010; Schiele, 2006; Moreira & Carvalho, 2015). Within this relational perspective, the strategic alignment of suppliers and clients in terms of innovation is very important (Oke et al., 2013).

Co-operation, power and dependence are important to these relationships throughout the supply chain, as identified in the typology presented by Johnsen and Ford (2008). Experience and inclusion of suppliers/customers in co-operative projects, as well as the influence exercised by the customer and the supplier on the network in areas of knowledge, capabilities, skills, technical aspects, or even the NPD activities and strategies, capitalize the benefits of working together. These relationships also affect the performance of the firms involved (Lemke *et al.*, 2003).

Clearly, innovation and CNPD need to be understood as the outcome of a joint supplier-client relationship (Schiele, 2006) where:

- The supplier has the competences and capabilities to develop new products or to introduce changes on existing ones when working in close collaboration with its clients;
- The supplier is willing to share key technological information with its clients for the success of the supplier-client joint products/projects;
- The client is committed with its supplier to work on CNPD processes;
- The supplier and client have relational capabilities and are willing to support and improve each other in long-term cooperative NPD processes.

METHODOLOGICAL ASPECTS

To address the complexity of the research question, we chose a descriptive approach based on a case study, as proposed by Yin (2013). The case study methodology is an empirical approach that investigates a contemporary phenomenon within its real-life context; when the boundaries between the phenomenon and context are not clear; and in which multiple sources of evidence are used (Yin, 2013). The case studies are a way to obtain knowledge about a complex topic and check the already investigated previously, being appropriate in investigating industrial networks due to the complexity and dynamism that restricts the application of positivist studies (Easton, Wilkinson, & Georgieva, 1997). This form of research has been used over the years and the various disciplines and social scientists resort to this form of qualitative research to analyze real-world situations to obtain a basis for the application of ideas or theories.

Based on this assumption, it was important to find a case where it was possible to analyze the implementation of an internationalization strategy, taking as starting point the supplier-client relationships, the theory of networks, the RBV and the impact of R&D in NPD. This case study draws on a SME from the technical textile industry which operates in the B2B market, namely in the automotive and footwear industry supply.

Due to confidentiality reasons, it is not possible to disclose the name of the company or its partners. As such, ALFA is going to be used through the text when referring to the firm. ALFA was founded in 1992 in the North of Portugal, and has competences in the production of technical textiles. The analysis of the case will generate knowledge about the organizational and technological profile of the company and especially, on the importance of its relationships, mainly on the automotive sector. We pose the following research question:

- RQ: How have ALFA's supplier-client relationships leveraged its internationalization process based on its R&D skills in NPD?

Following the methodology suggested by Yin (2013), collecting data on case studies should allow the triangulation, i.e., obtaining data from multiple sources to establish evidence or prove facts. The main source of data used was semi-structured interviews. This allowed a deeper understanding of the company's evolution, skills and strategies adopted through time. To complement research findings, secondary data was collected from the company's webpage, newspaper articles and internal reports. Three semi-structured interviews and a tour on the company's facilities were conducted. These interviews allowed the characterization of the relationships between the company and its clients, as well as an overview on the process of internationalization of ALFA. After the interviews, data and results were validated by the company. This case study aims to contribute to the knowledge on how the supplier-client relationships and NPD facilitate the process of internationalization of an SME through an empirical study.

CASE STUDY

Contextual Perspectives

The textile industry can be characterized by its complexity and high number of actors throughout the supply chain, ranging from the chemical industry, the recycling, fashion and the processing of textiles for nonconventional applications, i.e., the technical textiles (EURATEX, 2004) – textile fibers, materials and support materials based on technical rather than on aesthetical criteria. Technical textiles must meet a certain number of requirements such as: lightness, resistance, reinforcement, filtration, conductivity, insulation, flexibility, absorption, among others.

The nature of the fibers, the choice of the manufacturing techniques and the finishing processes allow manufacturers to offer a wide range of textile solutions to suit client's specific needs, therefore, technical textiles are not related with the raw material, fibers or technology, but rather with the end-use of the product. Messe Frankfurt, the world's leading trade fair of technical textiles has identified 12 major markets (Table 2).

The market for textiles and clothing in Europe employs near 1.8 million workers (EURATEX, 2011), however, the average size of firms is small, about 13 employees on textiles and nine in clothing companies, reason why most of the trades are held within the European Union (EU) internal market (European Economic and Social Committee, 2013). The technical textiles industry in the EU represents about 30% of total turnover in textiles (excluding clothing), reaching higher market shares in countries like Germany (50%), Austria (45%) and France (40%) (EURATEX, 2011). The technical textile industry has grown

Table 2. Technical textiles main markets and market shares

Market segment/sector	Business areas	Applications	Market share (%)
AGROTECH	Coverings, protection, picking, fishing, ties	Agriculture, horticulture, silviculture, fishing	4.2
BUILDTECH	Construction and building	Protection, screens, construction materials, building components. reinforcement	6.7
CLOTHTECH	Clothing and shoes	Shoe components, insulation, structure, sewing products	10.6
GEOTECH	Geotextiles, civil engineering	Stabilization, separation, drainage, soil, reinforcement, erosion control, linings	n.a.
HOMETECH	Furnishings, habitat and floor coverings	Carpet components, furniture components, cleaning, filtration, coverings and tarpaulins	17.3
INDUTECH	Filtration, electronics and other industrial materials	Filtration, textile-reinforced rubber products, cleaning, lifting, pulling, electronic components, composites, other	11.5
MEDITECH	Hygiene and medical	Cleaning, hospital linen, care devices, protection, bio textiles	6.4
MOBILTECH	Automotive, rail, maritime and aeronautic	Textile-reinforced rubber products, safety, balance, insulation, floor coverings, protection, composites, other	14.5
PACKTECH	Packaging	Block packaging, disposable packaging, ties, other	8.1
PROTECH	Individual protection equipment	White room equipment, chemical protection, antiflame equipment, anticut equipment, outdoor use (IR, UV, protection, etc.), other	3.2
SPORTECH	Sport and leisure equipment	Baggage components, sporting equipment, camping equipment, other	7.3
OEKOTECH	Environment protection	Transverse field, products extracted from preceding sectors	n.a.

Souce: Adapted from Techtextil – Messe Frankfurt

up and is undergoing significant changes due to the importance of new applications for health, sport, leisure and aviation, and a radical shift from traditional technologies to newer ones such as composites. In Portugal, the textile industry is mostly composed by SME and generates 3.5% the turnover of the EU, (ATP, 2010). Merino and Neto (2008) indicate there are around 70 technical textile companies in Portugal, accounting for 6% of the overall production volume of textiles and clothing.

Firm Perspective

This case study focuses on ALFA's supplier-client relationship in the technical textiles for the automotive industry.

ALFA was founded in 1992 with the purpose of producing textiles for footwear components. During the 1990s, a period of challenges and opportunities emerged for ALFA, as the textile and footwear industries in Portugal faced the economic liberalization and the entry in the EU market. Despite the increase in international competition, Portugal managed to attract important investments, some of them in the automotive industry. The Autoeuropa Ford–Volkswagen factory in Palmela, in 1995, and the reinvestment of General Motors in Azambuja were among the most important ones. Furthermore, the public policies at the time contributed to develop and boost the supply chain for automotive components (Moreira & Carvalho, 2012).

These projects were largely responsible for the creation of several companies which supplied parts for engines, transmissions, brakes, electrical components and textiles for car interiors. At the same time, cars increased its incorporation of textiles in cockpits (e.g., in door panels or pillars). Most materials inside the car's cockpit needed to be glued with foam, the technology mastered by ALFA.

Although set up oriented to supply the footwear industry, ALFA seized the opportunity to shift market, driven by its new external environment. This was enhanced by the industrial nature of the geographical area (composed by a cluster of companies) where ALFA was located, and where important automaker suppliers were settled. Thus, ALFA refocused its area of activity towards the supply of automotive components.

ALFA decided to grow strategically in the footwear and automotive components supply, focusing its investments in technological innovation, increasing its expertise and specialization levels. ALFA took advantage of its proximity to the automotive cluster and began supplying Tier 1 and Tier 2 companies, which in turn supplied the large automotive Original Equipment Manufacturers (OEMs) throughout Europe.

In the early 2000s, the company began supplying the automotive industry and started on a process of modernization of human capital and technological innovation to tackle the requirements of the automotive supply chain. Thus:

- In 2004, ALFA obtains the ISO9001 certification;
- In 2005, aiming to add production capacity for supplying the automotive industry, ALFA introduces new cutting technologies, allowing the manufacturing of other types of components such as door panels or related products, rather than just bonding textiles;
- In 2006, ALFA starts its internationalization process by setting up a factory abroad. At the time, the company did not possess the organizational structure and capacity resources to support a full-owned international activity, thus, a partnership with a company specialized in the manufacture of car seat covers was established. This partnership was complementary since both companies produced for the automotive market, although in different positions in the supply chain.
- In 2009, ALFA established a new partnership in the same country it has internationalized before.

Throughout time, ALFA introduced several technological innovations processes such as the hot melt, one of the most advanced technologies in the field. Although most investments targeted the automotive industry, the technology mastery paved the way for ALFA to diffuse it into other end products industries as well. The effects of its inward knowledge have been used to deploy ALFA's competences in other industries as is the case of childcare or clothing components. In 2011, ALFA had seven business units supplying not only the automotive industry, but also the railways, nautical, textiles and footwear retail industries. Clearly, the technology mastery paid off.

ALFA's strategic choices and commitment to supply the automotive industry worked together as a game changer for the company, evolving from a business family into a successful multinational.

The technical textiles supply chain has a high degree of complexity. ALFA produces textiles for technical applications, controlling three main processes: lamination (through foaming, hot melt and spraying); cutting; and sewing. The two latest processes are complementary to the lamination. ALFA produces composite structures of two or more materials to improve the technical characteristics and product quality, according with their applicability.

The technical textiles supply chain for the automotive industry follow a specific path. First, fibers are transformed into yarns and then into structures, which is the first stage. Then, the structures are laminated through one of the three sub-processes controlled by ALFA: foaming, hot melt or spraying. A laminated fabric consists of two or more layers, typically a textile fabric bonded to foam. After lamination, the structures are cut or sewn, allowing its modeling.

The automotive industry was one of the main responsible for major changes in the organization of supply chains all over the world, and its influence on the technical textiles was of no exception. This was because major OEMs became global players in a highly competitive market, forcing their suppliers to follow the same trends. The automotive supply chain can be split into Tier 1s, Tier 2s and Other Tiers.

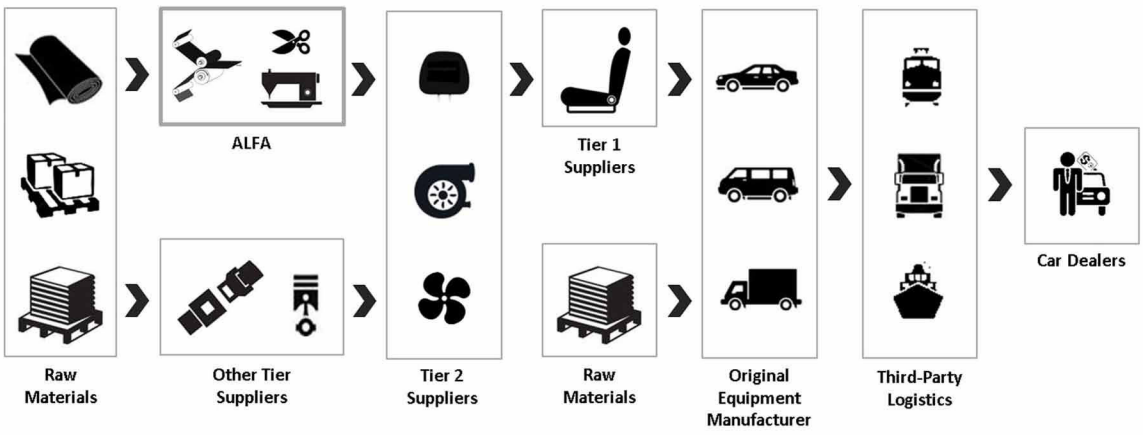
- Tier 1s directly supply OEMs, working closely and in cooperation with them in the development and production of systems or modules;
- Tier 2s directly supply Tier 1s but not the OEMs;
- Other Tiers supply materials such as glass, aluminum, technical textiles directly to Tier 1s, Tier 2s and eventually OEMs.

Figure 1 shows a simplified representation of the automotive supply chain, indicating ALFA's position as Other Tier.

Within the automotive supply chain, ALFA is positioned as Other Tier, supplying technical textiles to Tier 1s and Tier 2s. ALFA's main client, henceforth labelled as BETA, can be considered Tier 1 and/or Tier 2, depending on the type of product supplied to the OEM. The initial relationship between ALFA and BETA was mostly vertical.

Despite the stimulating environment for a closer supplier-client relationship (geographical proximity between facilities and the common share of technological cultures and economic, political and legal contexts), the highly vertical structure of the automotive supply chain kept a hierarchical relationship and ALFA held its position as contract manufacturer. Within this business context, ALFA remained as a manufacturing unit supplying their clients based on their specifications, without any involvement in the product development, as this task was conducted by OEMs and Tier 1s (BETA), exclusively. However, ALFA's strategic path was about to change.

Figure 1. Automotive supply chain and ALFA's positioning



First, it decided to improve its production processes. ALFA made a strong investment in the control of the various lamination processes, including the most advanced technology: the hot melt. Additionally, it extended its activities to the cutting and sewing processes, which were previously performed downstream in the value chain. This first step was crucial to ALFA, as the control of a higher number of processes allowed the company to develop a new range of products, for the automotive, the footwear and the clothing industries, benefiting from the expertise and synergies among these products. This meant that the applicability of the technical textile technologies had pervasive effects on product knowledge and technologies on several areas of business. Second, ALFA made a strong investment in R&D, which alongside with a greater control in the number of controlled processes enabled the company to provide distinctive features to its products *vis-à-vis* its competitors. These two steps increased ALFA's competitiveness to continue supplying its clients due to increased manufacturing capabilities, and to propose new products based on its enhanced competences and novel R&D capabilities.

This constituted a milestone in the ALFA-BETA supplier-client relationship, since it was no longer based on a merely transactional perspective in which ALFA manufactured under BETA's specification.

Due to some of its enhanced process competences and innovation capabilities, ALFA was now able to design and develop new products and solutions, adding an important upstream component to its relationship with BETA, changing its nature. Clearly, the relationship between ALFA and BETA progressed to a relational perspective.

The supplier-client relationship in the supply chain between ALFA and BETA is not only based on an incremental innovation perspective from ALFA's point of view as a result of its upgraded capacity to develop new products and making changes on the existing product portfolio, but also on ALFA's increased capacity to develop new solutions according to BETA's demands. On the other hand, BETA witnessed ALFA's supplier relational capability and willingness to support and improve their innovation-based supplier-client relationship.

Third, to establish stronger relationships, ALFA developed workshops with its clients and partners to promote thematic discussions and identify new business opportunities.

ALFA and BETA's strategic behavior changed to a partnership-like relationship. They share knowledge and technology to co-operatively create innovative products and processes to support each other's competitive advantages. Moreover, ALFA is now involved in early stages of NPD process, jointly with BETA and certain OEMs. ALFA evolved from a passive player, manufacturing under specification to a proactive one which develops new products and solutions.

Working together with ALFA was very fruitful for BETA as it managed to keep abreast of advanced technological knowledge of technical textiles. Moreover, this good relationship sparked a virtuous cycle upstream in the supply chain with ALFA, leading to faster time-to-market NPD cycles and cheaper costs

What started as technological innovation strategy for ALFA, progressed into a relational supplier-client perspective between ALFA and BETA. As OEMs increased demands put pressure on BETA's performance, it was a deeper and earlier NPD involvement that sparked ALFA-BETA relationships. Moreover, ALFA-BETA successful relationships managed to pave the way so that BETA could improve its relationship with its OEMs clients. As can be seen, the strategic alignment was an important element to properly manage the supply chain. Innovation-based partnerships can play a key role in creating a more intertwined and interdependent relationship, where win-win relationships can work for all players involved.

The earlier identified factors: (1) the geographical and technological proximity to the client; (2) the focus and control over more processes; (3) the investment in R&D activities and the ability to develop

new solutions to its clients, allowed ALFA to change the vertical nature of the relationship, where all players win. Moreover, the reinforced relational perspective with BETA underpinned the new strategic alignment between BETA and its OEM clients. Figure 2 offers an overview of the stages underwent by ALFA towards its internationalization.

In the automotive industry, ALFA still holds relationships with Tier 1 and Tier 2 clients; however, new opportunities have been created for the company in the technical textile mobiltech market, namely, the development of new products for OEMs in the railway, nautical and aeronautic sectors.

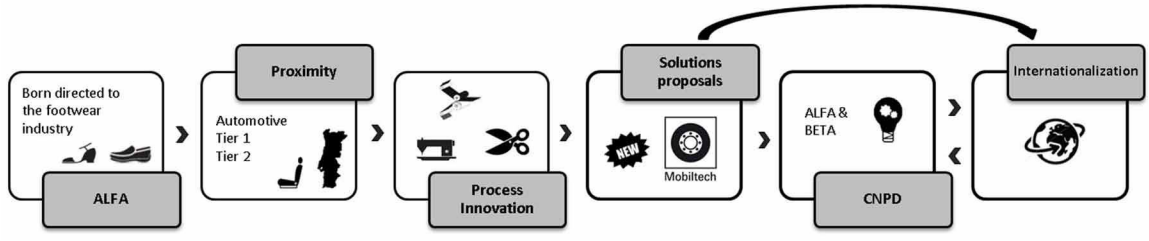
In ALFA's case, the relationship between internationalization and technological development can be approached following two perspectives. The first concerns the ALFA's strategic choice to deepen its technology mastery and to internationalize through partnerships with other companies. The second is based on the relational strategy throughout the value chain.

The first strategic option of the company to further develop its technological skills in technical textiles and not in greenfield investments abroad was a strategic commitment of the company, which had long-term consequences, as it allowed ALFA to deepen its technological specialization, initially, and its market diversification afterwards, supplying particularly the following industries: automotive, railway, nautical and footwear textiles. The tradeoff was positive for ALFA, had it invested in industrial facilities abroad, it would have focused on production/industrial processes to succeed and not on technical textiles technology-based products.

The second strategic option, the strengthening of the relationship with BETA in the value chain is also crucial, as not only reinforced the collaborative strategy based on NPD capabilities, but also paved the way for a deeper downstream relational strategy in the supply chain between BETA and its OEM clients. Therefore, ALFA benefitted from the strategic alignment in the supply chain as it is now more involved than ever with BETA's new demands from their OEM clients. As a result from its NPD technical success in the automotive chain, ALFA managed to focus: on one hand, on its strong technical product innovation capabilities to open new windows of opportunities based on the context with international clients it has been working with; and on the other hand, as new products are developed and industrialized, ALFA has managed to specialize its production in Portugal as well as abroad according to market requirements and ALFA's production capacities in close cooperation with their international partners abroad.

ALFA was set up to supply the footwear industry. Due to public investment policies in the 90s and the geographical proximity with some companies in the automotive industry, it became an integral part of its supply chain. The company was thus obliged to adopt the standard procedures in the industry, nevertheless, it was its ability to deploy new technological processes that allowed the company to evolve into a strategic partner. Those changes were essential for the survival of a small player which would hardly remain competitive had not it acquired those skills. ALFA's position is synthesized in Table 3.

Figure 2. ALFA's development stages towards internationalization



CONCLUSION

The internationalization process of firms has been explained over time using various theories (Ribau et al., 2105). According to Crick and Spence (2005), a single theory is not sufficient to explain the process of internationalization and strategies adopted by a company. Based on this perspective and in other theories used to justify some of the dimensions of an internationalization process, this chapter has focused on the theory of networks, the RBV and CNPD to describe the internationalization of a company in the technical textiles industry.

Awuah, Gebrekidan and Osarenkhoe (2011) argue that the internationalization process occurs in an interactive environment that is established by a network of companies that include local and external actors. The interaction of these actors in networks can help companies acquire activities, resources and the information necessary to engage in internationalization processes (Awuah et al., 2011).

A company cannot be understood as an island or an isolated entity; instead, it should be seen as part of a whole and integrated in a network of industrial relations. The network theory draws the attention to the importance of the interfaces that a company develops through business relationships. Håkansson and Snehota (2006) claim this view has consequences for the strategy and the management process of a business.

The traditional strategy paradigm assumes organizations as separate entities, investing in resources to gain market position. Instead, the network approach assumes that organizations are connected in networks where resources and information flow among actors, making organizations simultaneously cooperative and competitive in a relationship that goes beyond a mere legal or contractual link. According to Gulati, Nohria, and Zaheer (2000), the outcomes of organizations are determined by their unique features but also by the network structure to which they belong.

The internationalization model based on networks developed by Johanson and Mattsson (1998) seeks to explain the internationalization process of a company considering its environment as a network or market. Based on this model, organizations are embedded in a network and its internationalization process is influenced by it.

In the examined case study, ALFA changed from its initial orientation towards the footwear to the automotive industry due to geographic and technological proximity with companies that were part of the automotive supply chain. Based on Johanson and Mattsson (1988) typology, ALFA could be understood as a Late Starter. The positioning is based on two main elements: the degree of internationalization of a company; and the degree of internationalization of the market (Johanson & Mattsson, 1988). ALFA began as a family business, without any experience or international activity, joining a network with a high degree of internationalization where its competitors and partners were already established at an international level. Johanson and Mattsson (1988) warn for the weakened market position of firms in these situations compared to its competitors and the difficulties of building a network. However, it must be noted that the typology proposed by Johanson and Mattsson (1988) considers the level of internationalization as a variable and ALFA opted for a technology strategy that led to a better relationship value chain. Clearly, ALFA invested first on technological process innovation, and later on R&D as a way to establish itself in its network and more importantly, to develop strong relationships based on trust and commitment with their clients. Moreover, as ALFA is strongly focused in supplying the automotive industry, its international market percentages are marginal as its main client is a multinational firm (BETA) with its foothold in Portugal. Therefore, ALFA's international accounts are overshadowed by its concentration in the auto industry.

Table 3. Synthesis of the case study

	ALFA
Number of employees	240 employees.
Type of products for the automotive sector	Technical textiles for assembly in the headrest, seat, armrest, door panel, pillar, headliner, sun visor, instrument panel, gear shift gaiter.
Type of products for the other sectors	Technical textiles for footwear, childcare and clothing industries.
Certifications granted	ISO9001 ISO/TS 16949
Exports (%)	31% (2012)
International profile	Multinational company.
International mode of entry	Strategic alliance.
Trust	High level of trust with main clients in the automotive supply chain.
Commitment	High level of commitment with clients based on relational, long-term relationships built basically on strong technological innovation.
Importance of network	Very important. Networks allowed the company to strategically focus on the automotive industry. CNPD activities with clients led to alignment strategies in downstream activities in the value chain. Internationalization process initiated through a strategic alliance. International markets and sites are fed through products developed locally.
Main resources	Human capital, factories, R&D department.
Main activities	Laminating processes, foaming, hot melt and spraying, cutting and sewing.
Influence of the client in the market selection	High. The client and the automotive industry have a strong influence on the market choice due to the strong pressures OEMs exert on its suppliers to maximize efficiency throughout the supply chain. Near 83% of sales volume is supplied to the automotive industry.
Product development	On an initial stage ALFA operated as contract manufacturer only. Due to its process innovation, R&D investment and CNPD, the company is now able to originally design and manufacture (ODM) and propose products to its clients, being able to participate in NPD in the concept/design stage.
Factors that strengthen the relationship	Geographic proximity and close technological distance with its main clients. Long-term relationships. Strong R&D and CNPD activities increased the level of strength, trust and commitment between the company and its clients.
Internationalization future perspective	Continue the internationalization pattern to meet the automotive supply chain demands. Internationalization based on opportunities from OEMs contacts. Deploy new international markets in the mobiltech market, i.e., aeronautics, nautical and railway, benefiting from a technology diversification strategy. Internationalization based on other market opportunities in technical textiles major markets as own brand/exports.

The RBV relies on explaining performance differences between firms based on the value created by the uniqueness of resources and capabilities which allow a competitive advantage and above average returns. The fundamental principle of the RBV is the identification of the company's key resources. For resources to be sustainable and generate long-term competitive advantages, they must provide value, be rare, inimitable and difficult to replace. Makadok (2001) focuses on the distinction between capabilities and resources by defining the first as "*a special type of resource, specifically an organizationally embedded non-transferable firm-specific resource whose purpose is to improve the productivity of the other resources possessed by the firm*". Thus, the concept of resources goes beyond the ones controlled by a firm into the unique and non-imitable way an organization manages those resources to create value.

Through its investment in state of the art lamination processes, alongside with the complementary cutting and sewing activities, ALFA developed a greater manufacturing control and offered greater value to its clients. Nevertheless, it was its focus on intangible resources as R&D that allowed ALFA to offer its clients innovative products and change its paradigm from a mere supplier into a strategic partner with competences to innovate and to participate in NPD processes.

This interaction process led to the development of trust and commitment in the supplier-client relationship, since the efforts developed by ALFA clearly indicated the company wanted to be a partner with its client. The new positioning allowed ALFA to engage in CNPD with BETA, being an important determinant in the internationalization process. According to Gulati et al. (2000), networks suffer changes over time because of the internal context of the network but also due to exogenous factors. A network is a structure in permanent change, in which the actors, the resources and the activities dynamically related with each other as actors try to gain power and change its positioning throughout the value chain through the acquisition of new resources of interacting with other actors. In our days, very hierarchical supplying networks based solely on transactions might not represent the most efficient form of organization. Thus, the better the relationships between the various actors, the greater the competitive advantage for the companies, and the higher the difficulties for competitors to replicate those resources and relationships. As Moreira (2009b) demonstrated, the supplier-client relationships generate results only when the relationships are established in an atmosphere of cooperation, trust and interdependence, as in the case study discussed.

Finally, it is possible to conclude that if supplier-client relationships are important in leveraging the internationalization processes, technology-based strategies are important vehicles for firms to deploy their strategies. Being part of a network is not an easy task in globally competitive markets as is the case of the automotive industry. Moreover, CNPD play an important role in industrial firms as networks. In the abovementioned case, it is possible to conclude that CNPD processes not only leveraged ALFA's relationship in the value chain with BETA, but also opened a new window of opportunity in international networks and markets.

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KEY TERMS AND DEFINITIONS

B2B: Commercial transactions between two or more companies.

Collaborative New Product Development: New product development involves several steps that must be completed before the product can be introduced to the market. It is essential to any business that must keep up with market changes. When done collaboratively with other firms, the aim is to bring new products to the market taking a win-win approach to exploit the complementarities of the firms involved. Normally, only firms that engage in trust-based relationships are able and willing to get involved in collaborative new product development.

Commitment: A willingness to invest time and effort to participate in a relationship.

Industrial Networks: A cluster of relationships between two or more companies. Normally, they require actors, to perform activities in which resources might be collaboratively used.

Internationalization: The path firms use to perform business activities abroad to complement the sales of the domestic market. Traditionally, firms follow a process-based perspective to approach international markets. From a networked perspective, the internationalization process occurs in interactive environments where a well-established network of companies includes local and external actors searching win-win relationships.

Supplier-Client Relationships: Business relationship in which one company is involved in a business relationship in the supply chain with other firm, involving the provision of raw materials, components, spare parts, products or services. Normally this type of relationship is celebrated between two firms to abandon adversarial, transaction-based involvements and to embrace on a partnership-like involvement.

Supply Chain: The supply chain includes all the companies or organizations, people and resources involving management of upstream and downstream value-added flows of materials, final goods, and related information among suppliers, company, resellers, and final consumers.

Technical Textiles: Textiles whose purpose is mainly functional rather than aesthetic.

Trust: The belief that in an existing relationship both actors will act and behave in the benefit of both parties. It involves honesty and the belief that the relationship is safe and reliable.