Interfirm Alliances: A Collaborative Entrepreneurship Perspective

Mário Franco¹ and Heiko Haase²

¹University of Beira Interior, NECE – Research Unit in Business Sciences, Portugal
²University of Applied Sciences Jena, Center for Innovation and Entrepreneurship, Germany

1. Introduction

For several years, competing meant reducing costs, as this concept was closely linked to scale economies, and the same strategies were systematically applied. The term of competitiveness was used to characterise firms’ greater or lesser capacity to face the competition. Nowadays, the European Union forces firms to adopt stronger competitive positions, so as to respond to market changes, and to some extent, to be able to survive in their sphere of operation. The continuing need for improvement and constantly increased productivity is an important challenge faced by firms today. For this reason, it can be stated that firms have difficulty in competing individually supported exclusively by its own resources. In fact, at present, and even more so in the future, competitiveness appears in firms’ relationships and networks. Therefore, to compete in a highly complex market, firms must establish cooperations as a business strategy to face difficulties that may emerge.

In this context, entrepreneurship appears to be a suitable approach, as it aims at discovering, evaluating and exploiting new business opportunities (Kirzner, 1973; Shane & Venkataraman, 2000; Venkataraman, 1997). This includes activities such as scanning the external environment for new markets, unmet needs, existing problems in work processes and new product ideas (Sandberg, 1991; Sayles & Stewart, 1995). Entrepreneurship is a concept that began to be important at the end of the eighties (Miller & Friesen, 1983; Stevenson & Jarillo, 1990). Since then, a growing amount of literature has helped firms to understand the organisational process that facilitates business behaviour.

However, despite all the efforts to study this behaviour and although the business context offers an excellent reference to carry out investigations, entrepreneurship still requires more study in order to establish its legitimacy and specific contribution. Examination of business initiative involves distinction between two types of research: one based on the function of the business-person and the other analysing the business behaviour of existing firms. Older studies focus on the first category, i.e., they focus on the characteristics and behaviour of business-people and analyse the creation of new organisations (e.g. Aldrich, 1990). This paper, however, will come under the second category, i.e., concentrating on business initiative at the corporative level (Stevenson & Jarillo, 1990).
According to this perspective, Miller (1983) set the first cornerstone by introducing the concept of entrepreneurial orientation, characterised by innovation, pro-activeness and risk-taking. Although there is no single term and notion of entrepreneurial orientation, these dimensions were adopted by many subsequent studies (e.g., Lumpkin & Dess, 1996; Kreiser et al., 2002; Tarabishy et al., 2005). In this context, Middel (2008) concluded that entrepreneurial capability is an important requisite for a firm to collaborate effectively with external partners and therefore be able to absorb the beneficial competences of other firms, increasing its level of knowledge and improving its innovative characteristics. According to Antoncic (2007), firms are considered entrepreneurial if they form interfirm relationships and show themselves to be innovative, pro-active and with a capacity for constant self-renewal. As noted by Gundry and Kickul (2007), entrepreneurship tends to require cooperation and collaboration among many parties.

In this sense, interfirm alliances can help large and small firms be more entrepreneurial (Ireland et al., 2006; Montoro-Sánchez et al., 2009). In this paper, an interfirm alliance is defined as an organisational arrangement, through which two or more firms acting in isolation manage to overcome their resource constraints. In fact, a growing number of firms rely on alliances to capture the resources they need to achieve their strategic objectives (Bragge et al., 2007; Urbano & Yordanova, 2008). Research shows that interfirm alliances are useful measures to fill resource gaps and to access additional competences (Montoro-Sánchez et al., 2009; Zacharakis, 1998). The concept of cooperation through alliances is found to be particularly involved with the phenomenon of collaborative entrepreneurship. As stated by Yan and Sorenson (2003), the cooperation among firms is one of the dimensions that contribute most to collaborative entrepreneurship.

Ribeiro-Soriano and Urbano (2009) characterise collaborative entrepreneurship as a firm’s ability to collaborate outside the organisation. For Miles et al. (2005), collaborative entrepreneurship involves a group of firms that develop a strategy which allows them continuous innovation, through the respective collaborative capacities. This process is developed from alliances between two or more parties, all aiming to reach beneficial results. In this vein, the present paper conceives collaborative entrepreneurship as a strategy involving implementation within the firm, of knowledge and information coming from outside. The synthesis of the relationship between entrepreneurship and interfirm alliances is an interesting and fruitful area of investigation, but hitherto studies have mainly concentrated on small and medium-sized firms (SMEs) (Marino et al., 2002; Zacharakis, 1998), with a shortage of research applied to large firms. To fill this and other voids, in this paper the unit of analysis is the firm, whatever its size, and interfirm alliances.

One of the main contributions of this paper is to establish an interface between two important areas of management: entrepreneurship and strategic management. More precisely, the intention is to examine to what extent the formation of interfirm alliances can contribute to the development of collaborative entrepreneurial activities, i.e., how this decision can be interpreted as a form of collaborative entrepreneurship. To date, the role of entrepreneurship in alliance research, or vice versa, has received very limited attention in the literature (Alvarez & Barney, 2005). In particular, the influence of entrepreneurial orientation and firm resources on the decision to enter into alliances is an under-researched field. Consequently, the objective of this conceptual paper is to fill this caveat. In doing so,
its contribution lies in developing theory and a better understanding of how to use interfirm alliances as an approach to collaborative entrepreneurship.

The remainder of this book chapter is organised as follows: Section 2 refers to the main theories on which this paper is grounded, namely, resource-based theory and resource dependence theory. Section 3 discusses some definitions of interfirm alliances and, subsequently, the main reasons leading firms to adopt this business strategy, namely, obtaining and developing new resources. Section 4 offers a depiction of the various types of resources, capacities and competences a firm should possess, and more precisely, presents some typologies of these resources. As entrepreneurial orientation is the keyword to evaluate whether a firm adopts entrepreneurial actions, Section 5 deals with this concept and presents its various dimensions. Section 6 shows how formation of interfirm alliances can be interpreted as a form of collaborative entrepreneurship. The paper concludes with proposing a conceptual model for future analyses and some final considerations.

2. Principal theories

Various theories support the formation of alliances between firms, but in this book chapter highlights the two most important of them: Resource-based Theory and Resource Dependence Theory.

2.1 Resource-based Theory

According to Barney (2001), the development of Resource-based Theory resulted from frustration with the neo-classical economic justifications for firm performance, particularly neo-classical arguments based on market power such as homogeneity and mobility of a firm’s resources. On the other hand, for Mahoney and Pandian (1992), the origins of Resource-based Theory are found in the field of strategy, in institutional economics (Positive Agency Theory, Theory of Ownership Rights, Theory of Transaction Costs and Evolutionist Theory) and in Industrial Organisation (Chicago School and Harvard School). Corner, quoted by Mahoney & Pandian (1992), places the origins in Neo-classical Theory, Industrial Organisation and Theory of Transaction Costs. They argue persuasively that the resource approach reflects both a strong industrial organisation approach and one which at the same time is unique.

However, Resource-based Theory is due to Edith Penrose, in 1959, with her book ‘The Theory of the Growth of the Firm’, where the firm is looked on as a wide set of resources (Buckley & Casson, 2007). Contrasting with neo-classical ideas, Penrose (1959) assumed the heterogeneity and immobility of resources and carried out an analysis of how some firms manage to achieve competitive advantage in a given industry while others do not (Bowen, 2007). In this way, resources were both the key to a firm’s success and the main limitation of their growth (Buckley & Casson, 2007). The vision of Penrose made a useful contribution to good management practice, highlighting the creation of value through creative activity influenced by internal and external stimuli which lead to growth and innovation (Pitelis, 2005). Besides Penrose in 1959, other authors such as Hofer and Schendel (1978), Wernerfelt (1984), Grant (1991) and Peteraf (1993) also contributed to Resource-based Theory.
The objective of Resource-based Theory consists of analysing the position of resources in a firm and looking at some strategic options suggested by that analysis, namely the relationship between profitability and resources and ways of managing the position of resources in the firm over time (Wernerfelt, 1984). A central proposition of this theory is that firms are heterogeneous. Each firm is seen as a unique set of tangible and intangible resources (Esteve-Pérez & Mañez-Castillejo, 2008; Wernerfelt, 1984) and capacities that are acquired, developed and expanded over time. A firm’s resources and capacities are the result of its strategic choices and commitment of resources over time and determine its performance at any time (Esteve-Pérez & Mañez-Castillejo, 2008). Therefore, the unit of analysis of this theory is the firm and that firm’s resources (tangible and intangible) and capacities.

A resource is understood to be anything that can be thought of as a strength or weakness of a given firm (Wernerfelt, 1984). A firm’s current resources are defined as those assets which are connected semi-permanently to a firm, such as: brand name, knowledge of technology, use of competent collaborators, commercial contracts, machinery, efficient procedures, capital etc. (Furrer et al., 2008). For Hart (1995), resources include physical and financial assets as well as employees’ competences and organisational (social) processes. A firm’s capacities are the result of the sets of resources acquired for unique activities that create value (Hart, 1995). Penrose (1959) refers to resources using the term of services, and other investigators (Chaston & Mangles, 1997; Hamel et al., 1989; Smart & Conant, 1994) refer to central competences. The firm can give a different direction to resources according to purpose. However, it is fundamental that they are ‘labelled’ to avoid conflict and to define the situations in which they will be used.

The term of capacities is used to describe how resources are applied in the firm. Grant (1991) suggests that capacities are what is generated from the result of applying the resources a firm possesses. Wernerfelt (1984) and Barney (1991) suggest that an optimal combination of a firm’s resource profile and its activities in the product market should optimise its performance. It was this theory, therefore, that gave rise to articulation of the relationships between a firm’s resources, capacities and competitive advantage. For Wernerfelt (1984), competitive advantage can be sustained if the capacities that create that advantage are supported by resources that are not easily copied by competitors. In other words, a firm’s resources should raise barriers to imitation in the same line of thought. Bowen (2007) states that analysis of the characteristics of resources emerging in a firm and identification of the current or potential location of competitive advantage may lead to improved economic performance.

There seems to be consensus about the characteristics of resources that contribute to a firm’s sustainable competitive advantage (Peteraf, 1993). At the most basic level, those resources must be valuable, irreplaceable and inimitable. For a resource to have effective value, it must contribute to a firm’s capacity having competitive meaning and not being easily accompanied by alternative meanings (Barney, 2001). In the view of Miller and Shamsie (1996), resources should provide profit or avoid possible losses for the firm. The existence of resources that are heterogeneous and difficult to create, substitute or imitate by competing firms allows competitive advantage associated with a high level of performance. It is often questioned whether firms use resources and capacities appropriately, in order to give them competitive advantage. Therefore, Grant (1991) underlines that one of managers’ concerns
consists of adopting strategies which enable the firm to make effective use of the resources and capacities available.

Resources and capacities allow formulation of competitive strategies, this fact being proven in the investigations by Chandler and Hanks (1994) who propose a relationship between resources, capacities and a firm’s performance. Some authors (e.g., Chandler & Hanks, 1994) claim that the sustainability of a firm’s capacities is the key to competitive advantage in the long term. Definition of sustainable capacities includes capacities that are not easily created by the competition, and which serve as a support for the strategic plan. In this connection, Grant (1991) underlines that a firm’s resources and capacities have to be protected in order to ensure greater competitive advantage.

As long as a firm has the right resources, it is in a position to identify and explore new growth opportunities that may arise, as the environment is not a conditioning factor in a firm’s evolution. Associated with resources is strategic management focusing on the firm’s internal characteristics and respective performance (Grant, 1991). This approach differs from the classical theory of strategy by focusing fundamentally on resources, and it can also be assumed that some firms are heterogeneous concerning the resources they control (Greene et al., 1997). Combination and/or overlapping of resources allows firms growth and consequently expansion of business activities. However, it is not enough to analyse this theory in isolation in order to explain a firm’s growth and performance, it being fundamental to consider firms together with the environmental context. Small firms cannot exclude their surrounding environment. This fact is due to the great influence exerted by the environment on small firms (Chandler & Hanks, 1994).

Resource-based Theory presents some limitations. For Bowen (2007), one limitation of this theory is that it focuses only on analysis of a firm’s internal resources for implementation of its strategy, without taking into account the external institutional pressures which affect firms and the stance they adopt with regard to those pressures. Furrer et al. (2008) argue that Resource-based Theory does not suitably explain the difference in performance between firms that have the same level of uniqueness, rarity, inimitability and isolation of resources. For Barney (2001), this theory should be completed with theories of the entrepreneurial process and creativity for a better understanding of the strategic alternatives a firm can adopt given the resources it controls. It is in that context that this investigation emerges.

2.2 Resource Dependence Theory

Resource Dependence Theory is highlighted in studies involving organisational cooperation. This theory reflects the importance of resources as a ‘critical variable’ of the organisation. Resource Dependence Theory covers several variables, such as power, control, uncertainty and trust (Pfeffer & Salancik, 1978). According to some authors (Das et al., 1998; Grandori & Soda, 1995), this theory offers a dimension of qualitative and quantitative dependence in explaining business cooperation phenomena. The respective assumption considers that firms manage to survive by establishing interfirm alliances, allowing them to access indispensable resources (Pfeffer & Salancik, 1978; Zinn et al., 1997). In simple cooperation relationships, there is total inter-dependence between firms, and these alliances are regulated by association agreements so as to face up to competitors’ resources. In the
most complex alliance processes, these are regulated through relational and binding contracts involving the transfer of resources (Grandori & Soda, 1995).

The choice of a partner in an alliance depends on the position of the resources in the market, and for that reason, it is important to analyse the environment. If the resources are abundant and their supply is stable, resource dependence is not a problem. However, if resources are scarce, firms need to develop strategies in order to diminish resource dependence and control the environment (Zinn et al., 1997). Reduced resource dependence can be achieved by forming alliances and other forms of collaboration. It is from the environment that scarce resources are obtained and opportunities identified. These resources are obtained through interfirm relationships. Some resources can be developed inside the organisation, but most of them are obtained by sharing when alliances are developed with other firms (Holmlund & Tornroos, 1997).

According to Sachwald (1998), forms of cooperation have been widely put into practice in order to lower entry or mobility barriers. With these cooperative agreements, the goal is to gain entry to markets at a low cost, in relation to the necessary resources. That is why Oliver (1997) and Sachwald (1998) consider the phenomenon of business cooperation as one of the main methods for firms to reach resources, competences and capacities that are not available in competitive markets, and also intangible resources (reputation, for example). The value or usefulness of a resource depends on its combination with other resources, as resources in isolation have no value. When resource availability is limited, the formation of alliances can be a strategy that is preferred over other organisational forms (Sachwald, 1998). Nevertheless, in some cases, business alliances do not bring benefits as the advantages brought to the firm are not as great as the costs involved. Resource dependence can be a question of technology, lack of raw material, access to new markets and new competences (Sachwald, 1998).

Grant (1991) considers differences between resources and competences. Resources are production method inputs, and so these methods need coordination between resources. Competences are described as the capacities of a set of resources to carry out a task or activity. This author also underlines that resources are the source of capacity, and competences are the source of competitive advantage. So the essential element between a firm’s resources and competences is the capacity to achieve coordination in work teams. Sachwald (1998) also distinguish a firm’s resources from its competences. These authors state that in a firm there may be resources, which are coded knowledge, or competences which are tacit knowledge. As resources are explicit they have a market value, and are easy to control and transmit, but competences are non-expressed (invisible) resources, they cannot be compared and so do not have market value. According to Pucik (1988), competences are tacit knowledge obtained over time, being constructed progressively by firms themselves.

Despite the contribution of Resource Dependence Theory, several criticisms of this approach have been expressed in organisational studies. The lack of empirical studies allowing analysis of the combination of resources is one of the criticisms made by Peteraf (1993). Collis (1991) also points out as a criticism the absence of applicability of the theoretical studies made of Resource Dependence Theory in the field of cooperative strategies. The same author emphasises that practical studies are only applied to multinational firms and
not to small and medium-sized ones. Grant (1991) and Priem and Butler (2001) also criticise this approach for the non-existence of integration of theoretical foundation, and for the limited effort in developing practical implications of this theory.

3. Interfirm alliances

3.1 Characteristics of interfirm alliances

Alliances are a phenomenon that firms have adopted to promote technological modernisation, through shared investment, in the search for competitiveness. However, certain doubts often still remain regarding the concept of interfirm alliances, despite their application being increasingly common. Some definitions of this concept are therefore discussed.

According to Badaracco (1991), alliances are organisational arrangements and operational policies through which individual firms share an administrative domain and form social relationships. Dussauge and Garrette (1999) underline that alliances are formed by relationships between independent firms that choose to act together in carrying out projects or activities. For Porter (1998), these cooperation phenomena are presented as organisational methods of economic activity using coordination and/or cooperation between firms.

According to Lewis (1990), alliances are cooperative strategic arrangements that allow cooperation between firms, aiming to satisfy common needs with the advantage of sharing risks. Wheelen and Hunger (2000) understand alliances as partnerships between two or more firms or business units, with the intention of reaching mutual objectives. Aaker (2000) adds that alliances reinforce the parties involved until the initially established goals are achieved. For this to happen, cooperating firms must adapt their assets or competences so as to face up to attacks from competitors.

All alliances are motivated by the need for partners’ resources, in areas where own resources are more critical (Wilson & Hynes, 2008). In essence, these relationships allow partner firms to combine resources creatively in establishing sets of competitive advantage (Teng & Das, 2008). In these alliances, the intention is to stimulate the specialised competences of each firm so that they can join resources, allowing the creation of greater market strength (Bucklin & Sengupta, 1993). Alliances between firms include the sharing of resources with a view to the allies’ general objective and the individual objectives of partner firms. The fundamental reason for forming an alliance between firms is the sharing of material and non-material resources to give firms a stronger competitive position (Chathoth, 2003). The resources obtained through alliances can include location, brand name and client base (Preble, 2000), for example.

Firm alliances arise from partnerships between firms which, using their own individual capacities, are unable to create one or more specialised resource internally or acquire it through the market. Therefore, an alliance becomes the vehicle through which partner firms have access to specialised means (Chathoth, 2003). In particular SMEs feel the lack of sufficient resources to develop marketing activities and penetrate the market. So with partners, a great variety of needs are met (Fansiri, 2008).

Alliances are forms of voluntary cooperation involving the share of information, mutual learning and exchange between members, as well as social control (Johannisson et al., 2002).
Entrepreneurship – Creativity and Innovative Business Models

Alliances are considered as a complementary system which facilitates firms’ innovative activity. These partnerships are a source of external knowledge, and so a firm’s competitive advantage depends on its position in the relationship (Lechner et al., 2006). Alliances are one of the most powerful assets a firm can possess, as they give access to power, information, knowledge and capital (Hulsink & Elfring, 2003).

The majority of firms do not have the financial resources to allow expansion. Therefore, an alliance becomes fundamental, since the costs of obtaining a partner are less than those of firm expansion outside (Wilson & Hynes, 2008). One of the main advantages of this type of relationship is risk sharing. These alliances are advantageous for firms in the sharing of resources and risks, which is especially important as the uncertainty of their results increases (Chathoth, 2003).

Following these various investigations in the field of alliances, the conclusion is that when this type of business relationship is formed, higher rates of productivity, efficiency and effectiveness are reached. In order to overcome limitations that usually affect SMEs in the business process, whether through lack of resources (human and financial) or experience, this type of firm has increasingly adopted cooperation strategies in order to strengthen resources and capacities. Cooperative actions are a way for firms to organise themselves to compete at a local, regional and global level. However, these strategic alliances imply the loss of autonomy, as they require the mutual collaboration of partners.

3.2 Reasons for interfirm alliances formation

The motives leading firms to form alliances with others have been the subject of various investigations. The reasons stimulating alliance formation can be diverse, such as: improved competitiveness, risk reduction, the search for scale economies, access to technology, market exploration, the need to develop, response to government threats or pressure, among others. Bamford et al. (2003) restructure the motives for developing strategic alliances according to the following topics: possibility to create new business; easy access to the partner’s capacities when resources are scarce or when risks are high; cost reduction; creation of scale economies; overlapping business; improvement of supplier efficiency through establishing optimal relationships; increased innovation and quality; and value creation.

For Lewis (1990), the inter-dependence of firms created by the shortage or absence of resources is a condition for alliance formation. Aaker (2000) also argues that strategic alliances serve as an instrument compensating for the lack of competences and resources. Alliances form a bridge between firms and the competences each party possesses, more efficiently and quickly (Hamel et al., 1989). This exchange of competences and resources allows firms to remain competitive in the market.

According to Neto (2000), the main reasons motivating alliance formation are: (a) to combine competences and use other firms’ know-how; (b) divide the burden in carrying out technological research; (c) share the risks and costs of new opportunities; (d) offer an improved and more diversified range of products; (e) exert more pressure on the market; (f) share underused resources; (g) strengthen buying power with suppliers and consumer sales; and (h) strengthen firms so as to operate in international markets.
The study by Rossi et al. (2009) identified three base-lines supporting justification of alliance formation, only two of which are relevant for this investigation. One of the basic ideas is related to the need to access resources which are absent or in short supply and which can be supplied by the partners in the alliance. The other base-line is centred on the combination of resources in order to gain competitive advantages.

Studying Rossi et al. (2009) in more detail, the first base-line justifying alliance formation sets out from the assumption that the firm is not self-sufficient in relation to the resources it needs. This is the motive for forming an alliance, in order to satisfy the shortage or lack of resources. This approach to sustaining alliances is supported by Resource Dependence Theory, stating that firms are engaged in a constant struggle to obtain the resources they need and control that dependence.

The second approach of Rossi et al. (2009) supporting the development of alliances identifies that the combination of resources between the firms involved in these relationships allows them to achieve results which would not be possible if acting in isolation. This combination of resources is seen as a source of competitive advantage, this idea being supported by Resource-based Theory. As already exposed, this theory argues that alliances are instruments for combining resources among various firms, with the aim of obtaining new business opportunities.

The following Table 1 presents the various motives gathered from analysis of the literature review.

<table>
<thead>
<tr>
<th>Reason</th>
<th>Author(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Complementar Technology</td>
<td>Mariti &amp; Smiley (1983)</td>
</tr>
<tr>
<td>Transfer of Technology, Information and Capacities</td>
<td>Bamford et al. (2003); Harrigan (1985); Mariti &amp; Smiley (1983)</td>
</tr>
<tr>
<td>Marketing Agreements</td>
<td>Mariti &amp; Smiley (1983)</td>
</tr>
<tr>
<td>Scale Economies</td>
<td>Bamford et al. (2003); Contractor &amp; Lorange (1988); Harrigan (1985); Mariti &amp; Smiley (1983); Mason (1993)</td>
</tr>
<tr>
<td>Risk-sharing</td>
<td>Bamford et al. (2003); Contractor &amp; Lorange (1988); Harrigan (1985); Mariti &amp; Smiley (1983); Neto (2000)</td>
</tr>
<tr>
<td>Diminishing Instability/Uncertainty</td>
<td>Harrigan (1985)</td>
</tr>
<tr>
<td>Achieving a New Positioning</td>
<td>Harrigan (1985)</td>
</tr>
<tr>
<td>Exploitation of Synergies</td>
<td>Harrigan (1985)</td>
</tr>
<tr>
<td>Diversity and Evolution in sector of operation</td>
<td>Harrigan (1985)</td>
</tr>
<tr>
<td>Surrmount Barriers</td>
<td>Contractor &amp; Lorange (1988); Harrigan (1985)</td>
</tr>
<tr>
<td>Creation of New Business</td>
<td>Bamford et al. (2003)</td>
</tr>
<tr>
<td>Cost Reduction</td>
<td>Bamford et al. (2003); Harrigan (1985); Neto (2000)</td>
</tr>
<tr>
<td>Increased Innovation and Quality</td>
<td>Bamford et al. (2003); Mason (1993)</td>
</tr>
<tr>
<td>Exchange of Resources and Capacities</td>
<td>Aaker (2000); Contractor &amp; Lorange (1988); Hamel et al. (1989); Harrigan (1985); Lewis (1990); Neto (2000)</td>
</tr>
<tr>
<td>Control of Markets</td>
<td>Neto (2000)</td>
</tr>
<tr>
<td>Reduction and Rationalisation of R&amp;D Expenditure</td>
<td>Neto (2000)</td>
</tr>
<tr>
<td>Profit Generation</td>
<td>Bamford et al. (2003)</td>
</tr>
<tr>
<td>Product Differentiation</td>
<td>Grant (2002); Neto (2000)</td>
</tr>
</tbody>
</table>

Table 1. Reasons for Interfirm Alliance Formation
4. Resources, capacities and competences

Considerable irony exists around the process of alliance formation, as firms must possess some resources to be able to capture more resources (Eisenhardt & Schoonhoven, 1996; Saad et al., 2005). Indeed, according to Penrose (1959), firms tend to possess resources so as to increase their use, for example, technology, the firm’s reputation, brand image and knowledge of marketing. In these circumstances, Das & Teng (2000) suggest there are two distinct motives for establishing strategic alliances: one of them involves the need to obtain new resources and the other consists of developing own resources by combining them with those of other firms.

A literature review suggests that firms’ resources can be tangible (physical and financial) and intangible (based on knowledge). According to resource-based theory, intangible resources are more specific than tangible ones (Lorente, 2001). Intangible resources determine the method of growth, and as they are specific for the purpose for which they were created, they are difficult to codify and therefore protect against imitations or copies (Nonaka, 1994; Hill & Kim, 1988).

More concretely, the classification by Miller and Shamsie (1996), used later by Das and Teng (2000), distinguishes between property-based resources (physical and financial resources) and knowledge-based resources (intangible resources and skills). In fact, a firm is made up of resources and capacities that are managed differently from one firm to another (Nunamaker et al., 2002; Penrose, 1959). Following Penrose (1959), Hofer and Schendel (1978) also proposed six categories of resources: (a) financial resources; (b) technological resources; (c) physical resources; (d) human resources; (e) organisational resources; (f) reputational resources. Other classifications are referred to by other researchers (Grant, 1991; Peteraf, 1993; Wernerfelt, 1984), however, they concern the same type of resources.

Amit and Schoemaker (1993) consider resources as a set of specific factors held and controlled by the firm, and subsequently converted into products or services through technological mechanisms, information management systems, systems of incentive and trust between the different social partners. Those resources consist of: commercial know-how (patents and licences); financial or physical assets (buildings, premises and equipment) and human resources.

Barney (1995) classifies resources into: human resources – experience, knowledge, value judgments, risk tendency and individual wisdom associated with the firm; physical resources – machinery, equipment and premises; financial resources – debts, profits and shares; and organisational resources – history, relationships, trust, organisational culture (attributes of groups of individuals linked to the firm), formal and informal communication, control systems and reward policies, adding that these must be: valuable; rare; unable to be perfectly imitated and irreplaceable.

Other investigators such as Barney (1991) and Froehle and Roth (2007) refer to organisational resources. These authors argue that this type includes a firm’s formal reporting structure, its formal and informal planning, controlling and coordinating systems, as well as informal relations among groups within a firm and between a firm and those in its...
environment. Froehle and Roth (2007) state that organisational resources also comprise the development championing, employee motivation, internal communication, lines of responsibility, managerial support, social networks, reward structure and development of team diversity. These resources reflecting the total sum of managerial decisions and activities are predominantly tacit and difficult to transfer across firms, and hence of questionable value in acquisitions.

The skills developed by the firm are also a crucial determinant for its development and growth. According to Penrose (1959,) managers’ experience allows development of internal knowledge, skills and competences. This means that the experiences in earlier entrepreneurial activities and the management and negotiation of alliances in the past may impact on knowledge and future decision taking (Eden & Ackermann 2001; Hasty et al. 2006). These specific capacities mostly include tacit elements. Taking into account the various types of firm resources and capacities, Table 2 presents a typology which serves as the basis for this research.

<table>
<thead>
<tr>
<th>Resources and Capacities</th>
<th>Description</th>
<th>Author(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tangible Resources</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Physical</td>
<td>Only affect choice of the type of diversity</td>
<td>Chatterjee &amp; Singh (1999)</td>
</tr>
<tr>
<td>Financial</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intangible Resources</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Technological</td>
<td>Difficult to protect against copy or imitation</td>
<td>Hill &amp; Kim (1988)</td>
</tr>
<tr>
<td>Commercial</td>
<td>More specific than tangible resources, for the context in which they were created</td>
<td>Montoro-Sánchez et al. (2009); Nonaka (1994)</td>
</tr>
<tr>
<td></td>
<td>Difficult to codify or make explicit</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Determine the choice of method of firm growth</td>
<td></td>
</tr>
<tr>
<td>Organisational</td>
<td>Resources that include a firm’s structure, formal reports, formal and informal planning, system control and coordination, as well as informal relations between groups within a firm and between a firm and those operating in its environment</td>
<td>Froehle &amp; Roth (2007)</td>
</tr>
<tr>
<td>Specific Capacities</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Prior alliances experiences</td>
<td>Experience allows development of internal and tacit knowledge of resources, competences, operation and standard organisational procedures</td>
<td>Penrose (1959)</td>
</tr>
<tr>
<td>Experience in collaborative entrepreneurship</td>
<td>The business-person’s experience in business activities can have an impact on knowledge and future decision-making</td>
<td>Eden &amp; Ackermann (2001)</td>
</tr>
</tbody>
</table>

Table 2. Typology of Resources and Capacities

To conclude, firm success is connected to the important role of resources, as these are considered strategic for the firm when they are indispensible for the conception and implementation of competitive strategies (Barney, 1995). The challenge for a firm is to
identify and implement strategic assets, i.e., resources that are difficult to imitate, scarce, valuable and irreplaceable, specific resources as differentiating factors that allow it to achieve competitive advantage in terms of production and economic value (Amit & Schoemaker, 1993; Barney, 1995) and greater economic profitability over time (Grant, 1991).

5. Entrepreneurial orientation

According to various authors (e.g. Fillis & McAuley, 2000; Hills, 1994), the concept of entrepreneurship consists of the process through which it is possible to create value by combining different types of resources, so as to exploit a new opportunity such as entry to new external markets. Other researchers such as Styles and Seymour (2006) refer to entrepreneurship as an individual attitude associated with innovation, which creates value and takes on risk. Entrepreneurs are merely actors who have a talent for exploiting opportunities that are not easily identifiable.

In organisations in generally, and in firms in particular, various forms of entrepreneurship can be found. Thereby, the entrepreneurial process is independent of firm size (Antoncic & Hisrich, 2003). Entrepreneurial orientation is the key to understanding whether a firm adopts entrepreneurial actions or not, i.e., it is through the actions of both collaborators and the type of culture established internally in the firm (Covin & Miles, 1999). According to Stevenson and Jarillo (1990), intra-entrepreneurship (entrepreneurial orientation), is a process through which individuals in an organisation follow up opportunities irrespective of the resources they currently control. Brunaker and Kurvinen (2006) relate entrepreneurial orientation to the opportunity for existing organisations to be able to develop the way their business operates.

For Thornberry (2003), entrepreneurial orientation involves the creation of something new which did not exist before, and that can be a new business, product, service, delivery system or a new proposal of value to the consumer. That ‘something new’ requires additional resources or alterations to the standard strategic positioning of the firm’s resources. Learning takes place both in creating ‘something new’ and in its implementation, which results in the development of new competences and capacities.

Entrepreneurial orientation combines competition inside the organisation with long-term cooperation directed towards winning. Consequently, the development of entrepreneurial orientation can be understood as socially effective and processes supporting all organisational members and their cooperative interaction. Internal entrepreneurial orientation indicates responsibility for all and at the same time allows teams to use their own flexibility and freedom.

For Miller and Friesen (1983), entrepreneurial orientation includes innovation, proactiveness and accepting risks. In their studies, many researchers follow these authors’ basis for investigation, for example, Covin and Slevin (1991), Lumpkin and Dess (1996) and Naman and Slevin (1993). Many consider these three dimensions of entrepreneurship as essential for innovation and new business creation.

Innovation as a dimension of entrepreneurial orientation (Antoncic & Hisrich, 2003; Covin & Slevin, 1991; Guth & Ginsberg, 1990; Kenney & Mujtaba, 2007; Lumpkin & Dess, 1996; Miller
Interfirm Alliances: A Collaborative Entrepreneurship Perspective

& Friesen, 1983) corresponds to introducing new products and production technologies, and searching for new solutions to marketing and production problems. It is the extent and frequency of product innovation in an organisation and its tendency towards being at the forefront of technology. It is a firm’s tendency to initiate and support new ideas, novelty, experimentation and creative processes which can result in new products, services or technological processes.

Also authors such as Miller and Friesen (1983), Covin and Slevin (1991), Lumpkin and Dess (1996), Antoncic and Hisrich (2003) and Kenney and Mujtaba (2007) define pro-activeness as another dimension of entrepreneurial orientation. It is the willingness to differentiate ideas from opportunities through researching and analysing tendencies. This requires the firm to be orientated towards the future. It is the attempt to lead rather than follow the competition, the pioneering nature of the firm’s tendency to compete aggressively and pro-actively against industry rivals.

Also the fact of firms taking on risks is considered a dimension of entrepreneurial orientation (Antoncic & Hisrich, 2003; Covin & Slevin, 1991; Kenney & Mujtaba, 2007; Lumpkin & Dess, 1996; Miller & Friesen, 1983). So in a firm with entrepreneurial orientation there is risk-taking in terms of investment decisions and strategic action at stages of uncertainty. There is a clear understanding of the business, financial and professional risks associated with entrepreneurial orientation.

In order to understand the phenomenon of collaborative entrepreneurship, the collective business capacity is another important dimension of entrepreneurial orientation. As Miles et al. (2006) show, in the first phase of collaboration, the concept of collective business capacity emerges. Timmons (1994) considers the value of the team inside the firm to be extremely important in the early stages of new undertakings. The fundamental component of collective business capacity involves the whole team’s skill in dealing with opportunities which may arise. Johannisson (2002) highlights that for better understanding of collective entrepreneurial capacity, the whole organisation must be recognised as a collective image.

For Reich (1987) and Tiessen (1997), the idea that entrepreneurial actions are developed individually is set aside, as these authors argue that entrepreneurship involves collective actions. Stewart (1989) defines this attitude and collective spirit when there are entrepreneurial teams and all collaborators are involved. This is why a firm that already has a good internal collective capacity is more able to develop entrepreneurial activities (Miles et al., 2006), and consequently shows a greater capacity to form alliances with other firms (Miles et al., 2005).

Other authors (e.g., Johannisson, 2002, Kenney & Mujtaba, 2007) see entrepreneurial orientation as a collective phenomenon resulting from collective actions where, in a new undertaking, the entrepreneur is never alone. In the understanding of Eisenhardt and Schoonhoven (1996), the collective image is represented by a connection between team members and decision-making by the whole team. In the case of small firms, the businessperson’s attitude with regard to his collaborators is very relevant, as only he can exert influence by creating the conditions that increase the collective spirit, making the firm more entrepreneurial (Exton, 2008; Lounsbury, 1998). Table 3 summarises the dimensions characterising entrepreneurial orientation formerly discussed.
### Table 3. Classification of the Dimensions of Entrepreneurial Orientation

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Definition</th>
<th>Author(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Innovation</td>
<td>A firm’s tendency to initiate and support new ideas, novelty, experimentation and creative processes that can result in new products, services or technological processes.</td>
<td>Antoncic &amp; Hisrich (2003); Covin &amp; Slevin (1991); Guth &amp; Ginsberg (1990); Kenney &amp; Mujtaba (2007); Lumpkin &amp; Dess (1996); Miller &amp; Friesen (1983)</td>
</tr>
<tr>
<td>Pro-activeness</td>
<td>Organisational decision-making through anticipation and following up new opportunities and participating in emerging markets.</td>
<td>Antoncic &amp; Hisrich (2003); Covin &amp; Slevin (1991); Kenney &amp; Mujtaba (2007); Lumpkin &amp; Dess (1996); Miller &amp; Friesen (1983)</td>
</tr>
<tr>
<td>Acceptance of risks</td>
<td>Risks are accepted in terms of investment decisions and strategic action in face of uncertainty.</td>
<td>Antoncic &amp; Hisrich (2003); Covin &amp; Slevin (1991); Lumpkin &amp; Dess (1996); Miller &amp; Friesen (1983)</td>
</tr>
<tr>
<td>Collective business capacity</td>
<td>Involves the whole team’s skills in dealing with opportunities which may arise.</td>
<td>Johannisson (2002); Middel (2008); Stewart (1989); Timmons (1994)</td>
</tr>
</tbody>
</table>

Authors such as Bragge et al. (2007) argue that for a firm to present continuous innovation, it must establish a combination between, first of all, collective entrepreneurship, and subsequently collaborative entrepreneurship. Therefore, the next section describes the concept of collaborative entrepreneurship, and more precisely, connected to the formation, or not, of interfirm alliances.

### 6. Alliances as collaborative entrepreneurship

Due to the growing emergence of new challenges and so as to establish an entrepreneurial culture at the heart of firms, the adoption of strategic alliances appears as one possible response to these challenges, through reinforcing resources of a diverse nature. In this context, a growing number of firms depend on alliance formation to access the necessary resources to reach their strategic objectives (Bragge et al., 2007; Urbano & Yordanova, 2008). The investigation carried out shows that alliances are used as a way of filling gaps in firms’ resources (Montoro-Sánchez et al., 2009; Zacharakis, 1998).

Alliances emerge as means of accessing new resources, with the purpose of creating or entering new business. To explain this process, this paper turns to resource-based theory and resource dependence theory. These theories see the firm as a set of tangible and intangible resources and capacities (Wernerfelt, 1984), which provide competitive advantage (Das & Teng, 2000).

The decision to form an alliance is a strategy that allows firms to access resources and competences, and consequently that decision can be seen as a form of collaborative
entrepreneurship. The concept of collaboration (alliance formation) is particularly involved with the phenomenon of collaborative entrepreneurship, which results in something new through sharing knowledge, information and other resources. As Yan and Sorenson (2003) state, the collaboration process is one of the dimensions that contributes most to collaborative entrepreneurship.

For Miles et al. (2005), collaborative entrepreneurship involves a set of firms that develop a strategy which allows them continuous innovation through respective collaborative capacities. This collaborative process is developed from alliances between two or more parties, all aiming to achieve beneficial results. In this paper, the focus will be on collaborative entrepreneurship which can be defined as a strategy involving the implementation inside the firm, of knowledge and information coming from outside the firm.

The development of alliances began to be very important in the last decades, as this kind of strategy, when well implemented, allows increased performance and success by the parties involved in reaching their intended goals (Parkhe, 1993). This fact contributed to increased investigation in this area, with studies analysing topics as diverse as investment models, choice of organisational management, network structure and trust-building (Alvarez et al., 2006), among others.

As a means of adapting to a competitive environment, application of strategic alliances has been common practice, taking advantage of firms’ underused resources and competences. Therefore, alliances allow integration of fundamental strategic resources and other business, so that increasingly entrepreneurial firms manage to reach their objectives (Alvarez et al., 2006; McEvily & Zaheer, 1999). These firms find it easy to identify and explore opportunities with partners who possess complementary resources and capacities, so having an advantage over those that are not able to do so (Dyer & Singh, 1998; McEvily & Zaheer, 1999). Zacharakis (1998) shows that entrepreneurial firms use strategic alliances as a way of filling gaps in their resources. For these firms to have the capacity to exploit new opportunities, they need to obtain resources beyond those they already possess, and control them, and for that reason they are often subject to greater risk (Teng, 2007).

As already mentioned, some investigators (e.g., Das & Teng, 2000) apply resource-based theory to the development of strategic alliances in order to obtain desired resources. This is also underlined by other authors (Ahuja, 2000; Eisenhardt & Schoonhoven, 1996) who state that the absence of strategic resources stimulates development of business cooperation processes. Behind alliances there is the objective of attaining or sharing valuable resources when these cannot be obtained through market exchanges or through fusions or acquisitions. Strategic alliances emerge when firms in vulnerable strategic positions need new resources, or when strong, very well-positioned firms capitalise on their resources to create opportunities for cooperation (Montoro-Sánchez et al., 2009).

Other researchers (Eden & Ackermann, 2001; Hasty et al., 2006) give great relevance to business-people’s experience in entrepreneurial activities, and also in establishing strategic alliances, as these aspects can be decisive in decision-making. Firms that show entrepreneurial behaviour have greater profitability and growth than those that do not adopt entrepreneurial systems (Antoncic, 2007). For this scenario to be true, it is
fundamental that managers and all collaborators in a firm modify their attitudes and adopt the characteristics of collaborative entrepreneurship (Wunderer, 2001). However, it is not necessary for all collaborators to have entrepreneurial competences. It is just essential that those individuals are detected so that they can be well orientated, as stated by Kenney and Mujtaba (2007).

As to the definition of collaborative entrepreneurship, there is still no consensus. However, for the purpose of this investigation, Pinchot’s definition, quoted by Thornberry (2003), will be adopted, stating that collaborative entrepreneurship aims to implement in the firm entrepreneurial behaviour coming from outside and introduce new habits within the organisation. Collaborative entrepreneurial phenomena are found in the creation of new business within the organisation, accompanied by internal innovative activities and initiatives by internal entrepreneurs (intra-entrepreneurs) in the organisation, or they can also occur through strategic changes (Guth & Ginsberg, 1990). This process allows increased business performance, since new knowledge is received, new competences are created or existing ones are reactivated (Hamel et al., 1989).

Constant innovation within organisations can be achieved with the collaboration of all actors, leading to the conclusion that the team concept is important in processes of innovation and entrepreneurship (Jassawalla & Sashittal, 1999; Stewart, 1989). Collaborative entrepreneurship is present when a firm’s collaborators embrace opportunities without there being a relationship with frequently used resources (Stevenson & Jarillo, 1990). This form of entrepreneurship involves increased competences and the respective hypothesis of creating new sets of resources (Burgelman, 1984).

Internal entrepreneurial behaviour is present in the organisation when there is innovation in terms of something which did not exist previously, which may lead to establishing a new business, service or product. During the creation and execution of these new aspects, new capacities and competences emerge. These new acquisitions need extra resources or modifications in the strategic positions of the organisation’s resources (Thornberry, 2003). Finally, according to Kuratko and Goldsby (2004), collaborative entrepreneurship is adopted by various firms so as to remain competitive, allowing growth. For this, the firm’s objectives must include increased flexibility, innovation, collaborator initiative and risk acceptance. Another justification found by the same authors is based on the fact that this form of entrepreneurship allows firms to overcome barriers which may arise.

7. Concluding remarks and model of analysis

The present conceptual paper is a contribution to the scientific debate about the interface of entrepreneurship and strategic management. According to the objective and theoretical framework developed, Figure 1 outlines a research model, allowing analysis of the effect of both tangible and intangible resources and capacities on the decision to establish strategic alliances as a form of collaborative entrepreneurship.

Of course, the research model is of purely qualitative character. The prescriptive value of the conceptual model lies in supporting entrepreneurs and entrepreneurship scholars to understand the decision to establish interfirm alliances. To date, the several influences on the alliance decision have scarcely been susceptible to scientific scrutiny. Empirical
verification, in particular taking a holistic perspective, is almost absent from the literature. Hence, what remains is the empirical testing of the approach and the investigation of the quantitative impact of defined variables. In terms of guidelines for future research, this topic should be addressed by collecting information for expanding the conceptual model presented here.

**Fig. 1. Proposed Conceptual Model of Analysis**

8. Acknowledgements

This paper was supported by a Research Unit (NECE), financed by the FCT – Science and Technology Foundation of Portugal. The authors thank the anonymous reviewers for their helpful comments that contributed to the development of this paper.

9. References


What are the differences between an entrepreneur and a manager? According to Schumpeter, the main difference lies in the entrepreneur’s ideas, creativity, and vision of the world. These differences enable him to create new combinations, to change existing business models, and to innovate. Those innovations can take several forms: products, processes, and organizations to name a few. In this book, an array of international researchers take a look at the visions and actions of innovative entrepreneurs to be at the source of new ideas and to foster new relationships between different actors to change the existing business models.

How to reference
In order to correctly reference this scholarly work, feel free to copy and paste the following:
