

ENTREPRENEURIAL ORIENTATION FROM LEARNING ALLIANCES: A STUDY TOWARDS BUSINESS PERFORMANCE

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1. Introduction

In today's world, fast technological change and globalization of economies vastly affect businesses' competitive environment. Within this process, firms are confronted with the necessity to adapt and transform constantly in order to maintain and expand their market position. In this vein, Teng (2007) stresses that the past decade has witnessed high rates of change in the market place, in areas such as technology, globalization, and industry boundaries. To be successful, firms must have the capacity to innovate faster than their best competitors. According to this scholar, the task is to identify new ways of doing business, develop new technologies and products, and enter new markets in novel organizational forms.

Against this background, there is a continual need for organizational renewal, innovation, constructive risk-taking, and the conceptualization and pursuit of new opportunities (Miller, 1983). These activities are often collectively called corporate entrepreneurship (Covin and Slevin, 1991), firm behavior (Covin and Slevin, 1991), entrepreneurial orientation (Lumpkin and Dess, 1996; Dess et al., 2008) and strategic orientation (Venkatraman, 1989). These terms have been used to describe the phenomenon of entrepreneurship at the organizational level. In this study, we will use the term *entrepreneurial orientation* to refer to strategy-making practices that entrepreneurs or firms use in identifying and launching successful ventures (Lumpkin and Dess, 1996). This construct has been studied in different ways according to the purposes of the researcher. Miller (1983), for example, introduced psychological and individual concepts such as innovation, risk taking, and proactiveness into the context of the firm.

Consequently, new forms of entrepreneurship have appeared. While entrepreneurship has conventionally been viewed at an individual-level related to the creation of new organizations, entrepreneurial orientation represents a framework and a perspective towards entrepreneurship that is reflected in a firm's or entrepreneur's ongoing process and organizational culture (Lumpkin and Dess, 1996; Dess et al., 2008). Over the past years, entrepreneurial orientation has widely been touted by executives and researchers alike as an effective means for revitalizing companies and improving their performance (Zahra and Covin, 1995; Antoncic and Prodan, 2008). Recently, there has been growing interest in the use of entrepreneurial orientation as a means for corporations to enhance the innovative abilities of their employees and, at the same time, increase corporate success through the creation of new ventures (Kuratko et al., 1990). As noted by Shendel (1990), a broader view of entrepreneurship would include not only the popular view of entrepreneurship, but also one that recognizes the notion of re-birth of on-going organizations.

However, one area that exemplifies the lack of connection between strategic management and entrepreneurship is strategic alliances. These are inter-firm cooperative arrangements aimed at achieving firms' strategic objectives (Parkhe, 1993; Gulati, 1995a; Franco, 2001) and they have become increasingly important in recent years (Doz and Hamel, 1998; Franco, 2001, 2003). Strategic management literature (e.g. Eisenhardt and Schoonhoven, 1996; Baum et al., 2000; Kale et al., 2000; Rothaermel and Deeds, 2006) has emphasized the theme of alliance arrangements which have been seen as a means to extend the operational or knowledge boundaries of firms. While there are many alliance types, one common type will be discussed in this paper: learning alliances.

Alliances appear to be closely related to entrepreneurial orientation, as both aim at achieving a firm's flexibility (Yoshino and Rangan, 1995). Researchers have studied how small and medium-sized enterprises (SMEs) utilize the alliance approach (Franco, 2001; Kantis, 1998; Dollinger and Golden, 1992; Golden and Dollinger, 1993; Steensma et al., 2000; Marino et al., 2002). However, empirical research in the field is almost absent from the literature, exceptions being the work by Deeds and Hill (1996), Sarkar et al. (2001), Cooper (2002), Teng (2007), and Antoncic and Prodan (2008). In addition, these studies cover some aspects of the linkage but do not offer a theoretical framework that relates entrepreneurial orientation and alliances systematically. As recently noted by Antoncic and Prodan (2008), inter-organizational relationships in terms of networks and alliances have received inadequate research attention in the context of corporate entrepreneurship.

One the other hand, in entrepreneurship research, studies looking at the mere effect of entrepreneurial orientation on business performance are

nothing new (e.g. Covin and Slevin, 1991; Zahra, 1996; Wiklund, 1999; Kazanjian et al., 2001; Miles and Covin, 2002; Wiklund and Shepherd, 2003; Luo et al., 2005; Zhao, 2005; Zinga and Coelho, 2007; Heidemann Lassen, 2007; Teng, 2007). However, little has been done to examine the impact of the conjunction of strategic alliances and entrepreneurial orientation on performance. Thus, in the research presented here, we contribute to this growing body of empirical literature. To do so, our central focus lies in an empirical, cross-sectional study in which we show the link between learning alliances, entrepreneurial orientation, and business performance.

More precisely, the aim of this paper is to provide an explanation of how one particular strategic alliance – learning alliance – can facilitate entrepreneurial orientation, and to show how this last phenomenon is positively correlated with business performance. We also intend to demonstrate that learning alliances and entrepreneurial orientation are related to each other and that both affect business performance.

The paper is structured as follows: the next section explains the basic concept, namely, it deals with the terms *strategic alliances* and *entrepreneurial orientation*. Thereafter, in section 3, we present the model and our research hypotheses. Section 4 outlines methodology and sample composition, and section 5 shows and discusses the empirical results. Finally, section 6 concludes and proposes guidelines for future research.

2. Conceptual framework

Strategic alliances

During the last two decades, there has been an explosive growth of various forms of strategic alliances. As noted by Almeida et al. (2003), alliances are formed for a number of reasons including strategic, transactional, and learning motivations. According to Teng (2007), strategic alliances can assume many types such as joint production, equity alliances, joint ventures, R&D alliances, joint marketing, and learning alliances, and these forms of co-operative relationships are not exclusive. As previously mentioned, however, one common type will be discussed in this paper: learning alliances.

To begin with, a strategic alliance is defined as a long-term cooperative arrangement between two or more independent firms that engage in business activities for mutual economic (Tsang, 1998) and strategic (Franco, 2001) gains. Here 'long-term' does not refer to any specific period of time, but rather, to the intention of the partners that the arrangement is not going to be a transient one. Peng and Luo (2000) state that such relationships might be considered a rare, unique, valuable, and non-imitable resource,

because they are social complex phenomena. According to Zhao (2005), strategic alliances are dyadic, dynamic and complex relationships based implicitly on mutual benefits and interests. They are, as noted by Gulati (1995a) and Parkhe (1993), inter-firm co-operative agreements aimed at achieving firms' strategic objectives. In this paper, we agree with these researchers and we define a strategic alliance as a mechanism for firms to achieve a strategic purpose.

In fact, alliance formation is necessary to achieve long term strategic objectives that the organization cannot reach alone. As Contractor and Lorange (1988) emphasize, a successful strategy often requires the adoption of strategic alliances that, according to Kogut (1988), Mason (1993), Stafford (1994), Morrison and Mezentseff (1997) and Alvarez and Busewitz (2001), lead firms to obtain competitive advantage and consolidate a firm's existing market position. Strategic alliances also allow firms to diversify into attractive but unfamiliar business areas, thereby providing a less risky means of entering new markets. In general, Aldrich and Zimmer (1986) stress the advantages of strategic alliances in acquiring rare resources, and Contractor and Lorange (1988), Forrest (1990), and Glaister and Buckley (1996) explicitly point out that such alliances can be used to bring together complementary skills and talents which cover different aspects of know-how.

Traditionally, the mainstream economic approach treats strategic alliances as an instrument to obtain economies of scale (Glaister and Buckley, 1996). Transaction cost explanations emphasize the use of strategic alliances as a means of reducing costs and risks. Nonetheless, as stressed by Tsang (1998), in the management discipline, a recent development is to examine and develop a firm's strategy by focusing attention on its resources instead of the external environment. This more inward looking approach is known as the 'resource-based theory'. The current revival of interest in this theory ignited by Wernerfelt (1984) has not made up for this deficiency. In fact, it is likely that resource-based theory is a good candidate for explaining strategic alliance formation.

In this paper, the focus is on strategic alliances as a way to fill resource gaps. Because strategic alliances help access resources, resource-based theory appears to be an appropriate theoretical perspective for understanding alliances. Das and Teng (2000) and Franco (2001) developed a resource-based theory of alliances, which suggests that accessing essential and valuable resources not owned by the firm is the fundamental reason behind strategic alliances. Much additional support for this view is available in the literature. According to the resource dependence perspective, inter-firm relations are established to better manage a firm's dependence on other firms' resources (Pfeffer and Salancik, 1978). In this sense, alian-

ces may be used to co-opt support from other strong firms (Starr and MacMillan, 1990).

Strategic alliances have become a focal issue in the debate on entrepreneurship. Evidence supporting an increasing need for strategic alliances in entrepreneurial processes has been provided by an increasing number of studies. Teng (2007) states that, in general, start-up success depends on the networks and alliances established by the entrepreneur. Relations based on mutual confidence and long-term agreement allow the entrepreneur to acquire specific benefits such as distribution channels, information related to competitors and clients, and/or technology. For that reason, many small or young firms opt for growth through strategic alliances; however, the choice of alliance is important. It must depend upon the focus of the firm's overall growth strategy (Forrest 1990). For example, alliances such as R&D agreements, marketing or distribution agreements, outward technology licensing or joint ventures are valid choices. Another alternative in using strategic alliances is learning alliances: such co-operations are formed primarily by partner firms to learn from each other's knowledge base (Khanna et al., 1998). A learning alliance serves as the premise through which a firm intensively interacts with its partners and gradually absorbs their knowledge (Doz, 1996). In contrast to opportunistically stealing knowledge, learning alliances allow specified and encouraged *knowledge acquisition*.

To exploit this external knowledge, Cohen and Levinthal (1990) highlighted a firm's *absorptive capacity* that allows it to recognize, absorb, and utilize outside sources of knowledge. Here, absorptive capacity refers to "the ability of a firm to recognize the value of new, external information, assimilate it, and apply it to commercial ends" (Cohen and Levinthal, 1990: 128). For its occurrence, a prior related knowledge base is necessary. It is a critical ability to overcome various knowledge transfer barriers such as knowledge embeddedness, tacitness, and organizational distance (Cummings and Teng, 2003). Absorptive capacity can be developed over time and through past experience. Thus, firms with rich alliance experience tend to have stronger absorptive capacity and benefit more from additional alliances (Gulati, 1995b). Almeida et al. (2003) suggest that the firm's ability to exploit knowledge generated by others is a function of its access to this knowledge. Herein, learning is a key condition for the occurrence of knowledge transfer. In fact, Hamel and Doz (1989) propose that alliances should be seen as learning opportunities, and several later studies have confirmed this point of view (e.g. Gulati, 1995a, 1995b; Eisenhardt and Schoonhoven, 1996). In short, we think that the intangible resources of knowledge acquisition and absorptive capacity are main components and fundamental dimensions to capture the concept of learning alliances.

Entrepreneurial orientation

Despite interest by the popular press, definitions of entrepreneurial orientation have not been widely accepted. Jennings and Lumpkin (1989) claim that research on entrepreneurial orientation has been fragmented and lacks generally acknowledged definitions. A literature review suggests that the multiplicity of different concepts can be linked together to establish an objective definition of entrepreneurial orientation. Jennings and Lumpkin (1989) define entrepreneurial orientation as the extent to which new products and/or new markets are developed. This view is consistent with other definitions (Schollhammer, 1982; Miller, 1983). Similarly, Janney and Dess (2006) describe entrepreneurial orientation as the willingness to explore new ideas and to discover new markets by destroying the market leader's position. The operational definition of entrepreneurial orientation used in the study by Zahra and Covin (1995) is based on Miller's (1983) conceptualization of this construct as a company's commitment to innovation in existing business. Covin and Slevin (1991), also referring to Miller (1983), point out that not only individuals but also organizations can be entrepreneurial. An interesting approach is that of Lumpkin and Dess (1996), who say that entrepreneurial orientation is a strategy-making practice that entrepreneurs or firms use in identifying and launching successful entrepreneurial ventures. However, there are more detailed characteristics through which entrepreneurial orientation can be conceptualized and operationalized.

In a much broader view, entrepreneurial orientation is the process through which firms innovate, form new businesses, and transform themselves by changing the business domain or processes (Guth and Ginsberg, 1990). More specifically, several scholars have referred to key aspects of entrepreneurial orientation. Miller (1983) speaks of the essential dimensions of entrepreneurship consisting of three related components: (1) *innovation*: referring to new ideas, experimentation, and creativity, which results in the ability to create new products, services, or processes (cf. also Miller and Friesen, 1982), or modify existing ones to meet the demands of current or future markets; (2) *proactiveness*: referring to first mover and other actions destined to secure market share, together with a forward looking perspective that anticipates future demand (cf. also Covin and Slevin, 1989; Lumpkin and Dess, 1996); and (3) *risk taking*: referring to the willingness to engage in business ventures or strategies in which the outcome may be highly uncertain (cf. also Lumpkin and Dess, 1996).

In the same vein, Guth and Ginsberg (1990), Covin and Slevin (1991), Zahra and Covin (1995) and Wiklund (1999) – some of them also speaking from an 'entrepreneurial posture' – define the concept as the overall strategic orientation of a firm that is risk taking, innovative, and proactive. Si-

milarly, Lumpkin and Dess (1996) suggest that an entrepreneurial firm has characteristics such as autonomy, innovativeness, willingness to take risks, proactiveness, and competitive aggressiveness. More specifically, entrepreneurial orientation is reflected in management's risk taking with regard to investment decisions and strategic actions in the face of uncertainty, the extensiveness and frequency of product innovation and the related tendency towards technological leadership, and the pioneering nature of the firm as evident in the propensity to aggressively and proactively compete with industry rivals (Zahra, 1991). For our purposes, we use the term entrepreneurial orientation to refer to the multidimensional process of identifying and launching successful new ventures by both individuals and organizations, brought about by innovation, proactiveness, and risk taking.

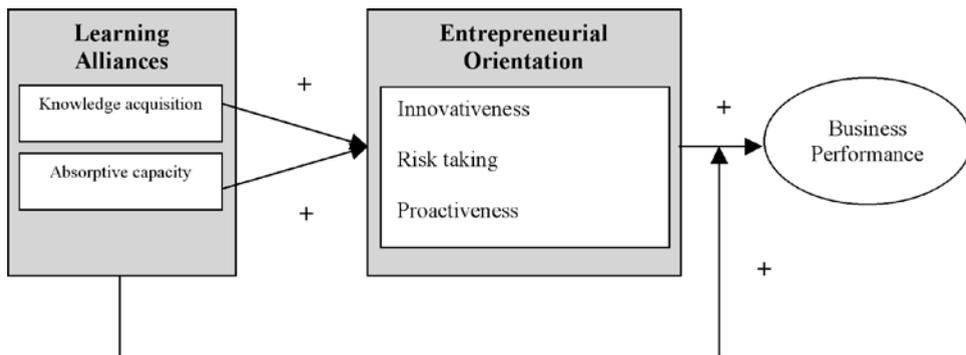
From a theoretical perspective, there are several reasons for expecting positive effects of entrepreneurial orientation on a firm's performance. Firstly, consistent with arguments made by Miller and Friesen (1982) and Chiaromonte (2004), innovativeness can be a source of competitive advantage for a firm. Furthermore, innovative companies frequently develop strong, positive market reputations that ensure customer loyalty. Secondly, the fact that firms where entrepreneurial orientation is proactive by definition are often able to exploit an additional basis for competitive advantage, e.g. quick market response or the availability of a market offer ahead of competitors (Zahra and Covin, 1995). According to McGrath et al. (1994) entrepreneurial orientation also offers some benefits such as entering new markets, making a new product, developing new technology, or reconfiguring internal processes, which all require changes in existing resource configurations and routines. Therefore, entrepreneurial orientation is one mechanism through which a firm gains superior insight about and access to firm-specific resources with potential profit in the future. Based on two studies, Veciana (1996) summarizes the following effects of entrepreneurial orientation: (1) assuring the firm's survival, (2) assuring long-term growth and profitability, (3) diversifying, (4) developing and exploring new products, (5) creating an adequate environment for new businesses, (6) increasing general flexibility, (7) retaining skilled people and (8) taking advantage of its capacity. Antoncic and Prodan (2008) highlight that entrepreneurial orientation plays an important role in venturing into new business, product/service innovation, process innovation, self-renewal, risk-taking, proactiveness, and competitive aggressiveness.

3. Model and research hypotheses

The model

Once the main concepts are formalized, empirical work can be initiated by hypothesizing the effect of the independent variables previously mentioned and then testing them for their significance. In the research model proposed, we examine how learning alliances help entrepreneurial orientation meet resource conditions that improve business performance. As shown, two variables associated with learning alliance – knowledge acquisition and absorptive capacity – are supposed to influence both entrepreneurial orientation and business performance. Also, we hypothesize that entrepreneurial orientation – a measurement for empirical research developed by Miller (1983), composed of variables such as innovativeness; risk taking, and proactiveness – affects business performance. Thus, three hypotheses are developed and the direction of each hypothesis is shown in figure 1.

Fig. 1 - Model of learning alliances, entrepreneurial orientation, and business performance



Influence of learning alliances on entrepreneurial orientation

In an increasingly competitive and globalised economic environment, firms must forge lateral “links” in the form of strategic alliances to overcome and compensate for resource constraints. Several scholars have proved that strategic alliances are a useful instrument to fill resource gaps (McGee and Dowling, 1994; Brush and Chaganti, 1997; Zacharakis, 1998). Among the various alliance types, learning alliances bring in news knowledge that is essential for strategic renewal and positioning. A learning alliance is valuable because entrepreneurial orientation aims at promoting “organizational learning that leads to the creation of new knowledge” (Zahra et

al., 1999, p. 173). A firm may learn from its partners about a new way of doing business and thus achieve entrepreneurial orientation. Therefore, a desirable partner would be a firm with significant experience in renewing itself or in employing the new approach that the firm wants to learn from. However, the learning approach is subject to the uncertainty of knowledge applicability, in part because knowledge is often embedded in its specific environment (Szulanski, 1996).

In this perspective, learning alliances constitute the very vehicle by which firms carry out their organizational mission. Dubini and Aldrich (1991) report the association between effective networking/strategic alliances with entrepreneurial orientation and success of new ventures. As a result, entrepreneurial orientation and new business performance is affected by the entrepreneur's ability to develop social capital. Granovetter (1973) underlined that any entrepreneurial activity is embedded in social ties that influence the creation of new ventures and consequently entrepreneurial success. We suggest analyzing the influence of learning alliances on entrepreneurial orientation, because these inter-firm relationships allow individuals or organizations to pursue an entrepreneurial opportunity. For this relationship, Zhao (2005) and Zinga and Coelho (2007) suggest an influence of learning alliances on entrepreneurial orientation. Thus, we examine the specific ways in which learning alliances may underscore the various entrepreneurial orientation dimensions like innovation, risk, and proactiveness. Our first hypothesis would thus be:

H1. Learning alliances (consisting of knowledge acquisition and absorptive capacity) are positively related to entrepreneurial orientation.

Influence of entrepreneurial orientation on business performance

Entrepreneurial orientation can be viewed as important for organizational performance (Antoncic and Prodan, 2008). Businesses constantly need to seek out new opportunities (Hamel, 2000), as the shortening of product and business model lifecycles makes future profit streams from existing operations uncertain. An entrepreneurial orientation can assist firms in such a process. For example, there is a belief that "entrepreneurship is an essential feature of high-performing firms" (Lumpkin and Dess, 1996: 135). Much empirical work has been carried out to investigate the relationship between entrepreneurial orientation and indicators measuring business performance, such as survival, profitability, growth, and renewal. Generally, even if some writers state certain reservations, predominant evidence indicates that entrepreneurial orientation is positively related to firms' performance, as constantly reiterated by many scholars (e.g. Covin and Slevin, 1991; Zahra, 1996; Wiklund, 1999; Kazanjian et al., 2001; Miles and Covin, 2002; Wiklund and Shepherd, 2003; Luo et al., 2005; Zhao, 2005; Wiklund

and Shepherd, 2005; Zinga and Coelho, 2007; Heidemann Lassen, 2007; Teng, 2007). More specifically, entrepreneurial orientation was discovered to be promoting the growth of small (Davidsson, 1989; Covin, 1991; Greene and Brown, 1997) and large firms (Zahra, 1991; Zahra and Covin, 1995; Morris and Sexton, 1996).

Concerning variables such as innovativeness, risk taking, and proactiveness that we identified to be crucial for entrepreneurial orientation, some specific research has been carried out. Chiaromonte (2004) shows that innovativeness can be a source of competitive advantage for a firm. In fact, innovative companies, creating and introducing new products and technologies, can generate extraordinary economic performance and have even been described as the engines of economic growth (Brown and Eisenhardt, 1995). Firms where entrepreneurial orientation is proactive, create, according to Zahra and Covin (1995), first-mover advantages, target premium market segments, and 'skim' the market ahead of competitors. They can control the market by dominating distribution channels and establishing brand recognition. McGrath (2001) concludes that risky strategies lead to higher performance, above all in the long run. Therefore, we hypothesize:

H2. *Entrepreneurial orientation (consisting of innovativeness, risk taking, and proactiveness) is positively related to business performance.*

Influence of learning alliances and entrepreneurial orientation on business performance

Likewise, the integrative effects of learning alliances and entrepreneurial orientation also seem to follow a contingent pattern. Generally, entrepreneurship literature shows that the correlation between strategic alliances/networks, entrepreneurial orientations, and business success is statistically significant (Aldrich and Zimmer, 1986; Dubini and Aldrich, 1991; Lee et al., 2001; Anderson et al., 2005). Also, Antoncic and Prodan's (2008) study shows the value of engaging in strategic alliances for the development of entrepreneurial orientation and consequential performance improvements. Sarkar et al. (2001) find that there are positive effects of alliance proactiveness, i.e. the extent to which an organization seeks and responds to partnering opportunities, on market-based performance, and those effects are stronger for small firms and in unstable market environments.

McEvily and Chakravarthy (2002) stress the importance of knowledge for performance and speak of knowledge-based competitive advantage. Garnsey et al. (2006) state that growth is linked to learning and the latter is a pre-condition for effective knowledge acquisition. Deeds (2001) provides strong evidence of a positive relationship between absorptive capacity and the amount of entrepreneurial wealth. Zahra and Hayton (2008) also address this issue providing support for the positive influence of absorptive

capacity on firms' profitability and revenue growth. In fact, we think that entrepreneurial orientation can be considered an important predictor of firm performance and several strategic alliance dimensions can be relevant to the development of entrepreneurial orientation in organizations. Thus, these insights form the basis of the following hypothesis:

H3: Learning alliances and entrepreneurial orientation, when combined, influence business performance positively.

4. Research design

After presenting the literature review and proposing the model and hypotheses to be empirically tested, the next step is to describe the methodology, i.e. measurement, dataset, and analysis methods. Afterwards, by selecting a stepwise method in a multiple regression analysis, the results of testing the conceptual model are presented and discussed.

Measurement

For our research purposes, the indicators of entrepreneurial orientation, learning alliance, and performance were mostly measured through scales previously tested and employed by other researchers. Perceptual measures were selected based on their congruence with the concepts under examination. We used five-point Likert-type scales, where the minimum level of 1 corresponds to 'totally disagree' and the maximum level of 5 corresponds to 'totally agree', to keep the questionnaire as simple as possible. Prior research indicated that an ordinal classification of perception is a more realistic task for respondents than the use of interval or ratio measures (Geringer and Hebert, 1991). It was also expected that managers would only have a limited amount of time to devote to the questionnaire; hence, an easily understood Likert scale appeared to be more feasible than a potentially more precise but more complex scaling method. A five-point scale was adopted because it was felt that more numerous response categories would exceed the respondent's ability to discriminate, with the likelihood that 'noise' rather than more precise data would result.

Entrepreneurial orientation was measured by selected items from the corporate entrepreneurship scale used by Miller (1983) and included the three items mentioned before: innovativeness, risk taking, and proactiveness. These three dimensions were measured using five-point Likert scales developed and tested for reliability, for instance, by Miller (1983), Covin and Slevin (1986), and Lumpkin and Dess (1996).

Learning alliance characteristics were assessed across two dimensions

also already presented: knowledge acquisition and absorptive capacity. These two variables were considered by Teng (2007). Note that we coded alliance as two dyadic alliances, one between each pair of firms. No alliances among groups larger than three were reported for our sample firms.

Business performance was assessed using two objective measures (net profit and sales) and one subjective measure (satisfaction) as suggested by Geringer and Hebert (1991), Bucklin and Sengupta (1993), and Franco (2001). Thus, taking into consideration the literature review and the proposed conceptual model, economic and non-economic measures were utilized. In terms of the dependent (or explained) variables related to business performance, measures like net profit and sales growth were assessed by using items that ask the entrepreneurs to evaluate the performance of their firm, in terms of the obtained results, during the last three years, in comparison to those obtained by competitors. Here, we again used a five-point Likert scale by considering a range between a minimum level of 1 (that is, 'totally negative') and a maximum of 5 (that is, 'totally positive'). On the other hand, we employed single item measures to assess satisfaction.

Dataset

The Portuguese situation is a suitable laboratory for testing the hypotheses, due to the fact that the economic structure is mainly composed of SMEs (fewer than 250 employees), i.e. 99.0% of firms are small and medium-sized. They employ over 74.0% of the workforce and are responsible for more than 58.0% of the total sales of Portuguese industry (IAPMEI, 2004). Hence, we constructed a dataset of Portuguese SME, through the prior administration of a questionnaire to an initial random sample of 300 firms, during the period from March to June 2006. The answer rate was 26.7%. Note that some researchers have found it difficult to obtain data from Portuguese entrepreneurs and, as mentioned, using a Likert scale (ordinal classification) increases the response rate (Saunders et al., 2003). The selection criteria of the sample were: (i) sector of activity; and (ii) dimension (i.e. number of employees). The sample distribution was also comparable to the database population in terms of these two variables (firm size and industry).

The objective of sampling was to contact entrepreneurs, preferably business owners. To achieve this, we merged the initial sample with several secondary sources: (1) databases of firms published in Portuguese journals; (2) a database created in a previous survey based on an earlier empirical study (Franco, 2001); and (3) identification of some cases in the *EXAME* review (Portuguese business journal). Finally, the sample consisted of 80 business owners from Portuguese SME. There were more males (85.0%) than females (15.0%). Most of the entrepreneurs were between 36 and 45 years old (38.8%) and about 17.5% were aged 25 to 35. In terms of educa-

tion, about 67.7% had senior high school or technical or vocational training. However, about 45% of business owners interviewed were new entrants (founding the enterprise within the previous three years), and 26.4% are established business owners (> 5 years old).

Data analysis

Multiple regression analysis was used to estimate the model. It includes the hypothesized relationships and correlations among the dimension items. To achieve this purpose, we estimate three multiple linear regression models with all the variables. In addition, coefficient Alpha was conducted to determine the reliability of the scale used and the Pearson correlation was also conducted to test the correlation between the variables of the model. In accordance with what has previously been defined, the dependent variable is a discrete variable which presents absolute values ranging from 1 to 5. Additionally, the independent ones are also discrete variables that are classified according to the same numerical range derived from a five-point Likert scale. In this context, we carried out a multiple regression, by making use of all the discrete variables available in the dataset. The estimation process is based on Ordinary Least Squares (OLS), and a stepwise procedure is applied to guarantee detection and inclusion of the significant parameters.

5. Results and discussion

Empirical results

The correlations and descriptive statistics for the multi-item scales are reported in Table 1. The results reveal that learning alliances and entrepreneurial orientation dimensions are not correlated, contrary to what would be expected in this type of study.

For the influence of learning alliances on entrepreneurial orientation, the results in Table 1 also illustrate that knowledge acquisition and absorptive capacity do not have a consistently positive association with risk taking ($\rho=0.16$, $\rho=0.07$), innovativeness ($\rho=0.01$, $\rho=0.09$), and proactiveness ($\rho=0.09$, $\rho=0.12$). Concerning the relationship between entrepreneurial orientation and business performance, the Pearson correlation coefficient (cf. Table 1) indicates that risk taking has only a significant positive relationship with the measure of satisfaction ($\rho=0.22$, $p<0.05$). However, risk taking has a positive but not significant relationship with sales growth. Innovativeness has a non-significant and proactiveness a significant positive relationship with all performance measures.

Tab. 1 - Descriptive statistics and correlations

Variables	Means	s.d.	1	2	3	4	5	6	7	8
1. Knowledge acquisition	3.71	1.07	1							
2. Absorptive capacity	3.30	1.08	0.48**	1						
3. Risk taking	3.04	1.02	0.16	0.07	1					
4. Innovativeness	3.33	0.99	0.01	0.09	0.08	1				
5. Proactiveness	2.40	0.94	0.09	0.12	0.25*	0.12	1			
6. Profit	3.80	0.95	0.13	0.31**	-0.05	-0.04	0.22*	1		
7. Sales growth	3.71	0.94	0.24*	0.21	0.18	-0.02	0.28*	0.63**	1	
8. Satisfaction	3.66	0.95	0.09	0.21	0.22*	-0.07	0.27*	0.47**	0.48**	1

Notes: N=80; *p<0.05; **p<0.01

The results of three multiple linear regression models to test our hypotheses are shown in the following tables. Each model includes the value of the coefficients of the independent variables and an indication of their significance level. Concerning hypothesis 1, where we supposed that relationships established with learning alliances (knowledge acquisition and absorptive capacity) would influence entrepreneurial orientation (innovativeness, risk taking, and proactiveness), Table 2 reports the results of a regression analysis that models knowledge acquisition and absorptive capacity’s relationship with entrepreneurial orientation. The results indicate there is no statistically significant support for this hypothesis. In fact, knowledge acquisition and absorptive capacity have a non-significant relationship with risk taking, innovativeness, and proactiveness.

Tab. 2 - Results of regression analysis: relationship between learning alliances and entrepreneurial orientation

Variables	Risk taking		Innovativeness		Proactiveness	
	b	R ²	b	R ²	b	R ²
Knowledge acquisition	0.17		-0.05		0.05	
Absorptive capacity	-0.01	0.03	0.11	0.01	0.10	0.02

Notes: N=80; *p<0.05; **p<0.01

Regression weights shown are standardized coefficients obtained at final step
Stepwise method were used to select variables to include in the equation

To verify hypothesis 2, Table 3 reports the results of a regression analysis that shows the relationship between entrepreneurial orientation and business performance. The results indicate that only proactiveness has a consistent relationship with profit, sales growth, and satisfaction. Risk taking and innovativeness have a non-significant relationship with the perfor-

mance measures. Thus, except for the positive influence of proactiveness, there is no support for this second hypothesis.

Table 3: Results of regression analysis: relationship between entrepreneurial orientation and performance

Variables	Profit		Sales growth		Satisfaction	
	b	R ²	b	R ²	b	R ²
Risk taking	-0.11		0.12		0.17	
Innovativeness	-0.07		-0.05		-0.10	
Proactiveness	0.22*	0.05	0.28**	0.08	0.27*	0.07

Notes: N=80; *p<0.05; **p<0.01

Regression weights shown are standardized coefficients

Stepwise method were used to select variables to include in the equation

Table 4 indicates some support for hypothesis 3, assuming that learning alliances would moderate positively the relationship between entrepreneurial orientation and business performance. However, only sales growth is positively and significantly correlated to the entrepreneurial orientation (proactiveness) and learning alliance (knowledge acquisition) variables. When we consider the combined influence of all variables, the results show that absorptive capacity has a strong significantly positive relationship with profit, and proactiveness has a positive and significant relationship with the satisfaction measure. Consequently, hypothesis 3 is only partially supported.

Tab. 4 - Results of moderated regression analysis: learning alliances

Variables	Profit		Sales growth		Satisfaction	
	b	R ²	b	R ²	b	R ²
Risk taking	-0.07		0.09		0.16	
Innovativeness	-0.06		-0.05		-0.10	
Proactiveness	0.19		0.26*	0.06	0.27*	0.07
Knowledge acquisition	-0,02		0.22*	0.10	0.07	
Absorptive capacity	0.31**	0.10	0.10		0.18	

Notes: N=80; *p<0.05; **p<0.01

Regression weights shown are standardized coefficients

Stepwise method were used to select variables to include in the equation

6. Discussion

The outcome of hypothesis 1, which explored the influence of learning alliances on entrepreneurial orientation, suggested that knowledge acquisition and absorptive capacity are not relevant when an individual or organization undertakes entrepreneurial actions. Contrary to previous research (Zhao, 2005; Zinga and Coelho, 2007), our findings suggest that learning alliances do not influence entrepreneurial orientation. Of course, this result is not consistent with Ulhøi's (2005) view of idea generation, support, knowledge, and complementary resources that can be acquired through strategic alliances, which in fact lead to social and business co-opetition between key players in the market.

Our second hypothesis was based on the assumption that the association between entrepreneurial orientation and performance is positive. However, our results are inconsistent in relation to the different variables used. This insight is in line with Lumpkin and Dess (1996), who state that the dimensions of entrepreneurial orientation tend, in fact, to vary independently from each other. In relation to entrepreneurial orientation and within our research context, the only variable that positively determines business performance is proactiveness, with significant impact on all measures such as profit, sales growth, and satisfaction. Contrariwise, through regression analysis, our findings suggest that risk taking and innovativeness do not influence business performance. Only proactiveness makes a unique contribution and seems to be a very important posture that leads Portuguese entrepreneurs to business success. However, this phenomenon might be explained by cultural or environmental factors since Portuguese entrepreneurs in the recent past have had a very hostile and unstable business environment, which led them to become self-confident, very determined to overcome barriers, and aggressively defend their market position.

When validating our hypothesis 3, there were also interesting outcomes. The findings suggest that the moderating effect of learning alliances in relation to entrepreneurial orientation on business performance is more perceptible in objective performance measures. In our analysis, knowledge acquisition capability seems to be important for sales growth as one objective indicator of performance, which is congruent to the idea of knowledge-based competitive advantage, presented by McEvily and Chakravarthy (2002). Also, in line with the arguments of Zahra and Hayton (2008), we find empirical evidence for the significance of absorptive capacity on profit, which is another objective indicator.

Proactiveness as a dimension of entrepreneurial orientation seems, however, to have a significant impact on both objective and subjective performance measures, more precisely, on sales growth and satisfaction.

Taken together and regarding the entirety of variables used in our model, we must argue that strategic learning alliances do automatically create value in entrepreneurial orientation and performance. In contrast to scholars like Aldrich and Zimmer (1986), Dubini and Aldrich (1991), Lee et al. (2001), Anderson et al. (2005), and Antoncic and Prodan (2008), who find statistically significant relationships between business success, entrepreneurial orientation, and strategic alliances/networks in general, the effect of learning alliances, at least in our study, is mixed and not unambiguous.

Concerning hypothesis 1, we found a not significant relationship between learning alliances and entrepreneurial orientation. However, and based on the insights of hypothesis 3, we think that a firm well-endowed with tacit resources such as knowledge acquisition and absorptive capacity will perform *even better* if it has an entrepreneurial orientation, i.e., the methods, practices, and managers with a decision-making style that promote a willingness to capitalize on its knowledge-based resources by engaging in entrepreneurial activities. Firms with considerable knowledge are better at looking for opportunities, can more accurately assess the value of potential opportunities, and have the ability to extract value from these opportunities (Cohen and Levinthal, 1990).

A relevant result of the present study is the overwhelming importance of proactiveness as a dimension of entrepreneurial orientation. This concept, mentioned by Miller (1983), Covin and Slevin (1989), Lumpkin and Dess (1996), relates to first mover activities along with a forward looking perspective. As a result, from our hypotheses 2 and 3, proactiveness proved to have a significant impact on all performance measures such as profit, sales growth, and satisfaction. Therefore, it is clearly an influential factor of entrepreneurship, worthy of study in a more sophisticated manner.

7. Conclusion and implications

Despite apparent overlaps, entrepreneurial orientation and strategic management remain separate research areas. In this study, the two areas are brought together to show the role of strategic alliances in entrepreneurial activities and business performance.

The paper offers several theoretical and practical contributions. Firstly, it represents one of the early attempts to extend an important strategy theory to the study of entrepreneurial orientation. Resource-based theory seems particularly pertinent to entrepreneurial orientation, which involves novel combinations of resources in doing business (Teng, 2007). Many believe that the creative acquisition and deployment of resources are the essence of entrepreneurship. The fact that resource-based theory has not

been adequately applied to entrepreneurial orientation is a manifestation of a lack of integration between entrepreneurial orientation and strategic management research. Thus, our paper fills a theoretical gap by examining entrepreneurial orientation in the light of a strategy theory, precisely in the strategic learning alliance phenomenon.

In the light of the outcomes of our research, we recommend that the not significant and partially negative impact of strategic alliances on entrepreneurial orientation should be examined in greater depth. That is, what are the risks and pitfalls of using strategic alliances to achieve entrepreneurial orientation? Will reliance on external resources (via strategic alliances) diminish a firm's ability to develop resources internally in the future? How should strategic alliances, acquisitions, market transactions, and internal development of resources be collectively employed for more effective entrepreneurial orientation? Future research that attempts to answer these questions will help achieve a balanced view of combining entrepreneurial orientation and strategic alliances.

The finding that entrepreneurial orientation is linked to an increasingly popular stratagem – strategic alliances – is another contribution of this study. Alliances, like entrepreneurial orientation, are supposed to be decisive for business performance. A combination of the two and an understanding of their interaction are therefore important and worthwhile. Since entrepreneurial orientation tends to create resource gaps, strategic alliances are a logical option used to fill in these breaches. Here, we discuss how one alliance type – learning alliances – may facilitate entrepreneurial orientation and performance. Therefore, we proposed a contingency framework of entrepreneurial orientation and learning alliances, adapted from their resource-based components. Although our outcomes do not indicate a consistent relationship, such an examination offers a better understanding of their interactions, including when and how different aspects of alliances benefit specific integral parts of entrepreneurial orientation and business performance.

As dealt with in our literature review, regarding the effect of entrepreneurial orientation on business performance, empirical studies do not constitute a novelty and generally point towards a positive correlation. However, we think that researchers should consider the general assumption and proceed in a more detailed manner, i.e. investigate what specific components of entrepreneurial orientation influence which aspects of business performance. In this way, and extending the approach of Wiklund and Shepherd (2005), human and financial capital, and cultural and environmental factors would be very usefully integrated in future studies to help establish the extent to which the hypothesized relationship might be causal. We recommend researchers keep in mind the multidimensional

character of entrepreneurial orientation, and that its effect on entrepreneur business performance may be contingent on moderating variables, in our study for example on knowledge acquisition and absorptive capacity.

As a final point, our study has a number of limitations that raise possibilities for future research. Firstly, our findings are taken from the Portuguese context. A generalization should be made cautiously since idiosyncratic characteristics such as cultural aspects and mentality, but also economic structures and climate, may be influential. For this reason, we suggest further research to detect geographical differences. Another limitation is that many of the results reported are self-report responses to a questionnaire, which may result in self-report bias. Nevertheless, conjunction of this and future studies will surely provide valuable comparisons and insights.

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Abstract

Entrepreneurial Orientation may significantly benefit from inter-firm strategic alliances, although the effects have not been examined sufficiently in the literature. In this study, we examine how one type of alliance, learning alliances, measured by knowledge acquisition and absorptive capacity, can spur entrepreneurial orientation, which we capture through innovativeness, risk taking, and proactiveness. Then, we also investigate the influence of learning alliances and entrepreneurial orientation on business performance. Therefore, we perform a cross-sectional study of SME in Portugal. Regarding the impact of learning alliances on business performance, the influence of knowledge acquisition and absorptive capacity shows a heterogenic picture. When we incorporate entrepreneurial orientation in the analysis, proactiveness is the most significant dimension in all performance indicators. In short, we must dispute that strategic learning alliances per se are important for entrepreneurial orientation and performance. The article ends up highlighting implications and suggestions for future research.

Riassunto

Partendo dal presupposto che le alleanze strategiche tra imprese possono incentivare in modo significativo l'orientamento imprenditoriale, lo studio indaga come questo ultimo, rappresentato dall'innovatività, l'assunzione di rischi e la proattività, possa beneficiare in particolare delle "learning alliances", misurate dalla capacità di acquisizione e assorbimento della conoscenza. Inoltre vengono studiate le ripercussioni dell'orientamento imprenditoriale e delle learning alliances sulle performance aziendali. Dalla ricerca, condotta su un campione di 300 piccole e medio imprese portoghesi, è emerso che le learning alliances non sono di per se importanti nè per l'orientamento imprenditoriale nè per la performance dell'impresa.

JEL classification: L26; L25; D83

Keywords (Parole chiave): Entrepreneurial orientation; SME, Learning alliances, Knowledge, Absorptive capacity, Performance