

# **THE IMPACT OF ENTREPRENEURIAL ORIENTATION ON STRATEGIC ALLIANCES' FORMATION AND THE ROLE OF A TOP MANAGEMENT TEAM**

## **Abstract**

The purpose of this paper is to develop and empirically test a model where Entrepreneurial Orientation (EO) is associated with Strategic Alliances (SA), this relationship is influenced by the antecedent, Top Management Team (TMT), and EO acts as a multi-dimensional construct. Based on random sample collected on a cross-sectional study among 101 Brazilian firms, in 2014, by an online questionnaire sent to the TMT, analyzed by structural equation modeling, supported the hypothesis. Improving firm's EO, especially risk taking, is important in order to promote SA. Obviously, the TMT influences SA, but firms with risk taking competence are more prone to promote SA formation and conduct their implementation. The model explained the EO-SA relationship by 25.5% in 2014, which is very representative for the management field. The present research contributes (1) to the consolidation of the EO construct by using it in a multi-dimensional way, associated to the work of Lumpkin and Dess (1996) and suggested by Covin and Lumpkin (2011); (2) to the extension of the works relating EO and SA (Marino et al. 2002; Teng 2005; Franco and Haase 2013; Brouthers, Nakos and Dimitratos 2014; Shu et al. 2014); and (3) to show the importance of the TMT effect on the relationship between EO and SA helping in connecting the TMT into the entrepreneurship literature (Menz, 2012).

**Keywords:** Entrepreneurial orientation, strategic alliances, top management team.

## **INTRODUCTION**

Although entrepreneurship and alliances research fields provide valuable information on exploitation and knowledge basis, the studies relating Entrepreneurial Orientation (EO) to Strategic Alliances (SA) formation remains limited. To the best of our knowledge, only five

studies (Marino et al., 2002; Teng, (2005; Franco & Haase, 2013; Brouthers et al, 2014; Shu et al., 2014) related entrepreneurship to SA. However, these studies did not consider Lumpkin and Dess' (1996) EO perspectives as a multiple construction, and these studies failed to consider how these two factors [EO and Top Management Team (TMT)] interact and influence SA.

Overall, our belief is that large corporations and small and medium-sized enterprises (SME) that effectively integrate EO to SA are well positioned to continuously create wealth. In summary, due to resource limitations, economy instability, environmental uncertainties, SA maybe the best option for many firms with EO to get access to financial capital, international expansion, resource base, synergies, and compete in an increasingly challenging environment in a global economy. In this way, the main objective of this work is to extend and contribute to the literature by looking at the multi-dimensionality of the EO construct (Lumpkin & Dess, 1996; Covin & Lumpkin, 2011), generating a conceptual mechanism that illustrates the impact of EO on the formation of SA and the role of TMT on this relationship, teasing out a novel aspect for the EO literature (Marino et al., 2002; Teng, 2005; Menz, 2012; Franco & Haase, 2013; Brouthers et al., 2014; Shu et al. 2014). To achieve these goals, we used a quantitative approach carried out in 2014 by structural equation modeling (SEM) to answer the following questions: Is there a relation between EO five dimensions and SA? Is the relation between EO and SA influenced by the antecedent of EO (TMT)?

SA represent a source of competitive advantage in the marketplace both to large corporations and to SME (Das & Rahman, 2010), mainly due the economic value generated by SA of entrepreneurial companies (Alvarez & Barney, 2001). The greatest contribution of alliances to organizations is to provide resources and capabilities required to compete in the marketplace, reducing entrance barriers (Hitt et al., 2001; Robson et al., 2006). Regardless, more than half of alliances are doomed to failure (Wittmann, 2007). Given the popularity level that SA maintain, it is still surprising that we do not have an adequate understanding of what

can really prompts SA by the paradigm of entrepreneurial behavior (Teng, 2005). The Special Edition of the Journal of Business Venturing (v. 21, 2006) dedicated to Entrepreneurship and SA acknowledges the importance of SA to entrepreneurial firms, but the knowledge of the role SA play in entrepreneurship, or vice-versa, is still limited (Montoro-Sánchez et al., 2009).

Covin and Lumpkin (2011) hypothesize that there is a gap of entrepreneurial configurations since only a few empirical researches actually use the EO construct five dimensions [autonomy (A), innovativeness (I), pro-activeness (PA), risk taking (RT), and competitive aggressiveness (CA)] proposed by Lumpkin and Dess (1996). Even when these five dimensions are considered, they are usually approached as unidimensional. Notably, EO is a latent construct under the multi-dimensional conceptualization (Covin & Lumpkin, 2011; Lumpkin & Dess, 1996). Then the first contribution expected is (i) present a rationale on the relationship between Lumpkin and Dess' (1996) EO competitive value and its effects on the firm's growth through SA. The second contribution is (ii) empirically confirm Covin and Lumpkin's (2011) propositions that EO is a multidimensional construct.

EO has become central in a global economy and, generally, a firm's EO is attributed to its top management (TM), responsible for leading the company to sustainability overcoming ambiguity and uncertainty, but yet to date only one study (Simsek et al., 2010) has directly examined the TM as predecessor of the EO from Covin and Slevin's (1989) conceptualization. Therefore, to the best of our knowledge, no research has related the TMT as antecessor of EO from Lumpkin and Dess' (1996) view and, then connecting EO to SA. Our concern is not with the psychological characteristics of TMT, but with the differential aspects of how they work: i.e., whether they act as entrepreneur or as manager (Filion, 2000).

The reality of enterprise behavior is complex, but at the same time interesting in the way that the TMT experiment to lead their firms in ways to create wealth must deal with the challenges presented by EO, alliances and strategy (Hitt et al., 2001; Ketchen et al., 2007). We

argue that a fine-grained process level research and a better theory about the mechanisms and process that allow some TM (but not others) to exploit firms' EO on alliances is needed (Schulze, 2007). Then the third contribution expected from this article is (iii) show the existence of the antecedent of the EO (TMT) construct on the relationship between EO and SA helping in connecting the TMT within the entrepreneurship literature (Menz, 2012).

## **THEORETICAL BACKGROUND**

### **Entrepreneurial Orientation**

EO is a strategic process where the conceptual domain includes some performance indicators and the related managerial preferences, beliefs and behaviors expressed by the company's TM (Covin et al., 2006). In entrepreneurship research, EO represents one of the few areas where a cumulative body of knowledge has been developed (Rauch et al., 2009). The literature suggests that organizations with higher EO tend to perform better (Miller, 1983; Covin & Slevin, 1991; Zahra & Covin, 1993; Wiklund & Shepherd, 2005; Rauch et al., 2009). Therefore, now the time is to review, to evaluate the cumulative knowledge on the relationship between EO and other variables besides firm performance (Anderson et al., 2014), like SA.

There are two main conceptualizations of the EO construct. Unidimensional, related to Miller's (1983) and Covin and Slevin's (1989) work, and multidimensional, related to Lumpkin and Dess' (1996) approach. Miller's (1983) and Covin and Slevin's (1989) concept is the dominant view of EO in the literature as two meta-analyses showed (Rauch et al., 2009; Rosenbusch et al., 2013). We therefore ground our discussion into the Lumpkin and Dess (1996) conceptualization, which needs more development. According to Lumpkin and Dess (1996) and supported by Covin and Lumpkin (2011), EO is a multidimensional construct with five dimensions that represent real phenomena and, as such, should be measured with a reflexive model. Figure 1 presents the definitions for each of the EO's dimensions. The

bibliometric research of Su et al. (2015) reinforces the importance of EO by Lumpkin and Dess' (1996) approach to entrepreneurial research, which is the focus of this study.

The entrepreneurship concept is valid for both SME initiatives and large corporations (Lumpkin & Dess, 1996). Despite the importance of firm performance, little is known about the mechanisms that enable large corporations and SME to benefit from a specific environmental setting (Rosenbusch et al., 2013), like SA. This impairs the company's ability to create wealth, suggesting the need to identify ways to close the gap between EO and SA (Ketchen et al., 2007). Entrepreneurial vision perceives SA as a way to develop or create opportunities, whether they reduce or eliminate uncertainties (Teng, 2005). The idea is that many SA embody the entrepreneurial approach. Since an EO may mitigate many institutional pressures for conformity, it can encourage the emergence of new business in a field, including the formation of SA. Naturally, an EO does not guarantee boosting SA (Teng, 2005).

|                                     |   | Dimension                       | Definition   |
|-------------------------------------|---|---------------------------------|--|
| Lumpkin and Dess's (1996) construct | Miller's (1983) and Covin and Slevin's (1989) construct | Proactiveness (PA)              | Related to processes, seeking to anticipate and act upon future needs, searching for new opportunities that may or may not be related to the current line of operations, introduction of new products/trademarks ahead of the competition (Venkatraman, 1989). |
|                                     |   | Innovativeness (I)              | Reflects the tendency of a company to be involved and to support new ideas, singularities, experiments and creative processes that may result in new products, services or technological processes (Lumpkin & Dess, 1996).                                     |
| 5 dimensions (Multidimensional)     | 3 dimensions (Unidimensional)                           | Risk Taking (RT)                | Refers to the disposition to incur in elevated debts or to compromise a significant part of resources, aiming for high returns by seizing the opportunities and acting with courage even when a successful outcome is not certain (Lumpkin & Dess, 1996).      |
|                                     |   | Autonomy (A)                    | Refers to the independency of action of individuals or groups to come up with an idea or view and fully develop it (Lumpkin & Dess, 1996).   |
|                                     |   | Competitive Aggressiveness (CA) | Reflects the company's willingness to challenge its competitors directly and intensively when entering a marketplace or to improve its market positioning outperforming its competitors (Lumpkin & Dess, 1996).  |

Figure 1. Entrepreneurial orientation construct

## Strategic Alliances

SA refer to the strengthening of key business positions through associations with strategic third parties and suppliers, as well as to its ability to keep them over time as a way to

reduce or eliminate uncertainties and build entrance barriers (Sarasvathy, 2001). While the SA theory has been used to explore the topic at differing levels of analysis, a growing body of research supports the conception that alliances play an important role in influencing many outcomes and forming a competitive context for sustaining, establishing and growing the firm's wealth (Schulze, 2007). For example, SA help both large companies and SME, providing opportunities to learn new capabilities (Hitt et al., 2001). Value creation is not an easy task, but can be facilitated by the partners' prosperity in a multi-organizational environment (Han et al., 2012). This is particularly important to new firms since they usually have limited resources and it would increase their chances of survival and future success (Hitt et al., 2001).

The members of the partnership may have non-economic (learning opportunities, capabilities and market development) and economic benefits (revenue). However, if the company chooses to form an alliance in order to fill a strategic resource gap, the performance standards must be developed before its start (Wittmann, 2007). Another kind of partnership that can bring benefits to a small or new company is the maintenance of a strong and close relationship with its clients (Yli-Renko & Janakiraman, 2008). Alliances can represent both risk and opportunity. An opportunistic behavior by one of the partners is suggested as a primary cause of failure to SA purposes (Dickson et al., 2006; Das & Rahman, 2010). Despite these considerations, the association between alliances and entrepreneurship has gained little attention from the academic community (Journal of Business Venturing, v. 21, 2006). Particularly, the EO influence on the decision to enter an alliance is poorly studied.

## **CONCEPTUAL FRAMEWORK AND RESEARCH HYPOTHESES**

### **The Entrepreneurial Orientation in Strategic Alliances**

The research of EO in SA utilized a different approach, like EO and SA (Marino et al., 2002) institutional and EO theory (Teng, 2005), collaborative entrepreneurship (Franco & Haase, 2013), international performance and marketing alliances (Brouthers et al., 2014) and knowledge spillover theory of entrepreneurship (Shu et al. 2014) to study the relationship

between EO and SA. Most of them (Marino et al., 2002; Franco & Haase, 2013; Brouthers, Nakos & Dimitratos, 2014; Shu et al., 2014) found support for their hypotheses, but none of them investigated the direct effect of EO from Lumpkin and Dess' (1996) view as multidimensional construct and neither used the TMT as antecedent of firm's EO.

Corroborating the theories on the importance of SA to entrepreneurial institutions, Han et al. (2012) showed that companies have significant and abnormally positive returns when their participation in collaborative innovation alliances is publicly announced. On the other hand, results from Montoro-Sánchez et al. (2009) indicate that financial resources and physical resources are not determined by the alliance choice, but that the capabilities are the most important factors for the establishment of SA. Marino et al. (2002) showed a relationship between unidimensional EO (RT, innovativeness and pro-activeness) was positively associated to SA, Franco and Haase (2013) confirmed that innovativeness was positively related to SA. Brouthers et al. (2014) supported that participation in research or marketing alliances had a positive moderating impact on the relation between EO and international performance. Shu et al. (2014) found that a focal firm's EO (RT, innovativeness, pro-activeness and CA) was positively related to knowledge spillovers in an alliance. Hence, we propose: Hypothesis 1 (H1) - The dimensions of EO (a) autonomy, (b) risk taking, (c) competitive aggressiveness, (d) innovativeness, and (e) pro-activeness have a positive effect on SA.

### **The Top Management Team as Predecessor of the EO**

TMT members are defined as the senior executives in the TMT responsible for one or more functional areas in their organizations (Menz, 2012). In this particular research, we differentiate the TMT by the way of acting as entrepreneur or as manager (Filion, 2000). While some firms encourage their employees to have an entrepreneurial behavior in their functions, it is not clear why some TMT have entrepreneurial behavior and others do not (Hashimoto & Nassif, 2014), especially how the TMT influences the firms' EO (Simsek et al., 2010) and, consequently, SA's formation. In the case of SA, one of the reasons why managers choose not

to make it is that they focus exclusively on private benefits (obtained by subsets of members of the alliance), aimed at the generation of value (e.g., generated shared benefits) (Wittmann, 2007; Dickson et al., 2006). The simplest reason organizations do not form partnerships is the lack of strategy for alliances from the TM point of view. This decision is a strategic choice (Wittmann, 2007). Thus, the figure of TMT is important to an SA decision.

As Menz (2012) suggests, future studies on TMT members should especially regard the nature of TMT members' work, and TMT processes, which may facilitate the cross-fertilization in the field. Following Menz's (2012) suggestions, we argue that TMT is important to SA, but not as a moderator between EO and SA as some studies (Lumpkin & Dess, 1996; Messersmith & Wales, 2011) propose when analyzing EO and firm performance. We followed the Menz's (2012) proposals and Simsek et al. (2010), Miller (1983) and Burgelman' (1983) view that the TM is the company's heart, acting as predecessor of the EO-SA relation. We defend that TMT is important to SA decision. Hence, we propose: Hypothesis 2 (H2) - The TMT has a positive effect on EO dimensions: (a) autonomy, (b) risk taking, (c) competitive aggressiveness, (d) innovativeness, and (e) pro-activeness, and (f) SA.

## METHOD

We developed a quantitative survey, using SEM in order to assess the proposed model. The Partial Least Squares (PLS) modeling is particularly well-suited to many of the problems studied in management (Robins, 2014). Thus, the PLS-SEM is a suited alternative analysis technique whenever the sample has a small size, there is little theoretical support available and the predictive precision is primary (Wong, 2013; Robins, 2014; Sarstedt et al., 2014).

**Sampling and Data Collection.** We obtained data from a cross-sectional survey of 101 firms in Brazil collected, in 2014, via online survey by a link with the questionnaire to measure the five dimensions of the independent variable EO (A, RT, CA, I and PA), the dependent variable (SA), and the antecedent of EO variable – TMT. The model is depicted in Figure 2.

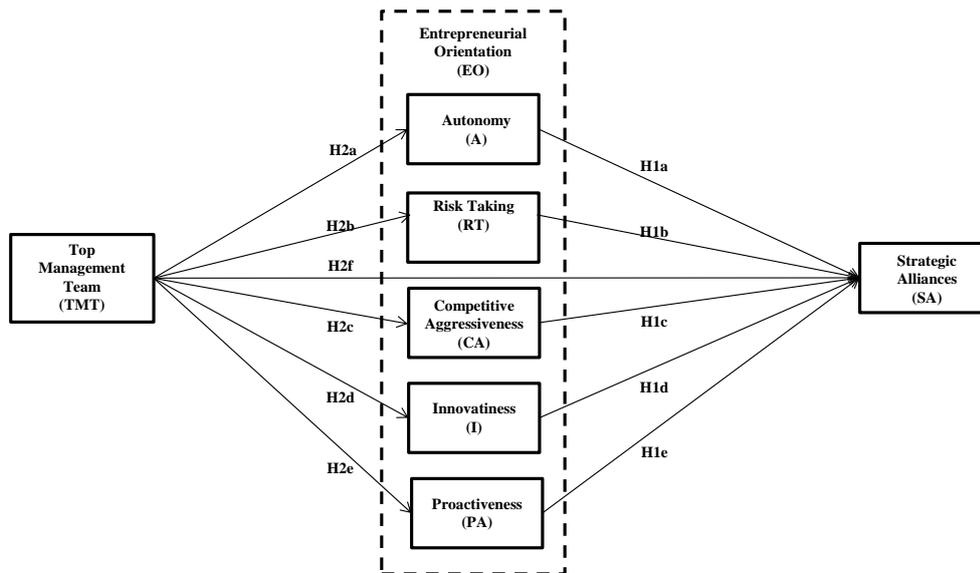


Figure 2. Investigated model

**Measures.** Established multiple-item scales were used and the scales items were randomly ordered to minimize survey method biases. Each scale item was measured by three seven-point Likert-type items. SA were measured by: (a) "In general, my company uses (focus on) as business strategy: 1 – strategic analysis mostly (market research, long-term planning, etc.) to 7 – partnerships mostly (strategic alliances)"; (b) "In general, my company uses partnerships (alliances) as business strategy to eliminate entrance barriers: 1 – very rare to 7 – very often"; and (c) "When establishing partnerships with other companies, my company seeks for a relationship: 1 – short-term mostly (the "partner" is only another client) to 7 – long-term mostly (through a mutual cooperative effort)". This scale was developed for this study based on SA theory (Sarasvathy, 2001; Hitt et al., 2001; Dickson et al., 2006). The EO construct was measured by five subdomains. The autonomy and proactivity dimensions was measured by the scale adapted from Dess and Lumpkin (2005); RT by the scale adapted from Miller and Friesen (1982); CA by the scale adapted from Covin and Covin (1990); innovativeness by the scale adapted from Milher and Friesen (1982). The TMT construct was measured by five seven-point bipolar items that evaluated them as managers or entrepreneurs (Filion, 2000; Menz, 2012).

## RESULTS AND ANALYSES

**Reliability of Measures.** The data indicates robustness of the measurements in terms of internal consistency as indexed by the reliability composed by different measures varying from 0.71 to 0.88, which surpassed the recommended value of 0.7 (Fornell & Larcker, 1981). Moreover, in consonance with Fornell and Larcker directives, the average variance extracted (AVE) for each measurement exceeded 0.50.

**Discriminant Validity.** For all cases, the diagonal elements of the matrix, which represent the square root of the AVEs, are larger than the elements out of the diagonal line (situated in its correspondent row and column), which supports the discriminant validity of the scales.

**Convergent Validity.** The results indicate that all loaded factors exceeded both the inferior (0.70) and superior (0.95) limits, i.e., for each item, the construct(s) correspondent to a specific item was/were the largest one(s).

**Confirmation of Sample Validity.** According to Hair et al. (2009), factor loadings above 0.70 assure significance in samples in which the number of records is superior to 60, which corroborates the sample size of 101 companies.

**Hypotheses Testing (H1).** The results of the structural model without the influence of TMT indicate that the beta coefficients of RT (beta = 0.280;  $p < 0.10$ ) are positive and significant. The others EO variables [A (beta = 0.173), CA (beta = 0.045), I (beta = 0.049) e PA (beta = -0.075)] did not show a significant influence on SA. Therefore, the dimension RT of the EO construct had a positive influence on SA. In this way, the hypothesis h1 was partially accepted. Figure 3 shows the results of the structural model. The beta values of all path coefficients are shown and the beta values of the significant paths are indicated.

**Hypotheses Testing (H2).** Considering the effect of the variable TMT, the results show that, excepting innovativeness (beta = 0.180), all beta coefficients of the EO dimensions including the TMT itself are positive and significant: A (beta = 0.321;  $p < 0.01$ ), RT (beta =

0.337;  $p < 0.01$ ), CA (beta = 0.268;  $p < 0.01$ ), PA (beta = 0.210;  $p < 0.05$ ), TMT (beta = 0.372;  $p < 0.01$ ). As expected, practically all EO dimensions (A, RT, CA, and PA) are associated with TMT, including the TMT itself showed a positive relationship with SA. Thus, the hypothesis h2 was almost fully accepted. TMT has a highly relevant role in the EO and SA of the firm.

**Evaluating Model Fit.** The present model explained 25.5% of the EO variance in SA, which makes it a reliable representative of the entrepreneurship field, since according to Cohen (1988) a  $R^2 > 26\%$  indicates a large effect size and an excellent explanatory power.

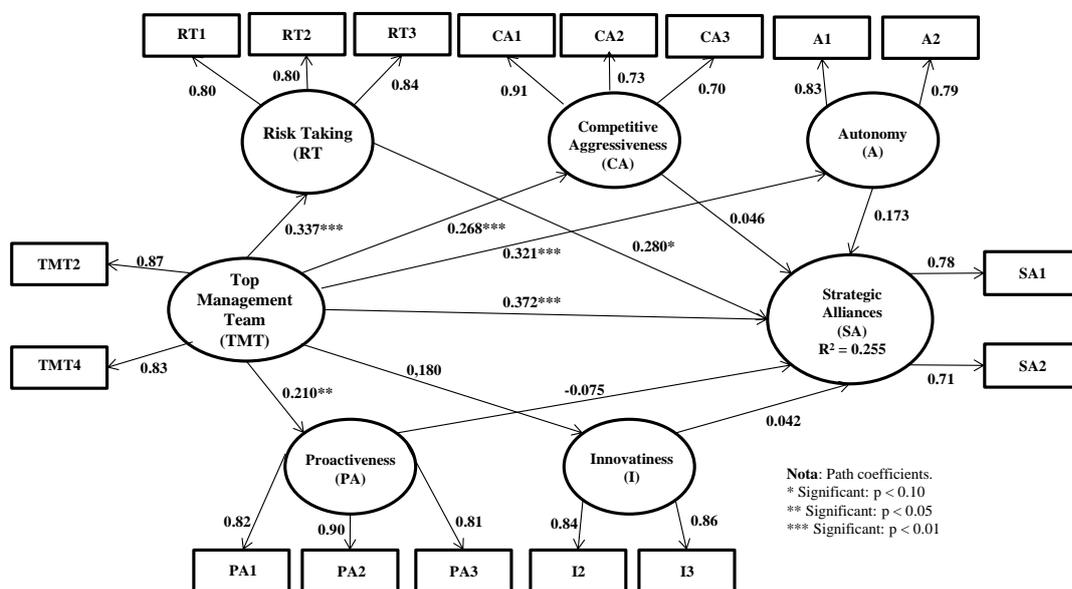


Figure 3. Structural model results

## CONCLUSION AND IMPLICATIONS

The present study assumed the existence of a relationship between Lumpkin and Dess' EO (1996) and SA as a manner to decrease business-associated risks. This relationship would be affected by the company's TMT, and EO would act as a multidimensional construct. According to what has been suggested by Marino et al. (2002), Teng (2005), Franco and Haase (2013) and Shu et al. (2014), the present study found a relationship between EO and SA. The RT dimension showed a positive relationship with SA. The results of the relationship between one dimension of EO (RT) and SA were affected by the TMT, Moreover, this finding corroborates the argument of Covin and Lumpkin (2011) that the EO is a multidimensional

construct and a firm with EO should have at least one of the five EO dimensions and this would be highly influenced by the company's TMT. In the global world, which social, economic and political structures have been broken progressively, requires new knowledge needs. This refers to the idea that the power to anticipate the future, or minimize the risks associate to a business can be understood as one of the important factors for sustainability of the organizations, like EO and SA. In this way, great challenge concerns the need to be prepared for the risks associated to the business, that have not been invented and problems not yet known. However, this anticipation of the future or minimization of the business' risks can be associated to partnership between firms (SA) driven by a TMT with an EO. As any firm is ultimately based on strength, capacity and ability of persons belonging to, under the human aspect, it is essential the practice of the TMT and the EO, especially RT, can be an advantage to SA in the real business world.

### **Contribution to Theory**

This study empirically assessed the cooperation as a manner to put the entrepreneurial activities into practice and connected two study areas: EO and SA, filling a theoretical and empirical gap identified in the literature. In order to find a relationship between Lumpkin and Dess' (1996) EO competitive value and its effects on companies' growth patterns, leveraging resources and capabilities through SA, the article showed that RT is associated with SA. This result exalts Covin and Lumpkin's (2011) propositions that EO is a multidimensional construct. A full relation between EO and SA is not present, but this does not signify an absence of relation. Using a multidimensional construct (Lumpkin & Dess, 1996), we showed that RT of the EO is important to SA decision. This supports the view of Lumpkin and Dess (1996) that the EO dimensions would be present in certain situations but not in others depending on internal and external factors, and acting in a multidimensional way.

Investing in EO, especially, RT dimension is important in order to promote SA. Of course, that TMT influences SA, but companies with RT developed capabilities are more prone

to give support to an SA decision and to conduct their implementation. In this way, this research contributes to the consolidation of the EO construct by using it in a multidimensional way in a reflexive model, associated to the work of Lumpkin and Dess (1996) and suggested by Covin and Lumpkin (2011). Lumpkin and Dess (1996) pointed out that researchers have failed to find consistency in relations/perceptions of RT in entrepreneurship, whether in the form of creation of new businesses or misleading relations between RT and performance. Furthermore, most of the studies related to the firm refer to the risk of the individual rather than the risk of the firm.

The RT resides primarily at the individual level and then is transported to the company level. The firms' RT that appear to contribute to high performance in the formation of SA are: (1) strong tendency to high-risk projects with a chance to receive very high returns, (2) take a bold approach in which large actions are needed to achieve the company's goals, and (3) adopt an aggressive posture to maximize the probability to explore potential opportunities. These practices apply to both large corporations and SME. The present study calls attention to TMT as predecessor of EO on the EO-SA relationship. TMT has direct impact to development on EO dimensions (A, RT, CA, and PA) and only innovativeness was not associated with SA. The results incentivize firms to develop TMT in order to have an EO. Despite different views and approaches about the entrepreneur, there are many points of convergence among them. This study provides evidence and an understanding regarding the potential benefits associated with closer links between TMT and firm's EO and SA.

## **Practical Implications**

For practitioners, we encourage that for their organizations to be sustainable and successful, the ideas presented here can be a better or easier way to achieve their goals. A firm can benefit from partners with strong EO through sharing knowledge that can induce to form an alliance and improve performance. These imply that their companies need to have RT in seeking to form a partnership. As a way to promote an EO, we would suggest two things. Firstly,

TMT must cultivate good relationships with their team members to encourage them to generate ideas and identify opportunities. Secondly, TMT must protect their entrepreneur from the institutional sanctions if their efforts fail, considering that, employees with autonomous entrepreneurial behaviour already have EO (Hashimoto & Nassif 2014).

## **Limitations and Future Research**

Whilst on one hand, theoretical guidance EO effectiveness suggests that EO outcome relationships should exhibit moderation from internal organizational variables (Covin & Slevin, 1991; Lumpkin & Dess, 1996; Rauch et al., 2009), on the other hand, it is possible that these variables may influence EO. However, we consider this limitation as unimportant. We argue that EO is influenced by the philosophies of the TMT, which helps to explain the formation of SA. Therefore, we believe that our framing is appropriate and sheds interesting light upon a theoretically meaningful EO-SA relationship, as calls have long advocated for within the EO literature (Journal of Business Venturing, v. 21, 2006). Future research could verify the EO-SA relationship through secondary data or combining survey with secondary data.

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